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Conference Proceedings
BOOK OF FULL PAPERS

Editors

Assoc. Prof. M. Veysel Kaya
Dr. Patrycja Chodnicka-Jaworska

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CONTENTS

Impact of Multilingualism in English Language Classrooms of Pakistan

Saima Bhaur
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Abstract

This research aims to study the impact of multilingualism on the acquisition of English as a second language (L2) in Pakistan and studies the implications of the first language interference in acquiring L2 proficiency. Pakistan is a multilingual country with over 62 languages in use. This linguistic diversity leads to a complex language-learning environment, which furthers the situation, as acquiring language proficiency is necessary for landing high value jobs. The literature analyzes and compares the need for achieving L2 proficiency in a multilingual environment in Pakistan and other countries where L1 and L2 are coexisting. The qualitative data collected through video recording tool have been analyzed to derive conclusions. The results of the research signify revising the current language policy and the education policy at national and subnational levels. The study suggests that the development partners should provide realistic, relevant and effective technical and financial assistance for improving learning outcomes and opening doors for job creation by increasing the numbers of proficient English speakers who will be able to anchor high value jobs.

Keywords: L2 acquisition, linguistic diversity, first language interference, mixed methods approach, language policy

Introduction

Multilingualism refers to an individual or community, which possesses the knowledge of or has the communicative skills in more than one language (Sridhar, 1996). Linguistic diversity is a significant feature of Pakistan. The Summer Institute of Linguistics estimates that there are 72 languages coexisting in Pakistan (Lewis, 2009). However, Rahman says that this estimate is exaggerated because several language names actually refer to the same language. He believes that the correct number is 61 (2010).

This research aims to study the impact of multilingualism on the acquisition of English as a second language (L2) in Pakistan. The study shall explore the role of multilingualism in acquiring proficiency in the L2 at the educational institutions in Pakistan. It shall also study whether the knowledge of the first language influences their learning of English positively or negatively. The results will help provide recommendations that can foster proficiency in learning English as a second language in Pakistan.

Statement of the problem

English language plays a significant role in Pakistan being the language of the elite, the government, higher education, the military forces, corporate business, diplomacy and international trade. Within the current scenario where Pakistanis have limited exposure to the other global languages, English acts as the primary medium of communication with the rest of the world for the people of Pakistan. Resultantly, English acts as a significant enabler for Pakistanis for acquiring high value jobs and acting as a conduit for creating economic opportunities for growth and development. The acquisition of English language is, therefore, critical for language learners in Pakistan where the linguistic fabric of the society is marked by multilingualism. This linguistic diversity in the

country leads to a complex language learning environment with opportunities and challenges in achieving proficiency in English language acquisition. In this scenario it is important to inquire how multilingualism can help achieve proficient acquisition of English language in Pakistan.

Research Questions

The core research question is:
What is the role of multilingualism in acquiring English as a second language in Pakistan?
The sub-questions for research include:
1. How does multilingualism create hindrances in acquiring English as second language in Pakistan?
2. How can the key barriers to acquiring English as a second language in a multilingual learning setting be addressed in Pakistan?
3. How can the education system catalyze the acquisition of English, especially the high varieties of the language as a significant second language in Pakistan?

Significance and scope of the research

This study will inquire the role of multilingualism in Pakistan in learning English as a second language in educational institutions. Given the high value attached to the English language as a conduit for creating economic opportunities for the youth within the complex linguistic diversity prevalent in Pakistan, it is very important to try and understand the role of multilingualism in second language acquisition. The results of this research will be significant for revising the current language policy and the education policy at national and subnational levels, and will create knowledge in this regard. It shall be useful for educationists, administrators, professional organizations as well as learners and their parents. Language teachers and educationists will be able to receive guidance from this research in helping create a more enabling learning environment in the classroom setting, which will foster effective language acquisition for the learners within the multilingual framework of the Pakistani society. It will help the development partners provide more realistic, relevant and effective technical and financial assistance to the country for helping improve learning outcomes and opening doors for job creation by increasing the numbers of proficient English speakers who will be able to anchor high value jobs.

Limitations and Delimitations

There is a potential risk of researcher's bias in analyzing findings of the data collected through the observation method. The research is based on a small sample collected from the University of Central Punjab only. Data has not been collected widely because in class video recording tool was employed to collect the data for the observation method. Hence, including wider numbers was not within the scope of the study.

Organization of the paper

The rest of the paper includes a review of the literature particularly looking at the context and background of multilingualism and the challenges there are in the second language context. Next, it includes the methodology, which has been used for this research. This is followed by the discussion of the findings and finally it suggests solutions for the resultant conclusions.

Literature Review

This section critically reviews the literature available in this context and identifies the gap between the recent researches and the current research.

Multilingualism in Pakistan-context and background

In the multilingual society of Pakistan, the linguistic diversity weaves complex linguistic patterns. English is the official language, the language of higher education and is associated with prestige and power (Coleman). English is also considered to be the language of the corporate world, business and international trade (Nkomo, Tinsley et al. 2013). According to the World Fact Book, 49% of the total population in Pakistan are English speakers out of which, 8% have native like ability while other 41% speak different higher and lower varieties of the language. Mahboob points out that there are several varieties of English in Pakistan, not all of which carry equal prestige (Coleman).

Urdu is the national language and is used extensively in common repertoire. However, according to the 1998 Census of Pakistan, Urdu is the mother tongue of fewer than 8% of the population(Rahman 2006). The mother tongue of 44% of the total population in Pakistan is Punjabi, whereas Pushto is the mother tongue of 15.4 %, Sindhi is the mother tongue of 14.10%, Sirayki of 10.53%, Balochi of 3.57% of the population and 4.66% of Pakistanis speak other minor languages as their first language. This adds to the complexity of the linguistic diversity in Pakistan.
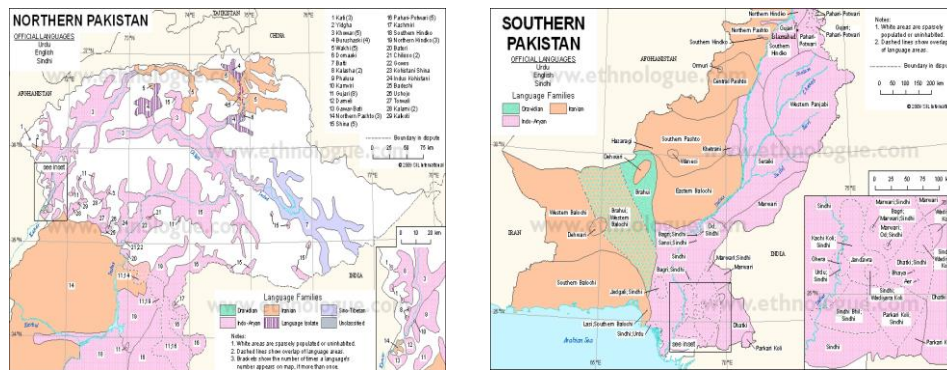
Figure 1: Linguistic diversity in Northern Pakistan & Khyber Pakhtunkhwa

Linguistic diversity in Southern Pakistan

Home and school languages

(Coleman and Capstick 2012) in the British Council report study that, "Schools in Pakistan fall into five categories, the defining characteristic of which is the medium of instruction that is in use" (2010). These include private elite schools, army schools, state owned schools, non-elite English medium schools and madrassas.
In private elite and army schools the medium of instruction is English, the state owned schools extensively use Urdu as their medium of instruction. In Khyber Pukhtunkhwa and Sindh provinces, the respective local languages is the popular medium of instruction (Coleman). In 2010, the government introduced the policy instructions that English will be used as the standard medium of instruction in all schools (especially the public run schools) but the implementation of the same was restricted due to the limited linguistic ability of the teachers and lack of opportunities for teacher training as well as capacity building.
Pinnock and Vijayakumar, (2009) states that if the medium of instruction in schools is Urdu or English and if only a small minority of the population uses that language at home then a large majority of school goers is excluded from the opportunity to education in the language with which they are most comfortable. Pinnock

estimates that 91.62% of the population of Pakistan speak mother tongues, which are not used in education (2009), which leads to a language acquisition gap between home and school languages.

According to the report published in the Economist, the emergence of the China Pakistan Economic Corridor (CPEC) with an expected investment of US$62 billion, has already resulted in an inflow of Chinese into Pakistan. As a result more than 30,000 Chinese are living in Pakistan currently and this number is expected to increase to 400,000 within a few years, which further deepens the complexity in an already complex linguistic framework in Pakistan. Punjab government is encouraging students to also learn Chinese and is awarding scholarships for this purpose.

Linguistic diversity-an advantage of multilingualism

Linguistic diversity is one of the key advantages of multilingualism. A multilingual has an extensive vocabulary and broader language choice (Fishman 1972). Though his verbal repertoire is complex, but he is free to select a language for immediate functionality. Multilingualism is a social phenomenon governed by the needs of globalization and cultural openness enabling language learners to have exposure to other cultures, flexible divergent thinking and economic identity. Cummins' view is that a multilingual learns in a vacuum as he has to unlearn his past experiences and knowledge (2001).

Significance of learning English language in Pakistan

"In Pakistan, the role of English is especially complex. It is the language of government, the military and higher education. It is the language of power and the language of an elite class that has dominated the country since independence" (Coleman and Capstick 2012).

Anna Mauranen believes, 'English has established its position as the global lingua franca beyond any doubt;' (2009). This is one of the basic reasons for stressing learning English language in South Asia including Pakistan. According to the results of a survey conducted by (Mansoor 2003), a high majority of students (male/female) from the private and public sector institutions prefer English language compared to other languages for the purpose of higher education and employment. (Mansoor 2003) also finds out through the survey that majority parents across various sections of the society want their children to learn English language because there are better job opportunities associated with it (p. 32). Similarly, Hywel Coleman writes in the report for British Council that English is a formal requirement for the people of Pakistan in order to enable them to seek a white collared employment.

Along with being a matter of power, prestige or pursuit of education, there are complex reasons attached to the significance of English language in Pakistan. According to UNDP's report, urbanization is an important reason for change in language demography. Since people are moving towards urban centers rapidly, they are learning the language of contact in order to communicate and connect with people around (Graddol 1997). The economic strength of languages is yet another reason for people acquiring the popular language. English being the language of rich countries attracts people from poor countries for there are lucrative markets associated to it (Graddol 1997).

Another need for learning English language is to cope with the fast growing field of technology. 'Technology and computers have seemed, for decades, to go together…[T]he hardware and software reflected the needs of the English language' (Graddol 1997), p. 30). Globalization also requires that English language is acquired effectively in the EFL/ ESL context (Graddol 1997).

There is limited published research available in Pakistan, which can help identify L1 interference in achieving L2 proficiency and challenges faced by the L2 learners in a multilingual society in acquiring proficiency in academic writing as well as in speaking skills in formal situations. To understand how multilingualism can foster L2 learning, there is need to produce more knowledge products.

Research Methodology

This empirical study uses observation method of data collection. Primary data has been collected to understand L1 interference in using L2 in formal settings. Using the qualitative / interpretivist paradigm, the researcher adopted the inductive approach to analyze the results and compare the challenges faced by the young learners in acquiring language proficiency in the target language in a multilingual setting. The results are reported through descriptive analysis.

The qualitative/ interpretivist paradigm shall facilitate the researcher to adopt the inductive approach to record videos in the classrooms where students are presenting their final term projects in different subjects.

Research design

This research collects data through direct and indirect observations. These observations are made during the class presentations where students are presenting their final term project. The duration of the term/semester is 4 months, spread over 16 weeks. Final term presentations are a mandatory part of their course work and carries 15% of the total weightage in the evaluation criteria.

The presentations are announced after the mid-term exam which is held in the 8th week of their 16 week program. Their respective teachers assign the presentation topics to the students after detailed discussion on topic selection between the teacher and the student. The groups comprised of 3 or 4 students each. An evaluation grid has also been devised to assess the presentations.

Five classes have been visited to collect data for this research. There were 7-8 presentations in each class. And each group was allowed 10-15 minutes to present their work. A hard copy of the content was also submitted for detailed review before the presentation.

Each presentation was video taped and the content was observed on the parameters listed in the grid to ascertain the role of multilingualism in L2 learning.

The target population has been observed during the last week of their semester where they are supposed to make the final presentations.

1. **Sample**

The target population for the qualitative study includes 125 students from the private sector university. These students are enrolled in the BBA and MBA programs at the University of Central Punjab. The sample has been selected from the English Language courses offered at the Center for English Language at the university for language enhancement.

2. **Research tool**

The research tools designed for this research are based on video recording capturing student usage of English language in formal settings especially during their presentations in the class. The other tool of data collection is the hard copies of the detailed project work that students have submitted as a mandatory part of their final term project.

3. **Principles of Ethics**

Principles of ethics were integrated into the research design, data collection and data analysis. The respondents' needs for anonymity were totally respected. The videos were recorded by seeking prior informed consent. Since the study was conducted in an educational institution, the research work was conducted in an ethically and socially appropriate manner.

Data Representation

The data collected through the observation method is represented and discussed in detail in this section. Data is also facilitated by screen shots of the videos used as a tool of data collection.

Constant factors
The factors which are constant in this research design observing presentations in 5 class rooms. Each class held around 5-6 group presentations. The presentations are based on finsl term project which has two deliverables each; the write up of the final term project, powerpoint presentations of the same project. The time duration allowed to make a presentation was 10-15 minutes for each group. For these presentations, each group was composed of 3-4 students and each group spent 4 weeks on developing, researching and finalizing the project. Each course was a 3 credit hour course with 15% of total weight age allocated to the group project.

Dependent variables
The dependent variables are those, which undergo a change and vary during the course of the observation. These include code switching, code mixing, proficiency in speaking skills, and educational background of the students.

Table 1:
List of Independent and Dependent Variables

Independent Variables	Dependent Variables
3 credit hour course	Code switching, Code mixing
Assessment items - Final Term Project, Final Term Project Presentation	Language proficiency
Duration of presentation -10 -15 minutes	Educational background of the students
3-4 students per presentation	Body language
Presentation deliverables - Powerpoint presentation, write up/project paper	L1 interference
	L2 acquisition

Data collected through observation method
The first class, which was observed, teaches Basic English Writing (BEW) course to the freshmen. There were three presentations on day 1 and three on day 2. Videos have been recorded on both the days. Whole presentations were video taped and carefully analysed to check the proficiency level of the students along with studying the other dependent variables.

It was noted that the students in the first two presentations were not using language proficiently. They were feeling underconfident and were struggling with presenting their work.
The video screen shots in Fig 1 clearly shows inappropriate body language of the presenters as they were fixing their clothes, hair and were also looking at each other as they were struggling with using language proficiently.

Figure 2: Lack of confidence due to poor L2 proficiency

The third presentation was made by a group of children whose proficiency level was better. It was observed in the video that they looked more confident, composed and were able to deliver the content in the target language effectively. Figure 2 shows the video screen shots of the presentation made by the third group. The body posture and the hand movement exhibit that the students are feeling confident and have no issues in using the language effectively although they also belong to the multi lingual background. But this is due to their educational background where they have been educated in the English medium schools. These students do not get a language shock when they get enrolled in the universities for higher education where the medium of education is English.

Figure 3: Higher confidence due to good L2 proficiency

The presentations in the courses of Advanced English Writing (AEW) and Communication Skills (Comm Skills) also showed that there are mixed ability classes with students from multicultural backgrounds and that L1 interference is huge when it comes to language production.

The second variable is the project paper. The project paper has gone through several revisions and has been proof read before submission, therefore, they are relatively better than the oral presentations. Figure 3 shows the still picture of the paper with no language issues.
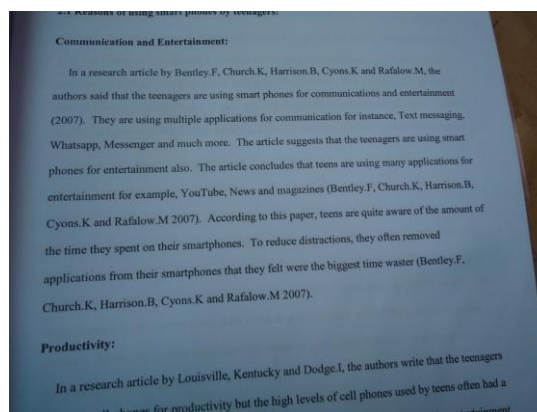
Figure 4: still picture of the project paper

Discussion

This section analyses and discusses the findings of the data collected and represented in the data representation section.

1. *L1 interference* is minimalistic in the write ups of the students compared to the oral presentations students made. This is due to the fact that the students get ample time to revise and edit their work before they make the final submission. On the other hand, even if students have rehearsed and memorized their presentations, they still feel under confident in delivery as English is their second language.
2. There is also *pressure* on the students as the final presentations carry a high weightage and this can make or break their grade.
3. Most students *switched codes* very often during their oral presentation due to limited L2 vocabulary. Data shows that they are unable to find alternative words in L2 to convey their meaning.
4. Students who have acquired their elementary education in L1 often *mix the codes* to express their thoughts in words. This is an obvious feature of multilingualism as a multilingual often switches and mixes the codes to express himself fully.
5. Knowledge of native languages helps in comprehending linguistic features deeply and clearly. Very few students *used multilingualism to their advantage* and expressed themselves comfortably in L2 by using their knowledge of L1.
6. The *body language* of most of the students also showed that due to L1 interference they were unable to communicate effectively, which is why they were trying to manage this lacking through inappropriate hand and body movement as well as completely avoided the eye contact with the audience.

Conclusions and Recommendations
This section draws conclusions from the discussion in Section 4 and provides relevant recommendations for those conclusions.

Conclusions

The study conducted to research the positive and negative role of multilingualism in the acquisition of L2, concludes that the students find it convenient to communicate in L1 and L2 simultaneously. In fact, being multilinguals they are unable to express themselves in any one language only. It is code switching which comes naturally to them and they feel comfortable conveying their meaning fully by switching and mixing codes. Code switching and code mixing are acceptable in informal settings but in formal settings; such as, formal presentations, interview situations, high-level meetings, observing language purity in L2 is a pre requisite. Hence, the results show that university students are largely struggling with acquiring L2 proficiency for academic purposes.

The data shows that the project papers submitted by students were acceptable as they were easily meeting the requirement of academic writing as against the oral presentations. The expression in the first draft though was weak, but due to revisions, they had improved it in quality. This is lacking in the oral presentations.

The data shows that due to lack of preparation, fear of using L2 proficiently and pressure of scoring higher grades affects students' ability to make a presentation by maintaining enough eye contact, and use the body language effectively. This also results in not providing enough opportunities to the students in finding high value jobs after their graduation.

Recommendations

To overcome speech apprehension arising due to L1 interference in a multilingual setting students must be given more exposure to L2 usage in classroom settings. Students should also be motivated to use L2 in informal settings so that they can improve the linguistic ability.

Along with this, students should prepare their final term presentations by investing more time in them. Just as their write-ups are better in quality because they spend sufficient time on them and do several revisions before submitting them, they need to rehearse the presentations many times using techniques of mastering oral communication.

The course instructors should also design their classes in a way where they are allocating more time to using L2 profusely in the classroom. Giving students several tasks to make small presentations quite often will definitely help them to overcome their speech apprehension and build their confidence for formal presentations. The development partners should also provide realistic financial support to help improve the learning competence of the students so that they can land high value jobs and benefit from improved competence in oral communication.

Future research

Based on the recommendations of this research, future studies can investigate the impact of profuse rehearsals on the performance of the students in the formal settings. The linguistic competence should also be tested employing language testing tools.

References

Coleman, H. "Teaching and learning in Pakistan: The role of language in education." Islamabad: The British Council.

Coleman, H. and A. Capstick (2012). Language in education in Pakistan: Recommendations for policy and practice, British Council Islamabad.

Fishman, J. A. (1972). Language in Sociocultural Change: Essays by Joshua A. Fishman. Selected and Introduced by Anwar S. Dil, Stanford University Press.

Graddol, D. (1997). "The future of English." <u>London: The</u>.

Mansoor, S. (2003). "Language Planning in Higher Education Issues of Access and Equity."

Nkomo, S., M. R. Tinsley, et al. (2013). "Chimera states in populations of nonlocally coupled chemical oscillators." <u>Physical review letters</u> **110**(24): 244102.

Paul, L. M., G. F. Simons, et al. (2009). "Ethnologue: Languages of the world." <u>Dallas, TX: SIL International. Available online at www. ethnologue. com/. Retrieved June</u> **19**: 2011.

Pinnock, H. and G. Vijayakumar (2009). <u>Language and education: the missing link: how the language used in schools threatens the achievement of Education For All</u>, CfBT Education Trust.

Rahman, T. (2006). "Language policy, multilingualism and language vitality in Pakistan." <u>Trends in linguistics studies and monographs</u> **175**: 73.

Sridhar, K. K. (1996). "Societal multilingualism." <u>Sociolinguistics and language teaching</u>: 47-70.

The Digital World and the Innovations Coming from the Internet in the Student Teacher Relationship: The Cost Benefit of Distance Learning in Brazil from the Year 2000

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Abstract

The Internet is the largest conglomerate of communication networks in the world, having several functions, among them the dissemination of cultures and knowledge on any subject, influencing the way of studying and also presenting the content of the discipline in the Universities. Today it can be considered the most important source of information. From the rise of the same, all the information before from books, monographs, dissertations, theses, among others, became available to people via a simple keyword search. The correct use of the network can facilitate the communication between student and teacher and the approximation between the most modern researches on the studied area, facilitating the educational and cultural exchange. The traditional classroom gains a new format from the insertion of new digital tools available to teachers and students. Not only for learning purposes, but as a tool to streamline the solution of a student teacher dialogue or to offer a methodology that is more adapted to the different profiles of students that are received in the University, given the vast complexity of training that require skills and abilities different. However, specifically in Brazil, there is still a lot of resistance in the use of the Internet for academic purposes, either to perform a simple academic research until the completion of a higher undergraduate degree course, post graduation or extension course. This work intends to show how the advent of the Internet has increased the use of digital tools in the world and how can be beneficial the use of this technology, as can be verified in developed countries where there is already from elementary school access to such technologies .

Keywords: E-Learning, Cost Benefit, Education

Introduction

We are in the second decade of the 21st century and living the so-called Information Age, also known as Technological Age. It is clear how much the world today is dependent on the technological evolution that occurred through the arrival of the Internet and the computer in the homes. Kids hardly know how to walk, but they already have a tablet or cell phone in their hands and know how to operate the device. That is, technological access is inevitable in today's world, it wanted to take a course of study, which is the object of study of this article.

When analyzing the offer of higher education in Brazil, and conceptualizing the distance modality, it is characterized as an educational modality in which the relationship in the teaching and learning processes occurs with the use of information and communication media and technologies, with qualified personnel , compatible access, monitoring and evaluation policies, among others, so as to provide even greater articulation and effective interaction and complementarity between the presence and the "real" virtuality, local and global, subjectivity and democratic participation in the processes of teaching and learning in a network, involving students and professionals of education (teachers, tutors and managers), who carry out educational activities in different places and / or times.

In this sense, the present study aims to analyze the evolution of the offer of higher courses in the EAD modality linked to the technological expansion with greater focus in the last decade, its cost benefit, presenting a brief current panorama of distance higher education in Brazil. It will be sought to understand how the expansion of the offer of this modality as well as its advantages occurred since its demand increases every year.

Expansion of access to technology in Brazil

As distance learning needs technological tools, it is initially intended to demonstrate the broadening of access to technology in Brazil in recent years. The most recent data were from 2016, where the Brazilian Institute of Geography and Statistics (IBGE), for the first time, conducted a study of indicators of the National Continuous Household Sample Survey (PNAD Continuous) on Communication and Information Technology, having as objects of analysis the aspects of access to the internet, microcomputer and tablet for personal use for people over 10 years of age, hence the importance of this data for this article since these are the indispensable tools for distance learning.

It was observed that 45.3% of the total households in the country have microcomputers. In the region, the highlights are the Southeast (54.2%) and South (53.5%) regions, followed by the Central-West Region (47.4%) and the Northeast (29.9%) and North (28.1%), including the relation of this result with the HDI of the regions.

Graph1Percentage of households with microcomputers per region. IBGE,

2016[1]   Source:
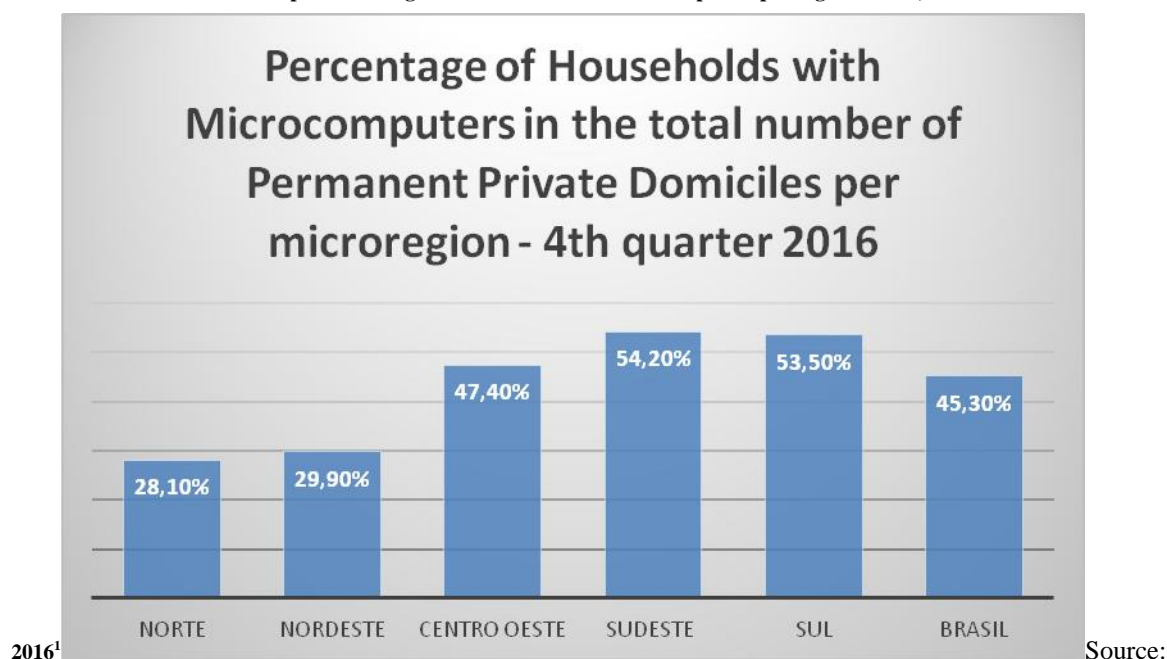
IBGE, National Survey of Household Sample, 2016. Prepared by the author

The survey also raised the households whose residents had a tablet, only 10,418 thousand households in the country, ⅓ of those in which there was a microcomputer. It was found that in only 2.8% of the households there was a tablet, but there was no microcomputer. In the Greater Regions, the Southeast was the one with the highest percentage of households with a tablet (18.2%), in both urban (18.9%) and rural (7.9%).

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[1]Available in:
ftp://ftp.ibge.gov.br/Trabalho_e_Rendimento/Pesquisa_Nacional_por_Amostra_de_Domicilios_continua/Anual/Acesso_Internet_Televisao_e_Posse_Telefone_Movel_2016/Analise_dos_Resultados.pdf

Regarding the use of the Internet, this is becoming more and more common. At the beginning of the mid-1990s, this network was used in universities and study centers, then it was in the business world and then in the domestic sphere. In this domestic context, according to this IBGR study, it was found that the Internet was used in 69.3% of the 69 318 thousand permanent private households in the country in the 4th quarter of 2016 (Graph 2). The use of the Internet was already widespread in most households in all Major Regions, and was used in 76.7% of households in the Southeast, 74.7% in the Midwest and 71.3% in the South, reaching 62.4% % in the North, and 56.6% in the Northeast.

Graph 2 - Percentage of households with tablet and Internet by region. IBGE, 2016
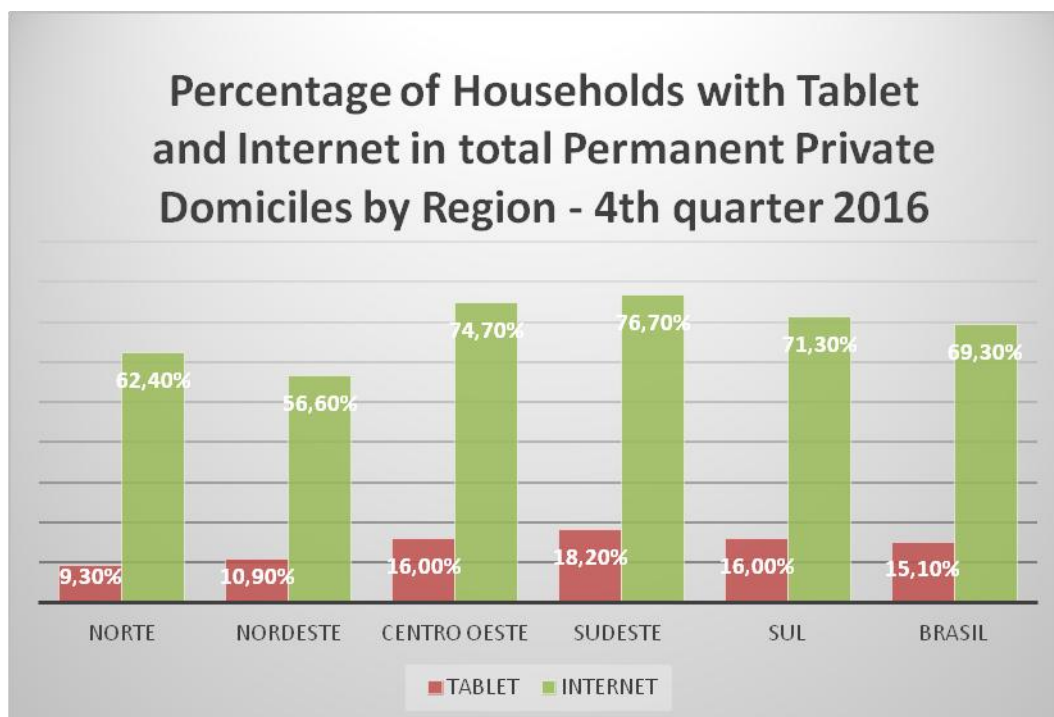
Source: IBGE, National Survey of Household Sample, 2016. Prepared by the author.

In Federative Units, the percentage of households with Internet use was lower in Maranhão (47.6%) and higher in the Federal District (89.4%), with São Paulo being the second highest (80%). , 4%), also with direct relation to the HDI of these units.

Analysis of the Demand for distance learning x face-to-face and its advantages
The technological advance in Brazilian residences favored the emergence of a scenario in which people began to seek a more flexible, modern method of education, where they could attend higher education in the time and place that favored them. If a trend line of enrollment evolution in distance education in Brazil is drawn, based on the number of students enrolled from 2000 to 2017, the objective of this article is to show the rapid growth of demand for this type of education (Graph 03).

Graph 03 - Evolution of the number of ODL students in Brazil from 2000 to 2016[2] - INEP

Source: MEC, INEP. Prepared by the author

The evolution of these enrollments shows that the market for distance courses in Brazil, in addition to being consolidated, has come to have a long life, since it experiences constant growth, constituting a great investment option for companies (after the ease of offering a pole of EAD as of the end of 2017), teachers and students. According to the Census of Higher Education in 2016, the number of enrollments continues to grow, reaching almost 1.5 million in 2016, which already represents an 18.6% share of total enrollment in higher education.

The Census of Higher Education also shows that:

Table 1 - Contrast of participants in face-to-face courses and distance education in 2010 and 2016 in percentage (%)

Ano	Ingressantes cursos presenciais	Ingressantes cursos EAD
2010	80%	20%
2016	67%	33%

Source: MEC, INEP. Prepared by the author

It is clear that distance education grows much more than the demand for face-to-face teaching and is already a real option for almost half of those seeking a degree, according to research released this year by the Brazilian Association of Higher Education Holders (ABMES), showing that 44% of respondents would opt for this modality, while 56% say they prefer face-to-face teaching. If both modalities maintain the current annual growth rates, the EAD will surpass the attendance in 2023, according to the study, and if there is any presence stage, this level of acceptance improves even more.

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[2] Census of Higher Education 2016. Available in:
http://download.inep.gov.br/educacao_superior/censo_superior/documentos/2016/notas_sobre_o_cen
so_da_educacao_superior_2016.pdf

To take a course of graduation superior to the distance has several advantages, like: low cost; flexibility for those who live in places where there is no offer of face-to-face teaching; flexibility to study the time, day and place you want, as well as not to distinguish between the diploma of the classroom and the distance course. The EAD audience is usually an older audience (over 28 years of age) compared to in-person degree courses (average age 21) according to the Census of Higher Education, 2016. This more mature, usually married and employed public, needs this flexibility to complete an upper course, public that is different from face-to-face teaching. However, taking the course in distance mode requires more discipline and rigor in fulfilling the proposed activities, meeting the more mature profile in order to have a better chance of success.

Regulatory aspects

According to Dourado and Santos (2012, p.163), the process of expansion of EaD in Brazil has intensified since 2000, as a result of articulations, "[...] both by the Government and groups within universities , so that the distance education in the country could be implanted. These articulations result in the creation of the conditions for the institution of EAD by means of a regulatory framework, the creation of a group to think about the modality, the celebration of cooperation protocols, and university consortia for its offer. "

About a year ago, the government published Decree 9,057 / 2017, which defines the criteria for distance education provision, and the main change is the possibility of the private higher education institution being accredited exclusively to offer undergraduate and graduate courses. (specializations and MBAs) in the distance modality (before, the institution should also have some course in the face-to-face modality). This decree established the new regulatory framework for distance education (EAD) in the country, and the scenario of the segment already presents significant evolutions, which may contribute to the expansion of student access to higher education.

According to a study carried out by ABMES (2018) mentioned above, the EAD modality has grown a lot in recent years with the possibility that in 2023 the number of students enrolled in the EAD is already higher than the face-to-face teaching.

Final considerations

To conclude this study, it is believed that the expansion of distance-based higher education in Brazil has filled a gap in the supply of the educational market for access to all people, regardless of whether they live in the city or in the countryside, and if the city has an HEI face-to-face or not. Certainly the objective of the federal government with this expansion with last year's decree was to democratize access to higher education in the country, enabling the poorest classes to fulfill the dream of a higher education course, since distance education has a much lower cost than face-to-face teaching, among other advantages already mentioned in this study.

If the provision of distance education is effective in enabling people to improve their knowledge and show the quality of the education obtained to the market, there will be no barriers to this form of education, not only for higher education, but also for higher education. technical, medium and fundamental education. Companies have already discovered how distance learning facilitates interaction between people and easy access to knowledge, so there is a wide universe to be explored yet.

References

ABMES - BRAZILIAN ASSOCIATION OF THE HIGHER EDUCATION INSTITUTIONS OF THE COUNTRY. Available at https://abmes.org.br CENSUS OF HIGHER EDUCATION 2016**.** Available in: http://download.inep.gov.br/educacao_superior/censo_superior/documentos/2016/notas_sobre_o_censo_da_educ acao_superior_2016.pdf

DECRETO   nº   9.057/2017.   Available   in::   http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2017/Decreto/D9057.htm

DOURADO, L.F; SANTOS, C.A. Distance Education in the current context and the PNE. 2011-2020: evaluation and perspectives. Goiânia: Publisher of UFG; Belo Horizonte: Authentic, 2012.

GIOLO, J. Distance education: tensions between public and private- Educ. Soc. Vol.31 no.113 Campinas Oct./Dec. 2010
IBGE   -   Available   in: ftp://ftp.ibge.gov.br/Trabalho_e_Rendimento/Pesquisa_Nacional_por_Amostra_de_Domicilios_continua/Anual/ Acesso_Internet_Televisao_e_Posse_Telefone_Movel_2016/Analise_dos_Resultados.pdf

JOURNAL OF THE BRAZILIAN ASSOCIATION OF MAINTAINERS OF HIGHER EDUCATION: Scenarios of Higher Education in Brazil: reflections on the new legislation and the new instruments of evaluation.- year 30, n. 42 (Jun 2018).- Brasília: ABMES Editora, 2018. 134 p

An Iceberg Tip Metaphor in the Evaluation of Faculty Activities in Higher Education Institutions (HEIs) in Uganda

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Abstract

The article confronts the most heated debate regarding the assessment and evaluation of academics in higher education institutions (HEIs) in Uganda, and argues that, indisputably, Performance evaluation is critical to institutions and individuals - given its dual function; for institutional performance, as well as career development and growth of staff. Performance evaluation unravels the minutiae in the academics' activities in the assessment and evaluation as they pursue their mandate of teaching, research and community service. Yet, this function has left many academics in total anguish because of the perceived unfairness and incompleteness. In order to interrogate the challenge at hand, two theories - Hemingway's (1923) Theory of Omission, The Motivational theory of Life Span Development, by Heckhausen (1995) and The Social Exchange Theory by Gouldner (1960) were adopted. Using an ethnographic approach, that was augmented by an integrative synthesis, the author addressed two objectives; (1) analyzed reasons for the omitted activities in the assessment and evaluation of academics in HEIs, and (2) assessed the implication of omitting such activities in the evaluation of academic staff in HEIs. It was established that institutions lack effective, valid and comprehensive evaluation tools to capture critical measures of academics' activities, which could lead to a disastrous situation if not well addressed. Hence, such omissions are likely not only to diminish academics' enthusiasm and emotional engagement, but also harm institutional performance, productivity and quality of graduates, and become a fertile ground for intrigue and dysfunctional conflicts. Therefore, in measuring effective teaching, the assessment of teaching should be based on multiple pieces of evidence of effectiveness, which should be directly linked to organization and preparation, suitability of materials used, depth and level of engagement, and, learning activities, which should lead to learning outcomes.

Keywords: Evaluation scales, higher education mandate, iceberg metaphor, psychological contract

Introduction

The article explores challenges in the performance evaluation of academics' activities in the fulfillment of their core functions of teaching, research and community service. The author argues that omissions in the evaluation of their contributions are likely to affect graduate competences, academics' enthusiasm and, and at worst, their retention. While teaching is the main reason academics are hired, research is often given more weight in the evaluation for promotional purposes (Barifaijo, Namara, Bongomin, Bigabwenkya and Andama, 2017). This imbalance in the assessment of the core functions was also observed by Jenkins, Breen, Lindsay and Brew (2012) who underscored their fears about this omission's potential to diminish the rigor of teaching, as well as academics' enthusiasm. In fact, Lourtie (2010) cautions institutions on the likelihood of destroying their institutional image and repute. Consequently, given the academics' dominant preoccupation of teaching activities, more focus should be placed on recognizing and rewarding excellent performers in teaching (Arreola,

2000), and this can be through comprehensive evaluation systems. Potentially, evaluation has a dual impact: one, on the performance of the institution; and two, on individual staff as they pursue their career progression. In this regard, the measures and tools for evaluating academics' activities should be skillfully thought through so as not to jeopardize their career opportunities. Yet, Mezrich and Nagy (2007) found that due to the multiple roles these academics perform, they suffer from job burnout – leading to frustration, because apart from the mandatory research requirement, they are constantly faced with pressure for teaching load (Barifaijo et al, 2016). Amidst unrealistic demand for teaching load, they lack career progression, as more than 80% of teaching staff in HEIs in Uganda, for example, had stagnated at the level of 'lecturer' - which the American HE system terms 'junior academic' (Mezrich and Nagy, 2007) – meaning, only 20% of academics in Uganda feel enthused and proud to belong to the teaching career. Kwak (2006) also found that evaluations for academic promotions in India, especially the performance-based evaluation, had generated intense pressure and affected retention of academics. Similarly, Archibong et al (2017) lament about the way academics get 'harassed' - year-in-year-out with performance appraisals, which do not seem to yield any results. In fact, French (2012) and O'Connor and Carvalho (2014) also question the usefulness of the routine assessment exercise, yet evaluation for promotion focuses mainly on journal articles. Essentially, Hattie and Marsh, (1996) attribute the quality of graduates to the imbalance in the evaluation system that is skewed towards research which is actually given more weight during performance evaluation exercises. Yet, not measuring critical teaching activities just because of the complexity involved might affect quality of teaching (Gautier, 2015). However, considering the dynamics of assessing aspects that seem difficult to measure, Rousseau (2004) found that institutions rely more on ethical consciousness of staff to make decisions in form of psychological contract.

Problem statement and objectives
The mandate of higher education institutions is teaching, research and community service, and it is where institutions derive measures for evaluating staff for different purposes; such as promotions, further training, transfers or even demotion (Bell & Kozlowski, 2008). Yet, the evaluation of each of the above mandates poses peculiar challenges. Whereas performance measurement for research is a journal article, the measures for teaching are students' evaluations and 'class-time' which involve a multitude of activities – before and after class. On the other hand, measures of community service remain utterly mysterious (Baxter-Magdola,2001). Moreover, academics spend so much time preparing materials for teaching, supervising students, developing academic programmes, mentoring and counseling students, writing partnership proposals and building institutional image through the provision of community service such as external examination, attending professional meetings etc. Yet, after going through so much hassle to provide the best, the assessors just use the minutest in the evaluation of their activities, just like an '*iceberg' metaphor*. Above all, HE managers constantly demand *effective teaching* from the implementers, which, just like the story of the blind men and the elephant, they may not be able to define. Moreover, teaching is the reason why universities exist, and the basis for which society judges HEIs' performance. Consequently, omission of critical measures for teaching in the evaluation to enable academics triumph has not only affected their enthusiasm and emotional engagement, but also institutional performance, productivity and quality of graduates, since what is never measured and rewarded is never repeated (Lourtie, 2010). It is surprising that considering society's outcry about the quality of graduates, not a single tool has been devised to assess the quality of teaching -- in its entirety-- in order to provide adequate measures on which to base performance evaluation of academics, to facilitate more realistic decisions for their career development and advancement. To resolve the issues at hand, two objectives were set:
   i.   To establish academics' activities that are omitted in the evaluation of their performance; and,
   ii.   To assess the implication of omitting such activities for higher education institutions.

Methodology

To address two objectives, the author employed qualitative and ethnographic approaches which were augmented with an integrative synthesis. An integrative synthesis was adopted because of its ability to summarize the existing research literature and observe situations. This approach is also recommended by Kothari (2006) for its power to resolve reliability issues. He argues that an integrative synthesis is most suitable for investigating patterns across primary and secondary research studies and practice; and it compensates for single-study

weaknesses. Conversely, Ball (1994) found this approach superior, especially in ensuring the internal and external validity of the various research findings; and it is also highly recommended by Bryman (2004) for its power to enable the researcher fully engage the texts and make critical judgements. These approaches were supported by two methods of data collection namely, review of relevant documents and observation. Other than analyzing evaluation tools from selected Ugandan universities that included Makerere University, Uganda Management Institute and Kyambogo University, the researcher also accessed evaluation tools via the internet from other higher educational institutions (HEIs) outside Uganda. Nonetheless, given the subjective nature of a qualitative investigation, precautions were made to mitigate ethical slanders. Although she may not have eliminated the inherent human bias completely, she made every effort to exercise restraints in order to produce credible results. First, she moved out with intellectual humility, and suppressed her personal beliefs, feelings and knowledge. She also stuck to the information generated from the existing literature, as well as the documents she reviewed.

Theoretical exploration and Literature Review

HEIs use a number of measures in the evaluation of academics' performance in research, teaching and service to community. These are further expanded by Chen and Hoshower (2003) and Miller (2009) to five consistent measures as the basis for such judgments. They include: research and publications; student ratings; classroom observation; services provided to the community; and, leadership and administration, which continue to play leading roles. Consequently, two theories were adopted in order to unravel the underlying dynamics in the evaluation of academic activities -- the theory of Omission/Iceberg theory by Hemingway (1923) and the theory of Motivation of Life-Span Development by Heckhausen (1995). Both theories are perceived as critical in explaining the omission in evaluating and recompensing academic activities. The theory of omission (originally the iceberg theory) assumes that a good story prunes the content to avoid waste motion in order to multiply intensities among the reader. He postulates that what stimulates the reader's interest is what is omitted, because the reader needs to make logical connections of the missing information, which Blum (2013) found exciting because it left the reader to make wild imagination and fill gaps of the omitted facts with speculation of what is not mentioned. The theory further assumes that if you leave important things that you know about, the story is strengthened; but if you leave or omit something because you do not know it, the story is worthless. By implication, higher education institutions often adopt descriptive as opposed to prescriptive approaches, especially in the functions of academics. Unlike 'story writing' that deliberately omits critical information to sustain the reader's interest, the required quality and effectiveness can never be left to lurk in the iceberg below the waters. Unlike Hemingway, who walks the reader to the bridge to cross alone without the narrator's help, issues of quality cannot be left to be guessed. Nonetheless, Weng et al (2010) attributes the omission in the evaluation to the respective parties' expectations, and espouses that since academics are technocrats and HE leaders executives, each party is expected to know what to do.

The theory explains how the omitted activities can diminish quality and academic motivation, but does not address aspects of career growth of academics; yet it is the reason they persist in the profession. Hence, the theory of Motivation of Life-Span Development by Heckhausen (1995) was adopted to explain the role of career planning, development and fulfillment, and how organizations, need to pay special attention to their various career prospects at each stage of their development. The theory assumes that individuals follow developmental paths that are coherent in terms of identifying and effectively pursuing long-term goals, and will persist to the end (Heckhausen et al, 2001). They found that so long as the future is promising, employees will select, pursue, and adapt goals that match their life desires to enable them stay on course or disengage from those goals to replace them with more appropriate and gratifying goals. In fact, the theory helps to explain how academics are active agents and ready to pursue the most desired goals that are developmental. Particularly, academics set targets and milestones for every stage, and will pursue their goals so long as they perceive them attainable; if not, their goal aspirations and enthusiasm will diminish, which may be detrimental to HEIs. Hence, once employees reach the phase of goal disengagement, it may be irreversible (Heckhausen et al, 2008).The theory explains conditions of academics' engagement and disengagement, and their implications for higher education

institutions. In support of the above theories and the author's concerns, different scholars have deliberated on the issues of assessment and evaluation of employees, but more specifically academics.

Although this theory explains the direction of goal engagement and disengagement, it does not explain the implications of goal disengagement, which becomes apparent with failure to accomplish one's life-span goals, so the Social Exchange theory was brought on board to tie up the explanations. The social exchange theory proposes that individuals will make decisions based on certain outcomes, such as; rewards, positive outcomes and long-term benefits, and will prefer the exchange that results in the most professional growth (such as upward mobility) and independence (ability to research and publish) (Rousseau, 2016). In contrast, however, they will also choose alternatives with the fewest costs, consequences and least social disapproval, meaning, every social exchange decision can be a complex decision that requires the person to evaluate different costs and rewards. Hence, the social exchange theory is a direct theoretical explanation of the psychological contract (Gouldner, 1960 and Blau, 1964). Thus, social exchange theory can offer some insight, although it misses the perceptual element that is central to the definition. Hence, three aspects of social exchange theory seem to be of particular relevance to conceptualizing psychological contracts, namely social exchange vs. economic exchange, reciprocity and inequalities (Robinson, 2016). By implication therefore is that since most of the omitted activities could be due to the acuity of psychological contracts that are largely reliant on promises between the two parties, with trust being the basis for the social exchange, then the breach of such contract could occur if Management, fails to recognize on what academics perceive was promised, or even vice versa. In the social exchange theory however, academics might perceive a breach of contract and might respond negatively which is the immediate response of mistrust from the other side (*van den Huevel, 2016)*. Responses may occur in the form of reduced loyalty, commitment, and organizational citizenship behaviors, and such feelings will always increase negative tension in the environment (van den Heuvel, Sjoerd, and Schalk, 2015).

Correspondingly, about two decades ago, the process of academic evaluation experienced few tremors that characterized contemporary evaluation practices (Miller and Seldin, 2009); but now, as the few academics to be chosen for promotion become fewer and faculty mobility decreases, the decision to promote has had an enormous impact on one's career that leads to commitment to work (Chen & Hoshower, 2003). Moreover, HE leaders are not in position to evaluate academics' work justly – not because they do not want to, but they may not know how to! Yet, the success of any institution, is in the effectiveness of its performance evaluation tool, and is determined by performance standards (Achtziger and Gollwitzer, 2008). Although institutions have initiated performance standards, Revell and Wainwright (2009) unravel their failure to incorporate a number of critical measures to evaluate academic activities. In fact, academics' anguish in terms of career growth has reached limits; yet their complaints with respect to the assessment of their worth – largely due to ignorance on the part of the evaluators -- has continued to be ignored, because those who pass judgement seldom witness the performance of these academics.

Nonetheless, apart from research which has clear measures for evaluation, measures of "teaching" and service to community remain fuzzy. Yet, going by Rajani's (2011) definition, teaching seems to be the sole reason why HEIs exist. He defines teaching as a social process that involves a range of activities with interaction between the teacher and the learner, and should lead to improved students' achievement, if outcomes that matter to their future success are used. Apparently, teaching components that merit attention for quality purposes do not seem to get measures, hence never get evaluated, which affects academics' upward mobility. This concern was also shared by Brew (2006), Chen and Hoshower (2003) and Clarke (2012) regarding the importance of a comprehensive evaluation tool, that measures all the attributes of teaching, research and community work. Significantly, the omitted components are critical and are the ones that give teaching prominence (Cartwright, Weiner & Veneruso, 2009). In fact, Biggs and Tang (2007) expound how teaching goes beyond classroom time; yet, what is often evaluated is just a small fraction of what the teacher does in making teaching successful. Indeed, scholars such as Biggs and Tang (2007), Cartwright, Weiner and Veneruso (2009), Archibong et al (2017) and Rajani (2011) found that preparation before one steps in class was extremely critical, for quality, developing students' competences and institutional image. Oddly, although institutions demand for effectiveness in teaching, the evaluators themselves may fail to define it, since they cannot provide measures for it. Instead,

institutions use students' evaluations as well as the hours an academic spends in class teaching. What is punishable, is not teaching, but not providing effective teaching, like it is done for the sister function (Arreola, 2000). Whereas, the object of this article was to analyze the minutiae of the mandates of HEIs in the performance evaluation of the academics, the focus was more on the teaching function whose activities are extremely enigmatic. Biggs and Tang (2007) found that it might be extraordinarily difficult to measure top-rate teaching because, other than students' evaluations, there is no sufficient measure to judge top-rate teaching. In this regard, Cartwright et al (2009) conclude that although assessing great teaching might be a 'titanic' task, explicit students' performance could be the starting point to evaluate whether students got deep understanding that enables them see the world in a different way - which in itself sounds even more abstract - but in the absence of a comprehensive solution, can work as a stop-gap measure. Considering the complexity in measuring teaching activities, Cullinane et al (2006), proposed psychological contracts, as the only remedy in a scenario where the technocrats are expected to perform their roles in the best way possible, and the executives fulfil theirs of recompensing the technocrats as honestly, promptly, and equitably as possible.

Indeed, scholars and teachers alike have continued to interrogate the balance in the psychological contracts, especially on the part of employers, who expect a lot from academics, yet they do not reciprocate (Archibong, 2017; Miller and Seldin, 2005; Rajani, 2011). Since the psychological contract develops and evolves constantly based on communication, or lack thereof, it is feared that the lack of reciprocation between parties in areas such as transparent performance evaluations, merit promotions, salary increases and other forms of recognition, might jeopardize the status quo of HEIs (Robbins and Judge, 2008). Nonetheless, Spector (2008) espoused how managing expectations was a complex function that sometimes gave employees the wrong perception of action that did not often materialize. This leads to both parties managing wrong expectations, which situation is very difficult and could lead to adverse personal circumstances that affect productivity. Actually, cases where perceived breaches have severely damaged the relationship, leading to disengagement, reduced productivity and workplace defiance have been cited by Chapman (2016). Conversely, Turnley and Feldman (2016) found that fairness was a significant part of the psychological contract because employees need to perceive that they are being treated fairly to sustain a healthy psychological contract (Gautier, 2015). He argued that employers often breached the psychological contract within several years of their relationship, which negatively affected employee productivity and retention. Maslach et al (2001) also found that employees are expected to give more; yet, they often receive less in terms of career opportunities, lifetime employment, job security, life insurance cover, etc.

This misfit in the two parties' expectations has always been perceived as a violation of psychological contract, which many times causes burnout, frustration, anguish and emotional disorientation. Robinson (2016) and Rousseau (2016) conclude that such scenarios are likely to erode the notion of reciprocity - which is crucial in maintaining the well-being of a relationship. Consequently, the content of psychological contracts varies widely depending on several factors including management style and the type of profession, as well as the stage in career (*Chin Heng, 2016*). Similarly, the risk of breach of contract can be detrimental to institutional performance, especially if the activities of the institution are perceived to be unjust or immoral, such as: unfairness in performance appraisals, inequities in compensation and delayed promotions. By implication, evaluating academics who are technocrats in their fields may be enigmatic; therefore, only their contemporaries can take part in assessing them. Consequently, there is need for academics to rely on psychological contracts while executing their functions, while the same should apply to executives in recompensing academics' contributions.

Findings and discussion

The mandate of academics has been found to be extremely exacting, and necessitating comprehensive measures of performance evaluation of all activities in the essential tasks of teaching, research and community service (Biggs & Tang, 2007). These tasks have been confirmed to be critical because they lead to quality, visibility and excellence of an educational institution. Yet, Clarke (2012) found that performance evaluation tools have often missed critical measures that boost greater performance, quality, productivity and emotional engagement.

Although academic evaluation has existed since the Bologna process, and was intended to strengthen quality and guide management's decisions, its emphasis has become more prominent with the more pressing need of value for money, career prospects and merit increase (Griffiths, 2004). These demands have made the evaluation of such functions change academics' work-related behaviour and overall expectations (Griffiths, 2004).

Omitted academics' activities

Although performance evaluation has been defined by different scholars, this article will adopt French's (2012) definition that: performance evaluation is a form of performance management intended to measure employee performance against performance standards and with a purpose of improving institutional as well as individual performance. Interestingly, the National Council for Higher Education (NCHE) has often made demands on research, but the practicality of measuring and evaluating research activities has been in conflict with HE frameworks, and never guide on "the how" of doing it (Barifaijo et al, 2016). For example, the Ugandan regulatory body set the graduation minimum load; yet measuring effective teaching is a complex - perhaps most difficult task in education circles (Zamorski, 2002). In fact, research by Brew (2006), Hattie and Marsh (1996) and Zamorski (2002) found that the teaching activity has only two measurable indicators used for academic evaluation: (1) in-class and students' evaluations – although some institutions have used other assessments, such as peer evaluation; and (2) self-evaluations - which also have their peculiar challenges. Other than those measures mentioned above, there are numerous and critical activities that are omitted. They include: planning, organization, researching material for teaching, curriculum development, mentoring students, writing students' reference letters, setting continuous assessment exercises and examinations; and assessing students' learning. All these tasks were found to enhance competences and standards among students, yet they are never considered in the evaluation of academics (French, 2012). Similar to the "tip of an iceberg", a number of measures go unrecorded, which Baxamusa (2016) criticizes. He also doubts the suitability of measures such as experience and academic qualification. He argues that experience and qualification did not necessarily add value to the quality of performance, since there were many non-performers who had experience and were highly qualified. Their argument was supported by Beckers et al (2008) who also critique 'academic qualifications' as a promotional criterion, which they find redundant because one gets appointed to specific positions on the basis of one's academic qualifications. Nonetheless, academic qualification was found to be key, especially in gaining upward mobility, because it takes years of sacrifice, mental distress and physical stress to earn, for example, a doctorate, yet, some institutions in Uganda do not find this extra credential a leverage. Correspondingly, the following sub-sections highlight academics' activities that are omitted in performance evaluations.

Planning and Organization

It is indisputable that teaching is a critical role in HEIs, and unlike other functions, you need sufficient amount of time to prepare the content, the best methods of delivery, reviewing up to date information to fascinate students – which effort does not attract any recognition of any sort (Barifaijo, et al, 2015). Scholars such as Svinicki and McKeachie (2011), SigalBarsade (2015) and Shin and Cummings (2010) have found that teaching is indeed difficult, and developing assessment measures, is even more complex. In fact, they affirm that great and successful teaching takes time, passion, high-quality materials, and tailored feedback designed to help build students' competences and increase their self-efficacy (Ramsden, 2001). Moreover, French (2012) found that teaching required not only thinking but critical thinking. Biggs and Tang (2007) further underscore effective preparation for effective teaching, because it enables the facilitator sufficient time to research valuable resources, without sticking to the tried and tested format, week in, week out. Institutions have long taken pride in the high caliber of teaching offered by their faculties, a fact borne out by institutions' almost unanimous citation of classroom teaching as the most important factor in evaluating overall faculty performance. Yet, in his book, *'Scholars in the Market Place',* Mamdani (2007) found that higher education institutions no longer teach for deeper understanding, but rather, teach for students to pass, which passing does not leave 'hallmarks' for them to reminisce. Mamdani decried of the way lecturers handled the once glorified task of university teaching, which he equated to 'education for those who can pay and return home'. Barifaijo and Namubiru (2017) too found that most instructors in HEIs lacked the honesty to decline teaching subjects they did not know well. They found that the majority went to class without sufficient preparation; yet lack of preparation and organization affected what students learned and how they learned it. More so, the current measure of teaching omits preparation and

organization, an oversight Boyer (1990) found detrimental to institutional quality and image. In this regard, Jenkins et al (2002) found that most instructors held the titles but lacked mastery in their fields; thus they could only enable students cram and memorize information, but not provide them with deeper understanding. This was found to be due to lack adequate preparation, clear learning outcomes, a positive attitude and being patient with the learners.

Nonetheless, O'Connor and Carvalho (2014) question how lecture organization and preparation can be actually measured and evaluated. Yet, Clarke (2012) recommends three evaluation measures for preparation and organization, thus: (i) appropriateness of the level and content of the course; (ii) learning outcomes with specific course activities; and, (iii) whether the outcomes stimulate intellectual growth and enjoyment of learning. He explains that without adequate preparation, teaching remains shallow. Barifaijo and Namubiru (2017), too, found no logical sequencing, which was attributed to lack of mastery of curriculum design. In fact, Bligh (2000) found that lack of adequate preparation affected great teaching. Essentially, Cartwright, et al (2009) found a very high correlation between the ability to develop a teaching curriculum and presenting an exhilarating lecture; yet, even this endeavour is never considered in the performance evaluation for academic promotion.

Curriculum Development
Curriculum development was found to be one of the jobs described for academics in their offer letters, yet some had never taught. Biggs and Tang (2007) and Revell and Wainwright (2009) found this requirement strange considering that the activity was even more complex than teaching itself, but no reward was attached to such a hectic exercise.Wiles (2009) found that despite its enigmatic nature, this critical task does not attract any attention for recognition. Hence, inability to recognize curriculum development effort was not only a problem in Ugandan HEIs, but also in Asian and Europe HEIs (Vardi, 2009). What was more disheartening was that there was neither penalty for those who never developed them, nor a reward for such an engaging activity. In their research Cartwright et al. (2009), found so much frustration among academics who felt they deserved recognition for their continued pursuit in curriculum development endeavours. In fact, Wiles (2009) found that of all teaching activities, curriculum development was indeed a gigantic task, with numerous demands, from both internal and external stakeholders. The author found developing an academic programme very demanding and engaging, as it involved numerous stages, where each stage gives birth to new challenges and disagreements by multiple stakeholders. The task was found demanding since a **newly developed curriculum becomes obsolete quickly, and gives rise to numerous needs that necessitate revision of the existing curriculum to meet the day-to-day challenges of the society (**Lindsay et al, 2002**).**

 Assessment and evaluation of students' learning
Assessment has long been recognized as maintaining a central position in students' learning (Craddock and Mathias, 2009), and the mode of assessment can also have a powerful influence on their learning behavior (Biggs and Tang, 2007). Consequently, assessing the performance of students is one of the most important activities of instructors (Trotter, 2006) and perhaps the most overlooked factor in the evaluation of academics. This finding is perplexing, especially when the ultimate goal of teaching is to assess how well they are accomplishing this goal, and contemplating possible answers to several questions helpful in their teaching. Assessment was found to be very critical because the nature of assessment is often informed by the type of examination which in turn has a bearing on the quality of graduates (Biggs and Tang, 2007). In fact, Svinicki and McKeachie (2011) found that effective teaching required regular assessment and feedback, which they said was critical to helping students reflect on the potentials; and of course, the lack of it impeded students' learning. Apparently, academics were found to fall short in offering such peculiar competences, which according to Mezrich and Nagy (2007) affected students' overall performance. Cartwright et al, 2009) found that different circumstances required different assessment strategies, for different kinds of learning processes, catering for differences in students' learning preferences and styles, as well as enhancing learners' psychological approaches to learning (Connolly, 2004). Like a tip of an iceberg, assessors remain silent on this activity when evaluating academics' activities.

Although assessments should reveal how well students have learned, what instructors want them to learn, these attributes must be measured and assessed in tandem with the learning objectives, as well as instructional strategies. In fact, studies by Miller et al (2009) and Norton (2007) have shown that assessment was one of the most important activities of higher education instructors. This finding was supported by Cartwright et al, 2009) who affirmed the three stages of the assessment outcomes as: (1) defining the most important goals for students to achieve as a result of participating in an academic experience; (2) evaluating how well students are actually achieving those goals; and (3) using the results to improve the academic experience. Consequently, the main purpose of students' assessment is to provide feedback for academic progress (Clarke, 2012). Considering that assessment provides information for decision making at various levels, it is surprising that HEIs have not come up with measures to tap the practice so that it can be repeated.

Student Counseling, guidance and mentorship
Academics spend some reasonable time counseling students– both under and graduate students, yet the assessors may not even know that such an activity prevails in HEIs. In this regard, Härmä (2006) found that academics were involved in counseling and guiding over ten students per week, which is an indication that academia is indeed a whole series of 'bait and switch'. Ambrose et al (2010) found that such engagement was extremely critical for students' development and retention, as well as visibility, because they increased retention as well as timely graduation (Altbach, 2003). Potentially, students had various challenges relating to health, academic, social, economic aspects, which, if not well addressed could derail their progression. Similarly, Barifaijo et al (2017) found that some individual academics enabled many more students to graduate than others because of counseling. Bell and Kozlowski (2008) found that faculty members spent 17 per cent of their work week on counseling and mentoring students, which resulted in increased graduation rates. Beckers et al (2008) found this had improved web rankings due to high graduation rates and job placement. However, despite such effort, institutions never made any attempt to evaluate academics on such activities. Moreover, students' mentoring was found to be an attractive activity for in-coming and current students, as well as the alumni, and O'Brian (2014) considered it a smart move on the part of the academics.

Writing students' references
On a daily basis academics are tasked with writing reference letters for their former and current students for various reasons, e.g., career advancement, funding, and employment opportunities (Maslach et al, 2001).Nonetheless, Revell and Wainwright (2009) found that the challenge was not necessarily writing the reference letters but, rather, the struggle to reach a balance between an accurate portrayal of a candidate's academic, extra-curricular and personal profile and a convincing picture of a student who would flourish in a work or academic environment. Whereas all teachers wanted to see their students flourish, Bill (2016) found challenges of lack of sufficient qualities that matched the person when it got to performance, which required a lot of critical thinking on the part of the individual academic. French (2012) found that although each letter of reference was specific to the individual applicant, the referee (teacher) was required to address certain key factors to facilitate a favourable decision by those requiring them. This finding was supported by Maslach et al (2001) who shared their challenges of writing about the academic promise of the student, based on their personal knowledge of that student's performance, where they were required to give specific examples. Hence, requirement for specific attributes such as extra-curricular, interpersonal relationships, critical thinking skills and ability to effectively communicate both verbally and in writing which were often demanded posed real challenges.

Serving on Institutional Committees
Every academic, in one way or another, gets involved in serving on institutional committees, and it becomes even worse if an individual academic doubles as college principal, dean or head of department. Ramsden (2001) found that taking part in institutional committees expands the academic's network and sharpens critical skills, since each member contributes to the discussion. It also opens doors to opportunities to pursue administrative jobs and apply for awards. Nonetheless, experts agree that the key is to seek opportunities that can add value to one's institution and align with one's interests and career aspirations; otherwise, the dizzying committees may bog down the academic's other activities. Committees, task forces and meetings can be a crucially important part

of our work. Sadly, renewals and promotion criteria often shirk this activity (Revell & Wainwright, 2009). Turner et al (2008) have found that the potential costs for evading recognizing such crucial activity could be disastrous, with a withdrawal of academics' involvement and the consolidation of decision making at the upper levels. Yet, academics' active involvement is vital to ensure that meetings are productive and respectful of academic time. Vardi (2009) found that academics lamented not just the waste of their time in meetings, but also failure of the managements to recognize their contribution during the meetings, as well as their valuable resource – time! Bigs (2008) shared how participating on a curriculum development committee taught him about the course approval process which helped him begin developing curricula for his department. He recommends that faculty should incorporate committee assignments into their career advancement plans, and in return, be recompensed to encourage academics to take on such responsibilities. Zeigler-Hill and Showers (2007) also explain how participating in committees' work makes one a better member of the university community and improves the community itself as well.

Media engagement
Academics have been encouraged to make an effort to publish for general audiences, because they are more informed, more knowledgeable and more researched (Dahlgren, 2009); yet, most academics feel that media engagement is complex and challenging, and are not comfortable writing or even talking. Academics often engage in different media to transmit especially, ideological debates, to shape the thinking of their audience in areas of their professional expertise. Usage of media can sometimes be delicate because it can send a wrong message to an audience that is not used to being critical about the same. On the other hand, an idea communicated eloquently and evidently will not only make the academic shine, but will surely enhance the image of the institution that she/he works for. The goal of media relations is to maximize positive coverage in the mass media to the target audience (Dahlgren, 2009; Biagi, 2004). More often, communication between the media and the organization can be initiated by either side. However, dealing with the media presents unique challenges because the news media cannot be controlled — they have ultimate control over whether stories pitched to them are of interest to their audiences. Institutions often compile what is known as a media list, or a list of possible media outlets that may be interested in an organization's information. The media can consist of thousands of magazine publications, newspapers, and TV and radio stations. Therefore, when a "newsworthy" event occurs in an institution, a media list can assist in determining which media outlet may be the most interested in a particular story. Working with the media on behalf of an institution allows for awareness to be raised as well as the ability to create an impact with a chosen audience. It allows access to both large and small target audience and helps in building public support and mobilizing public opinion for an institution.
Academics, engage in specific media that include newspaper articles, radio and television talk-shows. A talk show or chat show is a television or radio programming genre in which one person (or group of people) discusses various topics put forth by a talk show host. Usually, guests consist of a group of people who are learned or who have great experience in relation to whatever issue is being discussed on the show for that episode (Biagi, 2004). Other times, a single guest discusses their work or area of expertise with a host or co-hosts. These academics sometimes engage in 'a call-in show' that takes live phone calls from callers listening. This could be at home, offices, or in their cars. Sometimes, these academics become guests and are introduced by their institutions. Such talk shows have made guests, hosts as well as their institutions very famous (Bilal et al, 2012). According to Dahlgren (2009) talk shows play a key role in bringing change and structuring the political institutions and socializing the public on various political aspects (Bilal et al, 2012). Although this form of image building has been in place for years (Martin, 2015), Ugandan higher education institutions are getting in the limelight to debate on numerous topics; politics, environmental, economics, education, religion, morality etc. Dahlgren (2009) therefore encourages academics to make an effort to publish for general audiences, because they are more informed, more knowledgeable and more researched. He cites a number of self-made politicians who have appeared on radio and TV talk-shows or even written in newspapers, yet they use personal opinions and sometimes experience.

External examinations
External examination is one of the quality mechanism strategy that is globally recognized. Institutions consider external examination as one of the most objective and irrefutable quality assurance mechanisms (Barifaijo and Karyeija, 2015). External examiners are experienced academics who offer an independent assessment of academic standards and the quality of assessment. Conversely, external examiners and their overall contribution to the academic life of the institution are highly valued as they strive to develop and enhance the quality of education. For this matter, institutions carefully go through the appointment process for quality enhancement. Therefore, not every person acts as an external examiner, because appointment is based on credibility in order for institutions to maintain threshold academic standards (*van den Huevel, 2016).* However, unlike peer reviewing of research grant applications or journal articles, external examination relies on the teaching expertise of academics rather than research excellence (Shin et al, 2010). As they gain in experience and confidence, however, externals tend to see their role differently and most commonly describe their conception of the role as that of 'critical friend' - someone who "is encouraging and supportive, but who also provides honest and often candid feedback that may be uncomfortable or difficult to hear (Ssesanga and Garrett, 2005; Guide to the Process of External Examining, HEA, 2005)

Partnerships and collaborations
International partnerships between higher education institutions are beneficial to all, from the staff and students to the world as a whole. Forming those linkages and collaborations has perhaps never been simpler, it has also never been more necessary (Mezrich and Nagy (2007). The rate of internationalization is increasingly rapid, with unhindered communication channels and inexpensive travel. The ability to scrutinize, debate and share experience is essential for academic and scientific accomplishment (Dwyer, 2001). Hence, challenging accepted opinions and ideas constructively is central to their development, and international collaborations help to facilitate this. Such partnerships have contributed endlessly to academic and scientific progress, as they provide a huge amount of opportunities for students and staff alike. Along with research opportunities and cultural awareness, institutions have offered international experiences for student and staff exchanges. Although HEIs have more often yearned for partnerships, the forging of meaningful partnerships is quite laborious and only those identified as being able to endure can survive in the war of successful partnerships. This is because it takes a long time, based on understanding the culture and goals of each other's institutions in terms of ethics and standards and a lot of effort to forge a strong connection. Some partnerships are no more than fleeting encounters, lasting only as long as it takes one partner to establish (Brueckner and Mayer, 2005). In the global economy, a well-developed ability to create and sustain fruitful collaborations gives institutions a significant competitive leg up. Yet, more often than not, prolific writers spend sleepless nights writing collaboration proposals, only to benefit those who never participated. Brown and Race (2002) found that institutions tout the original purpose and end up not helping initiators. Institutions often worry more about controlling the relationship than about nurturing it (Mezrich & Nagy, 2007) and end up failing to develop their institution's collaborative advantage and thereby neglect a key resource. Academic and research collaboration is a very valuable tool that not only accelerates the progress but also enhances the quality of the work and extends the repertoire of the partners. Academic collaboration, if well managed, should benefit academics in learning new teaching tools, and increasing the breadth of students' knowledge and learning different approaches to solving a problem. An academic culture that fosters partnerships and cooperation instead of individualism must be embraced to improve quality and accelerate progress. To encourage such efforts, individual academics must be recognized.

In fact, Robbins (2010) justifies this approach as a psychological contract, often used for higher-level professionals, because too much detail in the job description would diminish academics' enthusiasm and innovation. Rousseau (2004) espouses the usage of psychological contract which he believes strengthens trust and innovation, and believes that each party has expectations of the other, and failure to fulfil such obligations amount to breach of contract. Coyle-Shapiro et al (2008) finds this situation very costly on either side because, unlike omitted information in "story writing", omission of teaching and research activities could be disastrous in terms of productivity, quality, emotional engagement and retention on the part of the institution, and career progression and motivation of individual academics. As Bakker et al (2000) espoused, "*what is never measured*

is never evaluated, what is never evaluated is never rewarded, and what is never rewarded is never repeated". This quote definitely has serious implications for HEIs in terms of academics' failure to do a good job because of concerns that it is not recognized. Unlike in a psychological contract, academics want even the minutest contribution to be recognized because they will not find any reason to repeat what they did very well, but was not recognized; yet, according to Weng et al (2014), they detest being directed. Hence, the omission of academic activities in the evaluation will undermine HEIs, instead of stimulating the practice.

Implications of the omitted activities in academics' evaluation
Teaching and research have often been viewed as separate activities with different outcomes (Venkalaram, 2010), and this separation of the two has conspicuously led to different evaluation and recognition systems for each constituent. Yet, the link between teaching and research are multiple, diverse, dynamic and discipline-specific (Barnett; 2005 and Griffiths; 2004). Moreover, there is a growing argument that faculty activities are so intermingled in their nature and intent, yet institutional accounting mechanisms have forced artificial separations between teaching and research (Clarke, 2012) which has encouraged plagiarism among staff. Further, although graduate supervision is critical and builds enduring greatness through a paradoxical blend of personal humility and professional will, academics have tended to relegate this function and focused on paper articles instead. Nonetheless, Brew found that guiding research and project was the most complex and finest form of education because supervisors are familiar with methods to make research effective and help students not only conduct genuine research, but also, assemble credible research reports. In the same vain, Mezrich and Nagy (2007) found that the major factors in students' success was writing the thesis, which demanded superior skills that include; thesis supervision, promotion of skills, scientific climate, evaluation process, clarity of goals and standards and infrastructure, and students' satisfaction in the process of thesis writing. They found that the supervisor was directly responsible for the supervision and mentoring of the student; and in this capacity, she/he assists the student in planning research activities and coursework. Brew (2006) and Griffiths (2004) also found that research supervisors provided counseling on all aspects, a relationship that enhances students' progress (Brew, 2006). Undoubtedly, therefore, graduate supervision is one of the most critical roles in HEIs. Nonetheless, although this activity was recognized by some Ugandan HEIs, others considered it as part of daily routine, irrespective the number of graduate students one has supervised. Whereas some institutions have specified the required numbers of supervisees, for example, one needing to supervise three students to become a senior lecturer, eight to associate professor and 15 to full professor, academics in some other institutions had supervised over one hundred graduate students and were still at the level of "lecturer". Notwithstanding, Mezrich and Nagy (2007) called this exploitation of the highest order, considering the hassle supervisors go through to get students to completion. They explained how graduate supervision demanded high emotional intelligence because each supervisee presents different challenges.

The famous dictum "publish or perish" evidently pressures academics to publish which has been found to be the fundamental reason for increased rates of academic plagiarism. One major mistake institutions make is to continue to regard lecture room teaching as the most important index of overall academic performance, and has been the basis for judging and rewarding performance (Jenkins, Breen, Lindsay and Brew, 2002). The traditional measures of academic reputation - research, publication, and professional society activity - have assumed new importance (Mezrich and Nagy, 2007). Often, institutions prize and reward the visibility of published research and papers presented at professional conferences and meetings. Shin and Cummings (2010) affirm that publication is considered superior to teaching partly, perhaps, to ensure the institution stays visible; and further argue that high visibility is the name of the game today, and has been deemed critical to stay in the public eye. Remarkably, institutions advertise teaching jobs for which academics are paid while, at the same time, they are rewarded for their research and publication. Nonetheless, the imbalance between research and teaching has bred mediocre researchers who have been accorded higher status than excellent teachers. What is no less important is that research prowess is more vastly valued than teaching excellence within the system, partly because more money comes into the university that way, and partly because it is the way for an academic to get ahead.

Oddly, none of the institutions around the world has a comprehensive tool to evaluate the teaching activities. Turnley and Feldman (2016) attributed it to the value of psychological contracts given the difficulty in assessing some of the indicators. Turnley and Feldman's (2016) argument was espoused by Christeen (2016) who justifies the omissions that a comprehensive tool would limit individual's innovativeness. In fact, the National Council for Higher Education (NCHE) in Uganda has made numerous efforts to strengthen quality and effectiveness of higher education systems. They include higher academic qualification, research and publication and active engagement with the community (Kasozi, 2006). Further, HEIs have gone ahead to conduct self-assessments as well as trace studies in order to enhance the quality of graduates. Moreover, people forfeit better remunerating career opportunities to continuously grow into their passionate career to become accomplished scholars – professors! For this to happen, the wholesome contribution of every academic needs to be captured through effective measures, and evaluated equitably and comprehensively. Once institutions devise more realistic and comprehensive evaluation tools, quality, productivity and motivation among staff will be realized. For each area of academic work, assessment and evaluation has different facets and pose different challenges for both the appraisees and appraisers (Barifaijo, 2017). For example, for an effective and equitable evaluation to take place, valid measures of the abilities or accomplishments of academics should be key indicators. If the evaluation is to be perceived as fair, it should be interpreted in the context of institutional objectives as well as the job description of the individual academic. In this regard, effective assessment and evaluation of academics' performance should use proper and appropriate measures in each area of the academics' work – i.e., training, research and consultancy work or community service. There are many pre-requisites of this desired state. Some important ones are clarity of the constructs to be measured, knowledgeable users of assessment tools and data, and effective communication between the assessed and the assessors (Kreitner, 2012). Consequently, the omission of critical measures has left academics in a state of quagmire, because their efforts never get measured in order to be recognized; which has had serious implications for academics' enthusiasm, thereby inflicting harm on institutional quality and reputation.

The mandate of providing to communities (also known as the third mission) has for long been treated as periphery or a 'distant cousin' to the more dominant roles of teaching and research (Barifaijo et al (2017). Indeed, its role, especially in Ugandan HEIs has been suffocated, presumably by inability to harness it by evaluating adequately those who provide the service. For that matter, this function has been underdeveloped, in terms of its purpose, institutional arrangement for its functionality. However, although Owobali (2005) found that institutions did not attach much significance to it because they did not find much contribution, the author attributes it to lack of measures to evaluate those who participate in it. This argument collaborates with Barifaijo's (2017) finding on the issue of internship discussed above whose effective supervision was found lacking. Particularly, although there is a belief of strong linkage between what students learn in universities and what they actually do in the world of work, there has been no documented evidence or significant contribution (Barifaijo et al, 2015), especially internships, in the humanities, arts and social sciences, as there seems to be no standardized practice of accountability to measure the contribution of what students spend on internship. Scholars (e.g., Adams, Miller-Korth & Brown, 2004) found scanty evidence on the contribution of the internship function, save for education students who do school practice. The author found that even with education whose purpose is assessment, supervisors were reluctant and hence did not register significant contribution.

Actually, students reveal this challenge, where one spends a whole month on school practice without meeting one's supervisor (Kasozi, 2006). Consequently, students' attachment or internships have not benefitted students significantly. This finding was confirmed by Freeman (2013), who found that students got stranded because neither the host supervisor nor the university supervisor was keen to take on this responsibility. In fact, Tamale (2015) found that the only reason lecturers went for this exercise was the per diem allowance, and nothing more. Hence, the challenge could be the omission in the evaluation of this task. Every time the author attends conferences or workshops on education, policy makers, in their presentations constantly talk negatively about the quality of graduates, the quality of research papers/theses/dissertations, poor performance at all levels, etc. My question remains: who is responsible for fixing quality? Available literature and scholars alike mainly focus on explaining the importance of internship, in terms of future prospects and job placement.

Not much has been devoted to the planning, organization and assessment, which the author found partly responsible for failure to realize the value addition of these initiatives. Such effort, for example, would provide information on whether such initiatives added value at all, and what can be done to make things better. Internships are unquestionably very crucial given their ability to develop skills and expand opportunities for employment and the exposure interns acquire from the community where they are attached. Industries as well as higher education institutions benefit greatly from such partnerships. However, lack of work description for students on internship, lack of clear targets, lack of performance indicators and assessment criteria are some of the barriers to successful internship (Harkavy, 2006). Because of this gap, the training (internship) many times does not add value to the students. Although quality has been a challenge, HEIs in Uganda have not laboured to find out the reason, other than "treating symptoms" of continuous problems, save for one institution that has gone an extra mile to conduct self-assessments and tracer studies. The skewed evaluation has system in these institution has promoted academic dishonesty, where academics have continued to involve themselves in undetected plagiarism – including plagiarizing research works of their students in order to climb academic ladders (Munene, 2012).

Archibong, et al. (2017) found that in Nigeria, students' evaluations have been used for faculty tenure and career growth (Cartwright, Weiner & Veneruso, 2009). Indeed, Brew (2006), justified students; participation in the evaluation of staff, arguing that students' matter a great deal in evaluating teaching, since everything done must be done to satisfy them. This is supported by Jenkins'et al (2002) in his definition of teaching as "*making an assumption about what and how the student learns - therefore, to teach well implies learning about students' learning*". That's why HEIs have placed emphases on students rating in faculty evaluation. Prégent (2000), for example found that student ratings have continued to be the source of information most widely used to assess teaching. Scholars (e.g. Clarke, 2012; Cartwright, et al ..2009; and Duncan, 2005) have found that students are the most accurate judge of teaching effectiveness, and that students' views should be given top priority in evaluating teaching for tenure and promotion decisions. Nonetheless, although student ratings are enjoying unprecedented popularity, research e.g (by Revell & Wainwright, 2009), has found numerous loopholes in students' evaluations, such as high ratings by students associated with awarding of high grades by individual faculty; humor, less content, easy tasks and a soft personality. One increasingly important source of information is self-evaluation and Archibong, *et al*.. (2017) found that self-evaluation provides insights into the values and beliefs that help shape course and instructional objectives and, in turn, contributes to classroom competency. However, Mezrich and Nagy (2007) advance that self-evaluations is the keystone of evaluation system, given that it is rooted in academic teaching portfolios, gives insights not found anywhere else, and is invaluable because it provides the important values and attitudes that determine why academics teach as they do.

Institutional territorialism and being possessive of technical skills and material property were found not only to prevent progress but also harms the overall higher education development structure in the country. In addition, collaboration with world-class education institutions can raise the standards of universities in developing countries through exposure to teaching, research, services and management methods. International cooperation, experience and exposure enables new researchers and educationists to expand their work, publish it in recognized professional journals, and present it at professional meetings. At the student level, institutional collaboration allows for an exchange of students that benefit both from the faculty exposure as well as academic culture and environment. One approach to encourage this culture is for Higher Education Institutions to include collaboration development as a measure for evaluation to facilitate the promotion of academics.

Conclusion

There are varieties of challenges facing curriculum development, but in general they are classified into three types, global challenges (external), internal challenges of the education systems, and country specific challenges. **Hence, the need to look at some of these problems facing curriculum development in our educational systems and proffer possible solutions promptly.** In fact, there are other critical challenges which are often ignored such as shortage of highly skilled human resources, reconciling traditional orientation of education with the aspiration for modernity, privatization of education, diversification of the economy. Yet, higher education

institutions have continued to judge academics using shallow measures, leaving very critical aspects that lead to the final projects that get evaluated and rewarded, which has affected the entire education system, where HEIs have been reported to produce raw quality graduates. Consequently, this blame game has become a vicious cycle because, whereas universities blame schools for sending students with 'cosmetic grades', schools too blame universities for raw quality teachers they send to schools, and yet, the community blames both. This dilemma has been attributed to the omission of critical activities during evaluations; and, indeed, some activities are difficult to measure, hence institutions rely on psychological contract in fulfilling each party's expectations. Nonetheless, effective or excellent teaching could be evaluated in respect to construct clarity, multiple pieces of evidence of effectiveness, directly linked to preparation, organization, materials used, learning activities, which should lead to learning outcomes. Regarding evaluation of research, institutions need to diversify to include the number of students supervised to completion, rather than relying only on journal articles and conference papers as the most reliable indices of overall performance for academic promotions, which has led to academics' anguish. Yet, job satisfaction that revitalizes staff motivation is undeniably critical for every institution, and all should aspire to achieve and sustain it. However, in order to enthuse academics in these institutions, the rewards must be perceived to be commensurate to their contributions, and measures for performance evaluations should be generated from the available data, be realistic and equitable. This is because the enthusiasm of academics yields commitment and quality performance because a motivated workforce builds not only individual profile, but a national workforce, as well as international reputation, which, unfortunately is wanting, especially in critical areas that lead to high standards, such as excellent teaching through planning and preparation, ability to develop academic programmes, logical students' assessment and feedback, mentorship and guidance, effective and successful supervision, etc.

Unfortunately, validating the quality of the graduate or students' learning outcomes may not be plausible considering that by graduation time, one class will have been facilitated by numerous teachers, which cannot be attributed to one individual. Therefore, in order to improve performance management and accountability in academic institutions, HEI leaders need to understand more complex systems than a simplistic set of parameters used in the evaluations. To provide interventions to validate deep teaching institutions could develop a tool for external examiners to assess what was taught against what was examined, *vis-a-vis* the performance of the specific class or cohort. In such a scenario institution could recognize teams rather than individuals. Further, mentoring and counseling during supervision is a relationship that involves only two parties, hence, validating it using the measure of the number of students supervised could be another hoax considering that, other than the co-supervision systems in some institutions, there could be motivating factors that influence completion rates.
Everything that has gone amiss in the education system, at all levels in Uganda, stems from ineffective performance evaluations of higher education activities; the quality of research; the quality of graduates; the quality of teachers at lower levels; poor internship performance; cosmetic grades, etc. Given their gigantic role, higher education institutions are the only organizations with inputs, throughputs and outputs that are human – and not just materials. Yet, unlike the adage of the 'iceberg' tip, the omission of academic activities in evaluations because of ignorance or lack of skill to measure those activities is likely to affect quality, visibility and continuity of HEIs, which Hemingway found disastrous. Indeed, research activities are a strong pillar in profiling and creates institutional image, although the assessment measures and the processes for one to move up the ladder are too bureaucratic and sometimes unrealistic. Consequently, institutions should revise and streamline the measurement tool for evaluating research activities in order to accommodate a number of activities and inputs. This should be done to fulfill academics' expectations of rewarding their efforts, and in turn academics will fulfill the institutional and the community's expectations so they remain emotionally engaged.

References

Arreola, J. (2000). Developing a comprehensive faculty evaluation system: A handbook for   college faculty and administrators on designing and operating a comprehensive faculty

Archibong, I.A., Effiom, D.O., Omoike, D. & Edet, A.O.   (2017).   Academic Staff Disposition to Promotion   Criteria   in   Nigerian   Universities. https://www.researchgate.net/publication/298796807[accessed Oct 18 2017].

Bell, B. & Kozlowski, S. (2008). Active learning: Effects of core training design elements on   self-regulatory processes, learning, and adaptability. *Journal of Applied Psychology*, 93,   296-316.

Bilal, H. A., Ahsan, H. M., Gohar, S., Younis, S. &Awan, S. J. (2012). Critical discourse   analysis   of political talk shows of Pakistan media. *International Journal of Linguistics*,   4(1), 203-219.

Dahlgren, P. (2009). *Media and political engagement*. Cambridge: Cambridge University Press.

Ambrose, S., Bridges, M., DiPietro, M., Lovett, M., Norman, M. (2010). *How learning works*.   San   Francisco: Jossey Bass

Altbach, P. (Ed.). (2003). *The Decline of the Guru: The Academic Profession in Developing and Middle-Income Countries*. New York: Palgrave/Macmillan.

Ambrose, S.; Huston, T; Norman, M. (2005).A Qualitative Method for Assessing Faculty   Satisfaction.*Research in Higher Educ.,* V. 46, N. 7, P. 803-830, 2005.
Ahmed, R. (2010). Role of news talk shows in creating political efficacy among youth. Retrieved   from http://sapandssrp.com/attachments/File/Role_of_News_Talk_Shows_.pdf

Alan, M., Rubin, A., & Mary, M. (2009).Viewing television talk shows. Communication   Research Reports, 14(1), 106-115. Retrieved from http://www.tandfonline.com/doi/   pdf/10.1080/08824099709388651

Baldwin, G. (2005). The Teaching Research Nexus. How research informs and enhances   learning   and teaching in the University of Melbourne. Melbourne: Centre for the Study   of Higher Education.

Bakker, A. B., Killmer, C. H., Siegrist, J., &Schaufeli, W. B. (2000). Effort–reward Imbalance   and   Burnout Among Nurses. *Journal of Advanced Nursing*, *31*(4), 884-891.

Barifaijo, K.M. (2017). Intellectual Curiosity or deception: An Investigation into the   Practice   of   teaching outside Area of Expertise in Uganda. *Makerere University Journal   of   Higher   Education (MAJOHE)*, ISSN: 1816-6822-(9) (1) (2017) 3 - 20

Barifaijo, K.M., Bigabwenkya, S, Namara, R., Andama, F. and Bongomin, W. (2016). Community   Service Functions of Higher Education Institutions and Socio-Economic   Development   in   Uganda.*The Journal of Management and Public Policy Studies*. ISSN   2076-7049, Volume 11, Number 1.

Barifaijo, K.M. (2016). Higher Education-Community Partnerships: Extricating Value   Addition:
        Critical-Analytical Paper. *International Journal of Social Science &   Education   (IJSSE),* Volume 2 (II), 267-282. ISSN 2105 6008. September, 2016

Barifaijo, K.M. & Karyeija, K.G. (2016). Dynamics of Doctoral External Examination: Is it   Quality   or   Formality at Play? An Evidence-Based Paper.In *International Journal   of   Social Sciences & Education (IJSSE)* Volume 2 (1). 17-43. ISSN 21056008

Barifaijo, K.M. Karyeija, G., Namara,R. Kyohairwe, S. &Ssentamu, N.P. (2015). Workload   Policy   and   its   Intricacies in the Academic Profession: Implications for   Higher   Education   Institutions   in Uganda. *International journal of Social   Sciences &   Education (IJSSE)* Volume 1 (4),   270 -301. ISSN 2105 6008.

Barifaijo, K.Maria, Nkata, L.James & Ssempebwa Jude (2009). HRM Factors affecting   Part-   Time   Lecturers in African Higher Education. In *Makerere Journal of Higher   Education   (MAJOHE),   Annual Publication of the East African Institute of Higher   Education   Studies   and   Development,* ISSN 1816-6822, Vol.2, 2009.

Basheka, C. B., Nkata, J.L. & Barifaijo, K.M. (2013). Teaching-Learning quality assurance   benchmarks   and characteristics that promote learner outcomes among Public   Administration   students   at   Uganda Management Institute: An exploratory   study.   Academic Journals ISSN 1996-0816,   Vol. 5 (1), pp. 8-14, March.

Baxamusa, B. N. (2016, August 5). Equity Theory of Motivation in a Way No One Ever Put   Forth.   Retrieved from http://www.buzzle.com/articles/equity-theory-of-motivation.html

Baxter Magdola, M. B. (2001). *Creating Contexts for Learning and Self-Authorship*, Vanderbilt   University   Press, Nashville, Tenn.

Beckers, D. G., van Hooff M. L., van der Linden D., Kompier M. A., Taris T. W. and Geurts S.   A.(2008).   A   diary study to open up the black box of overtime work among university   faculty   members.   *Scandinavian Journal of Work Environment & Health*, 34, 213–223.

Bell, B. & Kozlowski, S. (2008). Active learning: Effects of core training design elements on   self-regulatory   processes, learning, and adaptability. *Journal of Applied Psychology*,   93, 296-316.

Biagi, S. (2004). *Media Impact,* 7th edition. Wadsworth Pub Co.

Biggs & Tang. (2007). *Teaching for quality learning at university* (3rded.).

Bilal, H. A., Ahsan, H. M., Gohar, S., Younis, S. &Awan, S. J. (2012). Critical discourse   analysis   of   political talk shows of Pakistan media. *International Journal of Linguistics*,   4(1), 203-219. Retrieved   from   http://www.macrothink.org/journal/index.php/ijl/article/view/1425/pdf

Bligh. (2000).*What's the use of lectures?* London, UK: Jossey Bass

Boyer, E L (1990). Scholarship Reconsidered: Priorities of the professoriate, Carnegie   Foundation   for   the   Advancement of Teaching, New Jersey.

Brew, A. (2006). *Research and Teaching: Beyond the Divide*. New York: Palgrave-   MacMillan.

Cartwright, R., Weiner, K. &Veneruso, S. (2009). *Student Learning Outcomes Assessment   Handbook*. Maryland: Montgomery College.

Chen, Y. & Hoshower, L.B. (2003). Student evaluation of teaching effectiveness: An assessment of student perception and motivation. *Assessment and Evaluation inHigher Education* 28(1), 71-88.

Clarke, M. (2012). Measuring learning: How Effective Student Assessment Systems Can Help Achieve Learning for ALL . Washington, D.C.: The World Bank.

Christen, Kim. (2012). Does information really want to be free?*International Journal of Communication.*

Cohen, Peter (2017). Macworld Expo Keynote Live Update: Introducing the iPhone. Macworld.PCWorld.Retrieved 11 September 2017.

Conway, Neil &Briner, Rob B. (2005).*Understanding Psychological Contracts at Work: A Critical Evaluation of Theory and Research*. Oxford, UK: Oxford University Press, (2005).

Cullinane, Niall and Dundon, Tony. (2006). The psychological contract: a critical review. *International Journal of Management Reviews*, 8(2): 113–129 (2006).

Coyle-Shapiro, Jacqueline A-M. and Parzefall, M. (2008). Psychological contracts . In: Cooper, Cary L. and Barling, Julian, (eds.) *The SAGE handbook of organizational behavior*. SAGE Publications, London, UK, pp. 17-34.

Chapman, Alan. (2016). The Psychological Contract. *Theory, Diagrams, Definitions, Examples of in Work, Businesses, Organizations and Management*. Bussinessballs Corp, n.d. Web. 20 Oct. 2016.

Chin Heng. (2016*). What Do Employees Want And Why? An Exploration of Employees' Preferred Psychological Contract Elements Career Stages. PsycINFO*. https://politique.uqam.ca/upload/files/POL4801-30-A15-Likongo.pdf

Clark, A., Oswald, A., Warr, P. (1996). Is Job Satisfaction U-Shaped in age? *Journal of Occupational And Organizational Psychology*, V. 69, P. 57-81, 1996.

Dahlgren, P. (2009). *Media and political engagement.* Cambridge: Cambridge University Press.

French, W.L. (2012). *Performance Management*. London: Pearson Prentice Hall,

Gautier, Chantal. (2015).*The Psychology of Work.Kogan Page*. via ProQuest Ebook Central.

George, Christeen (2016). *Psychological Contract: Managing and Developing Professional Groups*. Maidenhead, GB: Open University Press, 2010. Chapter 1: Introducing the psychological contract. ProQuestebrary.Web. 14 October 2016.

Heckhausen, J., Wrosch, C. and Schulz, R. (2006). A Motivational Theory of Life-Span Development

Härmä, M. *(*2006). Workhours in relation to work stress, recovery and health. *Scandinavian Journal of Work, Environment & Health*, 32, 502–514.

Jenkins, Breen, Lindsay and Brew (2002). *Reshaping Teaching in Higher Education: Linking Teaching and Research*. London: Kogan Page.

Kwak, A. (2006). The relationships of organizational injustice with employee burnout and counterproductive work behaviors: Equity sensitivity as a moderator (Unpublished doctoral dissertation, Central Michigan University, 2006).

Lindsay, Breen and Jenkins (2002). Academic Research and Teaching Quality: the views   of undergraduate and postgraduate students. *Studies in Higher Education*, 27,(3), 309-   327.

Martin Lister,Jon Dovey, Seth Giddings, Iain Grant, Kieran Kelly. (2015).*New Media: A   Critical Introduction* (PDF) (2nd ed.).

Makerere University. (2006, 2009). The Policy On Appointment And Promotion Of Academic   Staff,   As Reviewed And Approved By The University Council At the 106th Meeting   held on 6th and 7th July, 2006   Amended at the 112th Meeting of University Council   held on 10th September 2009

Maslach, C., Schaufeli, W., Leiter, M. (2001). Job burnout. *Annual Rev. Psychol.* (52): 397–   422.   See p. 409.

Mezrich and Nagy. (2007).The academic RVU: a system for measuring academic   productivity.   *J Am Coll Radiol*. 2007;4:471–478.

O'Brien, Millis and Cohen. (2008).*The course syllabus: A learning-centered approach*. San   Francisco,   CA: Jossey-Bass.

O'Connor, P. & Carvalho, T. (2014). *Excellence in university academic staff evaluation: a   problematic reality? Journal of Higher Education Policy and Management*, Published   online   04   June   2014 http://www.tandfonline.com/author/O%27Connor%2C+Pat

Revell & Wainwright. (2009). What makes lectures "unmissable"? Insights into teaching   excellence   and active learning. *Journal of geography in higher education, 33*(2), 209- 223.

Robinson. Sandra L. (2016). Trust and Breach of the Psychological Contract.*Administrative   Science Quarterly* Vol. 41, No. 4 (Dec., 1996), pp. 574-599.Web. 21 October 2016.

Ssesanga, K., Garrett, R.M. (2005). Job Satisfaction of University Academics: Perspectives   from   Uganda. *Higher Education,* V. 50, N. 1, pp. 33-56, 2005.

Shin and Cummings. (2010). Multilevel analysis of academic publishing across   disciplines: research preference, collaboration, and time on research. *Scientometrics,* 85, 581–   594.

Svinicki & McKeachie. (2011).Countdown for course preparation. In *McKeachie's   teaching   tips: Strategies, research, and theory for college and university teachers* (pp.   10-20).   Belmont,   CA: Wadsworth.

Siegel, P. H., Schraeder, M. & Morrison, R. (2007).A taxonomy of equity factors. *Journal of   Applied   Social Psychology*, 38(1), 61-75.

Spector, P.E. (2008). *Industrial and organizational behavior* (5th ed.). Wiley: Hoboken, NJ.

Raja, S. (2009, April 26). Motivation Theories. Retrieved from http://www.authorstream.com/Presentation/nsraja_hhh-180607-motivation-theories-   education-ppt-powerpoint/.

Ramsden, P (2001). *Strategic management of teaching and learning, in Improving Student   Learning Strategically*, ed. C. Rust, OCSLD, Oxford, 1-10.

Redmond, B.F. (2013). Equity Theory: Is what I get for my work fair compared to   others? Work Attitudes
     and Motivation. The Pennsylvania State University World   Campus.
     Revell, A. & Wainwright, E. (2009). What makes lectures "unmissable"? Insights into
     teaching excellence and active learning. *Journal of geography in higher
     education, 33*(2), 209-   223.

Rousseau, Denise, M. (2016a). Schema, promise and mutuality: The building blocks of the   psychological
          contract. *Journal of Occupational and Organizational Psychology.*   Volume 74, Issue 4 November
2001 Pages 511–541. Web. 26 October 2016.

Rousseau, Denise, M. (2016b). The 'Problem' of the Psychological Contract Considered. *Journal   of
Organizational Behavior* 19 (1998): 665-71. JStor.Web. 14 October 2016

Shin, J. C. and Cummings, W. K. (2010). Multilevel analysis of academic publishing   across
          disciplines: research preference, collaboration, and time on research.   *Scientometrics*,
85,   581–594.

Stecher, M.D. & Rosse, J.G. (2007). Understanding reactions to workplace injustice through   process theories
          of Motivation: A teaching module and simulation. *Journal of Management Education, 31,* 777-796.

Svinicki, M. D. & McKeachie, W. J. (2011). Countdown for course preparation. In
          *McKeachie's   teaching tips: Strategies, research, and theory for college and
          university teachers* (pp. 10-20). Belmont, CA: Wadsworth.

Turner, Wuetherick and Healey. (2008). International Perspectives on Student Awareness,   Experiences,
and Perceptions of Research. *International Journal for Academic   Development,* 13 (3), pp. 199-211.

Turnley, William H., and Daniel C. Feldman. (2016). Re-Examining the Effects of   Psychological
          Contract Violations: Unmet Expectations and Job Dissatisfaction as   Mediators. *Journal of*

Organizational Behavior 21.1 (2000): 25-42. JStor.Web. 14   October 2016.

Vardi, I. (2009). The impacts of different types of workload allocation models on academic   satisfaction and
          working life. *Higher Education*, 57, 499–508.

van den Huevel. (2016*). What's In It For Me? A Managerial Perspective on the Influence of the   Psychological
          Contract On Attitude Towards Change. Journal of Organizational   Management.*

van den Heuvel, Sjoerd, and Rene Schalk (2015). The Relationship Between Fulfillment of The Psychological
          Contract and Resistance To Change During Organizational   Transformations. *Journal of Experimental
          Botany* 66.6 (2015): 283-313. Academic   Search Ultimate.Web. 21 October 2016.

Zamorski, B. (2002). Research-led Teaching and Learning in Higher Education; a case. *Teaching   in
          Higher Education*, 7 (4), 411-427.

Mediating Role of Educational Motivation in the Relation of Metacognitive Awareness and Academic Performance of Students of Samangan Higher Education Institution

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Abstract

The human ability to learn and identify the associated factors is one of the unique attributes of each human being. Metacognitive awareness and educational motivation are related factors to academic performance in students. The purpose of this study was to investigate the effect of metacognitive awareness on educational motivation and academic performance of students. This research is applicable to the purpose of the research and the research is in terms of the possibility of controlling the quasi-experimental variables and the method of data collection is fieldwork. Descriptive statistics and inferential statistics (Pearson correlation coefficient and path analysis) were used to analyze the data. The statistical population of the study was all students of Samangan Institution of Higher Education in the academic year 2017-2018, which 270 students were selected by stratified random sampling method. The data gathering tool included the metacognitive awareness questionnaire of Shara and Denison (1994) and educational motivation questionnaire of Valrand et al. (1992). The reliability of the questionnaire was obtained at an acceptable level. The average of the total grade of their two courses was used to measure the academic performance of the students. The research findings indicated that the hypothetical model had a good fit and in sum, the variables of the research explained 61.1% of variance of academic performance of students. The results showed that metacognitive awareness has a direct effect on academic performance as well as indirect effect through educational motivation on students' academic performance. That is, educational motivation can play a mediating role in the relationship between metacognitive awareness and academic performance.

Keywords: Metacognitive awareness, educational motivation, academic performance

Introduction

One of the goals of any society is to achieve prosperity and progress, Third-world countries are moving from industrial societies to informational or scientific communities. Also, the human society faces a wide range of scientific, technological and informational crises and confronting these issues requires a strong commitment from executives. Universities and higher education institutions play a significant role in the learning and academic performance of students as the source of science in every society (Safari, 2012). Several factors affect the academic performance of students. Metacognitive awareness and educational motivation are one of the most important factors on academic performance of students. By comparing the population of Iran and the world, it is determined that Iran's minimum Expected share of research and production of science in the world is one percent; This is while the share of Iran is currently only 0.22% (Iran's Science and Technology Information

Center quoted by Touganipour, 2012), and This suggests an inadequate situation of knowledge production in higher education institutions and universities in Iran. In other words, the purpose of universities is not to provide knowledge and to accumulate information in the memory of individuals, rather the ultimate goal of universities is the production of science; But despite the high costs involved, the quality of education is low, and the student's educational motivation is very weak, and ultimately the academic performance and production of science is also low. Failure to perform the scientific missions of the universities, on the one hand, and students 'willingness to study the pamphlets of Professors , studying the least number of books, and the desire to earn high scores and the lack of research mood, led us to study the impact of awareness Metacognition by mediating of educational motivation on student academic performance.

Research literature

Metacognitive Awareness
Metacognition has been defined in various ways in literature since it was introduced by Flavel (1979) in cognitive psychology. Flavel (1976) defined meta-cognitive knowledge as "individual knowledge of the person's cognitive processes and products or anything related to them" as well as the individual's awareness of his own self-knowledge (Flavel, 1979). Metacognition is also referred to as a complex thinking process that requires active and dynamic control on the individual's cognitive process (Wenden, 1998, 1999) and as the "knowledge of learning" of a person. Despite the variety of metacognition definitions and disagreement on structural definition, there is a consensus on the basic components of metacognition, Which includes metacognitive knowledge or cognitive knowledge, that is, individual knowledge of his learning and metacognitive strategies or cognitive rules that include the individual's ability to adjust and manage the learning process (Raufi et al. 2014).

The literature and related resources highlight the usefulness of metacognitive awareness and the growth of metacognitive skill training (Anderson, 2002, 2012; Batang, 2015). Research has shown that skilled learners in language learning, compared to less well-educated and less successful learners, have a higher degree of metacognitive awareness of strategies that they can use. However, a glance at the meta-cognitive research of teachers has shown that metacognitive awareness also greatly affects the different aspects of the learning process of the second language and academic achievement. Betang (2015) examined the relationship between the awareness of future high school teachers of metacognitive strategies and their level of reading and understanding of concepts. His findings showed a significant relationship between the use of metacognitive strategy and the level of reading comprehension. That is, the more they use effective strategies, their comprehension and reading will be higher. He claimed that the employed metacognitive strategies by learners will help them to easily and quickly understand what they read. Oz (2014) showed that both cognitive knowledge and recognition rules significantly will predict the academic achievement of future English language teachers with cognitive requirements as a stronger predictor of educational achievement, (β = 0.33), from knowledge of cognition, (β = 30/0). In a recent comprehensive study aligned with metacognitive awareness of English in-service teachers, Oz (2015) examined the metacognitive awareness of 87 in-service English teachers and the basic components of meta-cognitive structure over a long period of time, with factors such as gender, moderate mean and type of school. His findings showed that the vast majority of participants had a very high level of metacognitive awareness. In addition, there was a strong relation between the basic components of metacognitive awareness, such as cognitive knowledge and cognitive rules, which supported the idea that "cognitive knowledge facilitates cognitive regulation" (Oz, 2015). In addition, the findings showed that there was a positive relationship between metacognitive awareness and academic achievement of participants, indicating that the greater the metacognitive awareness, the academic achievement of the participants also will increase. However, the findings did not show significant statistical differences between participants' levels of metacognitive awareness in relation to demographic factors such as gender and educational type.

Educational Motivation:
Each society needs New Thoughts and New Ideas for survival; motivation is one of those factors that it plays an effective role in the development of human beings and civilization and it is the basis of the progress of a society. Accordingly, one of the most serious and predictable challenges for humanity in the future the problem of the

level of utilization of minds and motivational people in different areas of science, research, technology and health. Motivation as fundamental knowledge is the agent of motion in humans. Research has shown that motivation as a complex and multifaceted structure is an important factor contributing greatly to the success of individuals and their academic performance. (Oz, 2016, Oz, 2015, Sutrabul, 2012, Raufi et al., 2014 and Sun, 2013). Research on motivation shows Motivation is not a gift that special people have it because it can be fostered by the use of appropriate methods. Different factors affect the students' educational motivation, including personal, familial, social, economic and educational factors (Niazazary, 2010). Over the past decades, there has been a growing interest in the role of learning motivation. In line with the evolution of motivational research, efforts have been made to better understand the nature of motivation and the implementation of the structure. Research has shown that motivation as a complex and multifaceted structure is an important factor contributing greatly to success in academic performance (Dees & Ryan, 2015; Oz, 2016). Regarding the dissatisfaction of inadequate traditional perceptions of Gardner's motive (1985), other models of motivation have emerged in an effort to reveal the true nature of the structure (Oz, 2016). Daisy (1985) Self-Determination Theory and Ryan (2005) self-motivated self-motivation systems are among the influential motivational models that have revolutionized motivation studies in SLA research over the past decades.

Self-Determination Theory (Dais and Ryan, 1985 quoted by Oz, 2016), essentially as a motivational theory, focuses on self-governing or independent and controlled behaviors (Dees et al. 1991). In addition, the SDT claimed that someone who is unmotivated will feel that he has no desire and ambition to accomplish the goal. As a result, the SDT introduced a three-motivational model, which is linked both in "energizing" and "directing" with the issues of basic needs , that's mean The need for competence, independence, and intrinsic communication in human life is the center of the theory of distinction between inner and outer motivation. In essence, motivated individuals often tend to do the affairs outside of their own interests and carry out activities without waiting for material rewards, while individuals with outside motivation engage in activities that are instrumental and essentially they are not voluntary. With regard to educational motivation, inner motivation and outside motivations are considered as two important educational motivational motivations (Kakley, 2003).
Self-Determination Theory identifies three types of inner motivation, That is, the inner motivation for knowing which learning activities are just for pleasure and satisfaction. An inner motivation for doing the affairs that is with a motivated person to do something beyond prescription activities just to spend pleasure from satisfaction and success, and the inner motivation for the stimulation experience, which refers to the person's engagement in the task of acquiring emotions and experiences. (ayub, 2010).

On the other hand, outside motivation is related to the motivational behaviors that occur due to External rewards. There are four different types of extrinsic motives, for example, extrinsic regulations, outside motivation regulations, well-known regulations, And integrated regulation. SDT suggests that through the internalization of outside motivations, one's behaviors can be specified, and integrated in order to achieve Autonomous and independent behavior. (Deci and Ryan, 1992, 2000; Deci et al., 1991 quoting Oz, 2016). Non-motivation, as the third type of introduced motivation by the SDT, refers to a situation in which a person is neither intrinsically nor externally motivated.

Researchs done by Ameray et al., 2011; Arapathamani & Freeman, 2008; Arapathamani et al. 2011; Ayub, 2010; Komarajo et al., 2009; M.Chi, 2010; Onder et al., 2014; Skhuar, 2014; Strobl, 2012.) Has shown that educational motivation is positively correlated with academic achievement. For example, the relationship between motivation, self-concept and academic achievement was reviewed in 193 second-year students in South Africa. Onder et al. (2014) showed that student motivation significantly affects academic achievement. Similarly, Ameray et al. (2011) reported a positive correlation between academic achievement and various dimensions of motivation.

Obviously, the inner motivation and extrinsic motives as the two complementary components of Self-Determination Theory are the axis of academic performance and success. In addition, as can be understood from the literature and related sources, both the metacognitive awareness axis and Self-Determination theory are in the search for the teaching to independent Second Language Learners.

Metacognition and educational motivation

Metacognition is one of the factors related to the educational environment that influences students' educational motivation. Some education professionals consider successful learning in the form of the acquisition of metacognitive knowledge (Bockets, 1999, quoted by Farahbakhsh, 2009). Since the accumulation of a large amount of information in the universal mind is not scientifically valid, and what's important is a process of knowledge, control, and a comprehensive oversight on the mind to gain knowledge and learning, and this is in the domain of metacognition (Safari and Marzuqi, 2011). In other words, according to Biggs and Moore (1993), effective learning is achieved through engaging students in meta-cognitive processes such as planning, monitoring, and thinking about thinking. And according to some researchers, this knowledge can be trained and, if included in the curriculum, can have beneficial effects. (Parsons et al., 1964 Translated by Asadzadeh and Eskandari, 2006 quoted by Safari, 2012). Meanwhile, insufficient attention is paid to metacognitive awareness in the curriculum of educational institutions (Safari and Marzouqi, 2009).

Regarding the importance of metacognitive knowledge and educational motivation variables in academic performance of students, and according to researches carried out in this direction, there is still a deep gap in research in this field. So, in this research, we decided to examine the relationship between each of these variables and their components together. Accordingly, the research hypotheses are:

- The first hypothesis: cognitive Knowledge is related to the levels of educational motivation of students.
- Second hypothesis: Self-knowledge is related to levels of educational motivation.
- Hypothesis 3: Different levels of educational motivation are related to academic performance of students.
- Fourth hypothesis: Different levels of metacognitive awareness (Cognitive knowledge, self- regulation) are related to academic performance of students.
- Fifth hypothesis: Metacognitive knowledge by mediating educational motivation has an indirect effect on academic performance of students.

According to research hypotheses, the conceptual model of research is shown in Figure 1:

Figure 1. Conceptual model of research
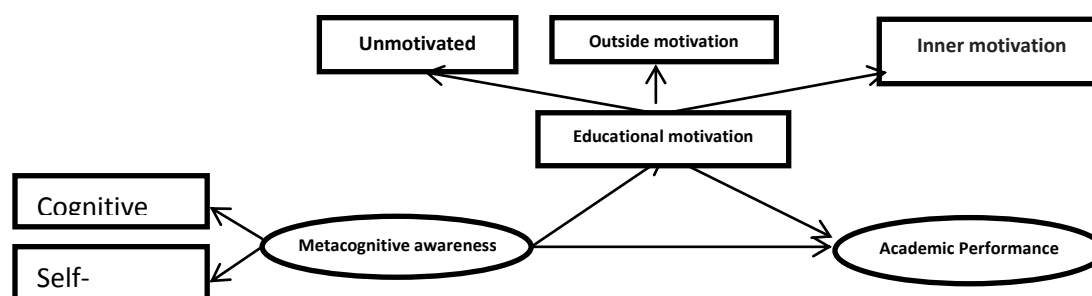
Research method

The method of this research is descriptive-correlation. Three variables have been studied in this research: Metacognitive Knowledge (cognitive science, self-regulation) as independent variables, educational motivation (amotivation, outside motivation, and inner motivation) with the role of mediating variable and academic performance with the role of dependent variable. The statistical population of the study consisted of all students of the Samangan Institution of Higher Education in the academic year 2017-2018, which its number based on university statistics and information is 870 members. Regarding the characteristics of the population and high population of the university, according to the Cochran formula, 270 students were selected by random sampling method.

Tools
Metacognitive Knowledge Questionnaire:

The Metacognitive Knowledge Scale was developed by Shara and Denison (1994) to examine the metacognition of Teenager and adult learners. This scale consists of 52 items and two distinct factors, namely, cognitive knowledge and Self-regulation.' The cognitive dimension contains 3 subscales: expressive knowledge with 8item, discipline knowledge with 4items, and position knowledge with 5 items. The Self-regulation dimension also has 5 sub-scales, which are: Monitoring with 7 items, planning with 7 items, information managing with 10 items, defragmenting with 5 items and evaluating with 6 items. Responses are based on a 5-degree Likert scale. Shraw and Denison (1994) reported the consistency of the questionnaire between 0.78 and 0.93, which indicates its acceptable validity. In the present study, Cronbach's alpha coefficient for the metacognitive knowledge scale was generally 0.92 and for metacognitive knowledge subscale was 0.93, and for metacognitive knowledge subscale (metacognitive rules) was equal to 0.89.

Educational motivation questionnaire

Educational Motivational Questionnaire of Valerand et al. (1992) is based on self-regulation theory and there are 28 questions of seven options that measure three dimensions of inner motivation, outside motivation and amotivation. The studies carried out by Robert Valerand and colleagues show that the validity and reliability of the English sample of educational motivation scale for high school students as well as Canadian students have been confirmed. In the present study, the initial confirmation of the formal validity of the motivation questionnaire was verified by a panel of faculty members and its reliability was acceptable by Cronbach's alpha method, For the educational motivation scale, 0.88 was obtained and for the, the inner motivation was 0.86, the outside motivation Sub-component was 0.89 and amotivation Subcomponent was 0.87. The average of their two courses was used to measure students' academic performance.

Research findings

The results of the demographics of the respondents on gender showed that 47.3% women and 52.9% men, 17.7% students and 34.7% undergraduate, and 50.3% of them were senior-level students. Most of the respondents (36.29%) were at the age of 30-40 years and the least responders (3.7%) were over the age of 50 years.

In table 1, descriptive indexes of variables including mean, standard deviation and correlation of variables are presented.

Table 1. Mean, standard deviation and correlation of variables

No	variable	Mean	standard deviation	1	2	3	4	5	6	7	8
1	Metacognitive Awareness	3/79	0/91	1							
2	Cognitive Science	3/56	0/66	0/9**	1						
3	Self-knowledge	3/81	0/78	0/97**	0/095*	1					
4	Educational motivation	4/30	0/79	0/633**	0/423**	0/404**	1				
5	Inner motivation	5/1	0/89	0/345**	0/657**	0/582**	0/444**	1			
6	Outside motivation	4/45	0/40	0/40**	0/27*	0/07*	0/444**	0/062*	1		
7	Unmotivated	4/88	0/46	0/545**	0/47**	0/395**	0/668**	0/740*	0/785**	1	
8	Academic Performance	15/61	2/23	0/40**	0/58**	0/017*	0/743**	0/823**	0/585**	0/750**	1

P<0/05*   P<0/01**

Table 2. Model fitting indicators

Fitting indexes	(χ^2/dF)	Comparison fit (CFI)	Goodness of Fit (GFI)	Standardized mean square residual SRMR	Adjusted Goodness Fitness (AGFI)	root mean square error approximation (RMSEA)
Fit range	3≤	0/9≥	>0/9	0/10≤	>0/9	0/10≤
calculated Amount	2/54	0/952	0/958	0/04	0/921	0/082

Table 2 shows the fitness indicators of the path analysis model, The high GFI (0.958) and CFI (0.952), AGFI (0.921), and low RMR (0.0) and RMSEA (0.82) in the modified model, As well as the level of chi-square statistic divided by the degrees of freedom (χ^2/dF) in the same model, shows that the modified correlation pattern (based on path analysis) is fit and adequate.

Figure 2 shows the results of the structural model, among the variables, educational motivation was the strongest predictor variable on academic performance (P<0/01, T=4/67, β= 0/381). And metacognitive awareness (p<0/001, T= 4/35, β=0/292), in addition, educational motivation is affected by metacognitive knowledge (P<0/01, T=3/42, β=0/298). In general, the model explains 61.1% of variance of dependent variable (academic performance). 35.4% of the variance of educational motivation is explained by metacognitive awareness.
Figure 2. Structural model standard coefficients for explaining academic performance of students
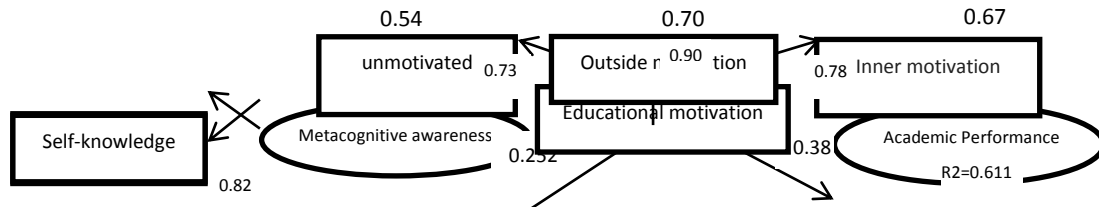
Table 3. Structural paths coefficients of the model based on intermediate variables

Variable	Estimate	Standard error	C.R.	significance level
Metacognitive awareness→Educational motivation	0/252	0/092	3/424	0/01
Educational motivation→Academic Achievement	0/381	0/072	4/67	0/01
Metacognition Awareness → Academic Performance	0/298	-	-	-
Metacognition Awareness→Educational motivation→ Academic Performance	0/179	-	-	-

Table 3 shows the results of the mediator analysis performed in the research model. The findings of the mediator analysis show that the educational motivational variable is mediator in the relationship between metacognitive awareness and academic performance.

By mediating of the educational motivation, the path coefficient decreases, which this reduction is from 0/298 to 0/179 (see Table 3). According to Anderson (2002) when the educational motivation motive variable is considered as a mediator, the variance of metacognitive knowledge (independent variable) could significantly predict the variance of educational motivation and variance of educational motivation could significantly predict the variance of academic performance (dependent variable). The finding also showed that the educational motivation is the mediator between metacognitive awareness and academic performance. That is, when

educational motivation exists in students, students' academic performance is higher and positive reactions are more.

Discussion and Conclusion

Students in a country as the most important capital and human resources of a country are considered as the main factors behind the Progress and development of a country. Therefore, one of the educational goals in educational centers, especially universities, is to increase the academic performance of students. According to the research, educational motivation and metacognitive awareness are two related factors to the academic performance of individuals. Therefore, in this article we have tried to determine the relationship between each component of metacognitive knowledge (cognitive knowledge, self- regulation), and the components of educational motivation (outside motivation, inner motivation, amotivation) with academic performance of students Samangan Institute of Higher Education, and we can see if metacognitive knowledge has a meaningful relationship with the academic performance of students at the Institute of Higher Education in Samangan. Accordingly, we aimed to study the effect of meta-cognitive knowledge and educational motivation on the academic performance of students in the Samangan Institutes of Higher Education.

Research findings show that academic performance is directly influenced by cognitive knowledge. Educational motivation entails a continuous relationship between academic performance and cognitive knowledge.
It has been shown that metacognitive awareness has a direct effect on educational motivation (β =0/252, T=3/424, P <0.01). This result is consistent with research studies of Pintrich(2002) and Alcan (2014).

Educational motivation also directly affects academic performance (β = 0.3812, t = 4.67, p <0.01). This result is in line with the studies of the Amrany, 2011. The findings of the research also show that the educational motivation variable significantly affects the relationship between metacognitive awareness and academic performance. Based on this finding, educational motivation is the strongest predictor of academic performance and Metacognitive knowledge is in the next stage, which indicates the importance of the structure of educational motivation in students' academic performance and it can be inferred that one of the ways to increase educational motivation in students is to raise their metacognitive awareness. As expected, there is a positive and significant relationship between metacognitive awareness, educational motivation and academic performance, and higher educational motivation students have higher academic performance. Increasing academic performance and educational motivation in students involves creating favorable conditions and raising certain factors, which One of these factors is metacognitive awareness. In other words, metacognitive awareness is related to academic performance and one of the reasons for this connection is due to the existence of a third variable called educational motivation. The students with higher metacognitive knowledge have a better academic performance due to some structures such as motivation and more specifically educational motivation. Another explanation is that metacognitive knowledge challenges individuals to seek out how they can increase their learning? As a result, metacognitive knowledge is one of the main determinants of motivation in achieving the better self-awareness needed to achieve goals and success. Since educational motivation is directly related to academic performance and educational motivation is considered as a dependent variable of metacognitive knowledge, educational motivation can act as a mediator (on the one hand, dependent on metacognitive knowledge and on the other hand , As an independent variable for academic performance). The results of this paper are based on the results of research by Amari et al., 2011; Arapatamani & Freeman, 2008; Arapathamani et al. 2011; Ayub, 2010; Komarajo et al., 2009; MCChi, 2010; Onder et al., 2014; ; Strobl, 2012; Ying; 2015; Oz; 2014; Anderson, 2012; Raufi et al., 2014; Ayub, 2010; Sun; 2013; Karami et al. 2012; Ebrahimi Qavam; 1998; Farokhi; 2010; Safari;2012, , Maleki 2005, ghaltash 2010, Farahbakhsh, 2009; Santago, 2017.

References

Alkan, F., & Erdem, E. (2014). The Relationship between metacognitive awareness, teacher self-efficacy and chemistry competency perceptions. amotivation in education: Evidence on the concurrent and construct validity of the Academic Motivation Scale. *Educational and*

Amrai, K., Motlagh, S. E., Zalani, H. A., & Parhon, H. (2011). The relationship between academic motivation and academic achievement and Social Sciences, University of Rijeka. http://dx.doi.org/10.13140/RG.2.1.4620.6801

Anderson, N. J. (2002). The role of metacognition in second/foreign language teaching and learning. ERIC Digest. Retrieved 19 January 2016

Anderson, N. J. (2012). Metacognition: Awareness of language learning. In S. Mercer, S. Ryan & M. Williams (Eds.), *Psychology for language*

Andreou, G., Andreou, E., & Vlachos, F. (2006). Individual differences in second language learning among university students. In S. N. Hogan

Areepattamannil, S., Freeman, J. G, & Klinger, D.A. (2011). Intrinsic motivation, extrinsic motivation, and academic achievement among *around the globe: Exploring untested ideas* (pp. 35-58). New York: Untested Ideas Research Center.

Ayub, N. (2010). Effect of intrinsic and extrinsic motivation on academic performance. *Pakistan Business Review*, *8*, 363-372.

Batang, B. L. (2015). Metacognitive strategy awareness and reading comprehension of prospective pre-service secondary teachers. *Asia Pacific*

Ebrahimi Ghavam Abadi, Soghra. (1998). The Effectiveness of Three Methods of Teaching Learning Strategies (Mutual Learning). Direct Explanation and the Thought Cycle on the Understanding of Problem Solving, MetaCognitive Knowledge, Self-Conceptualization, and Learning Speed in Secondary School Students. Doctoral dissertation, Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University.

Farahbakhsh, Kiumars; Farrokhi, Nurali; Shojaei Meybodi, Reyhaneh (2009). The Effectiveness of Metacognition Strategies Training on Enhancement of Educational Motivation in First-grade Girl Students in Meybod High School. Ministry of Science, Research and Technology - Allameh Tabatabaei University - Faculty of Psychology and Educational Sciences

Farrokhi, Noali. (2010). The Effectiveness of Cognitive and Meta-Cognitive Skills Training on the Understanding of Secondary Schoolchildren in Teachers of the 11th District of Education in Tehran. Quarterly Journal of Allergy Tabatabai University of Psychology, Tehran. Year 6, No. 18, 129-152Flavell, J. H. (1985). Cognitive development. 2nd ed. Prentice Hall.

Flavell, J. H. (2000). Development of children's knowledge about the mental world International. Journal of Behavioral Development, 24,15–23.for the William and Flora Hewlett Foundation. Palo Alto, CA: John W. Gardner Center.Forum. *Educational Technology & Society*, *11* (3), 1-12.

Gheltash, Abbas; Ojinejad, Ahmad Reza and Barzegar, Mohsen. (2010). The Effect of Teaching Meta-Cognitive Strategies on Academic Performance and Creativity of Primary School Boy Students. Quarterly Journal of Educational Psychology, Islamic Azad University, Tonekabon Branch, 1 (4): 119-135.

Karami, Bakhtiar, Allah Karami, Azad, Hashemi, Nezam. (2013). The Effectiveness of Teaching Cognitive and Metacognitive Strategies on Creativity, Progressive Motivation and Academic Self-Concept. -121. 2013

Maleki, Bahram. (2005). The Effect of Teaching Cognitive and Metacognitive Strategies on Increasing Learning and Retention, Different Textbooks. New Developments in Cognitive Science, seventh year (3), 42-50.

NiazAzari, Kyomars. (2005). Metacognition in the process of teaching-learning. Tehran: Andisheh.

Öz, H. (2014). The relationship between metacognitive awareness and academic achievement among English as a foreign language teacher. In J.

Öz, H. (2015). Investigating pre-service English teachers' metacognitive awareness. In H. Öz (Ed.), *Language and communication research*

Öz, H. (2016). Role of the ideal L2 self in predicting willingness to communicate of EFL students. In . Hakk Mirici,. Hakk Erten, H. Öz,

Özsoy, G., & Günindi, Y. (2011). Prospective preschool teachers' metacognitive awareness. *Elementary Education Online, 10* (2), 230-440.

Pintrich, P.R, & Schunk, D.H. (2002). *Motivation in education: Theory, research and application.* Upper Saddle River, NJ: Pearson Education.

Pirkhaefi, Alireza, Borjali, Ahmad, Delaware, Ali; and Eskandari, Hossein. (2009). The Effect of Creativity Training on Metacognitive Components of Students' Creative Thinking. Quarterly Journal of Educational Management and Leading Islamic Azad University, Garmsar Branch, 3 (2): 61-51.

Plonsky, L. (2011). The effectiveness of second language strategy instruction: A metaanalysis. *Language learning*, *61*(4), 993-1038.

Raoofi, S., Chan, S. H., Mukundan, J., & Rashid, S. M. (2014). Metacognition and second/foreign language learning. *English Language*

Sak, U. And Ozge, O. (2010). The Effectiveness of the Creative Reversal Act (CREACT) on Student Creative Thinking (Ej872590). Thinking Skills and Creativity, 5(1), 33-39

Schleifer, L. F. & Dull, R, B. (2009). "Meta Cognition and Performance in the Accounting Classroom. Issues in Accounting Education, 24(3): 339-367.

Sikhwari, T. D. (2014). A study of the relationship between motivation, self-concept and academic achievement of students at a University in *Social Sciences and Education, 3*(4), 1013-1026.

Steinmay, R. & Spinath, B. (2009). The Importance of Motivation as a Predictor of School Achievement. Learning and Individual Differences, 19, 80-90.

Strobel, K. R. (2012). *Academic motivation and school engagement and their links to academic achievement: A follow up report*. Paper prepared students. *Procedia-Social and Behavioral Sciences*, *15*, 399-402.

Sun, L. (2013). The Effect of Meta-Cognitive Learning Strategies on English Learning. *Theory and Practice in Language Studies*, *3*(11), 2004-

Safari, Yahya; Marzoughi, Rahmatollah. (2012). Comparative Study of Metacognitive Knowledge Dimensions of Students in the Middle School. Educational innovations 42. 119.

Sanagoo, Akram; (2017) The Effectiveness of Metacognition Strategies Training on Metacognitive Knowledge and Academic Performance of Students.

Toughanipour, Saleh (2012). Investigating the Factors Affecting Students' Educational Motivation. Master's thesis. Al-Zahra University.

Tabachnick, B. G., & Fidell, L. S. (2013) 6th ed. *Using multivariate statistics*.

Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senècal, C., & Vallières, E. F. (1992). The academic motivation scale: A measure of

Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senècal, C., & Vallières, E. F. (1993). On the assessment of intrinsic, extrinsic and

Wenden, A. (1999). An introduction to metacognitive knowledge and beliefs in language learning: Beyond the basics [Special Issue]. *System, 27,*

Wenden, A. L. (1998). Metacognitive knowledge and language learning. *Applied linguistics, 19*(4), 515-537.

Zenotz, V. (2012). Awareness development for online reading. *Language Awareness, 21*(1-2), 85-100.

Innovative Behaviour in Teaching and Teachers' Job Satisfaction

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Abstract

This paper presents the results of a research on the impact of perceived innovative work behaviour in teaching and perceived educational competency for innovative teaching on teachers' job satisfaction. The participants were 160 teachers from 16 primary and secondary schools in Bucharest, Romania. Three separate instruments were used to collect data. The results indicate that the relationship between perceived innovative work behaviour in teaching and teachers' job satisfaction (globally and with two of its dimensions) is moderated by perceived educational competency for innovative teaching. If teachers perceive themselves as innovative and competent in doing innovations, they will be more satisfied with the leadership and interpersonal relationships and with organization-communication at their workplace (but not with payment and promotion). Findings from this study may be incorporated into teacher training courses to help teachers develop their innovative work behaviour in teaching (PIWBT) and their educational competency for innovative teaching (PECIT).

Keywords: Teachers' work satisfaction; perceived innovative work behaviour in teaching; perceived educational competency for innovative teaching; innovation-related pedagogy

Introduction

Currently, it is often recognized that education (and particularly, schools) need creativity and innovation in order to adapt to the ever changing needs of the society's members (Leong & Rasli, 2013; Neagu, 2009), such adaptation being, in its turn, associated with the proper functioning of the system and consequently with the satisfaction of the main actors of the educational environment (teachers and students).
The issue of innovation in education is very important to Romania, where it is admitted that, beginning with the'90s, the educational system has become one of the systems with the most frequent changes at all levels of itsdimensions (Neagu, 2009). The teachers' satisfaction is equally important because, considering the frequentchanges of the norms and regulations in the educational system, serious fluctuations may occur at the level of all or just some of its dimensions.

The present research is built on the literature on innovation-related pedagogy, teachers' innovative work behaviour, innovation competency, and teachers' job satisfaction.

The concepts of teachers' innovative work behaviour and innovation competency are approached in terms of perceived innovative work behaviour in teaching (PIWBT) and perceived educational competency for innovative teaching (PECIT). This approach is justified by methodological requirements (measurements) and by theoretical reasons, namely intention to integrate them in the Job Demands-Resources (JD-R) model (Xanthopoulou,

Bakker, Demerouti, & Schaufeli, 2007) and in the Hobfoll's Conservation of Resources theory (COR) (Hobfoll, 2001). In accordance with the suggestions offered by the specialised literature, teachers' job/work satisfaction was approached in terms of Teachers' general work satisfaction (TWSG) with three dimensions: Teachers' satisfaction with payment and promotion (TWSPP), Teachers' satisfaction with leadership and interpersonal relationships (TWSLR), Teachers' satisfaction with organization-communication (TWSOC).

Background of the study

Defining the concept of innovative teaching is still under revision, but it is signalled as a convergence point as it "refers to the use of new and diversified ideas, methods or strategies and activities by teachers" (Zhu, Wang, Cai, & Engels, 2013, p.6).

Innovation is often approached in relation with Innovative Work Behaviour. Most of the researches adopt the definitions of innovative work behaviour of employees promoted by West and Farr (1989), Scott and Bruce (1994) or those of Janssen (2000, 2003). This is also valid for Innovative Work Behaviour in the teachers' activity.

Thurlings, Evers, and Vermeulen (2015), who conducted an analysis of the studies available in the international data bases in the period January 1990 and April 2013 on innovative work behaviour of teachers, mention that, among these, "more than one third (…) followed the definition of innovative behaviour described by Janssen (2003)" (p.11) that "described innovative behaviour as a three-stage process: (a) intentional idea generation, (b) idea promotion, and (c) idea realisation, within a work role, working group or organization, in order to benefit role performance, the group or the organisation" (pp.11-12).

In relation with innovation and with innovative work behaviour, specialists introduced the concept of Innovation Competency.

In literature, teachers' competency for innovative teaching is considered "a key factor influencing innovative teaching performance" (Zhu, et al., 2013, p.5) and "one of the key conditions for meaningful, successful change of educational practices" (Zuljan & Vogrinc, 2010, p.467), but it is also admitted the fact that this is not clearly defined with an explicit application to the educational domain. One of the vulnerabilities of operationalising this concept regarding teachers is that Innovation Competency was more frequently approached with regard to students than with teachers (Kopelyan, Godonoga, Güney, & Yasmin, 2016). For example, the Innovation Competency Development (INCODE) Project (Watts, Aznar-Mas, Penttilä, Kairisto-Mertanen, Stange, & Helker, 2013), funded by the EU in 2013, which addressed the issues of development and assessment of innovation competency acquisition has built and validated an instrument (The *INCODE Barometer)* to measure this competency with pupils. This instrument was less used to measure innovation competency with teachers. For instance, Kopelyan and colleagues (2016), in an paper presenting an Erasmus Mundus Master programme in Research and Innovation in Higher Education (MaRIHE), compared teachers' and students' self-assessment of innovation-related competences by using the same instrument, *INCODE Barometer,* respectively. They notice that "teachers' perceptions of facilitating innovation-related competences and learners' perceptions of acquiring them are generally favourable and complement each other" (p.554).

Zhu and his colleagues (2013) conducted a study aiming "to investigate teachers' core competencies in relation to their innovative teaching performance" (p.2). The authors considered four core competencies that are important for innovative teaching: learning competency, social competency, educational competency and technological competency (p.3). They define educational competency of an innovative teacher by being capable to "guide students' learning innovatively based on innovative teaching and learning principles" (p.5).

Locke (l976) defined job satisfaction as a "pleasurable or positive emotional state resulting from an appraisal of one's job or job experiences" (p. 1300), and later, Spector (1997) sustained that job satisfaction reflects "how

people feel about their jobs and different aspects of their jobs. It is the extent to which people like or dislike their jobs" (p. 2).

Although it is said that "teachers' satisfaction certainly supports and contributes to a positive teaching and learning environment" (Caprara, Barbaranelli, Steca, & Malone, 2006, p.476), it is admitted that job satisfaction has not yet been defined with exact reference to the educational domain.

Astrauskaite, Vaitkevicius, & Perminas (2011) quote a number of authors who believe that teachers are a "specific sample of employees, who have different operating conditions and experience higher levels of work related stress in comparison with typical organizations' employees" (p.42) and that "some of the Job Satisfaction Survey's facets do not correspond to teachers' job satisfaction dimensions well" (p.43). Based on these considerations, the authors conducted a survey in 2008 with the purpose of exploring, at the level of teachers in Lithuania, "JSS primary model's adequacy to the secondary school teachers' sample" (p.43).

To the knowledge of the authors of the present study, there are no available researches that explicitly approach the relationship between PIWBT, PECIT and teachers' job satisfaction. There is, however, researches that tackles these constructs in a 'two by two' manner, but without providing clear data on the direction of these relations.

Caprara and colleagues (2006), examined (among over 2000 teachers in 75 Italian junior high schools) teacher's self-efficacy beliefs (PECIT can be included in this category "as determinants of their job satisfaction and students' academic achievement" (p.474) considering "teachers' satisfaction is most likely to derive from their sense of competence" (p.476).

Thurlings and co-authors (2015), in their systematic review intending "to reveal which factors affect innovative behaviour of teachers in their work and to analyse which effects can be attained through such behaviour" (p.1) have identified three main categories of factors that influence innovative work behaviour: demographic, individual, and organisational (p.10). As individual factors the following are listed: personality, traits, and competence. In the "Trait" category, the following are included: attitudes and beliefs, work beliefs, teacher beliefs, educational beliefs, teacher efficacy, job satisfaction (pp.16-18). Authors conclude that attitudes and beliefs are the most investigated subcategory, but they also mention the study conducted in 2011 by Messmann and Mulder, which showed that "teachers identified job satisfaction as a trigger for innovative behaviour" (p.20). In the analysed studies, the authors identified only four articles focused on the effects of innovative behaviour. Only one of the articles (Janssen, 2003) included an effect linked to the teachers' job satisfaction level (satisfaction with co-worker relations) (p.30). The Janssen's (2003) study can be understood as a suggestion to look at teachers' job satisfaction (at least through one of its facets) as an effect of innovative work behaviour in teaching. Similarly, a study presented by Zuljan and Vogrinc (2010) sought to identify the correlations between the teachers and headmasters' "attitudes towards innovating and changing their own teaching practice and the degree of their job satisfaction" (p.460). The authors suggest (without trying to prove) possible influences from the former on teachers' job satisfaction.

As it can be noticed, some studies approached teachers' job satisfaction as a determinant of innovative work behaviour in teaching. No study (to our knowledge) has focused (although suggestions have been made) on innovative work behaviour in teaching as determinant of teachers' job satisfaction and even less so, on the mediator-moderator role of PECIT in the relationship between them.

In our study, we addressed this gap in the literature and examined teachers' work satisfaction (aspect that relates both to school and teacher) as an effect of PIWBT and PECIT that can be interpreted as personal resources in the understanding of this concept in the way it is used in the JD-R model and in Hobfoll's COR theory.

On the basis of the previous opinions, we hypothesized:

Hypothesis 1: TWSG (TWSPP, TWSLR and TWSOC) will be positively related to teachers' perceived innovative work behaviour in teaching and to the perceived educational competency for innovative teaching.

Hypothesis 2: The relationship between PIWBT and TWSG (TWSPP, TWSLR, and TWSOC) will be moderated by PECIT. Compared to teachers with low PECIT, those with high PECIT will show a stronger relationship between PIWBT and TWSG (TWSPP, TWSLR, and TWSOC).

1. The purpose of the study

The main objective of this research was to investigate the Romanian Teachers' perceptions about their innovative behaviour in teaching and about their innovative teaching competency and the effect they have on their job satisfaction.

2. Method

4.1 Participants

The participants in this study were 160 primary and secondary school teachers, who had completed an ICT based course for professional development at one of the training centres (Romanian Institute of Psychology) in Bucharest, Romania. The participants' age ranged from 20 to 60 years old (M= 40.40, SD= 9.14). The sample showed a considerable bias toward female participants, with 136 (85%) female and only 24 (15%) male. Average teachers' work experience was 15.99 (SD=9.02) years, ranged from 1 to 39 years. According to the educational level at which teachers work, there were 21.9 % middle school teachers (Gymnasium level); 33,1% high school teachers (General and Vocational High School); 11.3% - both middle school and high school teachers; and 33.8% - elementary school teachers.

4.2 Instruments

In order to collect the research data, a battery of questionnaires was used. The battery comprised: 1. A demographic questionnaire consisting of several questions about participants' gender, age, tenure (length of service), and school level were the teachers were teaching; 2. The Work Satisfaction Questionnaire (WSQ) (Constantin, 2004); 3. Perceived Innovative Work Behaviour in Teaching Scale (PIWBTS); 4. Perceived Educational Competency for Innovative Teaching Scale (PECITS).

Teachers' work satisfaction was assessed with the Work Satisfaction Questionnaire (WSQ) (Constantin, 2004). The Questionnaire is a 32 item self-report instrument with three subscales: satisfaction with payment and promotion, satisfaction with leadership and interpersonal relationships, satisfaction with organisation-communication.

Although the questionnaire items refer to different general aspects of the work or work environment, teachers were instructed to treat the items in a customized manner, as referring to the work or work environment specific of the school where they are teaching. This allows the authors of the study to use as denominations of subscales of the questionnaire those of: Teachers' satisfaction with payment and promotion (TWSPP), Teachers' satisfaction with leadership and interpersonal relationships (TWSLR), Teachers' satisfaction with organization-communication (TWSOC) (example of items: "I am satisfied with the compensation and promotions I get"; "I am satisfied with my co-workers and superiors"; 'I am satisfied with the organization and communication at work"). All items were rated on a 5-point scale (from 1 = *extremely dissatisfied, to* 5 = *extremely satisfied).* Sum scores were calculated for each subscale and a general score of satisfaction was computed. Higher scores indicate higher job/work satisfaction.

Perceived innovative work behaviour in teaching (PIWBT) was assessed with a scale consisting of 12 items, such as:"In my class, I use insights from lectures and professional development courses for changing the pre-set teaching content, methods, techniques or instruments").

The scale was created based on existing questionnaires used in other researches (*The Innovative Work Behaviour Scale*/IWB, Scott and Bruce, 1994 and Janssen, 2000; *The Innovative Teaching Performance Scales*, Zhu, et al., 2013; *The questionnaire of teaching innovation*, Lee, 2011; *Teacher-level indicators* from *Teaching and Learning International Survey*/TALIS, Vieluf, Kunter, & van de Vijver, 2013).

Following the procedure used in other researches (Vieluf, Kunter, & van de Vijver, 2013, p.95), participants were asked to indicate the frequency with which they use in their daily activities (classes), in an innovative way (in the sense of generating, implementing and realizing innovations), the teaching content, methods and resources specific of their discipline.

Items were rated on a five point Likert scale, from: 1= very rarely; 2= rarely; 3 = moderately/adequately; 4 = frequently; and 5 = in almost every lesson. Higher scores indicate more frequent use of the specified innovative practices.

Perceived Educational Competency for Innovative Teaching was assessed with a scale consisting of 10 items drawn from existing instruments: *Core Competencies for Innovative Teaching*/CCIT scale (Zhu, et al., 2013); *Teacher self-efficacy scale* from the OECD *Teaching and Learning International Survey*/TALIS (Vieluf et al., 2013); *The Innovation Competence Barometer*/INCODE Barometer (Watts et al., 2013). The items are a series of statements about teachers' perceptions of their ability to innovate contents, methods and resources for teaching (e.g., "I am capable of mobilizing students' innovative learning"). Items were scored on a Likert five-point scale, ranging from (1) *absolutely wrong* to (5) *absolutely right*.

Research procedure

The data collection process started in February 2015 and was completed in March 2015. Teachers, who had completed an ICT based course for their professional development between October 2014 and April, 2015 at one of the training centres (*Romanian Institute of Psychology*) in Bucharest, Romania, were invited to take part in our study. They were informed about the research's goals and data confidentiality and it was brought to their attention that their participation to this study is a benevolent one. The survey was administered in small groups of 10–20 teachers. Researchers were present during the administration process providing supplementary explanations where needed.

Data analysis

All statistical analyses were carried out using the SPSS statistical computer package, Version 10.

Initially, we examined patterns of missing data for each of our study variables. Next, responses to the items measuring TWSG (TWSPP, TWSLR and TWSOC), PIWBT, and PECIT, were factors analysed and internal consistency within subscales was measured using Cronbach's α coefficients. The next step was to conduct descriptive analyses and to ascertain the extent of non-normality in the distributions for the scales' items. Correlation analysis was used to highlight the relationship between teachers' TWSG (TWSPP, TWSLR and TWSOC), PIWBT and PECIT. In a final step, we ran a set of moderated hierarchical regression analyses to test the main effects and interaction terms of PIWBT and PECIT in predicting teachers' TWSG (TWSPP, TWSLR and TWSOC).

Results

Preliminary analyses with the diagnoses for normality of distributions showed that the scores were normally distributed, with skewness and kurtosis values within acceptable values of ± 2.0. Table 1 indicates central tendencies of our variables (Cronbach's alphas coefficients, means, standard deviations, skewness and kurtosis). Among the job satisfaction subscales, TWSLR had the highest value at 3.91 and TWSPP had the lowest, at 2.60.

PIWBT's and PECIT's scores are above 3.00, but below 4.00, indicating that scores of these variables tended to be more positive, without however being very high.

Table 1. *Descriptive Statistics for Key Variables in the Study*

	Cronbach's α	No. of items	Mean	Std. Deviation	Skewness		Kurtosis	
						Std. Error		Std. Error
TWSPP	.66	14	2.60	.499	-.248	.192	.009	.381
TWSLR	.62	8	3.91	.562	-.401	.192	-.031	.381
TWSOC	.61	10	3.78	.485	-.201	.192	-.594	.381
TWSG	.65	32	3.43	.397	-.059	.192	.072	.381
PIWBT	.87	12	3.93	.617	-.181	.192	-.962	.381
PECIT	.84	10	3.84	.399	-.356	.192	.186	.381

Note: N= 160; TWSPP =Teachers' satisfaction with payment and promotion; TWSLR= Teachers' satisfaction with leadership and interpersonal relationships; TWSOC =Teachers' satisfaction with organization-communication; TWSG= Teachers' general work satisfaction; PIWBT = Perceived innovative work behaviour in teaching; PECIT=Perceived educational competency for innovative teaching.

Correlations between the measured variables are shown in table 2. These correlations partially confirm H1: there is a linear positive relation between PIWBT, PECIT, TWSG, TWSLR, and TWSOC. PIWBT and PECIT do not correlate with TWSPP.

Table 2. *Correlations for study variables*

	1	2	3	4	5	6	7	8	9	10
1.Age	1									
2.Gender	.11	1								
3.Tenure	.75**	.16*	1							
4.School level	.09	-.07	-.11	1						
5.TWSPP	.06	-.11	-.06	.06	1					
6.TWSLR	-.05	.05	-.02	-.09	.29**	1				
7.TWSOC	-.02	.17*	.08	-.16*	.10	.74**	1			
8. TWSG	-.03	.05	.01	-.06	.599**	.89**	.79**	1		
9.PIWBT	.06	.12	.07	-.05	.02	.22**	.32**	.24**	1	
10.PECIT	.20*	.08	.27**	-.16*	-.08	.39**	.49**	.35**	.42**	1

*$p \square \square.05$; **$p \square \square.01$ (2-tailed)

Note: N= 160; Gender was coded 1 for male and 2 for female; School level was coded 1 for primary and 2 for secondary schools. TWSPP =Teachers' satisfaction with payment and promotion; TWSLR= Teachers' satisfaction with leadership and interpersonal relationships; TWSOC =Teachers' satisfaction with organization-communication; TWSG= Teachers' general work satisfaction; PIWBT = Perceived innovative work behaviour in teaching; PECIT=Perceived educational competency for innovative teaching.

Hypothesis 2 stated that the relationship between PIWBT and TWSG (TWSPP, TWSLR, and TWSOC) will be moderated by PECIT. Compared to teachers with low PECIT, those with high PECIT will show a stronger relationship between PIWBT and TWSG (TWSPP, TWSLR, and TWSOC).

The hypothesis was tested with four moderated hierarchical regression analyses by regressing TWSG (TWSPP, TWSLR and TWSOC) on independent variables (PIWBT and PECIT) in four successive steps.

Before running the four regression analyses, as recommended by Cohen, Cohen, West, & Aiken (2003), we checked that: 1. PIWBT have a significant statistical impact on TWSG (TWSPP, TWSLR and TWSOC) and 2. PIWBT (antecedent) have a positive impact on PECIT (moderator).

Regression analysis with PIWBT (antecedent) as an independent variable and PECIT (moderator) as a dependent variable yielded that there is a significant effect of PIWBT on PECIT with: R^2=18%; p<.01, $F_{1, 158}$ =35.084, p<.001, B=.27, SE=.047, t=5.92, p<.001).

Table 3 shows the results of four-stage hierarchical regression analyses. For the impact of PIWBT and PECIT on TWSPP, the data are not shown because PIWBT and PECIT had no significant contribution in explaining its variation.

Results of the first step of each regression analyses showed that control variables did not significantly predict TWSG, TWSPP, TWSLR and TWSOC.

Table 3. *Results of the moderated regression analyses predicting TWSG, TWSLR and TWSOC*

	TWSG				TWSLR				TWSOC			
	1	2	3	4	1	2	3	4	1	2	3	4
Gender	.05	.02	.03	.03	.08	.04	.04	.05	.21	.16	.17	.17
Age	-.02	-.03	-.03	-.03	-.03	-.04	-.04	-.05	-.09	-.09	-.01	-.01
Tenure	.01	.01	-.02	-.03	.00	.00	-.06	-.06	.01	.09	.04	.03
Level	-.04	-.04	-.05	-.02	-.09	-.08	-.03	-.05	-.07	-.06	-.01	-.03
PIWBT		.16***	.07[ns]	.07[ns]		.20***	.05[ns]	.05[ns]		.24***	.10[ns]	.09[ns]
PECIT			.33***	.29***			.57***	.52***			.54***	.50***
PIWBT x PECIT	x			-.39*				-.56*				-.41*
	)[ns]		9	2		)5[ns]	3			6		22	3
	155	154	53	2	5	154	53	2	55	159	3	2
	3	5	8				1			**.5**		
			*	***			2***				***	

*n = 160, *p < .05, **p < .01, ***p<.001*

Note: N= 160; TWSPP =Teachers' satisfaction with payment and promotion; TWSLR= Teachers' satisfaction with leadership and interpersonal relationships; TWSOC =Teachers' satisfaction with organization-communication; TWSG= Teachers' general work satisfaction; PIWBT = Perceived innovative work behaviour in teaching; PECIT=Perceived educational competency for innovative teaching.

Results of Step 2 of each regression analyses showed that PIWBT had a statistically significant effect on: TWSG, TWSLR and TWSOC in expected directions. After controlling for socio-demographics, PIWBT produced an increased total variance explanation (see R^2 in table 3) for TWSG, TWSLR and TWSOC. Similarly, PIWBT explained an additional (see ΔR in table 3) 6% of variance in TWSG, 5% of variance in TWSLR and 9% of variance in TWSOC.

Results of Step 3 of each regression analysis showed that PECIT had a statistically significant effect on: TWSG, TWSLR and TWSOC. When PECIT entered the equation in Model 3, we found that the impact of PIWBT on TWSG, on TWSLR and on TWSOC was decreased and became non-significant, but the total variance explanation (R^2) was increased and also PECIT explained additional ($ΔR^2$) 8.1% of variance in TWSG, 12.2 % of variance in TWSLR, and 14.6% of variance in TWSOC.

When interaction term PIWBT x PECIT entered the equation in Model 4, we found that the impact of PECIT on TWSG (just as on TWSLR and on TWSOC) decreased but remained statistically significant, and the total variance explanation (R^2) increased significantly. When introduced in Step 4, interaction terms, the model additionally explained ($ΔR^2$) 2.9% of variance in TWSG, 3% of variance in TWSLR, 2.2 % of variance in TWSOC.

To be sure of the mediating effect of PECIT, we repeated the regression analyses, but entered the variables PIWBT and PECIT in the opposite order: first PECIT and then PIWBT. This procedure showed that PIWBT does not mediate the relationship between PECIT and TWSG, TWSOC or TWSLR.

The significant association between PIWBT and TWSG (TWSLR, TWSOC) disappeared in the presence of PECIT indicating a total mediation. The significant association between PECIT and TWSG, TWSLR and TWSOC was reduced when interaction term PIWBT x PECIT entered the equation in Model 4, providing support for our second study hypothesis. These results partially confirm the second hypothesis of the study in the sense that TWSPP is not influenced by PIWBT, nor by PECIT.

Discussion

The specific aim of this study was to investigate the effect that the Romanian teachers' perceptions about their innovative behaviour in teaching, and about their innovative teaching competency may have on their job satisfaction.

Results suggest that, if teachers perceive themselves as innovative and competent in doing innovations, they will be more satisfied with the leadership and interpersonal relationships and with organization-communication at their workplace, but not with payment and promotion.

The relation between PIWBT and PECIT can be compared with the relation between PIWBT and Teachers' Self-efficacy, which, in other studies was found as positive (Messmann, Mulder, & Gruber, 2010). Also, the influence of PECIT on job satisfaction is similar to the influence of teachers' self-efficacy beliefs on their job satisfaction reported by other studies (Caprara et al., 2006).

The PIWBT's positive influence on teachers' satisfaction with leadership and interpersonal relationships may seem a contradictory result, compared to the results reported by Janssen (2003) regarding the negative impact of the innovative behaviour and job involvement on the teachers' satisfaction with co-worker relations. Supplementary investigation is needed to see if the difference from Jansen's study (2003) comes from the difference between satisfaction with co-worker relations (measured by Jansen, 2003) and the satisfaction with leadership and interpersonal relationships (measured in this study) or from the difference between the two associated concepts of PIWBT: job involvement in Jansen's study (2003) and PECIT in this study.

Study limitations

One of the study's conceptual limitations may come from the way of defining the concepts of TWS, PIWBT and PECIT.

Among the study's methodological limitations mention should be made of: a) the sample size; b) the fact that the sample was from a relatively small geographic area (Bucharest, Romania); c) the fact that only self-report instruments were used, and d) the fact that just one moderator of the PIWBT relation with TWS, PECIT, respectively, was studied.

The findings of this study have several practical implications. First, the findings suggest that by increasing the PECIT and encouraging the PIWBT, a growth of the TWSLR and TWSOC and, consequently, TWSG (even if not of the TWSPP) can occur. Therefore, educational managers who wish to support/develop teachers' work satisfaction must focus not only on job design but also on the job resources, especially on some teachers' personal resources as PIWBT and PECIT. Findings from this study may be incorporated into the teachers' initial and continuous training programmes.

If specific instruction for innovation becomes an integral part of the teachers' training programmes and if teachers are encouraged to develop an innovative work behaviour in their practice and to evaluate their own

innovation competency, it is expected that, besides the well-known effect of PIWBT and PECIT on performance in teaching, teachers' satisfaction with leadership and interpersonal relationships and with organization-communication will grow.

Conclusion

This study provides evidence that perceived innovative work behaviour in teaching and perceived educational competency for innovative teaching have a positive effect on teachers' job satisfaction (globally and with two of its dimensions, TWSLR and TWSOC).

The findings suggest that if educational organizations focus on PIWBT and PECIT (as personal resources, including resources for change and innovation), the probability teachers are more satisfied with TWSLR and TWSOC will increase.

This is the more important in communities where the financial situation does not allow for an increase in payment and for more diverse promotion opportunities. Supporting the other two dimensions important for teachers' work satisfaction (TWSLR and TWSOC), by stimulating PIWBT and PECIT, can have positive effects on and can increase work quality in the educational field.

References

Astrauskaite, M., Vaitkevicius, R., & Perminas, A. (2011). Job satisfaction survey: A confirmatory factor analysis based on secondary school teachers' sample. *International Journal of Business and Management*, *6*(5), 41 -50

Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of school psychology*, *44*(6), 473-490.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple correlation/regression analysis for the behavioral sciences. *UK: Taylor & Francis.*

Constantin, T. (2004). Evaluarea psihologica a personalului. Iasi: Polirom

Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory. *Applied Psychology*, *50*(3), 337-421.

Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and organizational psychology*, *73*(3), 287-302.

Janssen, O. (2003). Innovative behaviour and job involvement at the price of conflict and less satisfactory relations with co-workers. *Journal of occupational and organizational psychology*, *76*(3), 347-364.

Kopelyan, S., Godonoga, A., Güney, I., & Yasmin, N. (2016). Assessing innovation-related competences in the MaRIHE program: Teacher and student perceptions. *Procedia-Social and Behavioral Sciences*, *228*, 553-560.

Lee, Y. J. (2011). A study on the effect of teaching innovation on learning effectiveness with learning satisfaction as a mediator. *World Transactions on Engineering and Technology Education, UICEE*, *9(2),* 92-101.

Leong, C. T., & Rasli, A. (2013). Differences in Innovative Work Behaviour and Everyday Work Role Performance of Employees: An Empirical Investigation. *American Journal of Economics*, 3(5C), 94-99.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp.1297-1343). Chicago: Rand McNally.

Messmann, G., Mulder, R. H., & Gruber, H. (2010). Relations between vocational teachers' characteristics of professionalism and their innovative work behaviour. *Empirical research in vocational education and training*, *2*(1), 21-40.

Neagu, G. (2009). Inovaţia în învăţământ. *Calitatea vieţii*, *(1-2),* 110-121.

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of management journal*, *37*(3), 580-607.

Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences* (Vol. 3). London: Sage publications.

Thurlings, M., Evers, A. T., & Vermeulen, M. (2015). Toward a Model of Explaining Teachers' Innovative Behaviour A Literature Review. *Review of Educational Research*, *85*(3), 430-471.

Vieluf, S., Kunter, M., & van de Vijver, F. J. (2013). Teacher self-efficacy in cross-national perspective. *Teaching and Teacher Education*, *35*, 92-103.

Watts, F., Aznar-Mas, L. E., Penttilä, T., Kairisto-Mertanen, L., Stange, C., & Helker, H. (2013, March). Innovation Competency Development and Assessment in Higher Education. In *Proceedings of INTED2013 Conference* (pp. 4-6).

West, M. A., & Farr, J. L. (1989). Innovation at work: Psychological perspectives. *Social Behavior*, *4*, 15–30.

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International journal of stress management*, *14(2),* 121 – 141.

Zhu, C., Wang, D, Cai, Y. H., & Engels, N. (2013). What core competencies are related to teachers' innovative teaching? *Asia-Pacific Journal of Teacher Education*, 41(1), 9-27: http://dx.doi.org/10.1080/1359866X.2012.753984 Core competences related to innovative teaching CZ_APJTE.

Zuljan, M., & Vogrinc, J. (2010). The Factors of Encouraging Teacher Innovation from the Perspective of Teachers and Headmasters. In M. Zuljan & J. Vogrinc (Eds). *Facilitating Effective Student Learning through Teacher Research and Innovation* (pp. 455 – 469). Ljubljana: Littera picta d.o.o. http://www.pef.uni-lj.si/ceps/knjiznica/doc/zuljan-vogrinc.pdf   , https://www.researchgate.net/profile/Milena_Zuljan/publications.

Records of an Early Defibrillator in a Folk Ballad Research

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Abstract

This study introduces documents and an equipment in the history of physiology and physics discovered in a folklore ballad research. Methodology comprised of descriptive and historical comprehensive ethnography, field studies, resource research at archives and libraries, text analyses.mThe ballad originates in a true story of a 19th century robbery murder, the victims were two Western Hungarian (now Burgenland, Austria) women. The story has subsisted not only in oral history, but in pulp fiction and contemporary national and regional press as well. It is also a curiosity for the history of medicine, as a medical experiment was performed on the executed murderer in the hospital of Győr (Hungary), on 14th April, 1880, with an early defibrillator of Ányos Jedlik Benedictine monk, teacher of physicist and inventor. As the murderer was resuscitated after the hanging, the story had an international response. Two days later in Vienna Theodor Billroth, Austrian professor of medicine convened an extraordinary consultation of this 'resurrection' case. In this research, records have been found on electrical resuscitation trials in Hungary, before the invention of defibrillators. Jedlik's resuscitation device is also presented in this study, as an important case in the medical history of defibrillation. The story can be used in the training and motivation enhancement of resuscitation and first aid.

Keywords: Research of Ballads, History of Medicine, Defibrillator

Introduction

Here documents and equipment of physics and medicine history are presented, that had been discovered in the research of a Hungarian murder ballad. The true story and its ballad presentations are connected to a 19th century robbery murder, the victims were two women. One of the two murderers, János Takács[1] was subject of a medical experiment after his execution (14th April, 1880), with a resuscitation result.
The ballad's text is the following[2]:

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[1] Internationalization, initiatives to establish a new source of researchers and graduates, and development of knowledge and technological transfer as instruments of intelligent specializations at Szechenyi University EFOP-3.6.1-16-2016-00017.
Documents confirmed that Pál Gede (Göde), the other murderer was died in tuberculosis in prison, waiting for hangover.
[2] The ballad was collected by Kálmán Polgár in Pér, Hungary, 1996. Its variants were found in Béla Vikár's folk music collection (book: Sebő, 2006, p.91.; DVD: Sebő, 2009, 20/166., 01/168.). A ballad variant was also found in the Rómer Flóris Museum, Győr, collected in Mecsér, 1970. XJM. NH. 60. 71.

Tudjátok-ë, Pér-Táplán közt mi történt?
Két pándorfi asszonyokat mëgölték.
Ezëk voltak: Takács János, Gede Pál,
Mëgszenvednek érte ja za akasztófán.
Takács Jánost fölkötötték, de meg is halt,
Göde Palit is felhuzták, az odasz..t.
Hanem azér mindegy volt a sz..ása,
Így is, ugy is megmentődött halála."
(in Hungarian)

Do you know,
what has happened between Pér and Táplán?
Two women from Pandorf have been murdered.
The murderers were János Takács, Pál Gede,
Suffered from it on the gallows.
János Takács was hanged up, but died,
Pali Göde was pulled up, too, but had a sh..t.
However, his sh..t did not matter,
This or that way his death was saved.
(rough translation)

The Documents of the 'Resuscitation'

The story of the murder was not only treasured in various arts of unwritten (oral) history, but has been found in pulp fiction[3] in the Széchényi National Library (OSZK), Hungary. It was published in Debrecen by an unknown author, who summarized the story in two strophes:

'Csuda esett Győr városba', nagy csuda:
Takács Jánost vitték szörnyű halálra.
Kötelet is tettek már a nyakára,
Azt hitte már mindenki, hogy meghala.
Felboncolták volna már a holttestét,
De az élet nem hagyta el még szívét.
Lassan-lassan magához tért, fölébredt:
Ez az eset Győr városban megesett.'
(in Hungarian)
Miracle happened in the town of Győr, big miracle:
János Takács was brought to terrible death.
The rope was put on his neck,
All they thought he was dead.
His corpse was waiting for dissection,
But life did not leave his heart.
Slowly, slowly he came round, became awake:
This case happened in Győr town.

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[3]'Takács János A peéri rablógyilkos felakasztása és feltámadása. Igaz történet, amely az 1880-ik esztendő Április 14-kén Győrben megtörtént.' (The hanging and resuscination of János Takács, the robbery murderer of Pér. True story, that happened in Győr, 14th April, year 1880.) Debreceni Városi Nyomda, 1880. (OSZK, 392, (74/133)., Detailed description: Lanczendorfer, 2009a, p.p.111-128.

(rough translation

The pulp fiction (Figure 1) informs us that 'Doctors, jurists negotiated through night not only in Győr, but in Budapest, where the message about the resuscitation of János Takács arrived in the course of that day.' It also reports that János Takács was transported from the autopsy room to the hospital, where he got nursing, because after his revival he got hysterics and attacked the nurses. 'Around the autopsy table there were thirty people who were frightened after experiencing the stronger and stronger breathe.'[4] The pulp fiction calms the reader in the end, that he was not executed again because he died after 24 hours in terrible throes.

This medical sensation was also found in the Győr Archives of Győr-Moson-Sopron County[5], in the prison file of János Takács. Here we can read that he was arrested on 2nd of December, 1878 and legally sentenced to death penalty via hanging, which was performed 8 o'clock a.m. on April 14th, 1880. Among the prison files a statement was found (dated 1880, without signature) describing the circumstances of the hanging and the resuscitation in details: the coroner was called *Sikor*, who stated death five minutes after the hanging, and again after the next three minutes. After ten minutes of hanging the 'corpse' was transported to hospital in 'fast trot'. Lifting from the coach signs of breathing were shown, which was 'enhanced by the application of electricity'. Next day (15th) at 4 a.m. he was absolutely conscious and drank water. At 7 a.m. he started to convulse and died at 7.10 a.m. of 'szívszélhűdés'[6].

Dr. Aladár Petz senior consultant and director of hospital has mentioned the case in his book 'Past And Present Of The Győr Free Royal Town Holy Trinity Public Hospital'. According to this book János Takács was transported to the mortuary of the hospital (Figure 3), because Lipót Bierbauer wanted to perform electric experiments on the corpse. In footnote he has mentioned that 'the Rumkorff-equipment used in this fatal experiment is kept in the museum of the St. Benedict Abbey in Pannonhalma[7]' (Petz, 1929, p.p.190-191). He has accounted the cervical lymphomas for the improper hanging and the apparent death, as they had moderated the compressing effect of the rope. The notion, that 'according to the citizens the cause of the awake was the terrible condition of the town road, of which even the dead awakens' intends to be humorous.

In the book *Forensic Medicine* (Kenyeres,[8] 1911) we have found the case. In Volume I we can read about the course of the execution and the verification of death, and about the 'resuscitation': 'Upon arrival of the corpse, the gathered medicals detected signs of life, and informed the royal prosecutor, who turned up in the hospital and stated that T. «breathes like an automat and temporally moves his toes. » The doctors performed resuscitation experiments after 9 a.m., causing the person becoming conscious, but died next day at 7 a.m. with lung oedema symptoms'. Balázs Kenyeres published even the results of the dissection of 16th April:

'on the left side of the neck a goose-egg-size rigid tumour is found between the back cervical vertebra in the back and the left clavicle in the front, in which a $2^1/_2$ centimetre deep section exists, originating in an operation several days before the execution, and from which bloody liquor is leaking. On the right side of the neck under the mandible there is a pigeon-egg-size glandular tumour' (Kenyeres, 1909 p. 437).

Horváth Árpád, local historian of technology, also mentioned this murder story in his book written on Ányos Jedlik, famous Benedictine physicist, entitled *The overdue world-wide fame.* He has written that two women from Parndorf (now Austria) stopped at the Pér Inn and upon leaving for Győr two robbers murdered them for

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[4]OSZK, 392, (74/133). p. 6.
[5]'Takács János börtöntörzskönyve' (prison file of János Takács), and a statement (Figure 2) about the execution and the 'resuscitation'. In: Győr-Moson-Sopron Megye Győri Levéltára. VII. 5. A Győri Kir. törvényszéki fogház iratai. 100-as törzskönyvszám. Further details: Lanczendorfer, 2009b, pp.706-714.
[6] Old Hungarian medical term for various, undefined heart shocks, usually heart attack.
[7]Petz,1929, p.191. Proper spelling: Ruhmkorff-device. Now it is in the Ányos Jedlik Exhibition of the Gergely Czuczor Benedictine Secondary School, Győr.
[8]'Balázs Kenyeres, doctor of medicine, university lecturer, born in 1865, Brassó, graduated at the Budapest university' In: Szinnyey, 1899, p.27.

their money. 'Both of them were executed via hanging in the back yard of the county hall.'[9] In the book there is an interesting argumentation between Ányos Jedlik and his follower Lipót Bierbauer, teacher of physics at the Benedictine Secondary School. Bierbauer informs Jedlik that the next day he is going to apply electricity on the corpses after the execution. 'First by the large magneto-electric machine I am going to drive small voltage current in the corpse, followed by high voltage by the Ruhmkorff-inductor.' (Horváth, 1980, p.200). Jedlik does not support the idea reasoning with the possibility of the resuscitation of the hanged man. By his opinion it does not fit to the clerical profession. Jedlik prohibits to use the machine designed by him for such an experiment. The chapter describes the resuscitation and the revived murderer. He let us know that Franz Joseph I has brought the final verdict, that it is enough to execute someone once. According to this book Jedlik has lifelong fallen out with his former student. Because in the mortuary there was an inductor equipment that time, it was spread as the machine causing the resuscitation. Horváth mentioned that Petz himself had told him that 'the current of Jedlik's machine has shaken the apparent dead to life'. Evaluation of primary documents has proven that dating of the case in 1874 is incorrect, like the other typical misunderstanding, that Jedlik was the performer of this experiment. In fact, Jedlik was absent and protested against the experiment, even his good connection to his student (Bierbauer) declined after the experiment done against Jedlik's will. Petz, director of the hospital remembered that Bierbauer eliminated Jedlik's inventions in his physics textbook, and their argumentation is the partial cause of Jedlik's marginalization among German inventors in the history of physics (Horváth, 1980, p.p.202-203).

The brochure of the Ányos Jedlik Exhibition in the Gergely Czuczor Benedictine Secondary School in the chapter *High voltage technology* we can read: 'In Hungary he demonstrated a medical-purpose inductor on the 1841 Assembly of the Hungarian Doctors and Naturalists. This device shows the beginning of electrotherapy, the medical application of electricity. Later Jedlik improved the spark inductor via the modification of the coils. His thought of the high voltage inductor coil to be composed of tapered proportional coils, was an engineer record of his time. Only the draft picture of his coiling machine has remained. Probably Jedlik has not built his planned device, because in 1871 he could managed to purchase a huge Ruhmkorff-inductor from Paris (Szalóky, 2007, p.12.).

Another appearing of the experiment was found in István Valló's book from 1930, with false details according to primary documents found in this research: 'Here happened the famous 1874 execution, in which the genial Ányos Jedlik teacher of physics performed electrical experiments on the endurer, with such a result that the hanged man turned to consciousness and lived for 24 hours.'[10] The former text could be the source of other mentions with the same inaccurate data. 'In 1874 the Hungarian scientist enchanted his audience in Győr via a morbid experiment. Jedlik restarted the heart of a hanged criminal by an electric device, who stayed alive for another day. His broken gorge stopped him expressing his feelings of the contemporary defibrillator, but at least he could not be the test subject of the electric chair.' (Hegedűs and Szabó, 2008, p.78).

The Story in the Press

In the press of that time records of the story and the following juristic and medical argumentation have appeared. Thus, local (Győri Közlöny, Hazánk), national (Függetlenség, Magyar Themis, Orvosi Hetilap, Pesti Napló, Vasárnapi Újság, Székely Közlöny) and foreign (Neue Freie Presse) reported the case.[11]

The 9th January, 1879 issue of Győri Közlöny (GYK) described the criminal case in details with the title 'The final trial of the robbery murderers of Pér'.[12] On 8th April, 1880 the reader was informed that Ferenc Kozarek hangman from Pest 'was invited for hanging execution' in Győr.[13] In the same issue it was written that János

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[9] According to primary sources only Takács was hanged up: it must be a false information from Horváth. Fig. 4.
[10] Valló, 1930, p.101. The proper date is 1880 and the experiment was done not by Jedlik.
[11] From these only the most important (from our viewpoint) ones are referred.
[12] Győri Közlöny (GYK), 1879. XXIII. (3)
[13] GYK, 1880. XXIV. (29)

Takács had been transported from 'Magyar-Óvár'[14] on Saturday evening. We could find the fact that this hospital had many patients with tubeculosis. In the history of the Karolina Hospital we could read that 'among the pathogens, as the most abundant, tuberculosis is mentioned in the county as '*morbus hungaricus*' (Poór and Thuller, 2010, p.47).

On 15th April 1880 GYK had two pages with news connected to János Takács. [15] It reported that the other murderer 'Pál Gede died in the meanwhile' of '*börtöngörvély*'.[16] The last part specified the 'resuscitation'.
The 22th April issue[17] tells about the extraordinary meeting of the Vienna medical association organized for the Győr case. Theodor Billroth cited similar cases and summarized that the coroner could not been blamed.
Beside of GYK, Hazánk local newspaper handled the case in three articles on 17th April, 1880: 'On the hanging…', 'Sad day…', 'Resuscitation of János Takács…', and the 24th April, 1880 issue: 'Those died twice…'.[18]

In the national press Orvosi Hetilap ('weekly medical news') described the case from a medical point of view, starting with the hanging, and the story of the 'resuscitation' as 'Takács had tumours on his neck letting the respiratory tracks compressed, in contrary the *nervus vagus* could probably be pressed in a limited extent, thus being excitated causing the heart stop; while complete compressing [of the nerve] fastens heartbeats. As Takács was pulled off the gallows, the vagal nerve started to function [normally] without the excitatory compression, heartbeating and respiration returned. However, changes in the lungs and the brain were so, that Takács could not survive.'[19]

The other journal, the Magyar Themis (daily proceedings of the Hungarian jurists) on the 22th April, 1880 issue, under the title of „Those, who die twice', signed by the unknown 'S.S.' ironically referred to Takács as 'judicial dead', who 'was accidentally not immediately dissected' and 'was accidentally used for currenting experiment'. Later referred to several similar cases, e.g. of Stahli doctor from Pest in the 1840's, where, during the dissection of his belly, the hanged murderer sat up. On this, the doctor 'simply pushed him down on the table and went on with his slaughter work'.[20] In another case, after determining his dead state, the hanged got up on his feet, but based on the decision of the consilium, he was hanged again. The article cited Rosenthal, lecturer of the Vienna University, by whom determination of death was unreliable, the possibility of apparent death existed, for that very reason 'trial by electricity' is necessary. This opinion was supported by the respectable Billroth after the Győr case, who referred to several similar case on the extraordinary meeting of the Vienna medical association. It is also written here that the coroner opposed Takács's 'recalling to life'.[21]

Dr. Zoltán Árpád Pák chief veterinary, great-grand child of dr. József Sikor (the coroner of the hanging) was visited and also a correspondence started. He heard the story from his grandmother 55-60 years ago. His great-grand father, as a coroner and senior consultant of the county[22], suffered of being 'dragged through the mine'. He had information of professor Billroth's dispensation of his great-grand father. This is proven by another fact that he was again a coroner on a hanging in 1882 with a doctor called Buzinkai, the hangman was Ferenc Kozarek again.

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[14] now Mosonmagyaróvár
[15]GYK, 1880. XXIV. (31)
[16]Prison scrophulosis: symptom with turgid cervical glandulae; the swollen neck resembles the one of a pig; scrophula (lat.) means little pig (A Pallas nagy lexikona, 1897, Brencsán, 1990, p.441.). This symptom is very often connected by late stages of tuberculosis.
[17]GYK, 1880. XXIV. (33)
[18]Hazánk. 1880. I. (31), 1880. I. (33)
[19]Orvosi Hetilap, 1880. XXIV. (16) pp. 371-372
[20]Magyar Themis, 1880. X. (17) p.133
[21]Magyar Themis, 1880. X. (17) p.134
[22]In the Győr Royal Court's register he is referred as coroner. In: Nagy – Győri Naptár az 1880. szökőévre, (Great Győr Calendar for the 1880 leap year) XXII. p.63

Vasárnapi Ujság (16/1880) also details the episodes following the execution: 'first electric experiments were performed and the apparent dead started to move and rattle.' The author stated that hanging caused drowning, which is described in details. In its opinion 'resuscitation' could be caused by the shaking of the coach, later 'the excitatory effect of the electric current'. In the same issue letter of dr. József Sikor coroner was published, designating the case 'world-famous scandal' about which 'whole Europe talks'.[23] In the mortuary teacher of physics from the secondary school had been waiting, who wanted to study the muscular movements caused by electricity after the cooling of the corpse. He also wrote that he could have killed the hanged by a simple motion upon detecting weak heartbeats, by 'touching the wire of the electric machine to the temporal of the patient', but had not. In his opinion he did not fail, since half an hour after the hanging the same could have happened. 'Resuscitation could be the consequence of the glandular tumours' and that 'the hearse galloping on the bad stones shook the corpse in such an extent, that the smartest applied resuscitation could not have performed it better'.[24]

The highest number of articles (15) was published in *Függetlenség* (=independence, political, economic and social daily newspaper) about 'the Győr miracle'. The author cited the '*Neue F. Presse*' that the corpse was so early (6 min.) removed from the gallows in order to serve it to the hospital director in warm conditions for the experiment. According to another citation Lipót Bierbauer Benedictine priest performed an electric experiment on the corpse: 'upon the electrical touch the hanged started to rattle and move. All were horrified.'[25]

We could find the records of the medical meeting in Vienna that reported the 16th April and 23th April (1880) sessions.[26] In the first, Prof. Billroth was the president, dr. Nicoladoni docent the rapporteur. Hoffmann presented the Győr case of the execution of 'Takácz' robbery murderer. He mentioned two letters receiving about the case, according to which 8 days before the execution T. had a neck glandular abscess operation ('Drüsenabszess'), reportedly had cleft palate, executed at 8 o'clock a.m., but upon registering the death, after 10 minutes was removed from the rope. According to Prof. Hoffmann, the 'resuscitation's' simplest reason could have been the early removal. However, experience prove that death is fast in hanging, usually after 5 minutes resuscitation is impossible according to Taylor, and by Tardien 10 minutes is the maximum time for death. Prof. Hoffmann, based on own experience proved that the probability of resuscitation declines fast. He shared the opinion that due to the glandular tumours, rope had not fitted between the *thyroid cartilage* and the *hyoideum*, but had sat deeper, thus, the respiratory tracts had not been blocked completely. Furthermore, the tissue scarcity of the cleft palate inhibited the hermetic block of the *epiglottis* and *hyoideum*, while the cervical tumours inhibited the complete block of the *carotids*. The medicals had various views on the possibility of resuscitation. In the Győr case one could question: why the sentenced died after returning the pulse and the respiration? Prof. Hoffmann has thought that a fracture on the *thyroid cartilage* or on the *hyoideum* or a glottal oedema had caused the death, as such case is frequent among fettered people. He did not blame the coroner, but did not share the opinion that death determination could be based on the stopped respiration and heartbeats. According to the record, Rosenthal suggested the electricity trial, that occurred in an 1877 death inspection methods book as on the cease of muscle excitation ability: electric current application. It stated that muscles could have contracted even 2 hours after death.[27]

Evaluation of the Case in the History of Electric Resuscitation

These results also demonstrate that in the 19th century determination of dead state was not reliable, and European physicists, doctors were enthusiastic over the medical application of electricity. In contrary to Gábor Horváth in his *Little Győr Guidebook,* where he wrote: 'The experiment was actually the first trial of the resuscitation electric shock that later spread all over the world.' (Horváth, 2004, p.49), it could be the first trial in

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[23]Vasárnapi Ujság, 1880. XXVII. (17) p.274
[24]Vasárnapi Ujság, 1880. XXVII. (17) p.274.
[25]Függetlenség, I. (98) p.3, 9th April, 1880
[26]Wiener medizinischen Wochenschrift. 22. and 25. April, 1880. In. Österreichische Nationalbibliothek, Wien.
[27]Zalay, 1877

Hungary, but in no way the first in the world. Electricity was applied for resuscitation on corpses before the Győr case. The first equipment being able to maintain enough current intensity to affect animal organism was the Leiden jar. Caused by such an equipment Pieter Musschenbroek and Benjamin Franklin described the fatal electrocution in 1750. The 18th century experiments of the Italian Giovanni Bianchi, the Danish P. C. Abdilgaard, the Dutch Daniel Bernouilli and the Prussian Alexander von Humboldt, in which shocking and 'resuscitating' of small animals had been reported, are frequently referred as defibrillation in physics or medical history texts, incorrectly. The charge of the applied Leiden jar and the impedance of the applied electrodes have limited the current induced in the body of even small animals (e.g. chicken), which was not enough for a defibrillation (furthermore, in the heart of chicken true fibrillation is not known). Probably neural shock and spontaneous conversion was reached in these experiments, while drawing attention to the possibility of electric resuscitation of the scientific community (and of quack doctors). The Royal Human Society of London published the first two resuscitation case from 1774 and 1787 (Akselrod, Kroll and Orlov, 2009, p.p.17-20). The first case is referred in János Balogh's (1973, p.228) study with a comment that 'these publications made no echoes in the Hungarian medical society'. James Curry English medical in his 1792 resuscitation protocol uses the modern allocation of the electrodes on the chest. An 1820 report of the Royal Human Society suggests electric shocking to determine dead and apparent dead states. In the viewpoint of our research it is important that John Aldini[28] applied electricity on hanged corpses in the early 1800's. The bodies have convulsed, but have not returned to life. 'Aldini believed that electric resuscitation should be combined with the technique of artificial breathing and argued against the prevalent view, which held that electricity should only be administered after rescue breathing has been provided continuously and unsuccessfully for two entire hours.' (Akselrod, Kroll and Orlov, 2009, p.20). His experiments have been criticized, treated as morbid and satanic. Even they have inspired Mary Shelley to write her Frankenstein-roman (Akselrod, Kroll and Orlov , 2009, p.20). Jedlik's Ruhmkorff-inductor (introduced to Hungary in 1841, Figure 5-6), designed by Heinrich Daniel Ruhmkorff (1803-1877)[29], is an induction coil producing high voltage out of electric batteries. Compared to modern defibrillation higher voltage was necessary that time due to the high impedance of the used spherical electrodes, to induce enough current intensity for muscle (including heart muscle) contraction in human body.[30] Most probably, based on the evaluation of the documents in this research, Takács was an apparent, but not clinical dead due to the weak heart beating after the hanging. Electricity applied could enhance heart function via defibrillation, so it could be the first known partially successful electric resuscitation trial in Hungary. The following debates about this case could contribute to the development of resuscitation knowledge in medicine. However, further development of resuscitation methods were inhibited by the lack of theoretical knowledge: ventricular fibrillation was described in the late 1880's by John A. McWilliam.[31] Thus, in the time of the 'Győr case' fibrillation was not known, intentional defibrillation could not be an aim.

Summary

Several resuscitation trials are known from the 18-19th centurial Europe, but documents found in our ballad research cleared the circumstances of the 'Győr miracle', the first known resuscitating case from Hungary in 1880, in which Lipót Bierbauer could resuscitate an apparent dead hanged man by a Ruhmkorff-inductor, purchased and shown by the well-known physicist Ányos Jedlik, as a 'medical electric device'. This interesting and bizarre folklore and interdisciplinary research provide further data for the history of defibrillation. As sudden cardiac death is one of the most common cause of human life loss, cardiopulmonary resuscitation ('hands-only' CPR) and automated external defibrillator (AED) aided resuscitation is of high importance. In Hungary, only 10 % can perform resuscitation properly in real (unexpected) situation (Katona, 2018a). Efficiency of first aid primary depends on the willingness of the potential helpers, which should be increased by early education and attitude development at school (Katona, 2018b). In order to enhance motivation of students, such a historical story can bring them in an excited stage of learning, especially in adolescence, when they are very much

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[28] Londoner Nephew of the Italian Galvani, renowned of his frog muscle 'Galvanic' experiments.
[29] Born German as Rühmkorff; upon moving to France he has changed the spelling of his name.
[30] VELNER András 2008:60.
[31] McWilliam JA. Fibrillar contraction of the heart. J Physiol 1887;8:296–31.

interested in 'bloody', 'mysterious', 'real life' elements of any information. The use of this story in first aid education is under trial with students in Győr.

Acknowledgement

References

Akselrod, H., M. W. Kroll & M. V. Orlov (2009). Chapter 1.2 History of Defibrillation. Efimov I. R. & Others (ed) Cardiac Bioelectric Therapy: Mechanisms and Practical Implications. New York: Springer Science+Business Media.

Balogh J. (1973). „Egy 100 éves altatógép" *Orvostörténeti Közlemények,* 69-70, pp.225-235.

Békés I. (1966). Magyar Ponyva Pitaval. A XVIII. század végétől a XX. század kezdetéig. Budapest: Minerva.

Brencsán J. (1990). Új orvosi szótár. Orvosi kifejezések magyarázata. Harmadik kiadás, Budapest: Akadémiai Kiadó.

Hegedűs P. & Szabó Z. (2008). Vaskakas is talál szelet. Győr históriája. The weathered vane. History of Győr. Győr: GYŐR-SZOL.

Horváth Á. (1980). Megkésett világhír. Budapest: Móra Könyvkiadó.

Horváth G. (2004). Kis győri kalauz. Győr: Horváth Kiadó

Katona Zs (2018a): Attitűdvizsgálatok az elsősegélynyújtás és az alapszintű újraélesztés iskolai oktatásában. János Karlovitz (ed) Elmélet és gyakorlat a neveléstudományok és szakmódszertanok köréből. Komarno: International Research Institute

Katona Zs. (2018b): „Research and Education in an Innovation Era". May 17th-19th, 2018. Arad: Aurel Vlaicu University of Arad

Dr. Kenyeres B. (1909). Törvényszéki Orvostan. I. kötet. Budapest: Eggenberger-féle Könyvkiadóvállalat (Hoffmann és Vastagh Kiadása).

Dr. Kenyeres B. (1911). Törvényszéki Orvostan. III. kötet. Budapest: Eggenberger-féle Könyvkiadóvállalat (Hoffmann Béla Kiadása).

Lanczendorfer Zs. (2009a). A „győri csuda" – Ballada és valóság. Tudományos előadások. Magyar Tudományos Akadémia Veszprémi Területi Bizottság.

McWilliam J. A. (1887). „Fibrillar contraction of the heart." *J Physiol* 8, pp.296–31.

Lanczendorfer Zs. (2009b). A győri „csudahalott" históriája. Lőrincz Ildikó (ed.) XII. Apáczai–Napok Nemzetközi Tudományos Konferencia, 2008. A reneszánsz értékei, az értékek reneszánsza. Győr: NyME Apáczai Csere János Kar.

A PALLAS NAGY LEXIKONA (1897). Az összes ismeretek enciklopédiája XV. kötet, Budapest: Pallas Irodalmi és Nyomdai Részvénytársaság.

Dr. Petz A. (1929). Győr Szabad Királyi Város Szentháromság Közkórházának Multja És Jelene. (1749-1928.) Győr: Győregyházmegyei Alap Nyomdaműintézete.

Dr. Poór F. & Thuller I (ed.): 150 éves a mosonmagyaróvári Karolina Kórház (1860-2010) Mosonmagyaróvár: Karolina Kórház.

Sebő F. (2006). Vikár Béla népzenei gyűjteménye. Budapest: Hagyományok Háza - Néprajzi Múzeum.

Sebő F. (2009). Vikár Béla népzenei és népköltési gyűjteménye. DVD, Budapest: Hagyományok Háza

Szalóky A. (2007). Győr. Jedlik Ányos Emlékkiállítás. Budapest: Tájak Korok Múzeumok Egyesület.

Szinnyei J. (1899). Magyar írók élete és munkái. VI. Budapest: Hornyánszky Viktor Könyvkiadóhivatala

Valló I. (1930). Győr ismertetése és tájékoztatója. Győr: Győr barátainak köre.

Velner A. (2008). Jedlik Ányos. Érd: Elektra Kiadóház.

Dr. Zalay P. (1877). Halottkémi kalauz. Orvosok és képesített halottkémek használatára. Budapest: Eggenberger.
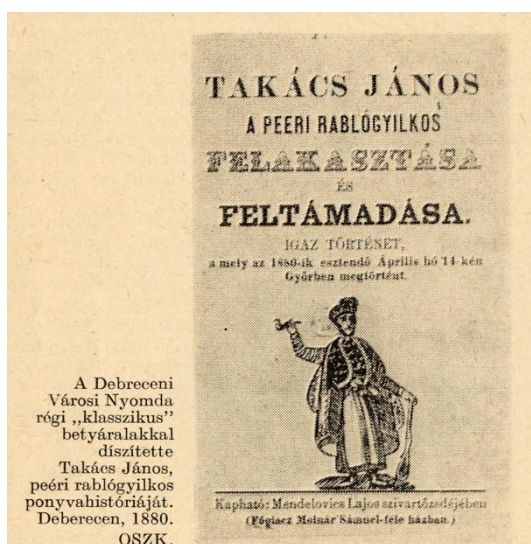
1: Title page of the pulp fiction (photo: Lanczendorfer Zs.)

2: Statement in the prison file of János Takács (photo: Lanczendorfer Zs.)

3: Building of the former Holy Trinity Public Hospital (photo: Lanczendorfer Zs.)

4: Yard used for executions in the former county hall (Győr) (photo: Lanczendorfer Zs.)
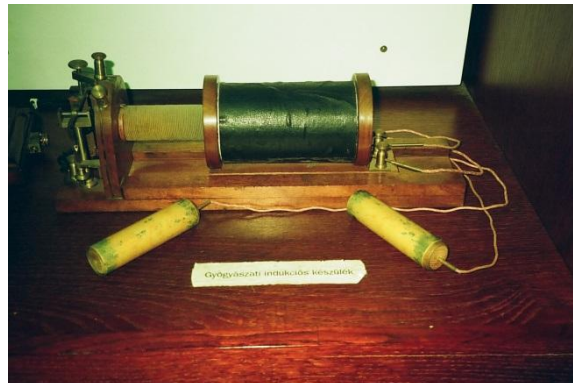
5: Medical electric induction device in the Jedlik exhibition, used in the 'Győr miracle' resuscitation case (photo: Lanczendorfer Zs.)

Jedlik induktorānak gyāri rajza (Ruhmkorff, 1871)
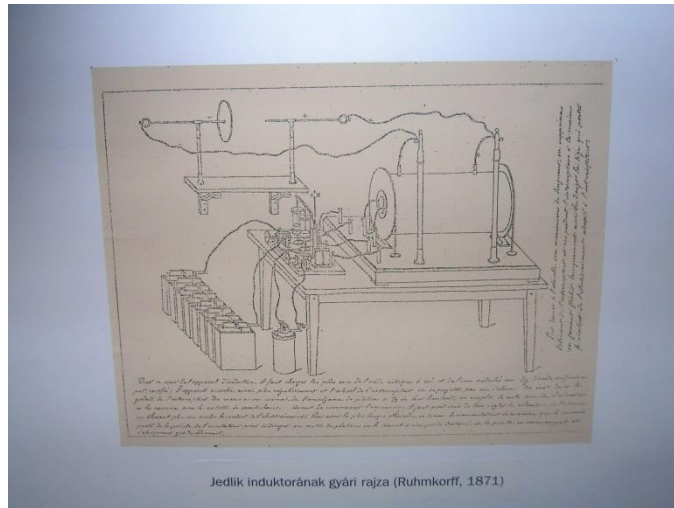
6: drawing of Jedlik's inductor (photo: Lanczendorfer Zs., source: Jedlik Exhibition,

Theoretical Frames of a Hungarian Empirical Historical Elite Research. Interpretation Opportunities of the Notion of the Elite, the Local Elite, the Nomenclature and the Cadre

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Abstract

There can be experienced a high range of interpretation variegation in connection with the notion of the elite in the sociological and politological specialized literature. By that, some mean the most outstanding members of society, a number of people apply this term to the group of people having the greatest power and influence, while others use the expression for those who occupy the highest institutional positions. With all this, the majority of the authors claim that people get into the group of the elite through some kind of democratic selection. The local elite is composed of those citizens of the settlement who have an influence through their fortune, power and/or positions to make decisions influencing the community's destiny. The sharp distiction of the terms of nomenclature and cadre, which are different from the earlier practice, is reasoned by the "non-democratic" way of getting into. The latter two expressions raison have a 'raison d'etre' particularly in the socialist, party-state regimes, where getting into leading positions broke away from individual abilities, qualities, and it was "faithfulness" that became the most important criterion.

Keywords: Elite, Local Elite, Nomenclature, Cadre

Introduction

The primary task of empirical elite investigations is to clarify the notion of the elite, the theoretical foundation of the fact who and why belong to the leading layer of a society or a settlement. Throughout my several years' of investigations, I was examining the composition and walks of life of the political and executive elite of a Hungarian big city, Győr, in the period between 1945 and 1956. In this period, there were radical political, economic and social changes taking place in the country. In the course of a broad decade, there were changes of regime (1945, 1948) in two cases – and once an attempt to change the regime (1956) – which in two cases brought together almost an entire change of the elite, (the third one – 1956 – remained "only" an attempt to change the elite, which went wrong). After 1947/48 the principles of how to get into leading positions altered significantly as well. In place of selection based upon talent, expertise and performance, stepped the selection/appointment upon commitment of an irrational character, absolute loyalty, as well as party- and idea loyalty. Out of the thoughts revealed above, obviously follows the dissociation of specialist scientific expressions and the introduction of their interpretation opportunities. The Hungarian studies dealing with the sociological characteristics of those acting in the upper-leading positions of the socialist regime, especially the Kádár-era[1] (also) made it obvious that *"the theoretical presuppositions, categories and methods used throughout the examination of the Hungarian elite between the two world wars need to get reinterpreted: the elite and the nomenclature can be compared on the level of abstract identity only"*. (Huszár, 2007, p.7)

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[1] Internationalization, initiatives to establish a new source of researchers and graduates, and development of knowledge and technological transfer as instruments of intelligent specializations at Szechenyi University EFOP-3.6.1-16-2016-00017.
The period of the history of Hungary between November 1956 and May1988. It got its name from János Kádár, who was leading the country on different political titles until May1988.

Notion of the Elite

The notion of the elite is one of the most frequently, and at the same time the most loosely-used expressions in the sociologic and social historic literature. To the variegation of defining the term contributes also the fact that the word has enriched with several meaning-contents, also in the public conception, throughout the times. In the 'Concise Dictionary of Foreign Words and Expressions', we can read the following meaning varieties belonging to the character of my topic under the vocabulary entry 'elite', among many other definitions: "*the privileged, leading layer of society*", "selected, privileged society, the pick of something". (Bakos, 1997, p.212) The Hungarian Explanatory Concise Dictionary contracts and somehow completes, identifies the previous two definitions, this way the elite is no other than "*an (with one their characteristics, aptitudes) outstanding-bested, hegemonic, influencial part of society, the pick of it*". (Juhász and Szőke and O. Nagy and Kovalovszky, 2003, p.274) Anyway, the expression 'elite' was first used by the copers in the 17th century, to describe their wares of excellent quality. Its meaning spread only later, to indicate high-society groups, among others the aristocracy and the special squads of the army. (Takács, 1998, p.140)

The concept was introduced by Vilfredo Pareto into sociology, at the end of the 19th century, when he created his famous and very influential theory about the "circulation of the elites". In a simplifed way, Pareto means the most outstanding people of society by the concept "elite". However, the excellence of individuals in the various fields and branches cannot be measured by any tests, this is replaced by certain titles. Based on this: "*those can be found in the governing elite who wear the titles of political functions of a certain rank, for example: ministers, senators, members of Parliament, ministry department leader, chairman of the superior court, general, colonel*". (Takács, 1998, p.140-141) Besides, Pareto also speaks about a non-governing elite, where he rates those people who have the highest index-numbers, though, in the same branch where they execute their activities, however, they play no role in governing in any way.

Alongside with Pareto, the other main establisher of modern theories is Gaetano Mosca. (Mosca, 1939.) He tries to approach the concept principally from the side of the power, when he divides society into two classes: the reigners and those beyond whom they are reigning. In his opinion, it is always the reigning class that is of a smaller number, and it keeps the power in its hands. In the case of Mosca, as opposed to Pareto, however, the power arises not only from personal abilities, but structural and organisational factors play a part as well. The power of the reigning class principally originates from the fact that an organised minority faces an unorganised majority. The elite, which we can regard as a synonym of the reigning class in the present case, is placed onto the top of political hierarchy by their organisation, their personal attributes and their social power. (Takács, 1998, p.141)

Also C. Wright Mills' work, which has become a classic, enriches the range of power-oriented approaches. The sociologist of a marxist impulse clearly separates the notion of the power elite and that of the reigning elite. Using Max Weber's notion explanation, power is called the opportunity of vindication of will against others, while, reign is called the opportunity of accepted command. (Weber, 1987, p.77) According to this attitude, the reigning elite is always legitimate, nevertheless, the power elite is not surely like that.

Mills' institutional approach in connection with the elite, to my mind, provides a useable interpretation frame for those dealing with elite investigations of an empirical character by all means. At the same time, it helps to approach the investigated problem with the greatest ease and the most evidently. In his view, "*the elite is the group of those people who possess the most that people can have: by this, they usually mean money, power and prestige, moreover, they consider here all the opportunities of life which are made available by these three things. The elite comprises, however, not simply those who have the most of everything, since they have the most, because they take the leading positions at leading institutions*". (Mills, 1972. p.13) Thus, power is not the individal's property, from which they are inseperable, its point lies in the institutions. And those are considered giants in society who have an access to the guidance of a larger institution. In Mills' point of view, though an institution is not the base of every power, nonetheless, power can be kept – more or less permanently and

efficiently – only by means of these. (Mills, 1972, p.13) With the use of the elite-concept determined by institutional positions, Mills positions himself against Pareto's previously mentioned interpretation, in which he determines the elite in the statistical order of some kind of moral benchmark. On the basis of his argumentation, the problematic nature of this approach is that as many kinds of elite can be determined, as many values are examined, or how many moral benchmarks are set up. (Mills, 1972, p.374)

Among many other definitions with the aspect of power, I would also highlight G. Lowel Field's és John Higley's (Higley and Field and Gröholt, 1976.) attempt of defininition, since their concept explanation provides important guidelines for practical research as well. According to the authors, those people belong to the elite who occupy strategic positions in stately-owned and in privately-owned hierarchical organisations (for example governments, parties, armies, producing companies, trade unions and other organisations, such as media- or religious and educational organisations, various organised protesting movements, etc.). In their opinions, if we speak about national elites, then these are the organisations that are large enough, or at least they have sufficient power so that the people guiding them should personally have a constant and serious influence on national politics. (Takács, 1998, p.143-144)

The third group of defining the elite, the positionally-structurally oriented definition attempts are also worth studying on the part of those dealing with empirical researches, as these interpretations strictly determine the elite by assigning certain functions to them.

According to M. Ornstein's és H. Stevenson's (Ornstein and Stevenson, 1981.) conception, those individuals belong to the elite who hold the highest administrative positions in different institutions of society, i. e. the elite is composed by the ones who take up position on the highest grade of the literally interpreted social ladder. Among the approaches of the institutional elite, I would highlight Anthony Giddens' (Giddens, 1974.) definition, based on which the elite is made up of those individuals who take up formally defined power positions on the top of social organisations or institutions. In this interpretation the power is bound not to the particular individuals, but to the institutional positions. (Takács, 1998, p.145)

One of the main representatives of the school of democratic elitism is Clifford-Vaughan (Clifford-Vaughan, 1980.), who considers members of the elite who are accepted by society as elite. In his view, the main criterion of getting to the elite is a position is some kind of hierarchy, which may be political, military, administrative or economic; and it can be measured with cabinet membership, rank, degree or income. (Takács, 1998, p.145)
Above I principally endeavoured to introduce what kind of important definitions of the elite had been formulated in the univeral history of sociology. I was focusing on such concept definitions and theories which, on the one hand, had had an influence on the writing of Hungarian social history, on the other hand, they seem to be suitable and applicable in the course of empirical elite researches. As we could see, in the case of a significant part of the definitions, it is obviously the "position" which is qualified as a key concept.

Interpretation of the Local Elite
The research of the local elite(s) in Hungary already started relatively early, in the 1960s, following this, works dealing with the leading layer of a fortress country[2] or a city were created in Hungary in great numbers. In the following lines I do not endeavour to introduce the complete palette of Hungarian literature, but those writings only that are determining, that provide a direction of research and an aspect. Respectively, I am concentrating on works dealing with the elite groups of the city of Győr, written principally by Károly Vörös and Gyula Szakál. Afterwards, unfolding from these, I am going to draw up my own thoughts in connection with the local elite after 1945.

The forerunner of empirical elite researches can be obviously considered Károly Vörös, who had already published his first study about the greatest tax payers of Budapest in 1966 (Vörös, 1966, p.145-195), in order to announce his researches also in the form of a book in a bit more than ten years. Vörös in his work carries out the

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[2] A fundamental territorial unit of Hungarian public administration between 1000 –1949.

processing and analysis of 'virilis-registers'[3], in which, at the same time, he designates the direction of examining the local elite, mainly the local economic elite. However, the work literally cannot be regarded as an elite research, the author also avoids the concept of the elite consequently, sithence he is particularly focusing on the how of the capital accumulation apropos of 'virilism'[4], respectively, he is intenting on the connection of the composition of the greatest tax payers of the capital and the city developing factors, and their influence on one another. (Vörös, 1979.)

It was Károly Vörös as well who first made an attempt – while examining the society of Győr in the era of dualism[5], to determine and process the groups of the greatest tax payers. In the period between 1871 and 1913 282 people got into the seventy citizens who were considered the richest. According to his perception, the layer with less income (about 40% of the whole sample) could not remain on this level permanently. As opposed to this, approximately as many were able to ensure their positions up to 10–15 years. The scale of change was, however, not even. Vörös distinguishes between three stages of fluctuation. Until 1881 mobility was very strong, which was followed by a stable period lasting until the turn of the century, then afterwards the movement amplified again until 1913. According to the author, these changes are in close connection with the economic development which has made Győr an industrial centre out of a commercial city. With this statement we have arrived at the main objective of the work, since Vörös in his research has mainly endeavoured to flash on the relationship of the 'virilises' and the whole city development, as he had already done so in his book about the tax payers of the capital. (Vörös, 1971, p.323-304)

Béla Baranyi was the first who thought that analysing the 'virilis' registers was a sufficient method to draw the more important conclusions with regard to the elite, highlighting, nevertheless, that the group of the greatest tax payers was not identical with the local elite. The merit of the work is that despite the conceptual obscurities, the thoughts about the entrepreneurial types, entrepreneurial walks of life, family relations and mentalities designated the major research directions for those dealing with the local elite. (Baranyi, 1972, p.4-67) In his writing, Károly Vörös reflects to a new projection of the investigation of the local elite, when – with respect to the era of dualism – he deals with the composition of the elected corporators[6] of Győr, linking the topic to the phenomenona of city administration and city policy. In his study, while enlarging the distinct social situation of 'virilises' and that of the elected members, he states that in the period between 1861 és 1914, in the elected half of the city council the emphasis shifted from the financially better-off or intellectually more independent elements to the petty bourgeoise, which was partly ascensional better-off, partly threatened by fall, moreover, to the layer of employees, which had an increasing role, but better still, to the group of intellectuals, who were able to represent this group: the agonistic parishes and the agonistic solicitors (possibly teachers). In his study, Vörös does not regard the elected committee members, as earlier the 'virilises' as elite, he does not use the term this time, either. His main intention is to demonstrate the connection between the changes in the personal and job composition of the group and the connection between social-economic processes. (Vörös, 1978, p.113-127)

The base of Gyula Szakál's investigations constituted the analysis of the greatest group of the tax payers of Győr. In the beginning, he had identified them with the local economic elite. In his first comprehensive study, the influence of the marxist history conception can still be felt, since he is also using the term of the local reigning class as a synonym of the economic elite. In his definition, the economic elite is made up of such outstanding people who have formed into a relatively closed layer, coming from the members of the reigning classes, and, based on a certain sphere of interest, they represented the interests of the reigning class, or the part of it efficiently. For these people, the institutionalised monopoly of the financial situation and the positions ensured such benefits which proved to be impressive, compared to average citizens. In his script, Szakál surveys the volume of financial growth, with the help of taxation documents, then he portrays the structural alteration of

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[3] A register of those paying the most taxes in a settlement (between 1870 and 1945).
[4] A political and legal principle for the wealthy and those paying the most taxes, ensuring them honours rights, primarily disproportional right to vote (higher representation) .
[5] The name of the period between 1867 and 1918, when the Austrian–Hungarian Monarchy (Austria–Hungary) was a double (dualist) state, a confederation.
[6] The directing organisation of cities in Hungary between 1870 and 1950.

the economic elite, and he flashes on the frames of the economic life of the city, by comparing the correlated state of the various occupational groups and its members. (Szakál, 1987, p.25-47)

In his work from a few years later, Szakál compares the mobility and occupational structure of 'virilises' and the elected corporators with that of the 70 citizens paying the most tax. Interweaving also the phenomenon of the political elite into his research, he means by the concept those groups of people who could formally (within the frames of the municipal committee, within the frames of parties and organisations), or possibly informally influence the decisions forming city life, local policies. At the same time, in his opinion, the constant aspiration of the influenced groups was to ensure their power and favourable position not only outwards, but to strive to obtain autonomy against other elite groups. In his study, he is primarily looking for the answer to the question in what ways the economic elite, formed by capitalist development, could take hold of the leading positions of city policy, what kind of relationship there is between the economic and the political elite, and civil layers of what origin marched on the leading positions of city policy, and in what way. (Szakál, 1991, p.47-71)

Into his later investigations of the economic elite, Szakál involved the share capital and the leading positions of the share company, and he spotted the essential role of local entrepreneurs in the successful model shift of the city. In his monography there can be observed a change in aspect and terminology, since he does not put the entrepreneur citizen into the scope of his interest, and he applies the concept of the economic elite only to the most wealthy top group of the local bourgeoisie. (Szakál, 2002.)

The investigations and studies introduced above, as I have already indicated in advance, by no means provide a full picture of the Hungarian literature of the research of the local elite. In the 1970s and 80s there were studies and adaptations of various depth, regarding Esztergom (Ortutay, 1982.), Hódmezővásárhely (Gyáni, 1977.), Kaposvár (Andrássy, 1982.), Miskolc (M. Tóvári, 1980.) and Debrecen (Baranyi, 1972.), then later Szombathely (Tokaji Nagy, 1995.), Szekszárd (Csekő, 2002.), Nyíregyháza (Gottfried, 1993.) and Kőszeg (Söptei, 2002.). All in all, it turns out from the writings that the Hungarian researchers, from other-other considerations, regarded the citizens paying the most tax, the so-called 'virilises' or the members of the city council as the local elite (within that probably with a different weight the 'virilises' and the elected members). Agreeing with the views of several researchers, such as Tokaji Nagy Erzsébet, Tóvári Judit (Tóvári, 1997.), Andrássy Gyula or Takács Tibor (Takács, 2005.), I myself also presume that in the mentioned eras, the concept of the city elite can correspond with the city council membership most of all. Namely, the city council is the organ which embodies a community as a whole, and their members are entitled to take the most important decisions influencing the fate of the settlement. Thus, they have the greatest chance and opportunity – no matter whether they are 'virilises' or elected – to influence the life of the community with their opinions. In the period examined by me (1945–1956), however, I think that the local elite can be contacted with other kinds of organisations and corporations, and other kinds of positions, respectively.

If we start out from Tibor Valuch's definition referring to the elite after 1945 (Valuch, 2001, p.121), then we can categorize those to the local elite who personally have a lasting influence on managing the issues of the local society, who belong to the leaders of the complex organisations that hold an important role in running the local society, and who – with their decisions or opinions – are able to influence the process of the (local) social reproduction. The opportunity of lasting influence and decision-making, accepting Mills' interpretation approach, is related to various institutional positions. By possessing these determined positions, the local leading layer ensures the monopoly of decisions for themselves. We can only speak about local-level influencing-decisional competences, and about the leading layer possessing these, if the particular settlement, the given community has some level of autonomy. Starting out from these it can be stated that local elite can only exist and carry out their tasks in countries with a democratic political system, where local public administration is done by free municipalities that operate between legal frames, and where the local leading layer has a certain extent of legitimacy.

Defining the Nomenclature-Concept in the Universal and Hungarian Historiography

As I have mentioned it earlier, through the national investigations dealing with the political leading layer of the socialist regime, we can consider the previous presupposition justified, according to which the concepts of the elite and the nomenclature cannot be correlated with one another. Namely, while – using Tibor Huszár's words – the elite gets selected, the prominence of its members is determined by prestige based on knowledge and performance, and this means the source of their sovereignty as well; as opposed to this, the members of the nomenclature are appointed (selected), their election into the different corporations is formal, actually, it is the posterior approval of the previous decision of the corporation appointing them. (Huszár, 2007, p.47)

Similar to many other technical terms, also the term of nomenclature is used in different senses by the researchers dealing with this topic. Besides, the application of the expression has spread in colloquial language as well, which also enhances the number of definition attempts. In Ferenc Bakos's, dictionary published in 1997 the following meaning version can be read: *"In the era of the one-party state, the circle of privileged personalities: the leading office-holders of the party- and party-apparatus"*. (Bakos, 1997, p.538) Anyway, this kind of definition of the concept had not existed in Hungarian public thinking, it "gained" its above meaning only in the 1990s.

The late appearance of such an interpretation of the term is not a Hungarian peculiarity. With great probability, it is Bogdan Harasymiv's study, published in Canada, in 1984, that first called the system of selecting and appointing the Soviet leading cadres 'nomenclature'. In the political literature of the 80s, the expression was already used more frequently, however, by no means consequently or clearly. By all means, the various investigations dealing with the comparison of the concept of the elite and the nomenclature do agree that the elite(s) assume the principle and the practice of the free election, which prevails in democratic states more dynamicly, in autocratic states more weakly, whereas, in totalitarian regimes it is only nominal and postponable. Also, in the pracice of appointment there can be observed a significant distinction, since, in democratic systems, it is the corporate principle that prevails in the selection of the elite; whereas, in totalitarian states their effect weakens, it becomes formal and depending on the person. (Huszár, 2007, p.51-52)

In the national specialised literature, recording and analysing the historical shape changes of the nomenclature concept is attached to the name of T. H. Rigby. In his view, in the world of politics, we can encounter a phenomenon similar to nomenclature everywhere, even in democratic political systems, since there exists everywhere *"the system of entitlements set in the Basic Laws of the state, mostly in the Constitution, in connection with the occupation of the state power- and state administrative functions, for the appointment to certain positions and elections"*. (Szakadát, 1992, p.104) Starting out from this, Rigby claims that the specificity of the nomenclature-system formed in the Soviet Union is that that collects the important posts of official and "voluntary" corporations on the competence lists of party organisations. This way, the system is all-embracing and of a comprehensive nature. (Szakadát, 1992, p.104; Huszár, 2007, p.52)

In Hungarian scientific reasoning it is István Szakadát who first made an attempt to analyse and interpret the nomenclature system, under which expression he means *"the cohesive system of the (cadre)competence (estimate authority, respectively) lists of party organisations of various levels"*, more closely, the right of the communist party's organisations of various levels to practise the rights of selecting, appointing and exempting in connection with various posts of political life. (Szakadát, 1992, p.97) It follows that the cadre competence list is the register of those positions, the completion of which was bound to the previous permission of the party. Before accepting the first known competence list (1950), the number of nomenclature positions was approximately 2700-3000. In 1950 there were 3812; in the middle of the 1950s 2414-2261; in 1966 2789; in 1987 1241; in 1988 435 posts on the competence lists. (T. Varga and Szakadát, 1992, p.75)

In order to understand the function of nomenclature the researcher can be taken closer by studying the nomenclature-decrees, which contain certain legitimacies, *"they refer to somebody's rights towards somebody, i. e. they record an unidirectional relation existing among personae in particular social relationships"*. According to Szakadát, the content of cadre-competence rights was not announced, which statement was particularly true

for the 1950s. The first such announcement appears in the nomenclature-decree of MSZMP KB[7] in 1977. In this document, among others, the following conclusions can be read: *"the cadre-competence covers the following major personal issues: appointment (election), promotion, displacement, exemption, relay, revocation, placement into a lower lay; qualification; government medal; sending to a higher-level political and state school; outward journey of a longer term; permitting the initiation of disciplinary proceedings"*. I.e., the cadre-competence right records (reflects) the power of organs and people on various levels of the party, over the most diverse organisations of society. The following organisations and personae disposed of cadre competences, in the course of the nearly half a century of the existence of the regime: Central Committee (1956–1989), Central Directorate (1945–1956)[8], Political Committee[9], Secretariate[10], Organizing Committee (1946–1953)[11], KB (Central Committee)-secretaries, KB (Central Committee heads of department, country, Budapest, party committees of country rights, district party committees, city party committees, office party committee, works party committee, communal party committee, party base organisations. I find it important to mention that in the decrees before 1956 (thus in the era that I have also focused on) the Political Committee, the Secretariate, the Organisational Committee had lists, and the name of the Central Directorate was included only in the title of nomenclature-decrees, that is it can be made probable that the organ standing on the top of formal party hierarchy did not have a real competence legitimacy until 1956. From the documents the statement obviously marks out also the statement, according to which, before 1956 nomenclature-decrees were adjudicated by the Secretariate, then until 1988 by the Political Committee. (Szakadát, 1992, p.97-103)

In his studies, Szakadát reviews the main characteristics of the nomenclature system as well. He claims that above all, the nomenclature system ceases the momentum of election in the field of political life. Besides, its further important criterion is the execution of political power, attaching the positions which are important in maintaining it into a single cohesive order. Instead of the term used by Rigby (uniorganisational system), the author regards the use of the concept "unicentral" appointing system as adequate, since the system of nomenclature has made the principle of appointment almost entirely exclusive, and a principle of getting into a position has prevailed in one single place only: just in the case of those party leaders who were running the whole system. So that the nomenclature-system "could operate" in accordance with the requirements, it was necessary to bind all – from the point of view of political activities essential – sources of power to "nomenclature" organisational positions. Moreover, to the characteristics of the system belonged also that the different sources of power got "deprivatised", thus they bound them to specified positions, through which there ceased all power-concentrating option in the system, outside the nomenclature. (Szakadát, 1992, p.106-109)

Based on his investigations, Szakadát finds out that the nomenclature-system did not change essentially, from the decree of the Secretariate on 22 March 1950 until 1989. Among the slight alterations, I have mentioned a few above, now, however, I would draw attention to an important change. In the Kádár-regime, practically, the central competence lists contained the positions of the national, central organisations. Although it occurred that in the case of the high-priority cities, so to speak, they reached down to the level of party committees as well, however, in the nomenclature-system there existed a kind of regional decentralisation by all means: although the country leadership depended on the appointment of the centre, but in his own county, it got a free hand in cadre politics. As opposed to this, still there could be found many county organisational posts on the central competence lists of Rákosi-era[12], of which already the county leaderships could dispone (for example, the

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[7] The Hungarian Socialist Labour Party (MSZMP) as a state party, executed power exclusively in Hungary between November 1956 and October 1989. The Central Committee (KB) was a governing body that directed the Party between two congresses, the "legislative" body of the Party.

[8] The predecessor of the Central Committee, functioning on this name until 1956. Between 1948 and 1956 the state party was called Hungarian Workers' Party (MDP).

[9] Within MSZMP it was one of the most important organs almost all the time, and at times it was the most important organ. It delivered the weekly issues, the most important decisions were made here.

[10] Its task was to execute the instructions of the Political Committee. Practically, it can be considered the obverse of the government.

[11] One of the organs of MDP. Its task was to elaborate organisational, party-constructing principles, methods, and to direct the work of organisation of the party. It was liquidated in June 1953.

[12] A period of the history of Hungary, in a narrower sense between 1948 and 1953, in a broader sense between 1947 and 1956. It received its name after Mátyás Rákosi, its leader, who was building out the stalinist-system total dictatorship.

secretaries of district party committees, the county secretaries of SZOT[13], the sovereign secretaries of rural cities, the county secretaries of SZÖVOSZ[14], members of the executive committees of county councils, etc.). (Szakadát, 1992, p.110-115)

Concept of the Cadre

Alongside with nomenclature, the other notion that often emerges in the studies dealing with the leading layer of the socialist regime is the term of a cadre. On the basis of what has been said earlier, perhaps it is not surprising that there exist various options to interpret the expression. Under the entry of the Hungarian Interpretory Consise Dictionary, we can find the following meanings: *"An active member and co-worker of a party- or social organisation, plant, institution. A politically, as well as professionally suitable specialist".* A third definition of the dictionary refers to the cadre's role occupied in the socialist era: *"A person who has got into an unworthy high position, a beneficial situation ".* (Juhász and Szőke and O. Nagy and Kovalovszky, 2003, p.610)

From 1948 on, the build-up of the classic socialist regime, the connection between getting into the elite and the individual abilities, expertise and performance really disappeared. The communist party selected – based on its own aspects – chose who to place into the different leading positions. The most important criterion has become "political reliability", "political-ideological developmental ability", party- and principle loyalty, which goes beyond all kinds of rationality. In the process of selection, the main role was acted by the co-workers of the cadre department of the party centre, whose task was to prepare a reflective cadre description of the people who had been made about the people who had been picked to highlight. In the cadre material – as well as the above-mentioned points – it was necessary to touch on the candidate's antecedents, throughout which the identification was carried out, to the grandparents, retroactively. In the documents the earlier and the post-1945 positions were indicated, and also all the places of living ever, in the hope that they could also obtain information about the cadre-candidate from the former neighbours. Finally, also an essential element of the cadre characterisation was his attitude to the party, the Soviet Union, the socialist construction, the various political campaigns, and also to "the clerical reaction". As opposed to the above, they hardly make mention of school qualifications and skills. (Gyarmati, 1991, p.51-52)

As an essential element of the system, I suppose it is worth saying some words about the concept of "káderforgó" as well. First of all, the phenomenon concerned the functionaries – those working at a village-level- of the council administration[15], which was building out from the 1950s. The political leadership of those days thought that if somebody is placed into a leader position in his home village, then, because of their relationship with relatives and friends, they were not likely to take over the battle against the „kulak" with an adequate determination, and do not perform the obligation of collecting, to a required extent. In order to eliminate this "danger", that practice was introduced that one-one and a half years after getting to the post, independently of the activity, one part of council presidents[16], secretaries[17] were placed to a different village, eventually to a different district. With the further rotation they wished to avoid that the representatives of the state power coming from other places could interdigitate to the society of the settlement. The system of „kádárforgó", however, did not fulfil the hopes attached to it, since the frequent rotation held up the regularity of process. (Gyarmati, 1991, p.55-56) By the end of the 50s, the party, confessing the negative effects of the phenomenon, slowed down „káderkörforgó", and so it became more and more common that local public administration leaders emerge more and more from those living in the given settlement, and paralelly to this, the level of schooling and education had increased as well.

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[13] National Council of Trade Unions (SZOT) was operating as an elected organisation, joining and directing the Hungarian departmental and other trade unions between 1948 and 1989.
[14] National Association of cooperatives (SZÖVOSZ) an organisation cooperating and directing cooperatives between1949 and1990.
[15] The council is the institution of local public administration, executing, centralised organ of the state power in the settlement between 1950 and 1990.
[16] The president of the council is the primary leader of the council of the settlement.
[17] The secretary is one of the leading office-holders of the council organisation.

Conclusion

All in all, it can be concluded that for empirical researhers of the elite, it is Mills' institutional approach and the positionally-structurally oriented definition attempts that seem to be the most useable, which determine the local elite strictly by assigning certain positions. In my historical research, I myself did this way as well. I have selected those executorships and functions, the holders of which – first of all, through these institutional posts – had a lasting influencing- and decision-competences in managing the issues of the local society. Between 1945 and 1948, and also in October and November 1956 I applied the notion of the elite/local elite to the members of the group, since in these periods in Hungary, selection took place – in the vast majority of cases – in a democratic way, based on performance and quality. In the post-1948 party-state period, however, I was unanimously using the concepts of the cadre (and the selection- and appointing system, the nomenclature, which placed them into positions). As I have already mentioned above, following this, there was no relation between getting into the elite and individual skills in Hungary, which had serious consequences on the spheres of society, politics and economy alike.

References

Andrássy Gy. (1982). „Az uralkodó elit Kaposváron 1919-1944 között". in the *A Dunántúl településtörténete 1900-1944. I,* vol. 5. p.p.154-157. Farkas G. (ed.). Veszprém: MTA Veszprémi Akadémiai Bizottsága.

Bakos F. (1997). Idegen szavak és kifejezések kéziszótára. Budapest: Akadémiai Kiadó.

Baranyi B. (1972). „Gondolatok az uralkodó elitről, valamint egy helyi elit történetéről a debreceni virilizmus kapcsán (1870-1930)". in the *Magyar Történelmi Tanulmányok*, vol. 5. p.p.4-67. Fehér A. (ed.). Debrecen: KLTE.

Clifford-Vaughan, M. (1980). „Democracy, Elitism and Scientific Methods". *Inquiry,* 23, p.p. 3-18.
Csekő E. (2002). „A szekszárdi virilisek összetétele 1872 és 1918 között". in the *Struktúra és városkép. A polgári társadalom a Dunántúlon a dualizmus korában.* p.p.149-161. Tóth G. P. (ed.). Veszprém: Laczkó Dezső Múzeum.

Giddens, A. (1974). „Preface". in the *Elites and Power in British Society.* p.p. ix-xiii. Giddens, A. & P. Stanworth, P. (eds.). London: Cambridge University Press.

Gottfried B. (1993). „Nyíregyházi virilisek 1874 és 1912 között". in the *Helytörténeti Tanulmányok,* vol. 9. p.p.141-168. Gyarmathy Zs. (ed.). Nyíregyháza: Szabolcs-Szatmár-Bereg Megyei Levéltár.

Gyáni G. (1977). „Hódmezővásárhely legnagyobb adófizetői (1888-1941)". *Történelmi Szemle,* 3-4, p.p. 626-640.

Gyarmati Gy. (1991). „A káderrendszer és a rendszer kádere az ötvenes években". *Valóság,* 2, p.p. 51-63.

Higley, J. & Field, G. L. & Gröholt, K. (1976). Elite Structure and Ideology. New York: Columbia University Press.

Huszár T. (2007). Az elittől a nómenklatúráig. Az intézményesített káderpolitika kialakulása Magyarországon (1945-1989). Budapest: Corvina.

Juhász J. & Szőke I. & O. Nagy G. & Kovalovszky M. (eds.) (2003). Magyar Értelmező Kéziszótár. Budapest: Akadémiai Kiadó.

Mills, C. W. (1972). Az uralkodó elit. Budapest: Gondolat Kiadó.

Mosca, G. (1939). Elementi di Scienza Politica. Gius: Laterza & Figli, Barl.

M. Tóvári J. (1980). „A miskolci társadalom gazdasági vezető csoportjának átrétegződése (1872-1917)". *Századok,* 5, p.p. 781-817.

Ornstein, M. & Stevenson, H. (1981). „Elite and Public Opinion before the Referendum: A Commentary on the State in Canada". *Canadian Journal of Political Science*, 14, p.p. 745-774.

Ortutay A. (1982). „Esztergomi virilisták 1895 és 1944 között". in the *A Dunántúl településtörténete 1900-1944. I,* vol. 5, p.p.134-140. Farkas G. (ed.) Veszprém: MTA Veszprémi Akadémiai Bizottsága.

Söptei I. (2002). „Kőszeg legtöbbet adózó polgárai 1872-től a századfordulóig". in the *Struktúra és városkép. A polgári társadalom a Dunántúlon a dualizmus korában.* p.p.133-146. Tóth G. P., (ed.). Veszprém: Laczkó Dezső Múzeum.

Szakadát I. (1992). „Káderfo(r)gó. A hatásköri listák elemzése," *Társadalmi Szemle,* 8-9, p.p.97-120.

Szakál Gy. (1991). „Adatok a győri politikai vezetőréteg történetéhez," *Győri Tanulmányok,* 1, p.p. 47-71.

Szakál Gy. (1987). „Gondolatok a győri gazdasági elit történetéről 1900 és 1940 között". *Győri Tanulmányok,* 8, p.p. 25-47.

Szakál Gy. (2002). Vállalkozó győri polgárok 1870-1940 között. Sikeres történeti modellváltás. Budapest: L'Harmattan.

Takács K. (1998). „Az elit szociológiai fogalmáról". *Szociológiai Szemle,* 1, p.p. 139-148.

Takács T. (2005). „A városi elit és a városi önkormányzat Nyíregyházán a 20. század első felében". Ph.D. dissertation. University of Debrecen, Debrecen, Hungary.

Tokaji Nagy E. (1995). „Szombathely urbanizációja a századfordulón. Éhen Gyula szerepe a város modernizációjában". in the *Vállalkozó polgárok a Dunántúlon a dualizmus korában.* p.p.212-227. V. Fodor Zs. (ed.). Veszprém: Laczkó Dezső Múzeum.

Tóvári J. (1997). Az elit Miskolc város társadalmában 1872-1917. Nyíregyháza: Stúdium Kiadó.

T. Varga Gy. & Szakadát I. (1992). „Íme, a nómenklatúrák! Az MDP és a volt MSZMP hatásköri listái". *Társadalmi Szemle,* 3, p.p.73-95.

Valuch T. (2001). Magyarország társadalomtörténete a XX. század második felében. Budapest: Osiris Kiadó.

Vörös K. (1979). Budapest legnagyobb adófizetői. Budapest: Akadémiai Kiadó.

Vörös K.(1966). „Budapest legnagyobb adófizetői 1903-1917," in the *Tanulmányok Budapest múltjából,* vol. 17, p.p.145-195. Budapest: Múzeumi Ismeretterjesztő Központ.

Vörös K. (1971). „Gazdaság és társadalom a dualizmus korában". in the *Győr. Várostörténeti Tanulmányok,* p.p.323-404. Dávid L. & Lengyel A. & Z. Szabó L. (eds.). Győr: Győr Városi Tanács.

Vörös K. (1978). „A győri városigazgatás és várospolitika történetéhez 1861-1914". in the *Tanulmányok Győr és vidéke történetéből.* p.p.113-127. Gecsényi L. (ed.). Győr: Győr Megyei Város Tanácsa.

Weber, M. (1987). Gazdaság és társadalom 1. Budapest: Közgazdasági és Jogi Könyvkiadó.

A Cross-border Railway Company Connecting Two World Orders, the GYSEV between 1945 and 1990: Gaps in the Iron Curtain

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Abstract

The World War II was not the beginning of a new and peaceful era. Until 1947 relations between the victorious powers became more and more intense. Both parties announced their own Cold War doctrine: on the American side this was the Truman principle and the Marshall plan, while by the Soviets it was the Zhdanov–Stalin's "two camp" theory. Moreover, the war was not ruled out by the general peace treaty made with the consent of the victorious powers. The outcome of it was that distancing of the different values between the two great powers occurred in the German question, which resulted in the formation of two world order separated by the iron curtain: the Western Bloc and the Soviet Bloc. Hungary was important to the Soviet Union geopolitically as it was considered its Western military forefront and ultimately, with the Soviet defeat of the 1956 Revolution, it became apparent that it would remain within the Eastern Bloc. The Iron Curtain that physically appeared in 1949 separating two world orders also split up the Győr–Sopron–Ebenfurti Vasút [Railway] (GYSEV) that was established in 1876 and the Fertővidék Local Railway line that started its operation from 1897. Contrary to this, the private railway of the Monarchy and the vicinal it operated did not seize to exist. Moreover, it went on its own uniqueness not only in the two countries, but throughout the two world orders of West and East. The purpose of my presentation is to outline this paradoxical situation, which shows that the iron curtain did not shut the two camps hermetically apart, but there were gaps on it. In addition to this, I would like to show how the Austrian- and Hungarian-owned company was authorized or tolerated by the political power, why the nationalization did not take place. In addition to the sources of archives, research is based mainly on reports, news and articles written about the era in the Hungarian and international press. I am making it complete by using the oral history method through presenting the narratives of people working on the railroad, picturing the uniqueness of the situation and its effects on society. As a conclusion it can be claimed, that the railways crossing the two world order opened the way for smuggling and illegal migration. The company was responsible for its strategic significance in the past as well as in the present by bridging the divide between the blocks which had their own way of ideological, economic, cultural and political development.

Keywords: Iron Curtain, Railway, Two World Orders, GYSEV

Introduction

The Győr–Sopron–Ebenfurti Vasút (GYSEV) started its operation as a private railway company in the Austro–Hungarian Monarchy or within Hungary in 1876. However, the fall of the Monarchy and the peace treaty of Trianon redrew the map of Hungary. Nearly two-thirds of the territory of Hungary was annexed that largely cut down the railway system of the Carpathian basin that had been incorporated perfectly into its natural spatial structure. GYSEV also fall victim to this forced shift of the border that had also been operating the Fertővidék Local Railway by that time (Pándorfalu[Parndorf]–Eszterháza-Fertőszentmiklós–Kiscell) since 1897. From 4th June 1920, the company and both its lines belonged to two countries: Austria and Hungary. The operation of them was managed by an international treaty between the states by the beginning of the 1920s and went on uninterruptedly. However, a new trend arose once more after the Second World War. The construction of the Iron Curtain from 1949 and the sovietisation of Hungary compromised the existence of GYSEV which still belonged to two countries and by then to two different world powers. Its operation was not halted during this

period either contrary to the restrictions and beside the legal service illegal activities (smuggling, defecting) began to take place on both lines in question. In the present study I make an in-depth examination into the time between 1945 and 1990 of the history of GYSEV concentrating especially on its operation and the international traffic as well as presenting its economic and social significance.

1. The Iron Curtain Rolling Down

The Second War didn't turn out to be the beginning of a peaceful era. Up to 1947 the relations between the victorious powers became strained. Both parties launched their own cold war doctrine: the Truman Doctrine and the Marshall Plan on the American side whereas the soviets had their Zhdanov–Stalin 'two sides' theory. What is more the war was not closed down by the overall peace treaty settled down by the approval of both parties. They even failed to come to an agreement in the most important question in Paris, 1947: in the question about the Germans, therefore the demarcation of the interests was taken place between the two major powers. It consequently led to a divided Europe. Stalin firmly believed that the multilateral trade agreement led by the Americans for the rebuilding of Europe and the soviet control over middle and Eastern Europe were incompatible. That side of Europe rejected the Marshall aid as well so in a few months it turned into a homogeneous 'Soviet Bloc' that was artificially isolated by iron curtain from the western part of Europe – thus from the USA too – in the name of the Stalinian empire construction. The economic deployment of the 'Rubel Bloc' was taken place of which key link in the chain became the Comecon (Council for Mutual Economic Assistance). By this, the fate of Hungary was also determinated as a forecourt of strategic importance in the west. (Fischer, 1992, p.113-127)

After the massive destruction of World War II, GYSEV was hardly able to cope with the reconstruction tasks. First, on the 6th of May, 1945 scheduled but not cross-border traffic could commence on the line of the Fertővidék HÉV and on 20 July on the GYSEV line. At the same time, freight transport began to grow slowly and more and more quickly. By 1946 the railway difficulties had slightly reduced and the previous timetables were restored. Crossing of the border between Sopron and Ebenfurt was launched again. (Zwickl, 2011, p.133) In the same year, the responsible Hungarian railway officials called for the nationalization of GYSEV. It could not be made through because – in accordance with the Three Power Pact of Berlin – the previously German-owned shares of GYSEV, as many as 39.9% of all shares were granted to the Soviet Union, which could exercise the same rights relating to the company that relied to the shareholders in accordance with the existing Hungarian law.[1] But the year 1947 turned out to be disastrous. Civil and Soviet shipments suddenly fell back, yields of grain and sugar beet were low due to drought and Austria was at the top of inflation right then. (Lovas, 2000, p.363-369) In Hungary, from 1946 to 1949, the model of Soviet socialism was being adopted, which was reinforced by the Paris Peace Accords of 1947 by pointing to mutual shift of interests. Then, based on the previous agreement between the two blocks led by the USA and the Soviet Union the spheres of influence under the shield of the Great Powers were set up. Hungary then became part of the Eastern Bloc. (Fischer, 1992, p.113-127) Thus, the new shareholder, in the spirit of sovietisation delegated as many as 6 Soviet representatives to the Board of Directors of GYSEV in 1947. (Majdán and Varga, 2014, p.85) At the same time, two years later, the Soviet Union transferred these shares to the state under the act entitled as the law of 20 of 1949 in the Constitution of the Hungarian People's Republic.[2] By this, the influence of the state on the company increased significantly.

From 15 November 1947, the competent authorities imposed a strict limit on the western edge because of smugglers and border crossings. From that time on, 15 km from the border, the police and the patrols of the border guard checked the identity of all vehicles and passers-by. In addition to this, raids were held in the farms, the roads were sealed and the area was combed through.[3] From this point onwards, it was not possible to cross

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[1] Internationalization, initiatives to establish a new source of researchers and graduates, and development of knowledge and technological transfer as instruments of intelligent specializations at Szechenyi University EFOP-3.6.1-16-2016-00017

Hungarian State Archives, Archives in Sopron of Győr-Moson-Sopron District. SL VI. 435. XXIV. 406. 68. box, Magyar Közlekedésügyi Miniszter 39.738/1946.I.1. number

[2] 1949. évi XX. törvénycikk, A Magyar Népköztársaság Alkotmánya.
http://www.rev.hu/sulinet45/szerviz/dokument/1949.evi3.htm (Access: January 18th 2018)

[3] „Rendőrök és határvadászok rohama a nyugati határon a csempészfront ellen," *Friss Ujsag*, vol. 125, pp. 3, November 26, 1947.

the border or to take anything through it. Sopron, where there was already an alcohol prohibition and movement restriction in force,[4] and the surrounding area – due to the railway traffic to Austria – attracted defectors or smugglers[5] as it was only 3 km from the border and several options – such as Lake Fertő – offered a chance for forbidden border crossing.[6] In addition, the city was classified as an Austrian station outside Austria.[7] Cross-border traffic between Mekszikópuszta and Pamhagen was enabled by the Soviet authorities on the Fertővidék HÉV only from 1947, previously only the Hungarian and Austrian parts were used for the traffic. It was particularly interesting that the "Puszta Expressz" could transport passengers from Fertőszentmiklós – through Parndorf – to Wien Ostbahnhof from 1948. (Lovas, 1998, p.30-43) At this time, ex-defectors also appeared, who were krauts – often former SS members and Volksbundists – previously displaced from Sopron and its vicinity. However, they jumped off the trains – that were meant to carry them to Bavaria from 1946 – after 10 to 20 km after crossing the border and stayed with Austrian farmers. After two or three months of their stay they could get a legal border crossing permit from the authorities by which they returned to Sopron three or four times to dig out their hidden assets and flee back to Austria with them.[8] The trains were therefore unhindered interconnecting the two countries. As Hungarian staff provided the service for the transmission of the trains on the lines of GYSEV in Austria as well, they could travel regularly on the border with a valid travel document. This way some smuggling through the outgoing staff turned out to be practically unavoidable before 1949 as well. Various manufactured goods and foodstuffs changed hands through railwaymen. Then, since 1948 the number of people intending to cross the border illegally by the help of the railways or railway workers increased. Hiding in the tenders of the locomotives, in the fuel oil tanks or on freight trains, or jumping barely onto freight trains heading towards Austria were the most common among the experiments. (Lovas, 1973, p.17-20) The authorities were unable to prevent further illegal border crossings with even strict border control and anti-Western propaganda (unemployment, slums, hunger).[9] By 1949 the physical obstacle came into existence, as the iron curtain was built at the western border of Hungary, and then the minefield by 1952. (Zsiga, 1999, p.30-33) The Austrian party did not particularly welcome it, sometimes deliberately damaged or even blasted it.[10] By then, the configured iron curtain thus physically restricted the movement of those who wanted to cross the 'green border', but the railway offered a new alternative by continuing to cross the border at Sopron and Mekszikópuszta.

On 20th August 1949 the People's Republic was proclaimed in Hungary, which meant full nationalization at the same time. The protection of the western border was tightened, as there was a growing fear of espionage from Austria and the West towards Hungary.[11] From 1949, the Border Guard (Gáspár, 2012, p.42) operating within the framework of the State Protection Authority, used the railway workers' assistance to protect the border. Within a three-month regular training period, special attention was paid to this,[12] and among the station- and train- crew members groups were formed that were alert to the appearance or travel of strangers. In addition to this, from 31st August 1950, the train patrol service was introduced on the GYSEV line and from 23rd July 1951, in the vicinal of the Fertővidék line. All the trains from Sopron and Fertőszentmiklós were accompanied by a patrolman. There, the train was once again checked and it could leave the Austrian territory only then. Incoming trains were searched at the border and escorted them to the Hungarian terminal. This was used to prevent people from jumping down the trains and on the trains.

From 1952, a territory stretching 20 km from the border was allowed to be entered only with permission. The Hungarian shuttling employees of GYSEV have been granted a permit similar to passports for their work. Shortly afterwards, trains departing to and arriving from Austria were separated from the others. As a result, in 1953, a new customs inspection building was set up for the separation of domestic and foreign passengers (until

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[4] „Sopronból is megkezdték a svábok kitelepítését," *Világosság*, vol. 91, pp 6, June 24, 1947.

[5] „Megdöbbentő leleplezés a magyar–osztrák határon," *Kossuth Népe*, vol. 138, pp. 299, November 27, 1947.

[6] „Sopron: a kalandorok, szökevények, csempészek és kitoloncoltak „pihenő helye"," *Kis Ujsag*, vol . 148, pp. 5, December 19, 1947.

[7] Based on an interview with Dr Tibor Józan, Deputy Chief Executive Officer of GYSEV since 2007, on 15 December 2017, Sopron. (Author's possession) (Józan 2017.)

[8] „Osztrák területen megszöknek a kitelepítő vonatok utasai," *Kossuth Népe*, vol. 142, pp. 329, October 12, 1947.

[9] „Fiatalok a határon," *Népszabadság*, vol. 287, pp. 3, October 15, 1956.

[10] „Osztrák határszervek sorozatos támadásai a magyar biztonsági berendezések ellen," *Népszabadság*, vol. 268, pp. 2, November 18, 1949.

[11] Hungarian State Archives, Archives in Győr of Győr-Moson-Sopron District. GYL MSZMP Győr-Sopron Megyei Bizottság Archívuma, 31. 1948–1950. 14. Jegyzőkönyv, December 2, 1949.

[12] Hungarian State Archives, Archives in Sopron of Győr-Moson-Sopron District.. SL VI. 435. XXIV. 406. 66. box, 1951. évi oktatási program

the winter of 2007, it remained there until the entry into the Schengen area), but there were still many problems after all. (Lovas, 1973, p.17-20) More severe restrictions were introduced on the Fertővidék HÉV. As the atmosphere became more and more tense between the Western and Eastern Bloc, the Hungarian customs and border guard units were drawn back from Pamhagen to Mekszikópuszta. Though the former was situated in Austrian territory, it only had a Hungarian number on the basis of the 1923 State Treaty.[13]

On 14th May 1955, Hungary also signed the Warsaw Pact,[14] with which it permanently committed itself to the Soviet Bloc. Austria, however, went on a different course and became neutral.[15] From this time on, there was a radical difference in economic and social development between the two countries. There was not just a single border, but a separation caesura between the two world powers. As a consequence, border traffic was abolished on 22 May 1955 on the Fertővidék HÉV. (Lovas, 1998, p.30-43) Thereafter, however, there was little relief between the blocks of the world order. The four major powers (US, USSR, UK, France) stated that obstacles to the international cooperation in the fields of industry, agriculture, trade, science, technology, culture and tourism had to be slowly eliminated. Any relationship between the East and the West had to be developed.[16] Hungary and Sopron also had an interest in increasing the number of inbound tourism in Austria due to foreign exchange needs. Thus, in the fall of 1956, the landmines were removed as a relief to the border surveillance. (Zsiga, 1999, p.30-33) In the summer of the year, there was nothing to indicate the autumn revolution, and in fact, the Sopron rail junction was preparing for the peak traffic due to the autumn harvest beside the already increased import and export transports.[17] The continuous growth of the traffic of GYSEV called for an inevitable modernisation of the railway wagons and motor vehicles.[18] The improvement of the Austrian–Hungarian relations also became noticeable by this time.[19] However, the Revolution and War of Independence which broke out on 23rd October 1956 completely rewrote the future of Hungary. These events also made it impossible for the Border Guard to function. Border guard personnel left the station. The train attendant also ceased. Hungarian and Austrian passengers were free to get off and talk on the station platform in Sopron. (Lovas, 1973, p.17-20) At the same time, mass influx of the refugee started to flood from the inside of the country and began to flow towards the western border. On 3rd November the entire garrison of the border guards in Vienna Street fled to Austria, thus eliminating the surveillance of the border. On the Austrian side, refugee camps and direct trains waited for the evacuated people. (Locsmándi, 2009, p.147) As a result of the Soviet attack, refugees filled up the GYSEV trains, but many of the crew members also left the country. (Lovas, 2000, p.363-369) In response, the Soviet authorities imposed a border closure between Mekszikópuszta and Pamhagen on 4th November (Lovas, 1998, p.30-43), while Austria did the same, abolishing this way all the train traffic. Following the dissolution of the tension, representatives of the socialist countries agreed in Budapest in December 1956 to restart the international passenger and freight traffic.[20] Then, on 17th December 1956 the passenger transport could be launched again on the GYSEV line to Ebenfurt. (Lovas, 2000, p.363-369)

By 1957 the situation in the country was more or less normalized. Nevertheless, illegal migration to Austria was not over. During this time, the aid to the Hungarian refugees was becoming more and more problematic for Austria, and they were increasingly cause of political and financial burdens.[21] The Hungarian government ordered a strict border guard for stabilizing the situation from 8th January and on the 24th a decision was made to reinstall the technical border closure. The mine barrage was employed once more. With Austria's neutrality, this area really became the demarcation line of the West and the East. (Jankó and Tóth, 2008, p.107-131. After 1957, due to the more and more thorough work of the Hungarian border guards, the number of dissidents

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[13] Józan 2017.

[14] „Aláírták a varsói értekezleten résztvevő országok, barátsági, együttműködési és kölcsönös segítségnyújtási szerződését," *Győr–Sopronmegyei Hírlap*, vol. 113, pp. 1, May 15, 1955.

[15] „Aláírták az osztrák államszerződést," *Győr–Sopronmegyei Hírlap*, vol. 114, pp. 1-2, May 17, 1955.

[16] „A szovjet küldöttség javaslata a Kelet és Nyugat közötti kapcsolatok fejlesztése kérdésében," *Győr–Sopronmegyei Hírlap,* vol. 257, pp. 2, November 1, 1955.

[17] „Őszi csúcsforgalomra készül a soproni vasúti csomópont," *Győr–Sopronmegyei Hírlap*, vol. 176, pp. 4, July 27, 1956.

[18] Hungarian State Archives, Archives in Sopron of Győr-Moson-Sopron District. SL VI. 435. XXIV. 406. 45. box

[19] „Jó szomszédokhoz méltón," *Szabad Nép*, vol. 250, pp. 1, September 9, 1956.

[20] „A szocialista országok vasutainak segítségével megindul a nemzetközi teherforgalom Magyarországon," *Népszabadság*, vol. 29, pp. 4, December 9, 1956.

[21] „A külföldre távozott magyarokról," *Kisalföld*, vol. 13, pp. 7, January 17, 1957.

decreased and at the same time the number of arrests increased.[22] Slowly, it also crystallized for some, how to get to the west. To do so, a passport was required in the first place from the passport department at the police station, soon afterwards at IBUSZ and was finally issued in Budapest. Only close relatives were allowed to be visited those times.[23] With these arrangements the authorities made travelling to the West or to keep contact with relatives living there far more difficult. The relationship between the two countries, Austria and Hungary became tenser – a new phase of estrangement began.[24] However, this did not seem to have an impact on the activity of GYSEV. In fact, from 1958 on, as one of the important transit routes between the East and the West, it was able to increase its turnover dramatically.[25] At the company, the shuttling Hungarian rail passengers could only carry out their work on the other side of the border with a special permit. Until the end of the 1980s, only one shunter was operating on the border crossing of the Fertővidék HÉV departing from Fertőszentmiklós and carried railway workers to Austria each day.[26]

It was just in 1962 that the Hungarian–Austrian relations started to improve. (Locsmándi, 2009, p.147) One example to this was the Soproni Festive Evenings, which was also visited by many from Austria.[27] Rail traffic to the west also rose significantly.[28] The Sopron line of GYSEV became an increasingly important railroad route towards Baumgarten and, in terms of freight transport, the Mekszikópuszta–Pamhagen section was also in use.[29] GYSEV having been adapted to the increasing traffic performed a rail replacement on its railroads in Hungary and Austria.[30] The company's income from transit cargo to the West and, to a lesser extent, its income from the coaching traffic was major foreign exchange revenue for the country. (Bodnár, 1966, p.362) It considerably grew when, in 1968, Austria and the Soviet Union signed the SAT agreement (Soviet-Austrian Transit Fees Committee) to establish a direct international rail freight between the two countries and to establish ETT (Single Transit Tariff).[31] Hungary, Poland and Czechoslovakia also became members of the organization. Annually, 60–65% of the many thousands of railway freight (wood, cellulose, fertilizer, potash, industrial wood, paper-wood, aluminium waste, crushed engines and machines[32] from the Soviet Union to Austria) passed through Hungary and GYSEV also.[33] GYSEV celebrated its 90th anniversary on 28th October 1969. As a result of the ever-increasing transitional efficiency of the railways – operating on a formal basis –, the Hungarian and Austrian governments extended its concession for another 20 years.[34] By doing so, the company from the age of the Monarchy demonstratively did not disturb anybody even after the iron curtain had descended. Its staff was 80% Hungarian that were managing the traffic on the whole line, while Austria only provided the station staff in the Austrian area. Furthermore, because of its special position and its status (total line length at that time 217.4 km of which 153.9 km was located in Hungary) took an important role in the national and international transport system.[35] The establishment of Raabersped also took place, which received only the international containerised freight forwarding right at first and from 1984 onwards had full right of freight forwarding.[36] In 1973, György Csanádi Minister of Transport and Post and Minister of Transport of Austria Erwin Lang jointly signed the new

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[22] „A határőrségen," *Kisalföld*, vol. 10, pp. 7, January 13, 1957.

[23] „Hogyan utazhatunk külföldre?" *Kisalföld*, vol. 43, pp. 2, February 21, 1957.

[24] „A Külügyminisztérium nyilatkozata a magyar–osztrák viszonyról," *Kisalföld*, vol. 56, pp. 2, March 8, 1957.

[25] „Húsz évre meghosszabbították a GYSEV szerződését," *Népszabadság*, 1969. október 23. 247. szám, 9. p.

[26] Józan 2017.

[27] „*Auf Wiederschaun, Sopron*". Több mint százezer látogatója volt a soproni ünnepi heteknek," *Népszabadság*, vol. 170, pp. 7, July 23, 1963.

[28] It concerned not only the line of GYSEV, but the other operating railway lines to Austria: (Budapest–)Hegyeshalom–Bécs, (Budapest–)Szentgotthárd–Graz, Sopron–Kőszeg, Sopron–Bécsújhely. „Béke menetrendje," *Szabadföld*, vol. 25, pp. 2, June 22, 1969.; „A ki-belépő forgalom állomásai a magyar határon," *Katolikus Magyarok Vasárnapja*, vol. 45, pp. 3, November 25, 1974.

[29] „A pénzügyminiszter és a külkereskedelmi miniszter 1/1966. (III. 1.) P M–Kk M számú együttes rendelete a vámjog részletes szabályainak megállapításáról és a vámeljárás szabályozásáról," *Magyar Közlöny*, vol. 16, pp 1-5, March 1, 1966.

[30] „Meggyorsul a vasúti forgalom Győr–Sopron között," *Népszava*, vol. 211, pp. 56, September 7, 1966.

[31] „Sopronban aláírták a SAT-konferencia jegyzőkönyvét," *Népszabadság*, vol. 155, pp. 4, July 4, 1975.

[32] In accordance with an interview with retired Gyula Nagy on 15th December 2017, who worked as a brakeman on the Austrian line of the Fertővidék HÉV from 1971, then as a train driver in Ebenfurt for 25. (Author's possession)

[33] „Tárgyalás Sopronban a szovjet–osztrák forgalomról," *Világgazdaság*, vol. 127, pp. 3, July 5, 1975.

[34] „Húsz évre meghosszabbították a GYSEV szerződését," *Népszabadság*, vol. 247, pp. 9, October 23, 1969.

[35] „Fiatalítás előtt a GYSEV. Új állomás Sopronban – Pályarekonstrukció – Drótkötélpálya," *Népszava*, vol. 247, pp. 204, October 23, 1969.

[36] „Törpevasút, nem kis vasút," *Népszava*, vol. 12, pp. 152, January 15, 1984.

statue of GYSEV, under which the company later presented itself in tourism in both countries, built hotels, restaurants, expanded its travel business and opened a travel agency as well.[37] Thus, after the beginning of the reconstruction of the marshalling yard in 1974 they started the construction of the new railway station in Sopron.[38] In 1975, the SAT conference was held at the company's headquarters, where Soviet, Austrian, Hungarian, Polish and Czechoslovak railway experts deepened their previous freight transport cooperation.[39] In 1976, the two countries extended the GYSEV operating license – that had been renewed in 1969 by 20 years – with another 30 years, which remained in force until 2007.[40] That made it possible to modernize the Austrian railroads of the company.[41] In the same year, the new 9-track freight railway station was inaugurated in Sopron,[42] which could serve the East–West transit traffic on a much higher scale. The company also built a customs warehousing centre beside the yard, which gained a monopolistic position in terms of mass goods due to its industrial distribution system with a railway turntable. Thus, regarding the mass, Sopron had the largest freight volume.[43] This almost 40,000-square-metre warehouse – except the company warehouse – became a free zone, which meant a highly favourable condition for the Hungarian companies involved in exporting.[44] The passenger station was handed over in 1977, where border police and customs departments were also stationed and served as a common Hungarian-Austrian border station from that time,[45] and a separate waiting hall for foreigners was established.[46]

The growth of tourism was also indicated by the appearance of *"hobby trains"*. The locomotives and wagons that had been constructed in the 19th century travelled from Vienna via the lines of GYSEV at a scheduled time. The trains were launched at the stations by the horns of the old traditions, and railroaders were all wearing contemporary uniforms. First, Austrians started to use them to meet with the sights of Sopron and Nagycenk, then, also a Japanese colony living in Vienna arrived to Hungary with it.[47] The participants of the Congress of the World Museum of Transport in 1978 in Vienna were invited to Nagycenk by the Transport Museum of Budapest, where they could try the Széchenyi Railway Museum, visit the open-air exhibition of small steam locomotives and the memorial museum of Széchenyi.[48] So the old festive trains of the GYSEV became popular on distinguished occasions. Only in 1979, tourists from 24 nations travelled there about 100 times.[49]

In 1979, the 100th anniversary of GYSEV was celebrated in both the Hungarian and the Austrian part.[50] But the joy they felt was mixed with sadness, as the 1968 Transport Policy Concept, the termination of the railway line, also reached the company. The section of the Fertővidék Local Railway between Fertőszentmiklós and Celldömölk was classified to be wound up by referring to an economic failure. The last operative day of the Hungarian section was on 26th May 1979 (within a few years the rails were also removed). The abolition of the section was acknowledged by the local population with a funeral service. For villages left without rail, it became clear that their lifestyle changed significantly and a new era began. (Varga, 1990, p.42) The leaders of the railway company planned to terminate the Fertővidék HÉV as well. However, the Austrian branch had just received new executives who then convinced the leaders of GYSEV that it was worth keeping and updating the line. (Lovas, 1998, p. 30-43) Later that year a convention was signed between Hungary and Austria to further

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[37] „A magyar és az osztrák közlekedési miniszter aláírta a GYSEV új alapszabályát," *Népszabadság*, vol. 269, pp. 3, November 17, 1973.
[38] „Új pályaudvart kap Sopron," *Népszava*, vol. 117, pp. 228, May 22, 1974.
[39] „Sopronban aláírták a SAT-konferencia jegyzőkönyvét," *Népszabadság*, vol. 155, pp. 4, July 4, 1975.
[40] „Harminc évvel meghosszabbították a GYSEV koncesszióját," *Népszabadság*, vol. 44, pp. 4, February 21, 1976.
[41] „Meghosszabbították a GYSEV koncesszióját," *Világgazdaság*, vol. 36, pp. 79, February 21, 1976.
[42] „Felavatták az új soproni teherpályaudvart," *Népszabadság*, vol. 83, pp. 4, April 7, 1976.
[43] Józan 2017.
[44] „Törpevasút, nem kis vasút," *Népszava*, vol. 12, pp. 152, January 15, 1984.
[45] „Felavatták az új soproni pályaudvart," *Népszabadság*, vol. 162, pp. 1, July 12, 1977.
[46] „Sopronban," *Népszava*, vol. 162, pp. 97, July 12, 1977.
[47] „Hobbivonat osztrák turistákkal," *Népszabadság*, vol. 143, pp. 14, July 6, 1977.; „Hobbivonat," *Népszava*, vol. 143, pp. 176, June 19, 1977.
[48] „A bécsi IATM-kongresszus – Nagycenken," *Népszava*, vol. 224, pp. 214, September 22, 1978.
[49] „Százéves a győr–sopron–ebenfurti vasút," *Népszabadság*, vol. 238, pp. 8, October 11, 1979.
[50] „Százéves vasút," *Amerikai Magyar Népszava*, vol. 51, pp. 19, December 21, 1979.

ease cross-border rail traffic.[51] By then, the number of Austrian tourists taking a day's journey on the GYSEV line and Sopron started to grow. This was due to the fact that it was cheaper than driving there in one hand, and on the other hand they did not need to bother about drinking a few glasses of wine in the famous Sopron wine region. The railway company organized one-day trips and built up its own business network for the tourists for selling their sought after store products, besides, they also came to the country for cheaper services (meals, dentists, hairdressers, beauticians).[52] The earlier frozen Austrian and Hungarian relations were thus resolved quite a lot. In 1983, GYSEV joined the Eastern Transport Association, and thereafter, instead of the three pairs of trains per day, there was a nearly hourly train transport on the Sopron–Ebenfurt line to Vienna, which was mostly harmonised to going to work and schools.[53]

The same tendency got started much earlier from the point of view of railroads. As most of the staff was Hungarian, and many of them – with different types of permit – were shuttling out to Austria, most of the time good relationship emerged between the employee of the two nations working at the same workplace. Usually, the interdependence gave birth to friendly relations. Workers in Austria had to learn German that was provided by the company on a weekly basis.[54] At the same time, smuggling could not be stopped even under the strictest controls, in spite of thorough scrutiny. Among other things, the most wanted products were anoraks, coffee, nylon stockings, housecoats, dresses, sewing material, 'Fa' soap, shower gel and calculators. Most often, train attendances brought Soviet champagne (Sovietskoje Igristoje), Pick salami, blocks of cheese and loin-chop to the neighbouring country, where people and acquaintances bought them most happily. Human smuggling was also present throughout the era.[55]

For the second half of the 1980s, GYSEV's passenger transport index rates were measurably affected by the more and more competitive road – bus – and aerial transportation. Personal transport rate decreased to the half of the previous, while the amount of transported goods got doubled due to the logistic opportunity provided by their warehouse.[56] Moreover, the two states extended the concession of Fertővidék HÉV in 1986 until 2007.[57] In the vicinal, mainly sugar beet was being transported from spring to autumn, and that was when private trains also began to show up on it – with special permission and for touristic purposes[58] – after passenger transport was terminated on this line from 1955.[59] Meanwhile, political transformation began to take place in Hungary that launched the shift of the regime and liberalization. Even before the iron curtain was demolished, the recovery of the scheduled transport between Pamhagen and Fertőszentmiklós at Fertővidék HÉV came up.[60] It had to wait until 1990, when the Iron Curtain fell completely. At this time, the regular passenger train traffic was restarted between the settlements of Fertőszentmiklós and Neusiedl am See.[61] Thus, the GYSEV finally came out of the iron curtain that barely ever restricted its operation. The thus far state-owned railway could now operate again as a real joint-stock company.[62]

Conclusion

All in all, it can be stated that the GYSEV and the Fertővidék Local Railway that was managing by it were considered a unique phenomenon because they remained in the hands of two countries (Austria and Hungary), which meant that they belonged to two world orders, the socialist East and the capitalist Western Bloc. From

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[51] „A Magyar Népköztársaság Elnöki Tanácsának 1979. évi 17. számú törvényerejű rendelete," *Magyar Közlöny*, vol. 57, pp. 776-782, August 18, 1979.
[52] „Élelmes turizmus," *Amerikai–Kanadai Magyar Élet*, vol. 9, pp. 18, March 5, 1983.
[53] Józan 2017.
[54] „A jószomszédság vasútja," *Szabad Föld*, vol. 49, pp. 4, August 8, 1984.
[55] Nagy 2017.
[56] „Kétnyelvű vasút," *Népszabadság*, vol. 163, pp. 4, July 12, 1986.
[57] „Meghosszabbítják a Fertő vidéki vasútvonal koncesszióját," *Népszabadság*, vol. 273, pp. 8, November 20, 1986.
[58] Józan 2017.
[59] „Meghosszabbítják a fertővidéki vasút működési engedélyét," *Népszava*, vol. 273, pp. 220, November 20, 1986.
[60] „Új vasút" Ausztriában," *Világgazdaság*, vol. 75, pp. 1, April 22, 1989.
[61] „Újra megnyitott a határátkelő. Vonattal a Fertő tájain," *Népszabadság*, vol. 125, pp. 9, May 30, 1990.
[62] „A GySEV kibújt a vasfüggöny alól," *Népszava*, vol. 53, pp. 8, March 4, 1991.

Sopron to Ebenfurt and Fertőszentmiklós to Neusiedl am See, apart from a short break, virtually, there was cross-border traffic throughout the era. However, it also provided a unique opportunity for illegal border crossing and smuggling. Many tried to defect - ordinary people and even among the railway employees. They sacrificed and risked a lot for going to the West in the hope of a better life, often leaving their families behind for this reason. The relationship between Austria and Hungary started to ease only from the 1960s, which was also promoted and utilized by GYSEV. Having become popular as the gateway to the West, Sopron became one of the most important railway logistic centres in the Eastern Bloc. The company's employees shuttling to Austria were privileged to gain insight into the capitalist world. The shift of regime in 1989, however, marked the beginning of a new era by the elimination of the physical closure, with which the earlier historical relations between Hungary and Austria could gradually start their regeneration.

The former Iron Curtain
(http://one-europe.net Access: February 22th 2018)
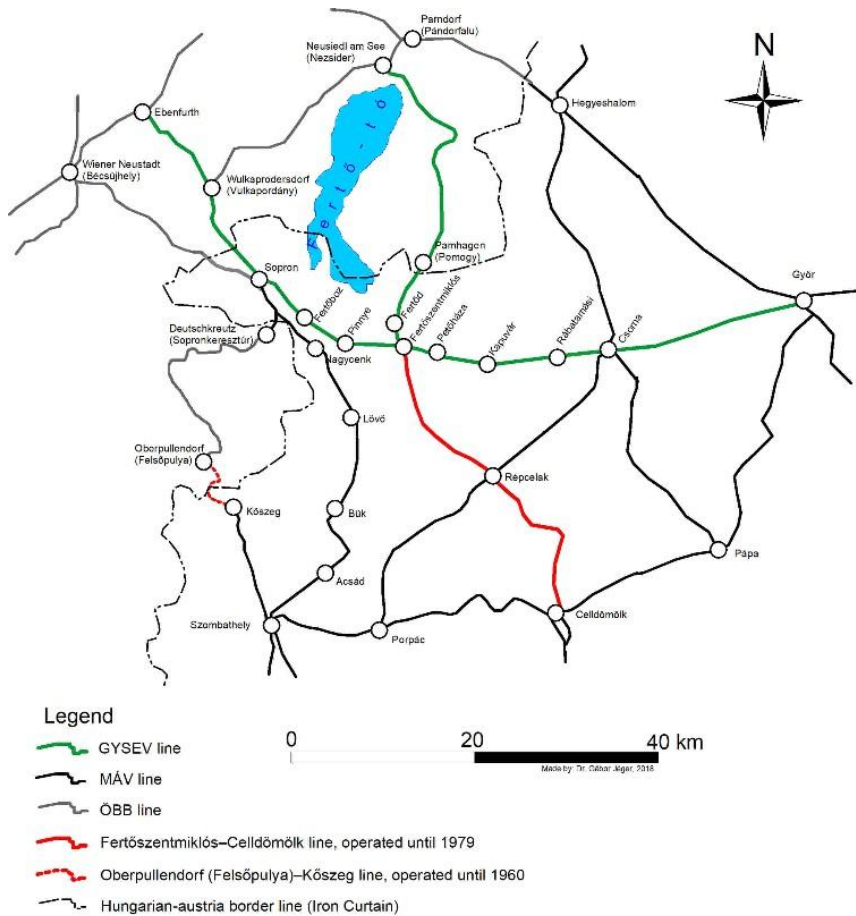
GYSEV and Fertővidék Local Railway lines in the nortwestern Hungarian region in this period. (Map was made by Dr. Jéger Gábor for the request of author)
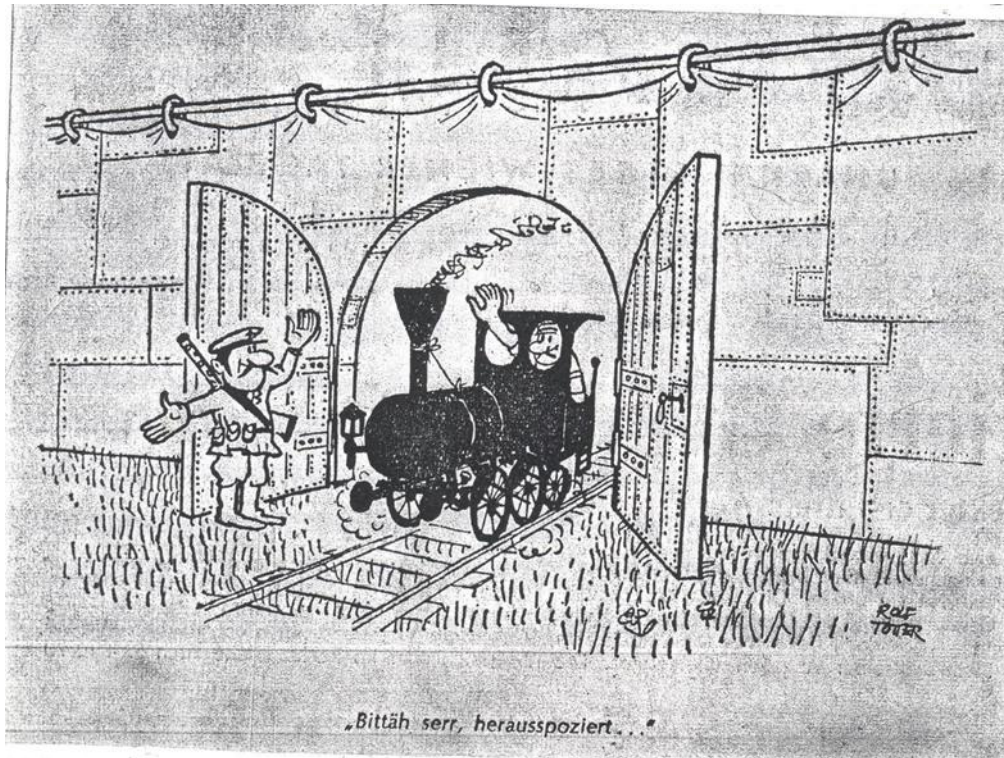
A caricature of a fleeing with train from 1965. „Flucht aus Ungarn auf einer Lok," *Neues Österreich*, vol. 126, pp. 3, August 5, 1965.

References

Bodnár Z. (1966). „A külkereskedelmi árucsereforgalom és egyes közlekedési ágak". *Külkereskedelem*, 12, p.p.362.

Fischer F. (1997). A megosztott világ. A Kelet–Nyugat, Észak–Dél nemzetközi kapcsolatok fő vonásai (1945–1989). Budapest: Ikva.

Gáspár L. (2012). „A második világháború utáni magyar határőrizet változásai". *Rendvédelem-történeti Füzetek*, 25. p.p.32-52.

Jankó F. & Tóth I. (2008). Változó erővonalak Nyugat-Pannóniában. Történelmi és földrajzi esszé. Szombathely & Sopron: Savaria University Press and Nyugat-magyarországi Egyetem Közgazdaságtudományi Kar Nemzetközi és Regionális Gazdasági Intézet.

Locsmándi Sz. (2009). „A határon átnyúló vaspálya. A GYSEV fejlődése és szerepe a határ menti kapcsolatokban Eisenstadt (Kismarton) – Sopron térségben". *Tér és Társadalom*, 2, p.p. 135-153.

Lovas Gy. (1973). A Győr–Sopron–Ebenfurti Vasút 25 éve. 1948–1973. [Unpublished]

Lovas Gy. (1998). „A fertővidéki HÉV (1897–1997)". *Soproni Szemle*, 1, p.p.30-43.

Lovas Gy. (2000). „A GySEV története 1945 és 1972 között". in the *Magyar vasúttörténet 1945–1972,* vol. 6. p.p.363-369. Kovács L. (ed.). Budapest: MÁV.

Majdán J., & Varga G. (2014). „GYSEV– A Győr–Sopron–Ebenfurti Vasút". *Rubicon*, 8, p.p.80-85.

Varga Gy. (1990) „A Fertőszentmiklós–Celldömölk közötti helyiérdekű vasút (1879–1979)". *Honismeret*, 1, p.p.38-42.

Zsiga T. (1999). A „vasfüggöny" és kora. Der Eiserne Vorhang und seine Zeit. Budapest: Hanns Seidel Alapítvány.

Zwickl, L. (2011). GySEV die Raaberbahn. Brücke zwischen Ost und West. Betriebsgeschichte der österreichischen Linien. Wien: BAHNmedien.at.

National Sovereignty and Airspace Borders

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Abstract

The article focuses on the juridical aspects of national airspace borders. In today's technological era, the juridical issues of national airspace border play a very important role in guaranteeing the sovereignty of any country. The topicality of the article is related to quite frequent invasions and violations of national airspace borders. Territory of a state is usually delimited by land, sea and air borders. We usually understand the concept the territory of a state as ground or water surface, however in most countries definitions of national borders as well as in border agreements and national regulatory framework, the concept of national borders within its jurisdiction is defined as land and water depths within technical capabilities and the air space until the cosmos border (118 km above sea level, in the end of 20th century it was recognized as a result of scientific research). The sovereignty of Latvia since joining the EU and NATO has developed not only in maritime areas, airspace and border control, but even in space, as evidenced by the contract with the European Space Agency for space exploration and peaceful use in 2009. The article uses a comparative method, examining the opinions of many lawyers and the relevant normative regulation and analytical method, analyzing the content and interpretation of the regulatory framework.

Keywords: Territory, borders, countries, airspace, border agreements.
JEL Codes: K33

Introduction

Each country as an organization of sovereign power is bound to a certain territory. Ancient Greek word *politeiā* (πολιτεία) describes the term country in more structural meaning aspect rather than specificē territory (Platons, 2001, p.15). The territory of the country is one of the main elements of each sovereign country as an entity of international law. Each country must respect the territorial integrity (Fogels, 2009, p.175) of other countries. Scientist of Latvian national legislation prof. K.Disler while studying the notion of sovereignty did not divide the country into an integral part of sovereignty but detailed the other elements of sovereignty, such as national sovereignty, sovereignty of people, sovereignty of state institutions, sovereignty of the state power, legal sovereignty, national sovereignty (Dišlers, 1931, p.74). Professor K.Disler examines the concept of sovereignty in more detail from the point of view of administrative law (Dišlers, 2004, p.p. 13-18), although the emphasis of the state on the concept of sovereignty in content has been observed since ancient times, as evidenced by prof. R. Cipelius believes that in state theory sovereignty is referred to as the basis for the idea of inviolability (Cipelius, 1998, p.65) of this territory and referring to T. Hobbs (Levitans in chapter 21) he points out as follows: "Everyone entering a sovereign territory is subject to its rights"(Hobbes, 1651).

S.Pufendorf in studies about national legislation stressed that those who travel to another country are subject to the respective authority and give up part of their natural freedoms (Pufendorf, 1729, p.p. 291-298). The sovereignty principles of the state were laid down in Montevideo 1933 Convention on the rights and duties of the states. According to Article 1 of this convention the state as a person of international law should possess the

following qualifications: a permanent population, a defined territory, government and capacity to enter into relations with other states (Montevideo Convention, a.1).

The territory of the country is defined by the country itself or it is being determined (specified) by international law, respectively in the form of border agreements.The territory is usually understood as the surface of the land or water, but states, when defining national boundaries both in border agreements and in the national regulatory framework, include the concept of a state border into the spread of its jurisdiction not only in the territories but also the airspace of the subterranean depths and airspace, as emphasized also prof. T.Jundzis, the land, its depths, forests, waters and other natural resources are the national wealth of the republic belonging to the people of Latvia (Jundzis, 2000, p. 392-393) this statement had been emphasized by V.Vītiņš in the beginning of 20th century as well (Vītiņš, 1993, p. 23).

The concept of "national sovereignty" is significant in the sphere of international communication, and this concept must be regarded as primarily a category of international relations (Колосов and Кузнецов, 1998, p. 57). D.Bleiere points out that a democratic state is a politically organized nation, which is a sacred state power within a state, but autonomy is the ability of such a nation to operate on other politically organized peoples in order to fully realize its interests (Bleiere, 2001, p. 31). Such an assertion could not be accepted, as autonomy means the sovereignty of a separate sovereign state of the state, as can be seen from examples of the former Union of Soviet Socialist Republics (hereinafter referred to as the USSR) and Yugoslavia's individual autonomy. In the author's view, the concept of "national sovereignty" is nowadays associated with the concept of "state autonomy" in constitutional law. With this concept it is possible to emphasize the essence of the main national sovereignty - political and legal independence in international relations, although absolute independence is not possible, since any country as a subject of international law is limited by international treaties and obligations (Мартенс, 2008, p.p. 7-25). The content of the concept of sovereignty in Article 2 of the constitution of Latvia has changed since the adoption of the Constitution in 1922. International treaties and growing interdependence are increasingly restricting the sovereignty of all countries, as countries transfer part of their competences to international organizations. Consequently, the notion of sovereignty as absolute, unlimited power has changed. Today, absolute national sovereignty would simultaneously mean the isolation of this country. However, while transferring the competences of the EU, Member States do not lose the traditional constitutive elements of statehood - permanent residents, certain territories, governments, and the ability to enter into international relations with other countries. The EU also has no right to change the territory of its Member States and therefore, legally and effectively, the borders of the Member States continue to exist (The Constitution of the Republic of Latvia, 2009 April 7 the judgment of the court regarding the compliance of the Law "On the Conformity of the Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community with Article 101 of the Constitution of the Republic of Latvia, 2009, Section 4).

Dr. D.Bleiere emphasizes the internal and external dimension of sovereignty, where internal sovereignty relates to the rule of law in its territory, first of all with the right of the people of the state to choose the form of government they consider most appropriate, while external sovereignty is associated with protection against intervention, international equality the legal aspect and the possibility of implementing an autonomous foreign policy (Bleiere, 2003). With regard to internal sovereignty, Dr. D.Bleier's point of view, since the choice of citizens, but not of the entire population, affects the form of government, which largely depends on the country's democratic apparatus, but not on sovereignty. In addition, dictatorial states can be sovereign, even though their citizens and their citizens do not have a democratic right to choose the form of government. Often, efforts to implement the principle of self-determination of peoples are contrary to another well-established principle of international law - the principle of the territorial integrity of the country (of which the nation seeks to separate), as is evident from the example of the collapse of the former USSR, when, at the outset, the Baltic republics and many other republics, separated from previously so united and powerful superpower. According to law scientist J.Grigelonis, in the international practice the principle of territorial integrity and integrity of the state is recognized as more significant (Grigeļonis, 2000, p. 109), although there are, in principle, exceptions that are determined by political, historical or other aspects, including also in the case of Latvia, by concluding a border treaty with Russia and implementing the principles of the Organization for Security and Cooperation in Europe

(OSCE), that countries which have ethnic conflicts or external territorial disputes, including claims for territorial recovery, or internal jurisdictional disputes, must settle these disputes peacefully (Study of NATO Enlargement, Chapter 1).

The territory of the country is that part of the globe which is in a state's sovereignty and is delimited by its land, sea and air borders. Prof. J.Bojārs explains the state border as a line in nature and a vertical plane located along this line, which determines the prevalence of the state's land, sea, subterranean depths, airspace and territorial sovereignty of the country (Bojārs, 2004, p. 307). The lack of this explanation is that there is no indication that the state border line should be closed, as stipulated in the Law on State Borders of the Republic of Latvia in 2009 (State Border Law, 2009, a. 1, p. 1). In turn, the line underlying the state border is actually a geometric line, as law researchers indicate in Russian Federation (Капустин, 2007, p. 203) Belarus (Горулько and Others, 2010, p. 8) and in other countries (Sullivan and Others, 2009, p.1, 3), as well as it is defined in legislation for example in Estonia (Riigipiiri seadus Vastu võetud, § 2) Poland (Ustawa z dnia 12 października, 1990, art. 2, 3) Serbia (Law on Protection of State border, art. 2.) etc. Therefore, in the context of state sovereignty and the concept of the state border, it is essential to understand the meaning of the concept of the territory of the country with the differentiation of its sovereignty, for example, in relation to marine areas. The territory of the country is bounded by land, water and air borders. The territory of the country includes land, internal and territorial waters, subterranean depths and airspace above them (Bojārs, 2004, p. 296).

Prof. J. Bojārs also gives more concrete explanations of elements of the territory of the state:
1) land territory includes the land part of the country of the visa covering its borders;
2) the territory of the waters consists of internal (inland) and territorial waters covered by its borders or territorial sea, which for Latvia is: a)Waters of the Baltic sea in width of 12 nautical miles (hereinafter NM) (International Convention for the Safety of Life at Sea, 1974, sec. 1) counting from the baseline unless otherwise specified in the international agreements (b) The waters of the Gulf of Riga, from the baseline to the state border, determined in accordance with the provisions of the Republic of Latvia and the Republic of Estonia signed on July 12, 1996 agreement on establishing a sea border in the Gulf of Riga, the Irbe Strait and the Baltic Sea (State Border Law, 2009, a. 1), which is in general is in accordance with the requirements and concepts of the UN Convention on the Law of the Sea (hereinafter - UNCLOS) (art. 2).

The national airspace under the ICAO convention includes airspace above the national land and territorial waters under its sovereign or suzerain power (Convention on International Civil Aviation (ICAO Convention), art. 2) without setting the upper limit of this space. From a physical point of view, according to professor J.Bojārs, the air space consists of a troposphere (8-10 km in the polar and 8-18 km in tropical regions), the stratosphere (6 to 16 km to 45-55 km high), and the mezzo-sphere (at an altitude of 50-80 km) (Bojārs, 2004, p. 304). In another scientific publication professor J.Bojārs points out the lower boundary of the space about 90 km above sea level, which could be the lower orbital or perigea of the earth's arbiter, and refers to the space term "space" set out in the 1967 Space Convention, which covers the entire cosmic space above the lower perigee (Bojārs, 2004, p. 162), although the Space Convention, which apparently was intended to be the Treaty on the Principles Governing the Exploration and Use of National Spaces, Moon and Other Celestial Bodies (Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, 1963) space and atmospheric boundaries are not determined. In 1979, the USSR submitted to the UN General Assembly proposals for the designation of an airspace and space boundary at a height of 100 to 110 km above sea level (United Nations General Assembly, 1979, which, however, did not achieve further consolidation at the Conventional level. L.Pereks, referring to the discussion initiated by the UNGA in 1977, points out that the atmospheric and space boundary could be 90 to 110 km above sea level (Perek, 1977, p. 123). Similar views are also found in other scientists' works. 20th century late and the 21ˢᵗ century At the beginning of the ongoing discussions and scientific studies, the space-Earth boundary was recognized at a height of 100 km above sea level, also recognized by the International Federation of Air Navigation (FédérationAéronautique Internationale), sometimes referred to as the Karman Line (see annex 15) (Karman, 1995).

However, in 2009, scientists at the University of Calgary, Canada, recognized the limit of 118 km above sea level as a result of scientific research on the physical boundary of the atmosphere and the cosmos (ionosphere) (Sangalli and Others, 2009, p. 10). In contrast, the United States National Aeronautics and Space Administration (NASA) believes that the atmospheric and space limit is 122 km above sea level, after which it is no longer possible to use atmospheric aerodynamic properties for flight, when the lifting force comes from the aerodynamic effect of the air on those aircraft surfaces that are stationary in flight conditions (Aviation and Space.Tagged: Space magazines, 2012). EU Regulation No 923/2012 does not set the ceiling for Member States' airspace, but the list of terms states that the territory of a Member State is a land territory and adjacent territorial waters that are in the sovereign or suzerain power, mandate or protection of a state (Commission Implementing Regulation (EU) No No 923/2012 of 26 September 2012 establishing common rules and regulations for air navigation services and procedures and amending Implementing Regulation). EU legislation does not set the ceiling for Member States' airspace, but the regulation is a positive example of harmonization between the EU and international law.

The essential criterion for international recognition of a State as a subject of international law is its ability to effectively control its territory. As the International Arbitration Court found in the "Island of Palmas" case (The Island of Palmas Case (or Miangas), 1928), similarly to the Greenland conflict between Denmark and Norway, the Danish-Swedish controversy over the continental shelf, the dispute between Finland and Sweden on the Åland Islands, etc., the territorial principle serves both to limit state power in the space and also to share competence among members of international cooperation (Bojārs, 2004, p. 305). We can agree on Dr. D.Bleier's view that in the course of European integration, the sovereignty of its Member States has increased. Germany is the most visible example, but in several other countries EU membership has also helped to increase the legitimacy of a national state. Integration is a means of strengthening national sovereignty, although integration through increased influence can reduce self-sufficiency. However, the abandonment of integration processes can reduce the impact without increasing autonomy (Bleiere, 2003). It has to be established that Latvia's sovereignty has increased not only under the control of air borders, but even in space, as evidenced by the recent agreement between Latvia and the European Space Agency with the aim of establishing a legal basis for cooperation between the parties in the area of space exploration and peaceful use and to lay down conditions for the implementation of projects of common interest (Agreement between the Government of the Republic of Latvia and the European Space Agency for Cooperation in the Field of Space for Peaceful Purposes, 2009).

An important and significant factor according to the professor J.Bojārs is the emphasis and attribution of the spatial boundaries of the state territory to the segment form, because in the geometric sense the phrase "the vertical surface that coincides with this line" is defined in the definition of the state border, as well as in the corresponding definitions of other countries, is incomplete, because due to the fact that the globe is spherical (although slightly stretched in the direction of the equator as a result of centrifugal forces), the vertical surface corresponding to the national boundary line should not be completely vertical. In this case, it should be assumed that a given country renounces a significant part of its airspace, but unjustifiably adds a subterranean space to another neighboring country. Also, the word "surface" in the definition of the state border is not precise, because from the point of view of geometry terminology it is a plane or split plot.

The spatial emphasis of the state territory is also on the work of other lawyers, for example, prof. R. Cipelius's work: "The territory of the state is not two-but three-dimensional, therefore it is not an area, but a body that is in the space above and below the surface of the earth." Although prof. R. Cipelius does not include the area of the sea (water) in this explanation, but in the future justifiably extends the territory of the country to the sea: "By expanding coastal waters to 12 nm, the sea borders today are heavily internal to the current borders of arms and technical sea management. The unlimited territory's sovereignty is up to the baseline, that is, up to the waterline line at peak speed (Cipelius, 1998, p. 68). Already in the 19th century in the works of Russian law researchers the territory of the country was explained in the spatial sense, including the land as well as the sea, i.e. the space within which the national law operates (Капустин, 1873, p. 202).

The territory of the country is inviolable, arising from the rights of many centuries of international customs, gaining a written attachment in Title IV of the Declaration of the Final Act of the Helsinki Conference on Security and Cooperation in Europe, 1975, stipulating that Member States will respect the territorial integrity of each Member State and refrain from any unconnected activities the principles and objectives of the United Nations Charter against the territorial integrity, political independence or unity of any Member State, incl. from any activities that would force you to use force or threaten to use force (Declaration of the Final Act of the Helsinki Conference on Security and Cooperation in Europe, 1975, on the principles on which the Member States will govern mutual relations).

However, state power is not exclusive even in its territory, such as the United States (Bojārs, 2010, p. 71-80) exercises its jurisdiction over foreign commercial enterprises if the natural or legal persons of the receiving state suffer from their actions. By contrast, the EU, like most international organizations, has become an international treaty (Jundzis, 2008, p. 73) and the single market (Karnīte and Other, 2004, p.p. 83-92), has become the basis for its integration, and has set certain limits of state power through greater freedom of movement of workers across borders through the Maastricht Treaty (Treaty on European Union, 1992) the Treaty of Nice (Treaty of Nice Amending the Treaty on European Union, 2001) and the agreements on judicial cooperation, for example, in the rules on the issuance of their own nationals to the country where they committed crimes.

The Latvian State Border Security Coordination Council coordinates the cooperation of state institutions in the field of border security (Regulations of the Latvian State Border Security Coordination Council, 2003, No 532). In its turn, the Cabinet of Ministers, in accordance with the second part of Article 49 and the third paragraph of Article 49.1 of the Law "On Aviation", determine the procedure for requesting the forced landing of aircraft in the interests of public order and security and the procedure for the taking of a decision on the conduct of hostilities against extreme necessity aircraft in the territory of Latvia in order to prevent damage to national security interests and if there is reason to believe that the aircraft is used as a weapon for the destruction of humans (Procedures by which public order and security may require the forced landing of an aircraft and how a decision is taken regarding the conduct of combat operations against an aircraft in the territory of the Republic of Latvia; Cabinet Regulations No.290 from April 18, 2006).

In this case, the Minister of Defense shall take a decision regarding the carrying out or non-action of a combat operation in the territory of Latvia if this is the only opportunity to prevent damage (Law on Aviation, Law of the Republic of Latvia, 1994). The Law "On Aviation" defines the territory of Latvia as the land territory of the Republic of Latvia, its internal and territorial Baltic Sea waters and airspace. In this case, the phrase "territorial Baltic waters" should be defined as "territorial sea". The term "State border" and the term "national territory" are closely and logically related concepts. In the Open Skies Treaty, land is considered as a territory of a Member State, incl. islands as well as internal and territorial waters within the sovereign territory of a Member State.

Conclusions

1. Understanding of sovereignty concept has changed over time. In the context of this concept, particularly important is the delegation of national functions to "supranational" organizations as the European Union has become with the status of an international organization.

2. Within the boundaries of its territory (and in some cases also outside it), the state exercises its territorial superiority, which is one of the elements of sovereignty, and includes the following norms: the State's land and natural resources cannot be used by another state without the express consent of the sovereign state; the state cannot be compelled to deprive the territory belonging to it; the boundaries of the national territory are inviolable and their inviolability is governed by the fundamental principles of international law and international treaties; the State enjoys the highest authority over all natural and legal persons on its territory; within the territory of the country, the public authority of any other state is excluded except where national jurisdiction may extend beyond national territory, such as sea, airspace, spacecraft and their crews, their nationals, diplomats, consular officers and their own contingent of troops, in some cases even in the territory of other countries; the highest state power

in the territory of the country is implemented through the system of public authorities in the legislative, executive, judicial and administrative fields; the territory of the state is not only a space separated by the state border, in which the state exercises its power, but also nature with its components - land, water, airspace, subterranean depths and natural resources that are used in the national economy and form the material basis of the territory of the country.

3. The territory of the country is bounded by land, water and air borders. The territory of a country is sometimes understood as the surface of land or water. However, states, within the boundaries of national borders, both in border agreements and within national regulatory frameworks, include the prevalence of their jurisdiction not only in territories but also in the spatial sense of the subterranean depths of technical capabilities and airspace (100 km above sea level) within the concept of state border.

4. Latvia's sovereignty has been strengthened not only in airspace and border control, but even in space, as evidenced by the agreement between Latvia and the European Space Agency with the aim of establishing a legal basis for cooperation between the parties in space exploration, peaceful use and the implementation of projects of common interest.

5. In the spatial sense, the phrase "the vertical surface corresponding to this line" in the definition of the Latvian State border, as well as in the corresponding definitions of other countries, is not absolutely precise, because due to the fact that the globe is in a spherical shape, the vertical surface corresponding to the state border line should not be absolutely vertical. In this case, it must be assumed that a given country renounces its significant part of the airspace but unjustifiably adds another suburb of the neighboring country. The word "surface" in the definition of the state border is not precise and should be replaced by a "plane" or "split plane" from the point of view of geometric terminology.

References

Platons (2001). Valsts. Pagātnes domātāju darbi. Zariņa V., Ķemere I. (priekšv.). No sengrieķu valodas tulkojis G. Lukstiņš. Platons un viņa dialogs „Valsts". Rīga: Apgāds Zvaigzne ABC.

Fogels, A. (2009). Modernās starptautiskās tiesības. Rīga: Zvaigzne ABC.

Dišlers, K. (1931). Ievads Latvijas valststiesību zinātnē. Rīga: Latvijas vēstures institūta apgāds.

Dišlers, K. (2004). ,Latvijas valsts orgāni un viņu funkcijas. Rīga: Tiesu namu aģentūra.

Cipeliuss, R. (1998). Vispārējā mācība par valsti. 13.pārstrādātais izdevums. Rīga: AGB.

Hobbes, T. (1651). Leviathan. Available: http://www.gutenberg.org/files/3207/3207-h/3207-h.htm.

Pufendorf, S. (1729). Law of Nature and Nations. Eightbooks. Printed J.Walthok, R.WilkinandI.Bowicke, S.Birt and T.WardandT.Osborn.. Available: *books.google.lv/books?id=7MchAQAAMAAJ*
Montevideo Convention on the Rights and Duties of States. Signedat Montevideo, 26 December 1933. Available: http://www.taiwandocuments.org/montevideo01.htm..

Jundzis, T. (2000). Latvijas PSR Augstākās Padomes Deklarācija par Latvijas valsts suverenitāti. No:Rakstu, atmiņu un dokumentu krājums par neatkarības deklarāciju. Rīga: Fonds Latvijas Vēsture.

Vītiņš, V. (1993). Vispārējs tiesību pārskats.2.izd. Rīga: SIA Verdikts.
Колосов, Ю. & Кузнецов, В. (1998). Международное право. Москва: Международные отношения.

Bleiere, D. (2001). Mazas valsts ārpolitiskā autonomija. Latvija pasaules politikā: iespējas un ierobežojumi. 2.izd. Rīga: LĀI.

Мартенс, Ф.Ф. (2008). Современноемеждународноеправоцивилизованныхнародов. В 2-х томах. Том 2. Подред. проф. В.А. Томсинова. Москва: Зерцало.

The Constitution of the Republic of Latvia, 2009 April 7 the judgment of the court regarding the compliance of the Law "On the Conformity of the Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community with Article 101 of the Satversme of the Republic of Latvia". LV, April 9, 2009, No.56. Determination Section 4.

 Bleiere, D. (2003). Suverenitāte globalizācijas un reģionālās integrācijas laikmetā. Available: http://www.politika.lv/temas/6982/.

Grigeļonis, J. (2000). Mūsdienu starptautiskās un tirdzniecības tiesības. Rīga: AGB.
Study of NATO Enlargement. Chapter 1: Purposes and Principles of Enlargement. NATO On-linelibrary: BasicTexts Study on NATO Enlargement. Available: http://www.nato.int/docu/basictxt/enl .

Bojārs, J. (2004). Starptautiskās publiskās tiesības I. 3.pārstr. izd. Rīga: Zvaigzne ABC.

Капустин, М. (1873). Международное право: конспект лекций, год. В: Золотой фонд Российской науки международного права. Том 1. Москва: Международные отношения, 2007.
Рачковский, И. А. (предисловие), Горулько, А.Г., Давыдик, В.В, and Others. (2010). Комментарий к ЗаконуРеспублики Беларусь от 21 июля 2008 года „О Государственной границе Республики Беларусь". Минск: Тесей.

Sullivan, P., Bernhardt D. & Ballantyne B. (2009). TheCanada-United States boundary: Thenextcentury. Available: http://www.internationalboundarycommission.org/docs/ibc-2009-01-eng.pdf .

RiigipiiriseadusVastuvõetud, 30.06.1994. (Estonians State Border Law). Available: https://www.riigiteataja.ee/akt/738283,

Ustawa z dnia 12 października 1990 r. o ochroniegranicypaństwowej. Stanprawny: 18.11.2012. (Poland State Border Law). Available: http://www.arslege.pl/ustawa-o-ochronie-granicy-panstwowej/k584/

Law on Protection of State border. (Serbian State Border Law). Available:http://www.mup.gov.rs/domino/zakoni.nsf/State%20Border%20Law%20Draft.pdf

State Border Law (2009). Law of the Republic of Latvia. Available: https://likumi.lv/doc.php?id=201364
Convention on International Civil Aviation (ICAO Convention). Doneat: Chicago. Dateenacted: 1944-12-07. Inforce: 1947-04-04. Available: http://www.jus.uio.no/english/services/library/treaties/07/7-01/international-civil-aviation.xml#treaty-header1-1

Bojārs, J. (2004). Starptautiskās publiskās tiesības II. Rīga: Zvaigzne ABC.

Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space: adoptednbynthenGeneralnAssemblynin its resolution 1962 (XVIII)in 1963. Available: http://www.oosa.unvienna.org/oosa/SpaceLaw/outerspt.html .

United Nations General Assembly. Commitee on the Peacefulusesofouter Space. USSR: Working paper Approach to the solution of the problems of the delimitation ofairs pace and outer space. A/AC.105/C.2/l.121, 26 March 1979. Available: http://www.oosa.unvienna.org/pdf/limited/c2/AC105_C2_L121E.pdf .

Perek, L. (1977). Scientific Criteria for the Delimitation of Outer Space. Journal of Space Law, Volume 5, Number 1&2, Available: http://www.spacelaw.olemiss.edu/jsl/pdfs/back-issues/jsl-5.pdf

Diederiks -Verschoor, I.H.Ph.& Kopa, l. V.AnIntroduction to SpaceLaw. 3rd Edition [Hardcover]. TheNetherlands: 2008, Kluwer Law International BV, p.17.

Theodore von Kármán (Szőllőskislaki KármánTódor), (1995). (May 11, 1881 – May 7, 1963) was a Hungarian-American mathematician. In:Thread of the Silkworm. Perseus Books Group The International Air Sports Federation. Available: http://www.fai.org/icare-records/100km-altitude-boundary.

Sangalli, L., Knudsen, D.J., Larsen, and Others. (2009). Journalof Geophysical Research, VOL. 114 Available: http://www.agu.org/pubs/crossref/2009/2008JA013757.shtml
Aviation and Space.Tagged: Space magazines. December 20, 2012. Available: http://www.noteitposts.com/space-magazines/.

Commission Implementing Regulation (EU) No No 923/2012 of 26 September 2012 establishing common rules and regulations for air navigation services and procedures and amending Implementing Regulation (EU) No. No 1035/2011 and Regulation (EC) No 1265/2007, (EC) No Regulation (EC) No 1794/2006, (EC) No 730/2006, (EC) No 1033/2006 and (EU) No. 255/2010. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:281:0001:0066:LV:PDF

Permanent Court of Arbitration. The Island of Palmas Case (or Miangas). Award of the Tribunal. The Hague, 4 April 1928. Available: http://untreaty.un.org/cod/riaa/cases/vol_ii/829-871.pdf
Лунден, Е. (2011). Конфликты по вопросам границ. Северная Европа, проблемы истории. Отв.ред. Чернышева О.В., Комаров А.А. Москва: Наука.

Agreement between the Government of the Republic of Latvia and the European Space Agency for Cooperation in the Field of Space for Peaceful Purposes: 23.07.2009. International document. LV, August 6, 2009, No.124
Declaration of the Final Act of the Helsinki Conference on Security and Cooperation in Europe, 1975, on the principles on which the Member States will govern mutual relations.

Jundzis, T. (2008). „Lisabonas līgums" un Eiropas Savienības konstitucionālie pamati. Likums un Tiesības, nr.2.

Karnīte, R, Apsītis, Ģ., Rutkaste, U. and Others (2004) Latvija un ES: Problēmjautājumi ekonomikā, politikā, tiesībās, filozofijā un lingvistikā. Rīga: LZA EI.

Treaty on European Union. OJ C 191, 29 July 1992. (Līgums par Eiropas Savienību. Māstrihta).

Treaty of Nice Amending the Treaty on European Union, the Treaties establishing the European Communities and certain related Acts. (2001/C80/01). Available: http://eur-lex.europa.eu/lv/treaties/dat/12001C/htm/C_2001080EN.000101.html
Regulations of the Latvian State Border Security Coordination Council, Cabinet of the Ministers regulations No 532 of September 23, 2003 and No 132 of September 25, 2003

Procedures by which public order and security may require the forced landing of an aircraft and how a decision is taken regarding the conduct of combat operations against an aircraft in the territory of the Republic of Latvia; Cabinet Regulations No.290 from April 18, 2006 .

Law on Aviation, Law of the Republic of Latvia, October 20, 1994. Available: https://likumi.lv/doc.php?id=57659

Research project, 2017. The EU's external border security, Latvian internal security. Nr.1.1.1.2./VIAA/1/16/127. Available: http://www.rta.lv/pecdoktoranturas_petniecibas_atbalsts

Relationship between Role Conflict and Job Satisfaction: Interacting Effect of Emotion of Flight Attendant

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Abstract

This study tests the hypotheses that flight attendants' emotional labor aspects moderate the decreasing propensity of job satisfaction in the changing industrial climates, where the Role Conflict (RC) is likely perceived by the customer service employees. The questionnaire surveys were administered to a total of 414 flight attendants working for a European airline. A 5-point Likert-type scale was administered to assess the aspects of RC and emotional labor. The results indicate that, first, RC perceived by the customer service employees decreases job satisfaction. Second, an emotional labor aspect (affective delivery) moderates the decreasing propensity of job satisfaction. In the competitive industrial environment, emotional labor aspects practiced by the customer service employees moderate job satisfaction, when the role conflict is perceived not very high. Finally, emotionally competent employees might harmoniously work with people as well as the automated machines and IT in the stressful workplace, thus, contribute a long-term growth of the organization.

Keywords: Role Conflict, Emotional labor, Airline, Flight attendant, Growth of organization

Introduction

The service economy and industry in the world has experienced substantial growth. For example, the population in professional and business services was increased by 11.75% between 2000 and 2010 in the United States (Statistical Abstract, 2012, table 619). Organizational researchers are increasingly paying attention to the unique problem and issues involved in managing service providers, organizations and employees. In fact, work in service jobs is particularly demanding (Sonnentag and Natter, 2004, p. 366).
Conversely, in developed Western countries, there is an ongoing trend in services and production industries to employ as few people as possible to do as much as possible (Bergman & Gillberg, 2015, p. 23). The combination of corporate-driven globalization, deregulation, subcontracting, and outsourcing leads to an increase in the number of hours worked and flexible work hours, and a decline in job security, and worker autonomy in a broad range of occupations and professions. In the airline industry, downsizing and the introduction of early retirement program is a trend (Okabe, 2018, p. 239).

In addition, in the recent airline industry, many airlines use information technology (IT) and automated machinery for reservation, airport check-ins, and other operations. While it is important for airlines to adapt the competitive environment, IT and the automated machine are performing work previously done by human contact employees (Okabe, 2017, p. 149). Moreover, artificial intelligence (AI) might substitute the people's work. Furthermore, the current aviation industry is a 24-hours a day and 7-days a week operation that produces a variety of challenges for flight attendants, including extended duty periods, highly variable schedules, frequent time zone changes, and increased passenger load (Avers et al., 2009, p. 1). Thus, flight attendants' workplace today is more complicated and stressful than before.

As a result, the professional roles expected of modern flight attendants are gradually changing from what they were in past decades. Thus, the customer service employees might perceive role conflict in the workplace. The ambivalence and instability in occupation affect the job satisfaction of the employees as well as the nature and performance of the organization (Kahn et al., 1964, p. 143).

On the other hand, interest in emotions in the workplace has accelerated rapidly over the past decade (e.g. Ashforth & Humphery, 1995, p. 97; Fisher & Ashkanasy, 2000, p. 3). For example, the customer service employees such as flight attendants often make an effort to show a positive emotion (e.g. happiness and friendliness) and hide sadness or fear during the interaction with customers. The management of emotions as part of the work role refers to emotional labor, for example, the smiles are a part of her work, a part that requires her to coordinate self and feeling so that the work seems to be effortless (Hochschild, 1983, p. 8).

The purpose of the present research is, first, to test the hypothesis of the direct relationship between the antecedents (role conflict) and the consequences (job satisfaction) in the customer service organization. Second, the present research tests the hypotheses of the moderating effect of emotional labor aspects between role conflict and job satisfaction, i.e., whether emotional labor aspects (affective delivery, surface acting and deep acting) moderate the decreasing propensity of job satisfaction in the changing industrial climates where role conflict is likely perceived by the customer service employees.

Literature Review

Emotional Labor

Emotional labor is defined as the effort, planning, and control needed to express organizationally desired emotion during interpersonal transactions (Morris and Feldman, 1996, p. 987). Emotional labor has been paid attentions, especially in the service providers and the employees. According to Hochschild (1983, p.p. 8 and 9), organizations are increasingly willing to direct and control how employees present themselves to others. Management of emotions practiced by the flight attendants is emotional labor and is commercialized for the commercial purpose of airlines (Hochschild, 1983, p.p. 8 and 9). In other words, the images that employees create for customers and the quality of interactions between employees and customers have become increasingly under the control of management (Morris & Feldman, 1996, p. 986). As a consequence, a key component of the work performed by many workers has become the presenting of emotions that are specified and desired by their organizations (Morris & Feldman, 1996, p. 987).

Emotional Regulation

Emotional regulation is defined as "the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions" (Gross, 1998b, p. 275). These requirements are seen as more central in jobs that entail high levels of interaction with customers, such as customer service roles (Totterdell and Holman, 2003, p. 55). In such roles, the way in which employees manage their feelings and expressions can influence the effectiveness of their interactions with customers and thus play an important role in influencing customers to purchase a product, to remain loyal to the organization, or to tell others about the service given (e.g., Hochschild, 1983, p. 9; Rafaeli and Sutton, 1987, p. 23; Pugh, 2001, p. 3). For example, flight attendants are expected to act cheerful and friendly (Ashforth & Humphrey, 1993, p.89) and must put on a smile when addressing customers because doing so is part of the job.

Emotional Display Rule

Generally, emotions are managed in response to the display rules for an organization or job (Ekman & Friesen, 2003, p. 24; Hochschild, 1983, p. 60). Emotional display rules regarding the expectations for emotional expression may be stated explicitly in selection and training materials, or known by observation of coworkers (Grandey, 2000, p. 95). Many work roles have display rules regarding the emotions that employees should show the public (Hochschild, 1983, p. 7: Grandy, 2003, p. 87). For example, those who work in customer service may

encourage repeat business by showing smiles and good humor, whereas those who work as bill collectors or in law enforcement may find that an angry demeanor result in the best "customer" response (Sutton, 1991, p. 425). In each case, the aim of the emotional expression (or suppression) is a more effective workplace interaction.

Affective Delivery

Affective delivery, or expressing positive emotions in service interactions, promotes customer satisfaction (Grandey, 2003, p. 86). "Employee affective delivery" refers to an employee's "act of expressing socially desired emotions during service transaction" (Ashforth & Humphrey, 1993, pp. 88-89; Tsai and Huang, 2002, p. 1001). Affective service delivery is perceived as friendly and warm, which is related to desirable outcomes (Bettencourt, Gwinner, & Meuter, 2001, p.p. 29-30). The affective tone of service encounters is an important aspect of service quality. Rafaeli and Sutton (1987, p. 23) proposed that appropriate employee displayed emotion would result in some positive consequences for an organization, including immediate (e.g., passengers' contentment on board), and contagion gains (e.g., passengers would tell this content experience to friends). A key factor of good affective delivery is the perceived authenticity of affective display (Ashforth & Humphrey, 1993, p. 94).

Emotional Strategies

Hochschild (1983, p.48) identified two emotional strategies that may be used by employees to manage their emotions: surface acting and deep acting. Surface acting correspond to the managing observable expression (e.g. facial or behavioral expressions) to obey display rules. The employees modify their displays without shaping inner feelings. For example, a hotel clerk may put on a sympathetic face, but actually is irritated (Grandy, 2003, p. 87).

Surface acting requires effortful suppression of genuine emotion and expressing the appropriate emotion (Johnson & Spector, 2007, p. 321), thus, engaging in surface acting entails experiencing emotional dissonance or the tension felt when expressions and feelings diverge. Engaging in surface acting, or antecedent-focused emotion regulation, is desirable for organizations such that customers always see cheerful expressions, even when employees may feel differently (Rafaeli & Sutton, 1987, p. 32).

Conversely, deep acting is another emotional strategy in which the process of controlling internal thoughts and feelings to meet the mandated display. Emotions involve physiological arousal and conditions, and deep acting works on modifying arousal or cognitions through a variety of techniques (Gross, 1998a, p. 225; Totterdell & Parkinson, 1999, p. 219).

Emotional Exhaustion and Burnout

A number of researchers have suggested that emotional labor in response to organizational display rules is detrimental to employee well-being (e.g., Grandy, 2000, p. 103). Emotional work could be stressful and occasionally lead employees to emotional exhaustion, burnout and quitting the job (Hochschild, 1983, p. 90). The burnout syndrome entails three distinct states in which employees feel emotionally "spent" (emotional exhaustion), display a detached attitude toward others (depersonalization), and experience reduced personal accomplishment that can occur among individuals who work with other people in some capacity (diminished personal accomplishment) (Maslach, Jackson, & Leiter, 1996, p. 192). Burnout has been consistently linked to physiological and affective outcomes and to organizational consequence, such as increased turnover, increased intention to leave, negative work attitudes, and reduced level of performance (Lee & Ashforth, 1996, p. 123).

Research Hypotheses
Direct effects between an antecedent (role conflict) and an outcome (job satisfaction)

The role theory. The role theory indicates that dysfunctional individual and organizational consequences results from the existence or role conflict and role ambiguity in complex organizations (Rizzo et al., 1970, p.150).

Role conflict. Role conflict is defined as the simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with other (Kahn et al., 1964, p.19). When the expected behaviors of an individual are inconsistent, the individual will experience stress, become dissatisfied, and perform less effectively than if the expectations imposed on the individual did not conflict (Rizzo et al., 1970, p.151). Therefore, role conflict can be seen as resulting from violation of two classical principles, one is the chain-of-command and another is the unity of command. According to the chain-of-command principle, organizations set up on the bases of hierarchical relationships with a clear and single flow of authority from the top to the bottom should be more satisfying to members and should result in more effective economic performance and goal achievement than organizations set up without such an authority flow (Rizzo et al., 1970, p.150).

Role ambiguity. According to classical organization theory, every position in a formal organizational structure should have a specified set of tasks or position responsibilities (Rizzo et al., 1970, p.151). Such specification of duties, or formal definition of role requirements, is intended to allow management to hold subordinates accountable for specific performance and to provide guidance and direction for subordinates. If an employee does not know what has the authority to decide, what the employee is expected to accomplish, and how the employee will be judged, the employee will hesitate to make decisions and will have to rely on a trial; and error approach in meeting the expectations of the superior (Rizzo et al., 1970, p.151).
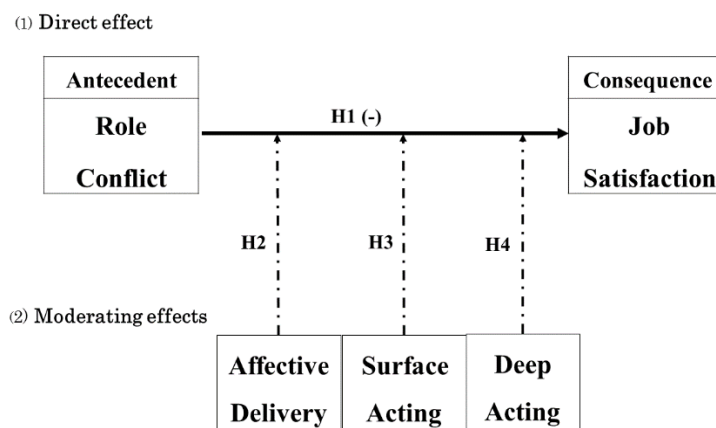
Figure 1. Hypotheses on the relationships between role conflict and job satisfaction

Job Satisfaction. Lock's (1976, p.1300) widely cited review defines job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences". Job satisfaction is a measure of the employee's evaluation of the job and has often been used as a proxy for employee well-being at work (Grandy, 2000, p.104).

Hypothesis construct of direct effect. I suppose the flight attendants may perceive a role conflict in the resent changing industrial climate, then, the situation may deteriorate the job satisfaction. Therefore, I propose the following direct effect hypotheses:

Hypothesis 1: Role conflict perceived by the customer service employee is negatively relates to job satisfaction.

Moderating effects of emotional labor aspects between an antecedent (role conflict) and an outcome (job satisfaction)

A moderator hypothesis is supported if the interaction is significant (Baron & Kenny, 1986, p.1174). A moderator variable is one that affects the relationship between two variables, so that the nature of the impact of the predictor on the criterion varies according to the level or value of the moderator (Homebeck, 1997, p.599). Question involving moderators address "when" or "whom" a variable most strongly predicts or causes an outcome variable (Frazier, Tix and Barron, 2004, p.116). I propose the following moderating effect hypotheses:

Hypothesis 2: Affective delivery practiced by the customer service employees moderates the negative relationship between role conflict and job satisfaction.

Hypothesis 3: Surface acting practiced by the customer service employees moderates the negative relationship between role conflict and job satisfaction.

Hypothesis 4: Deep acting practiced by the customer service employees moderates the negative relationship between role conflict and job satisfaction.

Methods

Participants and procedures
The questionnaire surveys were administered to a total of 414 flight attendants working for a European airline. A 5-point Likert-type scale was administered to assess the emotional labor aspects and other variables.

Measures

Job satisfaction. Job satisfaction is understood to be one's affective attachment to the job viewed either in its entirety (global satisfaction) or with regard to particular aspects (facet satisfaction; e.g. supervision) (Tett & Meyer, 1993, p.263). Two items assessed employees' job satisfaction ($\alpha = 0.86$) with both work and the organization by using Robinson & Rousseau (1994, p.251).

Task performance. Task performance was measured by using three items ($\alpha = 0.82$) derived from Brown et al. (2002, p.118).

Emotional exhaustion. Emotional exhaustion was measured by using four items ($\alpha = 0.93$) derived from Brotheridge & Grandy (2002, p.24).

Role conflict. Role conflict was measured by using five items ($\alpha = .93$) derived from (Rizzo et al.,1970, p.156).
Role ambiguity. Role ambiguity was measured by using five items ($\alpha = .84$) derived from (Rizzo et al.,1970, p.156).

Affective delivery (an emotional labor aspect). Affective delivery was measured by using three items ($\alpha = 0.82$) derived from the bases of Grandy (2003, p.92) and those items were slightly modified to adapt to the work characteristics of flight attendants.

Surface acting (an emotional labor aspect). Surface acting was measured by using four items ($\alpha = 0.89$) derived from the bases of surface acting identified by Brotheridge & Lee (2003) and those items were slightly modified to adapt to the work characteristics of flight attendants.

Deep acting (an emotional labor aspect). Deep acting was measured by using three items ($\alpha = 0.91$) derived from the bases of deep acting also identified by Brotheridge & Lee (2003) and those items were slightly modified to adapt to the work characteristics of flight attendants.

4-3. Data Analysis

Cronbach's α is the most widely used index of the reliability of a scale (Streiner, 2003., p.99). The descriptive statistics, Cronbach's α and intercorrelations were calculated (Table 1). Then, hierarchical regression analyses were conducted to test the study hypotheses; the direct effects of the antecedents (role conflict) on the consequence (job satisfaction), as well as the moderating effects of role conflict and emotional labor aspects (affective delivery, surface acting, and deep acting) on the relations between the antecedents and the consequence.

Results

Direct effect

The Table 1 presents the descriptive statistics, reliability, and intercorrelations. All the scales demonstrated good internal consistency reliability, where an alpha ranging from 0.70 to 0.95 is considered acceptable (Tavakol & Dennick, 2011, p.54).

Hypothesis 1 proposed that role conflict perceived by the customer service employee is negatively related to job satisfaction. As predicted by Hypothesis 1, Table 1 presents that role conflict is significantly and negatively relates to job satisfaction ($r = -.16$, $p < .001$), supporting Hypothesis 1.

Interaction effects

Table 2 presents the summary of the hierarchical regression analyses. In the step 1, the control variables, including gender, tenure, age, and the additional independent variables, including job satisfaction, task performance, emotional exhaustion, role conflict, and role ambiguity are inserted into the regression equation to eliminate alternative explanations. In the step 2, the independent variables of emotional labor aspects (affective delivery, surface acting, and deep acting) are inserted into the regression equation.

Hypotheses 2 proposed that affective delivery of the customer service employees moderates the negative relationship between role conflict and job satisfaction. The moderator hypothesis will be supported if the interaction is significant (Baron & Kenny,1986, p.1174). Table 2 presents that, when the interaction term (Role Conflict x Affective Delivery) was inserted into the regression equation in the step 3, the interaction was significant [$F (14, 399) = 16.132$, $p < .001$, $\Delta R^2 = .003$], supporting Hypothesis 2.

Moreover, role conflict was a negative predictor on job satisfaction ($\beta = -.03$, $p > 0.05$, both in the step 1 and step 2), though it was not significant. Conversely, when the interaction term 1 (Role Conflict x Affective

Delivery) was inserted into the regression equation in the step 3, significantly positive beta appeared (β =.62, p <.05). Thus, this interaction term (or moderator variable) changes the relationship between the antecedent (or predictor: role conflict) and the outcome (job satisfaction) from negative to positive.

Figure 2 presents the plotting graph of the interaction effects of role conflict and affective delivery on job satisfaction. The result explains that, when role conflict is lowly perceived by the employees, the high affective delivery group significantly reports a higher level of job satisfaction (4.22, $p < 0.05$) than the low affective delivery group (4.01, $p < 0.05$).

On the other hand, neither **Hypotheses 3,** which proposed that surface acting of the employees moderates the negative relationship between role conflict and job satisfaction, nor **Hypotheses 4,** which proposed that deep acting of the employees moderates the negative relationship between role conflict and job satisfaction were not significant, not supporting Hypotheses 3 nor 4.

Discussion and Implication

Discussion
The working population in the service industry continues to increase. Customer service employees serve an important role combining between the organization and customers as an interface binding the organization and customers. Although the topic of job satisfaction has long been of interest to organizational scholars, it would be useful to rethink on its nature, antecedents, and consequences.

The competition has intensified in many industries. As a result, downsizing, cost reduction, layoffs, and early retirement programs have become the recent trends. Moreover, IT and the automated machines substitute the employees' works previously done by the employees. Thus, the expected roles of employees are gradually changing. The result of the questionnaire survey showed that the flight attendants perceive from medium to high level of role conflict: the mean was 3.40 points on the 5-point Liker-typed questionnaire.

The findings and contribution of this research indicate, first, that role conflict perceived by the customer service employees (flight attendants) decrease the level of their job satisfaction. Second, affective delivery (an emotional labor aspect) practiced by the employee moderates or recovers the decreasing propensity of job satisfaction, when the level of role conflict perceived by the employees is not very high in the workplace.

While many researches have been conducted on the relationships between role conflict and job satisfaction, the contribution of this research to the literature is that the aspect of emotional labor might moderate or repair the decreasing tendency of employees' job satisfaction in the service organization.

Implication
The theory of primitive emotional contagion has been invoked to account for mood convergence between employees and customers (Tsai, 2002, p.1001). Though the flight attendants may perceive a role conflict in the workplace, their "affective delivery" practice conveys the positive emotion (e.g. friendliness and warmth) towards the customers as a part of their role. Moreover, the flight attendants might publicly speak as if a spokesperson for the organization, and then, eventually thank or apologize to the passengers in the workplace. Such an activity, in turn, might influence her/his own state of feeling. Therefore, an "employee affective delivery" might be contagious to her/his own inner feelings. Thus, it might be possible that the employee who often practice "affective delivery" recover the decreasing propensity of job satisfaction.

In the competitive industrial environment, emotional labor practiced by the customer service employees may help the employees harmoniously work in the stressful workplace. Finally, emotionally competent employees provide an organization with harmony and integrity and can increase the competitiveness of the company because the employees effectively adapt the company's strategy and work efficiently. Emotionally competent

employees might provide many effects and benefits for an organization, thus, contribute a long-term growth of the organization.

Limitations and Suggestion for Future Research
In the cross-sectional design, the use of only the self-evaluated responses of emotional labors may be considered the first limitations of this research. Second, the present research exclusively focused on human service employees and limits the generalizability of the findings. The present research also exclusively focused on flight attendant, thus, the duration of contact with customers would be comparatively shorter than the other human contact service employees, for example, in the hospital. It limits the generalizability of the findings.
A suggestion for future research direction would be a research of the interaction effects emotional labor in the different human service organization with different professionals that supposed to required emotional labor. Therefore, the similar topic in the different area in the world and different organizations would be a future research direction.

TABLE 1. Descriptive Statistics, Reliability, and Intercorrelations

	Mean	S.D.	α[4]	1	2	3	4	5	6	7	8	9	10	11
1.Gender [1]	.74	.44												
2 Tenure [2]	4.11	1.51		.12**	-									
3 Age [3]	3.98	.79		.02	.76***	-								
4 Job Satisfaction	4.08	.71	.86	.05	.14**	.11**	-							
5 Task Performance	4.24	.52	.82	.09*	.12**	.08*	.10**	-						
6 Emotional Exhaustion	3.45	.87	.93	-.16***	-.03	.01	-.21***	-.17**	-					
7 Role Conflict	3.40	.74	.93	-.14***	-.05	-.02	-.16***	-.30**	.48***	-				

#	Variable	Mean	SD	α	1	2	3	4	5	6	7	8	9	10	11
8	*Role Ambiguity*	1.63	.47	.84	-.12**	-.14**	-.12**	-.14***	-.29**	.25**	.18***	-			
9	*Affective Delivery*	4.50	.53	.82	-.10**	.14**	.22***	.04	.36**	-.06	-.20***	-.20***	-		
10	*Surface Acting*	3.92	.68	.89	.12**	.03	.08	.01	.26***	.07	.06	-.11**	.19***	-	
11	*Deep Acting*	3.65	.90	.91	.002	.02	-.02	.02	-.04***	.18***	.21***	.06	.13**	.34***	-

Note: $*** p < .001, ** p < .01, * p < .05$. $N = 414$.
[1] Gender: coded as Male = 0, Female = 1.
[2] Job tenure: coded as 1 = 0 ~5 years, 2 = 6 ~ 10 years, 3 = 11 ~ 15 years, 4 = 16 ~ 20 years, 5 = 21 ~ 25 years, 6 = 26 ~ 30 years, 7 = more than 30 years.
[3] Age: coded as 1 = less than 20, 2 = 21 ~ 30, 3 = 31 ~ 40, 4 = 41 ~ 50, 5 = 51 ~ 60, 6 = more than 60

[4] α : Reliability is denoted by Cronbach Alpha coefficients.

TABLE 2. Hierarchical regressions analyses

Dependent variable: Job Satisfaction

H2 (RC and affective delivery), H3 (RC and surface acting) & H4 (RC and deep acting)

	Independent variables	(Step 1)	(Step 2)	(Step 3)	(Step 4)	(Step 5)
Step 1	Gender	-.08	-.07	-.07*	-.07	-.07
	Tenure	-.02	-.02	-.02	-.02	-.02
	Age	.05	.05	.04	.05	.05
	Task Performance	.02	.01	.02	.01	.01
	Role Conflict	-.03	-.03	-.03	-.03	-.03
	Role Ambiguity	-.01	-.01	-.01	-.01	-.01

	Emotional	-.08	-.08*	-.08*	-.08*	-.08*
	Exhaustion					
Step 2						
	Affective Delivery		.01	-.19	.01	.01
	Surface Acting		-.00	-.00	.02	-.01
	Deep Acting		.03	.04	-.03	.08
Step 3						
Interaction (1)	**Role Conflict x**			**.62***		
	Affective Delivery					
	F	22.253***	17.083***	**16.132***		
	Adjusted R-square	.340	.336	**.339**		
	Δ R-square		-.004	**.003**		
Step 4						
Interaction (2)	**Role Conflict x**				**-.06**	
	Surface Acting					
	F				**15.828***	
	Adjusted R-square				**.335**	
	Δ R-square				**-.001**	
Step 5						
Interaction (3)	**Role Conflict x**					**-.07**
	Deep Acting					
	F					**15.834***
	Adjusted R-square					**.335**
	Δ R-square					**-.001**

Note: Standardized regression coefficients are reported. *** $p < .001$, ** $p < .01$, * $p < .05$.

Figure 2. The interaction effect of role conflict and affective delivery on job satisfaction
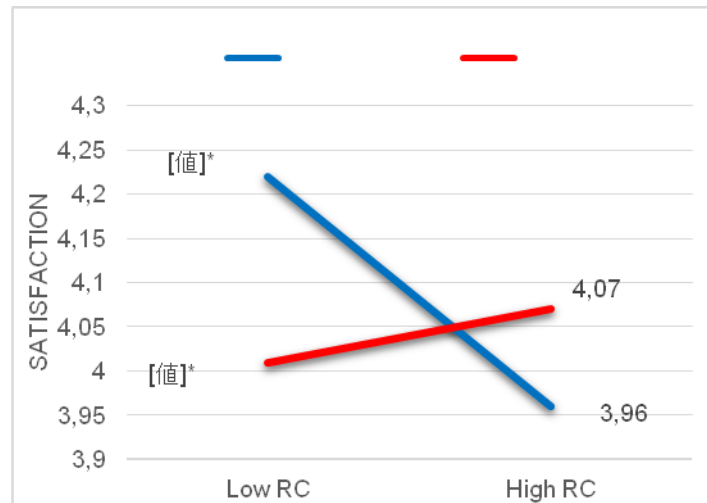
References

Ashforth, B. E., & Humphrey, R. H. (1995). "Emotion in the workplace: A reappraisal". *Human Relations*, 48(2), pp.97-125.

Ashforth, B. E., & Humphrey, R. H. (1993). "Emotional labor in service roles: The influence of identity". *Academy of Management Review*. 18: pp.88–115.

Avers, K. B., King, S. J., Nesthus, T. E., Thomas, S. & Banks, J. (2009). "Flight Attendant Fatigue, Part 1: National Duty, Rest, and Fatigue Survey" (No. DOT/FAA/AM-09/24). Federal Aviation Administration, Oklahoma City, OK: Civil Aerospace Medical Institute.

Baron, R. M., & Kenny, D. A. (1986). "The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations". *Journal of Personality and Social Psychology*, 51(6): pp.1173-1182

Bettencourt, L. A., Gwinner, K. P., & Meuter, M. L. (2001). A comparison of attitude, personality, and knowledge predictors of service-oriented organizational citizenship behaviors. *Journal of applied psychology*, *86*(1), 29.

Bergman, A., & Gillberg, G. (2015). "The Cabin Crew Blues: Middle-aged Cabin Attendants and Their Working Conditions". *Nordic Journal of Working Life Studies*, 5(4), pp.23-39.

Brotheridge, C. M., & Lee, R. T. (2003). "Development and validation of the emotional labour scale". *Journal of Occupational and Organizational Psychology*, 76(3): pp.365-379

Brown, T. J., Mowen, D., Donavan, T. & Licata, J. W. (2002). "The customer orientation of service workers: Personality trait effects on self-and supervisor performance ratings". *Journal of Marketing Research*, 39(1): pp.110–119.

Ekman, P., & Friesen, W. V. (2003). Unmasking the face: A guide to recognizing emotions from facial clues. Ishk.

Fisher, C. D., & Ashkanasy, N. M. (2000). "The emerging role of emotions in work life: An introduction". *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 21(2), pp.123-129.

Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51(1) : 115-134.

Grandey, A. A. (2003). "When "the show must go on": Surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery". *Academy of Management Journal*, 46(1): pp.86–96.

Grandey, A. A. (2000). "Emotional regulation in the workplace: A new way to   conceptualize emotional labor". *Journal of Occupational Health Psychology,* 5(1): pp.95-110.

Gross, J. J. (1998a). "Antecedent-and response-focused emotion regulation: divergent consequences for experience, expression, and physiology". *Journal of personality and social psychology*, 74(1), pp.224-239.

Hochschild, A. R. (1983). The managed heart: The commercialization of human feeling. Berkeley, CA: University of California Press.

Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 65(4), 599-610.

Jackson, S. E., Schwab, R. L., & Schuler, R. S. (1986). "Toward an understanding of the burnout phenomenon". *Journal of Applied Psychology*, 71(4), pp.630-640.

Johnson, H.A.M. & Spector, P.E. (2007). "Service with a smile: do emotional intelligence, gender, and autonomy moderate the emotional labor process?". *Journal of Occupational Health Psychology*, 12(4): pp.319-333.

Kahn, R. L., & Others (1964). Organizational stress: Studies in role conflict and ambiguity. New York: Wiley & Sons.

Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81(2) : 123-133.

Locke, E.A. (1976) The nature and causes of job satisfaction. In Dunnette, M.D. (Ed.), Handbook of Industrial and Organizational Psychology, 1, 1297-1343. Chicago, IL: Rand McNally.

Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.

Morris, J. A., & Feldman, D. C. (1996). "The dimensions, antecedents, and consequences of emotional labor". *Academy of Management Review*, 21(4), pp. 986-1010.

Okabe, N. (2018). "Interaction of Psychological Contract Violation and Emotional Labour: Recovery of Organizational Trust and Job Satisfaction". In *Applied Psychology Readings*. pp. 239-261. Springer, Singapore.

Okabe, N. (2017). "Creating of customer loyalty by cabin crew A study of the relation between emotional labor and job performance". *Transportation Research Procedia*, vol. 2*: pp.149-164.

Pugh, S. D. (2001). "Service with a smile: Emotional contagion in the service encounter". *Academy of management journal*, 44(5), 1018-1027.

Rafaeli, A., & Sutton, R.I. (1987). "Expression of emotion as part of the work role". *Academy of Management Review*, 12(1): pp.23-37.

Rizzo, J. R., House, R. J.& Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly,* 15(2): pp.150–163.

Robinson, S.L. & Rousseau, D.M. (1994). Violating the psychological contract: Not the exception but the norm. *Journal of Organizational Behavior*, 15(3): 245-259.

Sonnentag, S., & Natter, E. (2004). "Flight attendants' daily recovery from work: Is there no place like home?". *International Journal of Stress Management*, 11(4), pp.366-382.

Statistical Abstract of the United States (2012), U.S. Department of Commerce, Department Census, Washington, D.C.

Streiner, D. L. (2003). "Starting at the beginning: an introduction to coefficient alpha and internal consistency". *Journal of personality assessment*, 80(1), pp.99-103.

Sutton, R. I. (1991). "Maintaining norms about expressed emotions: The case of bill collectors". *Administrative science quarterly*, pp.245-268.

Tavakol, M., & Dennick, R. (2011). "Making sense of Cronbach's alpha". *International journal of medical education*. 2, pp.53-55.

Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: path analyses based on meta‐analytic findings. *Personnel Psychology*, 46(2), 259-293.

Totterdell, P., & Holman, D. (2003). "Emotion regulation in customer service roles: Testing a model of emotional labor". *Journal of occupational health psychology*, 8(1), pp.55-73.

Totterdell, P., & Parkinson, B. (1999). Use and effectiveness of self-regulation strategies for improving mood in a group of trainee teachers. *Journal of Occupational Health Psychology*, 4(3), 219.

Tsai, W. C., & Huang, Y. M. (2002). Mechanisms linking employee affective delivery and customer behavioral intentions. *Journal of Applied Psychology*, 87(5), pp.1001

The Role of Culture and Nature in Conflict-Resolution and Peace Building

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Abstract

Resolutions of conflicts through legal procedures and conventional methods often fail; even the winning party may have a feeling of loss: loss of a business partner caused by the destructive effects of a legal war, loss of money and the hope of being heard and understood!
Conflicts between people are caused by the following factors:
-A fragmented society of overspecialisation, lack of empathy or connection with the other, fast communication, social media with no time for a real conversation, loss of understanding of the whole picture.
Even children have lost empathic skills following Dr. med. Brish from the childrens hospital in Munich: "There will be an avalanche of a generation without empathy!"
- Difference of culture and language:
Every culture or language has its own social codes and reference frames; Misunderstandings are often caused by different interpretations of concepts and ideas, but also the lack of knowledge of accepted social behaviour in a certain circle or country.
- Our systemic background:
Every person carries with him subconscious convictions and patterns, obtained during his childhood.
This causes people to stay in certain patterns which may create blockages in communication and contact.
Mediation is not only a communication process, a humane kind of conflict resolution, where both parties should come out as winners and active listening is being promoted, but it will also be a necessary tool in future for the prevention of conflicts in society.
-within businesses and organisations; a lack of emotional intelligence among managers, protocols and insufficient humane contact within teams cause absences, bullying and burnout problems.
Mediation can stimulate a better dialogue,
Conflict coaching and systemic coaching with horses can show the hidden dynamics in a team, blockages of communication and offer solutions on a subconscious, emotional level.
-In society and politics in order to solve reactions of growing populism and lingering frustration among people.
Mediation on this macro level, called public diplomacy, would involve direct contact between the electorate and the citizen and create more cooperation in the form of workgroups, as well as a better holistic approach in education and business, emphasizing the importance of human values, empathy development and sustainability in society.

Keywords: International mediation, cultural diplomacy, conflict resolution, business, empathy development, emotional intelligence, peace building, intercultural, systemic coaching, equine assisted coaching, education, sustainability

Results of my research during my international mediation practice and research on current social developments and history of the European Union

In separation we fail; in unity with diversity we succeed

Separatists, conflicts between countries, minorities against each other, the rise of right-wing trends in politics… these are truly current themes and too important to neglect – it seems we have become the incarnation of some rather obscure video games controlling us.

When following the news, we are indeed bombarded with non-stop conflicts: our world seemingly has become almost apocalyptic. Or is it perhaps, because we somehow increasingly seek exciting action, thrills and shivers, and media is thus responding to our demands as consumers instead that we rather try to balance it?

Even political trends follow this fear-mongering approach to reach the electorate – or 'demand from consumers', and with a considerable success, unfortunately, as can be seen with the Brexit referendum, Trump becoming president, Orbán in Hungary, Netanyahu in Israel but also in Austria, Germany and the Netherlands; the rise of nationalist parties is all over, and even established liberal parties tending more and more towards a dangerous populist nationalism; conflicts seem to be created or maintained – hardly solved.
We are being polarised instead of kept together.

It cannot be denied that we are being fed by fears: but on the other hand, what do we indeed do against it? We have all the tools, more than ever before to verify and to research – the internet is an open library. Yet we use it to spread further fears, even hatred.

In Europe, many feel insecure and threatened because of war-developments and refugees; yet, statistically, never before has Europe been saver despite some recent terrorist incidents.[1]
The psychologist Steven Pinker of Harvard University describes the following: "Weniger Morde, weniger Vergewaltigungen, weniger Kriegstote: Der Psychologe Steven Pinker von der Harvard University erklärt im Interview, warum die Gewalt auf der Welt im Lauf der Jahrhunderte immer weiter abgenommen hat – und warum es uns so schwerfällt, das zu glauben." [2]

Nevertheless people vote for parties, which promise more effective police presence; a symptomatic approach which unfortunately ignores the fact that we are all connected; wars paid by the western world cause us to suffer from the consequences as well; like the refugee crisis caused by the war in Syria; if we harm others we harm ourselves…

Perhaps good to take a small step back and analyse a bit: what has triggered such trend and where could we find a balance?

Let me give you some anecdotal examples as an extra illustration:

It may seem irrelevant, but I am a passionate horse-rider: so far so good, but more than often enough, while riding through nature, I am confronted with bikers, both young and adult as well, who wildly swish with their two-wheels alongside my horse, sometimes even trying to bravely cut off my horse's path. My horse frequently panicked, naturally.
When addressing them, how dangerous and irresponsible this could be for horse, me - or even themselves – believe me, a frightened horse, kicks out of reflex to defend himself can be lethal - they shrug either their shoulders, don't seem or want to understand what in goodness' name they have to do with that, or even pretend not noticing or hearing. … why such a lack of engagement and empathy?

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1   https://www.watson.ch/wissen/schweiz/982459207-terror-in-europa-und-der-schweiz-seit-1970-diese-fakten-sollte-man-kennen
2   https://www.spektrum.de/news/immer-weniger-gewalt-in-der-welt/1559618

Indeed this lack of development of empathy can be also noticed with children, as there is not enough attention for these soft skills, neither at home nor at schools. Children are unable to put themselves in the place of somebody else » This will be even more felt in the near future ; « There is an avalanche coming our way » says Dr. Brisch of the pediatric clinic of the Ludwig Maximilian University in Munich.[3] There will be certainly a need to integrate these skills in all fields of society [4]

Another example – a slightly different department, but not irrelevant: when being asked where apples and milk come from, the majority of children in our cities seem no longer to realise, that apples grow on trees and that cows produce milk – simply, they obviously "come from the supermarket"! At the onset, this might look funny, ...but perhaps this is more serious than we may realise.

We have lost connection, we no longer care for an animal – regarding it merely as a 'thing' - and even our fellow-person. Let alone "nature" has become too abstract; we live as if in a cocoon of ourselves with our constant social media (how "social" is it indeed, one could argue). And our empathy - our sense of correlation with our environment - has become almost extinct.

We lost basic patience to deal with it; "time is money", "keep it short", "next please"… we lost our capability to analyse, to re-think, to understand, to position ourselves in the shoes of others.

It is odd that especially in an era, where we can relatively easily travel, visiting exotic cultures, and though internet have access to so much Information. But we do not take the time to go deeper – to fathom the visited culture well enough or to scrutinise news, whether it is indeed true or rather false.

We do business with foreign companies, more than ever. But seemingly minor and trivial misunderstandings and not knowing the specific social codes and language of the others' culture cause us to lose considerable deals and damage our business. In our globalised world, we also do hardly realise the effect of expecting our jeans to cost no more than 10 euros in the local store, to name but one example.
A study regarding empathy and emotional intelligence in middle and higher management, the following situation was being established by Dr Travis Bradberry :

The assumption here is that a manager with a high EQ is someone for whom people will want to work. But things change drastically as you move beyond middle management. For the titles of director and above, scores descend faster than a snowboarder on a black diamond. CEOs, on average, have the lowest EQ scores in the workplace. The trick is that **the top performers are those with the highest EQ scores**. Even though CEOs have the lowest EQ scores in the workplace, the best-performing CEOs are those with the highest EQs. You might get promoted with a low EQ, but you won't outshine your high-EQ competition in your new role. [5]

And 'culture' and empathy/ emotional intelligence at home – as perceived by many – has become a luxury, outdated, boring, … useless and thus dispensable. Our own cultural and philosophical heritage is merely a vague abstract distant notion – but mind you, still the effective nr1 card for nationalist populism. "Our identity is in danger"… but when asked what "our identity is", hardly a sensible answer or definition follows.

In some countries classes in drama or literature have completely vanished from the curriculum. Not to mention European history or music classes...

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3 Die Welt ; Empathie Entwicklung, Dr Brisch, Ludwig Maximilian University, Munich
4 Emotionale Intelligenz: Das Trainingsbuch (Haufe Sachbuch Wirtschaft) Marc A.Pletzer
5 https://m.huffpost.com/us/entry/7138776?guccounter=1 Dr Travis Bradberry

As a seasoned inter-cultural business consultant and mediator, these aforementioned symptoms are – believe me – more than confirmed every time I deal with new customers. Over-specialisation kills not only the understanding of the whole process. In case of a slight ripple, we jump into costly and painful legal battles, creating even more disparity and animosity where finally relations die because of the oil in the fire put by lawyers and procedures.

And we lost the time or/or the will to reach out. And these elements strengthen inherently the feeling of fear: we start talking of "*us*" against "*them*". And politicians nowadays more than effectively use this. Groups in society that have lost touch with their surroundings, feel excluded, oh yes; misunderstood, exploited, angry. And the populist leader, who promised to make the nation strong again will earn his victory – not because he has a solution or explained his sound budgetary vision, but because he feeds his electorate with fast-food like snippets of fear, sometimes hyperbolically exaggerating 'facts'…

Especially as a mediator, I am in the business of trying to bring back some the lost understanding – to make both sides see the motives instead of the different points of view. Let us not forget; the reason for conflicts is that people do not feel heard and understood:

Once the other party starts to listen actively: a kind of goodwill is created and a mediator will go from the point of view position to the motives of the parties. Once these motives are understood and looked at by both parties, we are surprised to see the creativity between partners to solve the conflict together.

A new world of possibilities would occur where suddenly we notice that we have so many motives in common; just having a home, a family, having harmony in life; Being respected, cherish our feelings; and develop ourselves. This communication process brings so much more than battling in court, costing only more money and more negative emotions.

But to go back to the core of the whole; we lack much understanding of ourselves, and thus stumble over conflicts often with ourselves too, and creating rather new ones instead of solving the old, just because we do not see the correlation of the whole. We feel no confirmed identity (this time not in the nationalist sense!), because we ignore culture as something that shapes us and that adds an intriguing factor for our daily life together.

One perfect example of how culture has become a perfect tool in a conflict is Daniel Barenboim's East-West Divan Orchestra – bringing together young musicians from Israel, Palestine and other Arab countries , who otherwise would never meet or see eye to eye. Then performing wonderfully Beethoven, Mozart or any other composer together as if being one harmonious body, where artificial political boundaries, nationalities and mutual prejudices indeed disappear thanks to the universal language of music!

Weren't both East- and West-Germans happy in 1989 to finally be united again?… whereas nationalist extremism now in 2018 thrives in the former East-German states springing from frustrations of feeling inferior to the West-Germans… Why did we neglect the signals for too long?

We should therefore also bring back a culture of listening to each other, to empathise – not with the simple "like-clicks" on Facebook but truly interactive dialogues with 3-dimensional living people and to be aware how important sustainability is and can be empowered, by applying such simple and basic mind-sets. Education alone will change rather slowly, I am afraid.

Therefore as a mediator, I try to contribute there were the damage already has been done. But for a more holistic approach, we need a change: mediation not only as damage control, but perhaps rather as a pro-active, prevention tool. Teaching people to be more open from the very onset, to take time again for a dialogue would be a good start.

And to come back to nature to integrate that into our mediation model; I realise that in the classic Latin definition "Natura" and "Cultura" are too often considered each other's opposites, but I wish to stress the contrary; culture is merely a part of nature – without nature no culture could exist – and this balance will bring our own balance considerably back.

As we also learn to appreciate the added value of animals – be it in therapy or aiding man being either visually impaired or suffering from diabetes or otherwise.

Dog or cat lovers for example know that these animals give unconditional love which goes beyond words and teach us how to accept ourselves; and we know: a loved person has more ability to care, give love and get out of a victim complex which is the biggest problem in this world

But also in professional team and life coaching, nature brings us back to our authentic selves and our true potential. More than ever the professional, political and private world has a need for soft skills and emphatic leadership: Very different coaching programmes are being offered and HR departments implementing team or personal trainings do not know anymore what is the most efficient kind of coaching, which really improves communication and flowing good relations both with colleagues and clients, as such.
In my professional career, I came to know different kinds of coachings and conflict resolution/prevention support services. Many of these programmes work on the level of the mind and offer rather nice entertaining games, role plays and game time. Several events included fun-days: doing sport together, but in a way stayed superficial as where real empathy or positive communication skills should be developed.
In the field of mediation, one would notice different parties or team members starting again a dialogue, but there was always the danger that they would remain entangled in differences of interpretation of certain ideas: the idea of '*Respect*' or '*Cooperation*' can be interpreted in different ways by different personalities. The parties may like to reconcile, try to do this merely on a rational level, discuss the different points of view, but the heart or intuitive system is not included in this process. Somehow these people will always clash again because the core of the conflict has been looked at in only a rational way but not felt in an intuitive way…

On top of that, many conflicts of persons in teams are a result of a conflict with themselves: patterns from the past, education, family, friends can have an effect on us for a long time, mostly fully unconsciously.
This background is called a system of a person and determines in an important way his/her thought pattern, his (mis-)conceptions, his/her ideas and convictions. Every person makes part of a systemic background and has a place in this system, but also needs to take this place where he can come to full potential and be the most authentic possible, benefiting from his inner power.

Here, systemic coaching with the aid of horses can be of great help; a kind of coaching which continues exactly there, where other kinds of coaching seem to stop. Horses, namely, can only work in a systemic way; they have lived in herds (='teams') for the survival of every single horse: each horse has a specific role to serve the whole group. The weakest animal will be compensated by others. Many researches showed the subtle language of horses in such teams, which is focused on helping and supporting each horse to stand in his power.
As soon as a person enters a group of horses, horses will immediately assess if (s)he is in the right place and if his exterior is consistent to his interior in order to reach full potential and be of benefit to the whole group and a greater good. If this is not the case, they will try to encourage (improve) his/her situation by movements or actions.

The horse (*non*-verbal) language can be extremely clear and direct but yet totally non judgmental: people are often amazed during a session how easily horses can take over the role of one's parents or show the behaviour or blockages of a coachee or business team. By realizing and really FEELING how someone's system has influenced his/her own life and patterns, one can - through his "*felt sense*" - make peace with certain detrimental influences of this system, i.e. misconceptions caused by this systemic background, and turn them into positive elements during the session, guided by the intuitive sensitivity of the horses and a dialogue if necessary, with the coach.

(I say: "*if necessary***", because the power of this coaching lies in the feeling and the conviction which comes from inside the person; it is not forced upon one from the outside; therefore a minimum of words and not too much talking, which would take the coachee away from this felt sense, is the most powerful aspect).**
Systemic coaching, so far, has been successfully applied from family settings, the field of Human Resources, to individual managers, looking for a more efficient, empathic leadership, development of new talents, better non-verbal communication and the like. Within teams, trying to reach better relationships and interactions, thus resulting in improving the company's output! It has been equally proven a big success for individuals looking for better relationships, in a variety of different life questions, and resolving e.g. a lack of confidence

In German we find some very expressive proverbs with a certain life philosophy:

"In der Ruhe liegt die Kraft"
In silence, peace of mind, lies our strength!

because let us not forget: World Peace starts within ourselves! It starts with each individual finding his authentic power and place in life.

Finding your own identity does not mean: finding an identity which your family or society wants you to be, but it means really connecting with your authentic self; in silence, without words… Because unfortunately we carry those expectations from others and wounds within us, unconsciously.

It is about making peace with your light and dark wounded sides; connect your reason with your intuition, your emotional power.

Emphasising not only your strong appearance, your academic titles and professional experience but equally dare to show your emotional vulnerable side as well which is often your most powerful and convincing side!   Only then a person can be balanced and contribute to a more harmonious society.

    Culture is how we as human beings shape our environment; at home, at work, in our city, region.. ultimately our world. And since we have one world, we should care to bring back more harmony – for others and to ourselves.

And through such a process, mediation between the electorate and voters, so called public diplomacy, sustainable business and better education focussing on relation with oneself and others, emotional intelligence and a critical mind , any person will also vote more responsibly, more consciously – choosing long-term, sustainable and stable solutions rather than going for quick populist slogans, that only result in harm to society as a whole. We all know: in a harmonic and prosperous society, where wealth distribution is fair there is no feeding ground for frustration, bitterness and fear.

That's how, in particular, my profession as a mediator follows such a holistic and systemic approach as a gain for all of us.

Personally, I feel myself being a product and a citizen of Europe – not a specific country or nation – and I am fascinated by conflicts, their origins and most of all… how to eradicate them.

Mediation is therefore *de facto* a pure diplomacy activity. Not only for individuals or big companies, but for the society in the broadest sense – to serve as an effective tool in politics; that is – the electorate and their representatives and through improved education, raising awareness of a functional civil society, improve empathy and bring harmony of culture in our natural environment. At any possible level.

Because, it is our only environment where we all should want to live. There, and only this way finally everybody will be a winner!

Financing of Political Parties in Kosovo

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Abstract

Financing of political parties is one of the most controversial issues in any democratic society. In Kosovo as a country in transition, financing of political parties and election campaigns is regulated by a special law on the financing of political parties. According to this law, political parties are obliged for financial transparency and to yearly publish the annual financial report, which includes all financial income and expenses. However, according to civil society, political parties are not transparent about the funding sources of their election campaigns and do not fairly report expenses from the funds that political parties receive from the state budget. The aim of this paper is to find measures to minimize risks from abusing with finances of political parties in the electoral process. The paper addresses in detail the legal framework for financing and auditing of political parties, European Commission and civil society opinion and the outcome of empirical public opinion polls on payments of party membership and various donations. The methodology used is legal analysis and analysis of data and information collected from the research process.

Keywords: Political parties, financing, audit, tenders, corruption

Introduction

The development of pluralism and creation of political parties in Kosovo begins in the late '80s of last century[1]. Although the multiparty system is installed at the same time as political pluralism has spread to the former Yugoslavia and throughout Southeastern Europe, the conditions under which was Kosovo after its occupation by Serbia in 1989 did not allow room for development of electoral and political democracy as in other countries in the region and beyond. Such an obstacle of more than a decade has been removed after the war ended and the Kosovo was under the International and Civil Administration of the United Nations Mission in Kosovo (UNMIK) under UNSCR 1244 of the Security Council of the United Nations[2]. The genuine political transition from the monist system to the pluralist system in Kosovo began to feel only after the liberation of Kosovo and the development of the multiparty system started with Kosovo's independence[3] on 17 February 2008 and the entry into force of the Constitution[4] of the Republic of Kosovo in June 15, 2008 as well as construction of democratic institutions both at the local and central level through competitive electoral processes among political entities.

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[1] Ismail, O. (2001): Partitë politike shqiptare dhe çështja e Kosovës (1989-1998),

[2] The United Nations Interim Administration Mission in Kosovo (UNMIK) was established by the Security Council in its resolution 1244 (1999). http://www.unmikonline.org/Pages/about.aspx (8.10.2017)

[3] Kosovo Declaration of Independence http://kryeministri-ks.net/en/kosovo-declaration-of-independence-2/ (8.5.2018)

[4] Constitution of the Republic of Kosovo (with amendments I-XXIV), This edition includes text of the Constitution Of The Republic Of Kosovo (adopted on 9 April 2008) with AMENDMENTS I - XXII (Official Gazette of Republic of Kosovo no.25, date 7 September 2012) Amendment XXIII (Official Gazette of Republic of Kosovo no.7, date 26 March 2013) end Amendment XXIV (Official Gazette of Republic of Kosovo no.20, date 5 August 2015):

http://www.kuvendikosoves.org/common/docs/Constitution_of_the_Republic_of_Kosovo_with_amend.I-XXV_2017.pdf (10.09.2017)

The history of electoral and representative democracy in Kosovo[5] has been developing for nearly two decades now. During the period 2000-2017 twelve election cycles were held for the two levels of representation, both central and local[6] six electoral processes for the central level and six for the local level, including four cycles election from 2007, for the direct election of mayors).

Political parties have developed direct communication with the electorate to elaborate their programs and policies. For the realization of these political activities they needed budget and finance. The challenge for more finances has increased during the election processes for campaigns, where the dynamic of political engagement of political parties and the electorate becomes more active in lobbying, involving and gaining as many voters in the electoral process. Increase of financial costs, collecting and securing finances is a major challenge for all political parties and especially for political parties that are small by membership and stand in opposition.

As in most states as well as in Kosovo, the financial revenues[7] of political parties are from 'donations', 'public funding' and 'membership fees'[8]. In Kosovo, the financial revenues from the state budget fund benefit the political parties that have passed the electoral threshold and are also represented in the Assembly of the Republic of Kosovo. The amount of funds for financing the activities of political entities is based on the representation of the number of seats won in the Assembly for one mandate. However, apart from the funds allocated from the state budget, political parties are also funded by "other sources", which according to civil society in Kosovo, is not known who they are since they do not become transparent[9]. The allocation of public funds and rules on private funding require special attention to ensure an equal domain for all democratic actors. In some countries, political parties provide a part of their funds from "different donors" as private, anonymous and external funding. However, many countries specifically define and regulate a third-party campaign. In this regard, 50% of OECD member states such as France, Korea and Mexico forbid all anonymous donations to political parties, and 38% of countries ban political parties anonymous donations over certain thresholds[10]. Kosovo has prohibited by law "financial and material aids" from "foreign governmental and non-governmental institutions" as well as "foreign natural and legal persons", "anonymous natural and legal persons", "anonymous donors" "Institutions and enterprises with capital gained from gambling, betting or games of chance, as well as by domestic public entities or with the participation of state capital"[11].

Financial Influence or electoral corruption is reflected in the collapse of political competition in the election race and the violation of free, fair and democratic elections. Also, when there are financial implications, political parties become dependent on private donors. This increases the risk that individuals or groups of interest that make big donations have an impact on the political process compared to others[12].

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[5] For clarification: First pluralistic elections for Kosovo Assembly were held on 24 May 1992 as per Republic of Kosovo Constituion or Kacanik Constituion of 1990. In this paper we refer to the elections held after the war (1998-1999) and after the war when Kosovo was under international administration (UNMIK 1999-2008) and following the Declaration of Independence of Kosovo, February 17, 2008, and the entry into force of the Constitution of the Republic of Kosovo and the legislation in force.

[6] Central Electoral Commission (2017), Elections in Kosovo2000-2014, Prishtinë, p.p. 14-15.

[7] Kevin Casas-Zamora (2008), Political finance and State funding systems: An overview,Brookings Institution / University of Costa Rica, p.9. https://ifes.org/sites/default/files/politicalfinanceandstatefundingsystems_english_0.pdf (access: 11.03.2018)

[8] Law No. 03/L-174 ON FINANCING POLITICAL PARTIES, OFFICIAL GAZETTE OF THE REPUBLIC OF KOSOVA / No. 30 / 23 AUGUST 2013, PRISTINA, Article 4, file:///C:/Users/PC/Downloads/LAW_NO._04_L-212__ON_AMENDING_AND_SUPPLEMENTING_THE_LAW_NO._03_L-174_ON_THE_FINANCING_OF_POLITICAL_PARTIES_AMENDED_AND_SUPPLEMENTED_BY_LAW_N.pdf (access: 11.06.2018)

[9] Radio Free Europe, Luljeta Krasniqi- Veseli "It is not known who finances political parties and how the money is spent" 4 May 2017, https://www.evropaelire.org/a/28487275.html (access: 15.05.2018)

[10] OECD (2016), Financing Democracy: Funding of Political Parties and Election Campaigns and the Risk of Policy Capture, OECD Public Governance Reviews, OECD Publishing, Paris p.16

[11] Law No.. 03/L-174 Financing Political Parties, Article 11

[12] Elin Falguera, (2014) Conclusions, in Funding of Political Parties and Election Campaigns, A Handbook on Political Finance, International Institute for Democracy and Electoral Assistance, p 146

However, it is understandable that finances are indispensable for electoral processes, but they can be misused as a "tool" by any political candidate or subject to unduly influence the political process by "buying votes" or by " influencing decisions " tenders and certain policies. Abuse of finances or "money" is one of the main factors hindering the political process in achieving standards for a fair and democratic[13] election in one country.

The issue here is to find the right way to fund political parties, which is challenging and controversial in any democratic society. This issue is generally regulated through the legal framework that sets out budgeting or political subsidies for political entities as well as reporting and auditing their spending. A combination of these principles with legal provisions enhances the effectiveness of institutions and the political system in combating monopolies, corruption and ensuring transparency and equal opportunities in electoral processes as well as political processes in general.

Although most countries already have a normative framework for financing political parties and election processes, if the supervisory institutions do not have political (political) independence in the performance of their mandate, the existing normative provisions will not be fully implemented. However, only 29% of OECD countries have an independent election management body. Moreover, the institutions responsible for enforcing political finance regulations sometimes have limited human and financial capacity to effectively handle the large volumes of supervisory work. Good practices show that sanctions have preventative effects and encourage a higher implementation[14] standard.

Methodology

The methodology used in this paper is the method of legal analysis and analysis of data and information gathered from the research process. There has been conducted analysis of legislation in force for the activity of political entities and their financing, the law on general elections, the regulation of the Central Election Commission no. 14/2015 on the Financing of Political Entities and some of the statutes of the parliamentary political parties such as the Democratic League of Kosovo (DLK), the Democratic Party of Kosovo (DPK), the Self-Determination Movement (SDM), Alliance for the Future of Kosovo (AFK), Alliance for New Kosovo (ANK), Alternative. Also, the reports of international institutions (European Union Progress Reports) have been researched, finance reports of political parties published by the Central Election Commission, reports of civil society of this nature and various literature has been consulted with particular emphasis on those published from the International Institute for Democracy and Electoral Assistance (IDEA). Also, public opinion research has been conducted. Through the questionnaire were interviewed 620 respondents, where the basic question was related to membership fees or donations for their party.

Analysis of the Legal Framework for financing Political Entities in Kosovo - Measures to minimize the risks of lack of financial transparency in electoral processes

Funding political parties and their functioning is an indispensable component in democratic processes, enabling the expression of political support and competition in electoral processes. However, democratic systems face the ongoing challenges of securing an equal opportunity for the whole society to participate in political processes and decisions that affect their welfare and status in society. The reality is that often there is a lack of financial resources that hinders the leaders and supporters of these social groups to achieve political participation through representation that will promote the democratic protection of their interests. The development of sustainable democracy requires special attention to be given to the issue of political financing or financing of political entities. Consequently, the financing of political parties "is" the cost of democracy[15] "and in the general sense"

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[13] Magnus Ohman, (2014) Introduction to Political Finance, in Funding of Political Parties and Election Campaigns, A Handbook on Political Finance, International Institute for Democracy and Electoral Assistance, p 1

[14] OECD (2016), Financing Democracy: Funding of Political Parties and Election Campaigns and the Risk of Policy Capture, OECD Public Governance Reviews, OECD Publishing, Paris p.p.15-17

[15] Nassmacher, K.-H. (2003), "The Funding of Political Parties" in the Anglo-Saxon Orbit , "Funding of Political Parties and Election Campaigns" IDEA, Stockholm, p.p: 33-51

political funding "refers to all" money in the political process "or" process of electoral democracy "[16]. Finance or money has a "symbolic and practical value in political competition[17]" even important in politics and can also threaten and jeopardize democracy if its use is not adequately regulated.

In fact, the growing concentration of non-transparent and dubious donations is a major threat to a country's political, democratic and economic system. Funding in politics is a "double-edged sword"[18]. When the funding of political parties and election campaigns is not adequately and transparently regulated, then money can also be a mean of interest for certain groups to exert influence and "capture" the political process and the establishment of monopolies. Monopoly or corruption is reflected in favoring public procurement (capital investment tenders), forgiveness of debt, gift of accreditation or accreditation, etc., from the new government to "favor" those entities that sponsored donations or to exclude those who supported political opponents. In these cases, there are persistent manifestations of "conflicts of interest" (it is plausible[19]) between private donors and policy makers. At best, political fundraising processes can endanger public interest while in the worst case they destroy the integrity and autonomy of policy-makers and privatize their decisions[20].

Kosovo in the legislative aspect on the issue of financing of political parties has in force a relevant law such as the Law on Financing of Political Entities, which "regulates the manner, conditions of financing, administration, supervision, transparency and reporting on the expenditure of property and income of political entities in the Republic of Kosovo[21]. Then, the financial activity of the political entities is regulated except with the Law on Financing Political Entities also through the "Law on General Elections in the Republic of Kosovo[22]"; "Rule No.14 / 2015 on Political Entity Financing and Sanctions[23] of the Central Electoral Commission" as well as statutes of political entities. However, the current legislation on the Financing of Political Entities has undergone changes and supplements[24].

All funds for financing political entities are based on state or party resources. The financial and material resources of political entities under the law consist of: "membership fees ", "Contributions", "income from political entity activities", "state budget financing" and "any received assets provided by the law"[25]. However, the main source of political entities is the" public fund "coming from the Kosovo Budget, namely the fund for the support of political entities defined by Article 7 of the Law on Financing Political Entities and donations from economic entities.

According to this law, the fund dedicated to supporting political parties, "cannot exceed 0.17% of the budget" of Kosovo[26]. Meanwhile, regarding the expenditures of the electoral campaign, on the proposal of the Government, the Assembly can allocate "funds from the Kosovo Budget no more than 0.05% of the total amount" of the state budget[27]. Out of the total amount of funds for political entities, 90% of them are allocated to parliamentary entities based on the number of seats in the Assembly, while 10% of them are allocated proportionally to other political entities registered and certified by the Central Election Commission (CEC), for the respective elections. Also Article 8.2 of the CEC Regulation No.14 / 2015 on the Financing of Political Entities and Sanctions has

[16] Magnus Ohman, (2014) Introduction to Political Finance, in Funding of Political Parties and Election Campaigns, A Handbook on Political Finance, International Institute for Democracy and Electoral Assistance, p. 2

[17] Casas-Zamora, K. (2005), Paying for democracy: political finance and state funding for parties, ECPR Press, Essex. P.7

[18] OECD (2016), Financing Democracy: Funding of Political Parties and Election Campaigns and the Risk of Policy Capture, OECD Public Governance Reviews, OECD Publishing, Paris p.15

[19] Code No. 04/L-082 Criminal Code of Republic of Kosovo, Official Gazzete of R. Kosovo / No..19 / 13 July 2012, Pristina, Article 424, https://gzk.rks-gov.net/ActDetail.aspx?ActID=2834 (access: 11.08.2017)

[20] Kevin Casas-Zamora (2008), p.3

[21] Law No.03/L-174 Financing Political Parties, Article 1

[22] Law No. 03/L-073 For General Elections in Republic of Kosovo, Chapter VI Campaign Spending Limit and Financial Disclosure

[23] CEC (2015): Regulation No. 14/2015 On financing political parties and sancitons,

[24] Law no. 04/L-212 on amending and changing Law No 03/L-174 on financing political parties, changed and amended with Law No.04/L-058

[25] Law No.03/L-174 Financing Political Parties, Article 4

[26] Law No.03/L-174 Financing Political Parties, Article 7.3.

[27] Law No. 04/L-212 Article 5

determined that if the political entity that has "obtained financial means" from the state budget fund and "does not participate in the election process ", Is obliged to" return the means "to the Kosovo budget[28]. For all expenditures, political entities, according to Article 14, are obliged to make the registration, declaration and reporting of all income, together with the expenses[29]. By law, contributions to political entities by natural or legal persons are limited. Article 5 of the Law on Financing of Political Entities has defined the manner of contributions to political entities, "natural and legal persons" for the "value" for a calendar year. These financial resources are prohibited for expenditures that bring personal benefits[30].

Funding sources, apart from legal provisions, are also regulated through the statutes of political parties in Kosovo. The political parties in their statute have determined the sources of funding, the manner of using the financial means[31] and their audit.

In the framework of transparency, political entities are obliged by law and by their statutes to publish and keep published for at least one year on their official pages the "Annual Financial Report" of the previous year and the "Campaign Financial Disclosure Report" and to publish their abbreviated versions in one of the national daily newspapers[32]. However, the publication of financial reports by political parties is not always fairly reflected. According to civil society they do not reflect in their reports all donations and do not declare them. However, this is noticed at the beginning of the new government, since the party or coalition formed by the government is rewarding the donors with tenders. A similar assessment with the civil society[33] is also found in the latest report of the European Commission on the Progress in Kosovo of 2018, where among other things it is noted that: political party finances as well as funding and campaign expenditures continue to suffer from lack of transparency, while legislation in this area remains largely unimplemented. This undermines public confidence in political parties and continues to expose the democratic process to the significant risks of corruption and improper impacts[34]. It notes that the legal provisions have not been respected and measures need to be taken urgently to implement, and the legal framework should be effectively reinforced.

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[28] CEC, Regulation.14/2015 On financing political parties and sanctions, http://www.kqz-ks.org/wp-content/uploads/2018/01/KQZ-Rregulla-14-2015.pdf (access: 12.03.2018)
[29] CEC, Regulation.14/2015 On financing political parties and sanctions, Article6
[30] Law No. 03/L-174 Article 5,

[31] Statute of Democratic League of Kosovo (DLK) (2012), Articl 50.1, http://www.ldk-kamenice.com/dosjet/2016/10/Statuti-i-LDK.pdf (access: 15.6.2018); Statute of Kosovo Democratic Party (2013), Article 68, http://www.pdk.info/article/post/16 (access: 15/01/2018); Statute of Self-Determination Movement (SDM), (2012), Article81. https://www.vetevendosje.org/uploads/files/2017/May/08/Statuti1494292584.pdf : (access: 15/01/2018); Statute of Alternativa, (2017),Article 29, http://www.kqz-ks.org/Uploads/Documents/Alternativa%20statuti%20i%20partise_szewlztlcl.pdf (Access:15.01.2018); Statute i Alliance for New Kosovo (2017), Article 53, http://akr-ks.com/wp-content/uploads/2013/10/STATUTI-FINAL.pdf (access: 15.01.2018); Statute of Alliance for Future of Kosovo (2008), Article 26, http://www.aak-ks.org/?id=18 (Access: 15.01.2018).
[32] Law No. 04/L-212 Article 8,
[33] NGO "Çohu" (2016): Përsiatja e Dështuar, Financimi i Partive Politike në Kosovë, Analizë Politikash, P.17-24, http://cohu.org/repository/docs/Persiatja_e_Deshtuar_ALB-FINAL-Print-Bleed-v1_175837.pdf (access: 10.06.2018)
[34] European Commission (2018), p 8

impacts. It notes that the legal provisions have not been respected and measures need to be taken urgently to implement, and the legal framework should be effectively reinforced.

Findings from public opinion research regarding membership fees or donations to political parties

In the analysis of published reports[35] for political entities by CEC or in the civil society reports, we find that in their statements, political parties, declare that they have funds that come from their membership[36].

However, with a view to providing a more accurate picture of the ways in which political parties are financed, a public opinion survey was conducted on the electoral system and functioning of political parties in Kosovo and on party membership fees and donations for their party. In this regard, 620 respondents were asked directly and in distance through social networks. The question for respondents was: Do you pay a membership fee or give donation for your party? The result of this research (question) is published for the first time in this paper. The data from the research shows that there is a huge difference between the statements of political parties and the respondents. In fact, over 90% of the respondents stated that they did not pay any membership fee or gave donation to any political entity, while 10% of them stated that they donated and paid the membership fee. The result of the research in figurative mode is reflected in Figure 1.

Figure 1. Citizen Participation in Party Membership or Party Donation
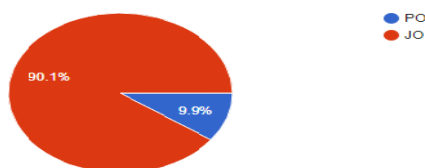
Source: Research conducted by the author on the way of financing political entities in Kosovo (2017-2018).
When analyzing the outcome of the research, by logical and analytical interpretation we can conclude that the funding of political parties by membership is very small. However, this is used to cover the anonymous donations of economic entities or suspicious donations. The research results reflect the existing reality as well as the need for legal, institutional and greater transparency, both in financial resources and in their expenditures.

Audit of financial reports of political parties in Kosovo

Transparency of revenues and expenditures of political parties is mandatory and necessary in Kosovo. Pursuant to the Law on Financing of Political Entities, the parties are obliged to publish each year an annual financial report showing all party revenues and expenditures. Transparent funding of political parties is a repeated request of civil society and the European Union also reflected in their reports. Among other things in the 2016 progress report on Kosovo it is said: "The Assembly should initiate an institutional debate, including all political parties, in order to ensure transparency and accountability on political party finances and campaign contributions [37]". Consequently, the forms and methods of financing and audit of political parties' finances are one of the central problems of the structure, functioning and efficiency of modern democratic system. This requires greater attention to control and monitoring by independent institutions. However, the biggest challenge is finding and controlling unannounced donations. Beside the risk of misuse of these funds for manipulating the electoral process, they can be used by party members to support their political campaigns or to hide prohibited donations[38].

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[35] CEC (2018): Audited electoral campaign financial reports http://www.kqz-ks.org/an/sherbime-per-subjektet-politike/raportet-financiare-te-fushatave-zgjedhore-te-audituara/ (access 10.06.2018)
[36] NGO " Çohu" (2016) pp.18-23,
[37] European Commission (2016) p. 5,
[38] Magnus Ohman, (2014) Introduction to Political Finance, in Funding of Political Parties and Election Campaigns, A Handbook on Political Finance, International Institute for Democracy and Electoral Assistance, p. 5

With regard to internal financial control, referring to Article 17 of the Law on the Financing of Political Entities in Kosovo, political parties are obliged to define clearly with the statute the right of members to be informed of all " revenues and expenditures of political entities ", as well as for the responsibility of" the relevant body for financial transactions "[39]. Money has a determining role in political competition and it can threaten democratic processes if its use is not adequately regulated. For this purpose, according to the law, the "Annual Financial Reports" and "Report of financial Declaration of election Campaign" are audited according to standards by companies selected by Kosovo Assembly[40]. Also, the law has determined that the same auditor cannot audit twice in a row the financial reports of the same political subject. However, political parties represented in parliament decide on their finances, and this raises the question of how and who should control them. I consider that the fact that a parliamentary majority decides on a company (audit offer) for the control or audit of their financial reports represents at least a conflict of interest or opportunity for favoring those parties that have voted for the particular company. For this reason, I recommend that it is necessary to change the manner of auditing financial reports of political parties from certain companies to be transferred to the Auditor General of Kosovo, which "is the highest institution of economic and financial control"[41]. Another issue defined by law is the time limit for completing the audit of annual reports. In accordance with Article 15 of the law, the audit process of the Annual Financial Reports of Political Entities has been defined, which should end no later than June 15 of the following year. Also, the law obliges the Central Election Commission to publish all annual financial reports together with the political party audit statement on its official website[42]. Upon completion of the audit, the Central Election Commission is required to submit the final audit reports together with the annual financial reports of the political parties to the Anti-Corruption Agency for further examination[43]. Financial reports are checked and in case of non-fulfillment of these legal reporting obligations, the Central Election Commission, upon the recommendation of the Office for Political Parties, fines (denounces) political entities for the delay of submitting the required documentation and categorizes them according to the criteria of representation and deadlines set out in Article 13 of the Rule. no. 14/2015 on Financing of Political Entities and Sanctions. The Central Election Commission for violations of legal provisions imposes penalties on political parties according to the criteria set out in Article 13 of the Regulation[44].

However, for civil society, political parties in Kosovo have not shown to be transparent about the funding sources of their election campaigns, as well as about the money costs they receive from the state budget. For civil society, funding of political entities is doubtful. Apart from public money, they are also funded by other sources that have never been published so far[45]. Whereas according to the European Commission's Progress Report for Kosovo of 2015, it has been emphasized that: "The Assembly should initiate an independent audit of political party and party election campaigns"[46] ... This is reiterated in the 2016 report, which among other things states that: "Independent political party financing and party election campaigns, as foreseen in the law on financing political parties, have not been completed in the last three years. This should be done latest before the next elections. The Assembly should initiate an institutional debate, including all political parties, in order to ensure transparency and accountability on political party finances and campaign contributions "[47] .While the latest progress report for Kosovo states that: a positive step has been made with the publication of external party finance audits for the first time since 2013. However, these audits have confirmed serious violations of the Laws on Financing of political parties, as well as major weaknesses in the internal financial control of political entities[48].

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[39] Law No 03/L-174 Article 17
[40] Law No. 04/L-212 Article19.
[41] Constitution of the Republic of Kosovo (with amendments I-XXIV), article 138
[42] CEC (2014): Audited Electoral Campaign Financial Reports, Kosovo Assembly Early Elections, http://www.kqz-ks.org/sherbime-per-subjektet-politike/raportet-financiare-te-fushatave-zgjedhore-te-audituara/ (access:10.08.2018)
[43] Law No. 04/L-212 , Article 9
[44] CEC, Regulation No. 14/2015, Article13
[45] NGO "Çohu" (2016): p.p 11-24
[46] European Commission (2015), p 6
[47] European Commission (2016), p.5,
[48] European Commission (2018),p.8

In conclusion we can say that it is imperative that state and political institutions prioritize the issue of financing political parties and their campaigns. This issue is challenging and very difficult to monitor and to be investigated by law enforcement agencies in Kosovo if there is no political will by political parties. Many donations from suspicious donors are secretly obtained from the parties or their candidates and are not made transparent unless the 'deal'(such as giving tenders, forgiveness of debt, giving license to particular operator or the imposition of a monopoly for the provision of services) among them was not respected therefore has been disclosed to public.

Conclusions and Recommendations

In conclusion we can say that Kosovo has a legal basis that could solve many problems that characterize the financing of political entities. However, their implementation in practice, both as a procedure and as a content, continues to struggle even today. For this reason it is difficult to point out the advantages and disadvantages of Kosovo's political party financing model. Public funding is easier to monitor and audit as payments are from the state fund. However, the challenge remains membership contributions. This requires a lot of attention in order to monitor and control because the risk that the money accumulated by the membership can be shown as high incomes and can be used to manipulate the electoral process from any particular group within political party to support their election campaigns, to hide forbidden donations[49] or to lose their destination and end up in the pockets of any party collaborator.

In fact, Kosovo needs to achieve a political and social consensus for a more transparent and concise placement of forms of financing and audit of finances of political parties. It is indispensable to reform the current laws, with particular emphasis on the establishment of an independent institutional mechanism (from politics) with the mandate of monitoring, auditing, investigating and preventing the abuse of the provisions of the Law on Financing Political Parties. There must be increased penalties with higher fines for subjects receiving suspicious funding until their sanctioning with non-certification for participation in election or de-registration. With the changes that must take place in the legislation on party finances and institutional reform, the first direct effects on the changes in the functioning of the current political system and the strengthening of representative democracy in parliament as well as governing institutions would be reflected. The effects of reform, apart from the impact on the political system, strongly influence positively the electoral processes by meeting the standards for free and democratic elections. At the same time, it increases citizens confidence in the power of their votes in electoral, decision-making and political processes.

Recommendations:

• Political parties should be more transparent and accountable to citizens for their financial resources and expenditures. In addition to reporting to competent institutions, they should report to the party structures and the media on a six-month basis for financial revenues and expenditures.
• Auditing the financial reports of political entities to be passed to the Auditor General, which is the highest institution of economic and financial control in Kosovo, and to be given political and monetary support to carry out its legal and constitutional mandate.
• To conduct permanent and ad hoc monitoring by competent institutions and civil society on the revenues and expenditures of political parties' finances.
• Introduce all precautionary measures to prevent political corruption during the electoral process by sanctioning and penalizing any candidate, a political entity for non-transparency and violation of the provisions of the law on the finances of political parties in particular and the normative framework for elections in general.

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[49] Magnus Ohman, (2014) Introduction to Political Finance, in Funding of Political Parties and Election Campaigns, A Handbook on Political Finance, International Institute for Democracy and Electoral Assistance, p. 5

References

Casas-Zamora, K. (2005), Paying for democracy: political finance and state funding for parties, ECPR Press, Essex.

Central Election Commission (2014): Audited Electoral Campaign Financial Reports, Kosovo Assembly Early Elections , http://www.kqz-ks.org/sherbime-per-subjektet-politike/raportet-financiare-te-fushatave-zgjedhore-te-audituara/ (access 10.08.2018)

Central Election Commission (2015) , CEC, Regulation.14/2015 On financing political parties and sanctions, http://www.kqz-ks.org/wp-content/uploads/2018/01/KQZ-Rregulla-14-2015.pdf (access: 12.03.2018)

Central Election Commission (2018): Audited electoral campaign financial reports   http://www.kqz-ks.org/an/sherbime-per-subjektet-politike/raportet-financiare-te-fushatave-zgjedhore-te-audituara/   (access 10.06.2018)

Central Electoral Commission (2017), Elections in Kosovo 2000-2014, Pristina, http://www.kqz-ks.org/wp-content/uploads/2018/02/Zgjedhjet-ne-Kosove-2000-2014_al.pdf (access 5.2.2018)

Code No. 04/L-082 Criminal Code of the Republic of Kosovo, Official Gazette of the Republic of Kosova / No. 19 / 13 July 2012, Pristina, file:///c:/users/pc/downloads/code_no._04_l-082_criminal_code_of_the_republic_of_kosovo.pdf (access 11.08.2017)

COMMISSION OF THE EUROPEAN COMMUNITIES (2018), Kosovo* 2018 Report Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 2018 Communication on EU Enlargement Policy {COM(2018) 450 final}Strasbourg, 17.4.2018 SWD(2018) 156 final, https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20180417-kosovo-report.pdf   (access 28.07.2018)

CONSTITUTION OF THE REPUBLIC OF KOSOVO (with amendments I-XXIV), This edition includes text of the CONSTITUTION OF THE REPUBLIC OF KOSOVO (adopted on 9 April 2008) with AMENDMENTS I - XXII (Official Gazette of Republic of Kosovo no.25, date 7 September 2012) AMENDMENT XXIII (Official Gazette of Republic of Kosovo no.7, date 26 March 2013) end AMENDMENT XXIV (Official Gazette of Republic of Kosovo no.20, date 5 August 2015): http://www.kuvendikosoves.org/common/docs/Constitution_of_the_Republic_of_Kosovo_with_amend.I-XXV_2017.pdf (qasur 10.09.2017)

European Commission (2015), Kosovo* 2015 Report Accompanying The Document Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions Eu Enlargement Strategy {COM(2015) 611 final} {SWD(2015) 210 final} {SWD(2015) 211 final} {SWD(2015) 212 final} {SWD(2015) 213 final} {SWD(2015) 214 final} {SWD(2015) 216 final}Brussels, 10.11.2015 SWD(2015) 215 final, https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/pdf/key_documents/2015/20151110_report_kosovo.pdf (access 10.5.2017)

EUROPEAN COMMISSION (2016) Kosovo* 2016 Report Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 2016 Communication on EU Enlargement Policy {COM(2016) 715 final},Brussels, 9.11.2016 SWD(2016) 363 final, https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/pdf/key_documents/2016/20161109_report_kosovo.pdf   (access 10.5.2018)

Ismail, Osmani (2001), Partitë politike shqiptare dhe çështja e Kosovës (1989-1998), Prishtinë

Kevin Casas-Zamora (2008), Political finance and State funding systems: An overview, Brookings Institution / University of Costa Rica. https://ifes.org/sites/default/files/politicalfinanceandstatefundingsystems_english_0.pdf (access 11.03.2018)

Kosovo Declaration of Independence http://kryeministri-ks.net/en/kosovo-declaration-of-independence-2/ (access 8.5.2018)

Law No. 03/L-073   On General Elections in the Republic of Kosovo, Official Gazette of the Republic of Kosova / Pristina: Year Iii / No. 31 / 15 June 2008, file:///c:/users/pc/downloads/law_no._03_l-073_on_general_elections_in_the_republic_of_kosovo%20(1).pdf (access 15.5.2018)

Law No. 03/L-174   On Financing Political Parties, Official Gazette of the Republic of Kosova / Pristina: Year V / No. 82 / 21 October 2010, file:///c:/users/pc/downloads/law_no._03_l-174_on_financing_political_parties.pdf, (access 11.06.2018)

Law No. 04/L-212   On Amending And Supplementing the Law No. 03/L-174 On the Financing of Political Parties, Amended and Supplemented by Law No. 04/L-058, Official Gazette of the Republic of Kosova / No. 30/23 August 2013, Pristina, file:///c:/users/pc/downloads/law_no._04_l-212__on_amending_and_supplementing_the_law_no._03_l-174_on_the_financing_of_political_parties_amended_and_supplemented_by_law_n%20(1).pdf,   (access 15.6.2018)

Law No.03/L –256   On Amending and Supplementing the Law No. 03/L-073 On General Elections in the Republic of Kosovo, Official Gazette of the Republic of Kosova / Pristina: Year V / No. 87 / 16 November 2010, file:///c:/users/pc/downloads/law_no.03_l_-256_on_amending_and_supplementing_the_law_no._03_l-073_on_general_elections_in_the_republic_of_kosovo.pdf (access 15.5.2018)

Nassmacher, K.-H. (2003), "The Funding of Political Parties" in the Anglo-Saxon Orbit , "Funding of Political Parties and Election Campaigns" IDEA, Stockholm,

 NGO   Çohu (2016): Përsiatja e Dështuar, Financimi i Partive Politike në Kosovë, Analizë Politikash, http://cohu.org/repository/docs/Persiatja_e_Deshtuar_ALB-FINAL-Print-Bleed-v1_175837.pdf   (access 10.06.2018)

NGO "Çohu" (2016): Përsiatja e Dështuar, Financimi i Partive Politike në Kosovë, Analizë Politikash, P.17-24, http://cohu.org/repository/docs/Persiatja_e_Deshtuar_ALB-FINAL-Print-Bleed-v1_175837.pdf   (access: 10.06.2018)

Radio Free Europe, Luljeta Krasniqi- Veseli "It is not known who finances political parties and how the money is spent" 4 May 2017, https://www.evropaelire.org/a/28487275.html (access: 15.05.2018)

 Statute i Alliance for New Kosovo (2017),   http://akr-ks.com/wp-content/uploads/2013/10/STATUTI-FINAL.pdf (access: 15.01.2018);

Statute of Kosovo Democratic Party (2013), http://www.pdk.info/article/post/16 (access: 15/01/2018);

Statute of Alternativa, (2017), http://www.kqz-ks.org/Uploads/Documents/Alternativa%20statuti%20i%20partise_szewlztlcl.pdf (Access:15.01.2018);

Statute of Alliance for Future of Kosovo (2008), http://www.aak-ks.org/?id=18 (Access: 15.01.2018).Statute of Democratic League of Kosovo (DLK) (2012), http://www.ldk-kamenice.com/dosjet/2016/10/Statuti-i-LDK.pdf (access: 15.6.2018);

Statute   of   Self-Determination   Movement   (SDM),   (2012), https://www.vetevendosje.org/uploads/files/2017/May/08/Statuti1494292584.pdf : (access: 15/01/2018);

The United Nations Interim Administration Mission in Kosovo (UNMIK) was established by the Security Council in its resolution 1244 (1999). http://www.unmikonline.org/Pages/about.aspx (access 8.11.2015).

Contribution of Effective Tourism Policies to Urban Development and Economy: İZKA Case

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Abstract

Today tourism is one of the important tools for developments of countries, regions or cities. The states all over the World are trying to use this tool for their economic growth and urban development. Therefore, it is required that the states should be careful on their polcy making proceses to attract tourists to their destinations or cities. Enhancing tourist inbound in a country is based on making attractive tourism policies and implementing them efficiently.

Nowadays together with technological developments and with the impact of globalisation, tourism activities can be performed easier than previous years. In this context, tourism policies have become more important for the states in the World . Particularly, the governments have begun to adopt buttom up policies rather than top down policies to reach their tourism targets in their countries. In this study, it has been aimed to reveal the contribution of tourism policies into urban or regional development. In this sense, İZKA's tourism policies will be studied and rural-urban development targets will be determined by analyzing its 2014-23 Development Plan. Finally, some suggestions will be presented by evaluating these targets in the conclusion.

Keywords: Tourism, Tourism Policy, Urban and Regional Development, Development Agency

Introduction

Today, due to the easy transport and plenty of transport facilities, people can travel easily and a lot around the World. According to data of the World Tourism Organisation, travel and tourism have become a global industry and are widely considered to be one of the fastest growing industries. Now it is regarded that tourism is one of the largest industries, especially when regarded the number of employees working in tourism sector. At the same time, tourism has not only a curical role for national and regional development, but a character of being a source of important revenue and employment for many countries (Riege and Perry, 2000: 1290; Balıkçıoğlu & Oktay, 2015: 114).

Actually, there are many factors causing to increase demand tourism activities in the world. First of all, increasing the socio-economic and cultural level of people can be seen as main factor for this increase. As Balıkçıoğlu and Oktay(2015: 114) stated in their study, among the other factors motivating tourism are: growing up economic welfare in the World, improving of transportation, improvements in the comunication technologies, increasing old population, change of family structure and emerging new social organisations due to

industrialisation. According to Bellini et al,(2017:334), "Tourism has become an integral part of any strategy concerning local economic development in a variety of situations, most frequently in rural areas but also, of course, in urban settings." They also say that sustainability, inclusion, accessibility through transports and information technologies, participation in urban decision-making and city representation, as well as participation in the local labour market are all important for both tourism and city development(Bellini et al. 2017: 334). In this sense, in the study, fistly, contribution of tourism to economic development of city and region will be studied and then main focus of the study, İZKA(İzmir Development Agency)'s tourism goals included in the 2014-2019 Strategic Plan of İZKA will be analyzed. Finally, these goals and tourism policies will be evaluated in the conclusion part.

What is Tourism and Tourism Policy?

Tourism is a social activity considered and benefited with its economic perspective besides its social and cultural aspects. It has been seen that after 1980s, tourism becoming economic and massive phenomenon has positive impacts especially on the developing countries' economies (Selim et al.,2015: 19). Gao et al., (2018: 56) claims that tourism has been regarded as "sunrise industry" and "smokeless industry" for many years and it has an immense development potential of industry groups and an increasingly position in national economy. For them, at the same time, tourism has been considered as one of the world's largest and faster growing economic sectors in the last 20 or 30 years with its continued development, expansion and diversification.

Vanhove points out that tourism policy is a coprhensive term and has a lot of interpretations. Tourism policy has been identified with promotion of the public sector. Currently it has many stakeholders and its content is more comprhensive (Vanhove, 2002: 34). Based on a good definition of Goeldner, Ritchie and Mcintosh (2000) Vanhove defines tourism policy as follows: "A set of regulations, rules, guidelines, directives, and development/promotion objectives and strategies that provide a framework within which the collective and individual decisions directly affecting tourism development and the daily activities within a destination are taken" (Vanhove, 2002: 34).

Contributions of Tourism Policies to Urban Economic Development

Urban economic development depends on various activities performed in the borders of a city or sometimes in the borders of a region where a city located in. It can be said that tourism is one of these activities performed in a city and especially due to the globalisation's effect after 2000, tourism has become an important factor in economic developments of urban areas. As Balıkçıoğlu and Oktay(2015: 114) said that tourism has also an important role both on national and regional economic development and for many countries, it is a source of revenue and employment. Gao et al.(2018: 56) gives some important data based on the World Tourism Economic Trends Report (2017), according to this report, "Global tourism revenue reached 5
trillion and 170 billion dollars in 2016, which shows an increase of 3.6% over the previous year, and equivalent to 7% of global gross domestic product (GDP). The growth rate of global tourist population and total tourism revenue is significantly higher than the global GDP growth rate." In the light of data above, it can be said that tourism is one of the most prominent factors of socio-economic development, through export revenues, the creation of jobs and enterprises, and infrastructure development to promote socio-economic progress.

According to Keyser and Vanhove, today's modern societies have to struggle too much to benefit from the tourism revenues. The most vital issue on this topic, cities or regions should confront with ever increasing competition due to an increasing number of holiday destinations, products and services, easy means of transport worldwide, breakdown of language barriers, etc. So it can be said that the tourism industry has to make

continually increasing efforts in the field of marketing and promotion, in order to attract enough new customers and to convince the existing consumers to come back (Keyser ve Vanhove, 1997: 32).

Effective tourism policies can contribute to both growth of economic and national income of a country and also developing backward rural areas. In some studies on this area, it has been seen and claimed that by developing rural tourism of non-industrial rural areas of Africa, not only development of area could be managed but also life quality of people in the region became higher. For example, according to Briedenhann and Wickens (2004: 201), tourism is regarded as a catalyst to stimulate economic activity, job creation and entrepreneurial opportunity in rural areas. And again they claim that effective planning, management and marketing are imperative if the potential benefits of rural tourism are to be optimised. On the other hand, they also emphasize on the importance of rural tourism and state that toursim can contribute to growing up the life quality of South African people.

It can be said that tourism and its impact for rural societies has a greater importance day by day and it is required to show special care to improve tourism in rural areas, because wildlife and indigenous culture in these areas can provide numerous opportunities for tourism, rural development and economic growth. Based on the reference of World Tourism Organisation, (1997), Mafunzwaini and Hugo have pointed out that rural tourism is well established in most developed countries of Europe, North America and Australasia, while it remains unacknowledged in most developing countries. For instance, the countries that attended a rural tourism seminar and shared their experiences were Australia, Italy, France, Switzerland, China, Netherlands, Spain, Turkey, Romania and Israel (Mafunzwaini and Hugo, 2015: 252).

Case Study: İzmir Development Agency's (İZKA) 2014-2023 Regional Plan

İzmir: As A Province And Development Agency

İzmir Province located in the aegean coast and in the west of Turkey is the third big metroplitan city. Over 4 million population are currently living in the city center of this province and half of this population is under 30 years old. There are thousands of university students, acadmicians, businessmen and artists in the city. Having a long coastal area makes this city an attraction center to live in, that is why it took a lot of migration in the recent years. After İstanbul, İzmir was the second big migration destination before 2000s.

İzmir is a well-known region with its multi-dimentional production facilities and providing quality life standard together both in Turkey and in the Worldwide. It has an important potential for all the main sectors like agriculture, industry and services. It has been a port city along with history, with its this position and structure, it can be always visited by foreigners. Its this character has been an advantage for İzmir in improving its capacity and comply with it to compete with both social and economic aspects.

Ephesus located on the South of the city and Bergama located on the North of the city were amongst the biggest and the most famous cities of ancient era. These cities owned ionian cultural richnesses were well-known for artistical, cultural, commercial and religous activities. Nowadays ancient cities Ephesus and Bergama, famous for the worldwide has been an atraction center for those who are interested in history (http://www.izmirkulturturizm.gov.tr/ access date, 05.08.2018).

As the cities of Turkey are classifed according to their population, İzmir is the third big and crowded city and by itself, it has been adopted as a development region and so a development agency called İzmir Development Agency was established for İzmir Province in 2006. After that, this agency has been kept responsible for the development of İzmir and its towns around it (İZKA, (İzmir Development Agency)2014-23 Regional Plan: pp.11).

Agricultural products such as olive, figs, grapes and cotton can be harvested in İzmir since it has a magnificient natural area and climate. With various sea products, wines, distinctive vegetables and olive oils, İzmir is an attraction center for gourmets with its delicious cuisine (www.izka.org.tr, access date, 05.08.2018).

Tourism Policies and development targets in İZKA, İzmir Development Agency 2014-2023 Regional Plan

Development agency implementations are quite new in Turkish regional development system. In Turkey, development agencies were first established in 2006 with the law 5449. Aim of establihment of agencies is generally regarded as a mediator between public agencies and private sector, and a motivator for the development of region under its responsibility. In Turkey, at the moment, there are 26 development agencies and İZKA, İzmir Development Agency is one of them. İzmir Development Agency was established to contribute to the development of İzmir Province with its different development policies. Regional Plans are usually prepared to determine some policies and goals used by the agencies for 5 years in the future. In this context, tourism policies are regarded as included in the regional plans and main aim of this study is to reveal the tourism policies written in the plan and their contribution to the region, urban or rural development.

When the Regional Plan of İZKA is studied carefully, it can be seen that there are some tourism policies to contribute to the economic growth and development of both the region and the city İzmir. Because as stated above, İzmir and the region have many potential and advantage to benefit from tourism as a tool to develop its economy. Among these advantages and potentials are: ancient cities Ephesuıs and Bergama, holiday resorts such as Çeşme, Dikili, Foça, Seferihisar, Urla and festivals about local meals and agricutural products.

In the plan there are three main development strategies. They are: Strong Economy, High Life Quality and Strong Society. In this sense, in these three main strategies, there are some strategic priorities and targets, so tourism targets can be seen in two startegic priorities. They are included in the main strategy of Strong Economy and their titles are "*Sustainable Production and Service Providing* " and "*İzmir, Attraction Center of Mediternean*".

According to the content of the plan, to be able to establish and reach a strong economy in İzmir, five priorities have been determined and two of them are related with tourism and development of region. One of these two priorities is "*Sustainable Production and Service Providing*". Under this title as a priority, six targets are planned to perform during the plan term(2014-2023). Among these targets, the target 6 is directly about tourism and tourism policies.

Target 6: Sustainable tourism implementation will be provided and made more widespread

For this target in the plan, it is stated that tourism investments will be performed with an understanding of protecting and progressive natural, historical, social and cultural environment in the direction of green growth aproach. Increasing awareness of people working in the sector for ecotourism, investments for ecotourism will be incentived in Karaburun, Çeşme, Seferihisar, Urla, Foça, Dikili towns. Some precutions for protecting environment in sea and coastal area will be increased and measuring station for pollution caused by port and marine activities will be established (İZKA, 2014-23 Regional Plan: pp.90).

To provide sustainable tourism services, using limited and unrenewable sources will be decreased in a minimum level and by cooperating with private companies and municipalities, the sources will be used effectively, and recycling system on energy and water consumption will be established for protecting environment and nature. Nevertheless, with the aim of refurbish of tourism hotels(buildings) compatible with principles of sustainablity, facilities of credit and support will be increased.   Because sustainable toursim is one of the other sectors contributing sufficient amount to sustainable production and service providing. Particularly, in Çeşme, Karaburun, Foça, Dikili and Seferihisar, ecotourism activities will be increased besides sustainable applications will be used commonly in terms of various tourism sorts in all towns which are atraction centers (İZKA, 2014-23 Regional Plan: pp.91).

The Other Priority related with tourism is "*İzmir, Attraction Center of Mediternean*". First of all, to reach the targets included in this priority and to be able to succeed to transform İzmir as an Attraction Center of Mediternean, a strategic document for urban marketing in İzmir has been prepared and in the document, tourists, residents and investors are all evaluated seperately. Besides, an action plan has been prepared to support İzmir to be an Attraction Center of Mediternean by preparing "İzmir Cultural Economic Document and Development Strategy" and "Report of İzmir Current Tourism Statue". As stated above, world tourism strategies have changed due to the various factors and the demand of innovation and diversity have increased very fast in world tourism tendency. So, instead of 3S: sea-sun-sand, a 3E: education-entertainment-environment oriented tourism perception has come up. In this context, considered local diversities by global tourism and development in becoming culture prominent have caused to emerge some new tourism products such as regional cuisine and "Slow City". In 2023 Turkey Tourism Stratgy, it is emphasised that publicity is very important to reach targeted tourist group and to be effective on them to prefer coming back to your destination as a tourist. This publicity can be performed in different cultural activities. Among these activities are: cultural heritage, artistic activities, media and functional creation (İZKA, 2014-23 Regional Plan: pp.94).

When all tourism facilities of İzmir is investigated from the point of hotels, museums, restaurants, historical places, coasts, nature and climate, it can be said that İzmir is an attraction center of tourists. Because there are totally 149 hotels with tourism permission in İzmir together with its towns. In this context, 36 percent of these hotels are located in the city center, Konak(54 hotels), % 22 in Çeşme(33 hotels), % 8 in Selçuk(12 hotels) and % 7 in Menderes(11 hotels) (İZKA, 2014-23 Regional Plan: pp.97).

Target 1: Cutural and tourism products of İzmir will be diversified and advertised

With this target, there are some different tourism activities to be done during the 2014-2023 Regional Plan term. The most prominent of them are to convert city center to the third attraction center apart from Ephesus and Bergama. Because in the city center, Kemeraltı-Agora-Kadifekale are also important historical places. Another thing to be done is to establish Aegean Civilisations Museum. The city center and some old tourism destination will be restored to attract more tourists. By this way, it is estimated that tourism incomes will be increased. On the other hand, the most important target is that tourism will be diversified on the topic of sea, culture, belief,

health, nature, sport, fair, winter, thermal, ecotourism and agro-tourism. Lack of construction on these areas will be completed if there are. International popularity of İzmir Fair will be provided and continued.

All tourism activities of İzmir will be well advertised and marketed by using different advertising insturments such as media, festivals, concerts performed by popular stars, etc...
Transport network between Selçuk and city center(Konak), and also between Konak and Bergama will be improved by rail system. Between the coastal towns, sea transport system will be improved especially in Çeşme, Karaburun and Foça. Diversification and advertising activities will also be done in the towns of İzmir (İZKA, 2014-23 Regional Plan: pp.101-103).

Target 2: Mediternean life style of people in İzmir will be protected by progressing urbanity awareness

According to Target 2; Mediterranean life style will be sustained, made lively with its all instruments and by this way it is supposed that it will contribute to the city economy. Mediterranean and aegean cuisine will be familiarised and protected. On this issue, some necessary activities such as recruitment of famous cooks, establishment of gourmet institutes and increase employment in tourism, agriculture and food sectors will be supported. Conciousness of history in İzmir will be increased. Cultural activities of the city will be supported in multiple development and international level, and these activities will be announced to İzmir people by effective communication networks. Handcrafts and folkloric values of İzmir will be emerged and familiarised effectively (İZKA, 2014-23 Regional Plan: pp.104).

Target 3: Attractive job and investment opportunity will be provided

With this target some activities stated below have been planned to be done. Investment publicity activities will be presented for international investors and it will be extended in the axis of İzmir Urban Marketing Strategy and made more effective. Regional economic indicators and developments will be monitored regularly and they will be submitted for investors' and related agencies' review. Some consultant and technical support potential for investors will be improved (İZKA, 2014-23 Regional Plan: pp.105).

Conclusion

As it is seen, tourism policies are very important instruments for both development of countries and cities. First of all, true and effective tourism policies should be determined and preferred. Because day by day tourism has become a remarkable development instrument for the countries and it is regarded as an important industry and adopted all over the World. In this context, Turkey has also adopted tourism as a development instrument and made its policies on this direction. Especially, after 2000 Turkey has adopted buttom up policies to improve touirsm and established Development Agencies. İzka is one of them and it was established to improve İzmir Province as an TR33 region. In İzka's Regional Plan, it has been seen that there are sufficient tourism policies and targets which can contribute to the city's and region's economy and development. Because from the plan it is understood that İzmir's historical places and natural beauties are quite suitable for tourism. As a result, in a city or region, if city management determines and choises true tourism policies and advertises these policies, these activities can contribute to the city development and economy.

References

Andreas M. Riege, Chad Perry, (2000) "National marketing strategies in international travel and tourism", European Journal of Marketing, Vol. 34 Issue: 11/12, pp.1290-1305.

Balıkçıoğlu, E. & K. Oktay (2015), "Türkiye'de Turizm Gelirleri ve Ekonomik Büyüme İlişkisininKamu Politikaları Doğrultusunda Değerlendirilmesi", Sosyoekonomi, Vol. 23(25), 113-125.

Nicola Bellini, Frank M. Go, and Cecilia Pasquinelli, (2017)   "Urban Tourism and City Development: Notes for an Integrated Policy Agenda", Springer International Publishing Switzerland 2017, N. Bellini, C. Pasquinelli (eds.), Tourism in the City, pp.333-339.

Xue Gao, Hsu-Ling Chang, Chi-Wei Su, (2018), "Does exchange rate always affect the number of inbound tourists significantly in China?", *Theoretical and Applied Economics*
Volume XXV (2018), No. 1(614), Spring, pp. 55-72

Jennifer Briedenhann and Eugenia Wickens, (2004), "Rural Tourism — Meeting the Challenges of the New South Africa", INTERNATIONAL JOURNAL OF TOURISM RESEARCH, Int. J. Tourism Res. 6, 189–203.

Mafunzwaini and Hugo, (2015) "Unlocking the rural tourism potential of the Limpopo province of South Africa: some strategic guidelines", Development Southern Africa Vol. 22, No. 2, June 2005, pp.251-265.

http://www.izmirkulturturizm.gov.tr/ access date. 05.08.2018.

www.izka.org.tr,   access date. 05.08.2018.

İZKA,   İzmir   Development   Agency   2014-23   Regional   Plan,   access   date.   04.08.2018.

Network Effects at Retail Payments Market: Evidence from Russian Individuals

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Abstract

This research empirically evaluates the effect of network externalities for individuals behavior at Russian retail payments market. Specifically, the effects of direct and indirect network externalities for cardholding and usage probabilities are examined. Using the representative sample of 1500 individuals from all Russian regions this study finds significant robust evidence of positive association between the degree of both types of network externalities and individuals' activity at the Russian retail payments market. Results are economically significant: a standard deviation increase in network effects leads to 2.5-4 percentage points increase in probability of cardholding and usage. Findings imply that one needs to account for network effects which play an important role for the payment behavior before implementing payment stimulating programs in Russia aimed at cardholders or users.

Keywords: Retail payments; payment cards; network effects; cardholders' behavior; financial services

JEL Codes: G21, D53, E42, L14

Introduction

There is an obvious tendency towards cashless economy in the modern world. From the one side, financial regulators benefit from it and tend to stimulate the development of this phenomenon both at the individual users' and the national levels. On the other hand, apart from the government, other market participants actively participate in the non-cash payments proliferation. However, despite these existing efforts Russia is still not considered to be in the cashless economy (Krivosheya, Semerikova, Korolev & Tarusova, 2018) that is why there is still a potential to further foster retail cashless payments.

The card retail payments market is organized as a two-sided market. In order to settle the payment by payment card, it is necessary to involve two groups of end-users: buyers (cardholders) and sellers accepting cards (merchants). Unlike merchants, who choose only whether to accept cashless payment instruments for the purchases of goods and services, cardholders have two decisions to make at the retail payments market. First, they choose whether to hold the card and, then, whether to use it as a payment instrument.

The share of Russian individuals that hold at least one card is close to those in the developed and more active retail payments markets (according to the National Financial Research Agency (NAFR) as at 2016 about 73% of Russian individuals own at least one payment card[1]). At the same time, the usage of payment cards has significantly improved over the last few years. During the last 8 years the share of cashless transactions in total number of transactions increased from 21% to 71%.[2] Despite this, there is still significant share of users, who prefer cash and the habit of using it for transactions is still strong (Plaksenkov, Korovkin & Krivosheya, 2015). Although some stimulating measures for the cashless economy development have been efficient, the effect of

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1 http://www.banki.ru/news/lenta/?id=9493554
2 https://vedomosti.ru//finance/articles/2017/03/14/681000-oplachivat-kartami

government policy on retail payments market development is still limited (Krivosheya, Korolev & Plaksenkov, 2015). Part of this result might be explained by the presence of network externalities, which cannot be explicitly affected by the stimulating proposals and initiatives.

Network externalities impact both the decisions of cardholders and the choice of merchants. In this study we will focus on the behavior of cardholders only. Network effect is simply a positive effect which occurs when the utility that a user extracts from consumption of the product or service increases with the number of other agents consuming the same product or service. There are two types of network externalities in the retail payments market for cardholders due to the two-sided nature of the retail payments market. Direct network externalities show how the probability to hold and use a card by an individual depends on the decisions of other cardholders to hold and use payment cards. Indirect network effect, similarly, shows how the intention to hold and pay by card depends on the level of card acceptance by merchants. Therefore, the main purpose of this study is to analyze empirically the effect of both types of network effects for cardholding and card usage demands in Russia. Russian market is characterized by the high role of cash, which may undermine the effect of some mechanisms behind the influence of the network effects. In order to understand the mechanisms behind the link between the network externalities (effects) and the probability of card holding and usage we use the concept of net benefits. Net fixed benefits are associated with cashless instrument holding compared to cash holding less any costs attributed to the cashless payment methods holding compared to the cash based ones. Net variable benefits appear during the cashless instruments usage and represent benefits from using a card compared to cash net of any costs appearing from card usage instead of cash. An individual chooses to hold the card and pay by it if the net fixed benefits and net variable benefits are respectively greater than zero. Network externalities may change the value of the net benefits.

Direct network externalities that result from the increased activity of individuals (in terms of cardholding and card usage) increase both net fixed and net variable benefits. The key mechanisms outlined in the subsequent section of this paper include psychological reasons, improvement of the quality of banking services, reduction of the cardholding and usage fees as well as the improvement of stimulating programs as a result of increased number of cardholders and card users. Indirect network effects, associated with the higher acceptance rate at the merchants' side of the market, also increase both types of benefits, mainly via the increased payment products diversity, improved loyalty programs and payments related innovation. Therefore, outlined theoretical mechanisms suggest that both the direct and indirect network externalities are positively correlated to the probability of holding and using cashless payments by Russian individuals.

This research aims to contribute to the rising literature on the determinants of cashless payments instrument holding and usage (Arango-Arango, Bouhdaoui, Bounie, Eschelbach, & Hernandez, 2018; Bagnall et al., 2014; Bounie & Francois, 2006; Bounie, François, & Hove, 2016; Carbó-Valverde & Liñares-Zegarra, 2011; Gresvik, 2008). Factors that have been heavily investigated include transaction characteristics (e.g., cost of the purchased goods / services, type of goods, day of the week), merchant's (store type, size, etc.) and socio-demographic characteristics (income, education, age, sex, employment status etc.). However, most of the studies do not investigate the presence of network externalities for the customers empirically and those that do never distinguish between direct and indirect network externalities. These two types of network externalities affect the behavior of the individuals via different mechanisms and, hence, need to be separated in the empirical research. Besides, none of the articles outline the network externalities on Russian retail payments market, which exhibits high role of cash that might alleviate the effect of network externalities even nowadays (Plaksenkov, et al., 2015). Finally, none of the studies provide empirical investigation of the effects of network externalities on the cardholding probability and study the effect only on the usage. There are a few limitations to such approach: first, when treated independently from cardholding probability, card usage probability estimations might produce the selection bias problem as the data is available only on those individuals that already own a card; second, the mechanisms underlying the network externalities effect on the cardholding probability are largely ignored, however, these are different in theory (Bedre-Defolie & Calvano, 2013; Krivosheya & Korolev, 2016; Rochet & Tirole, 2003, 2006). This study aims to feel these gaps by empirically analyzing the effect of network

externalities at Russian retail payments market in the context of cardholding and card usage probabilities of an individual.

After analyzing the literature, this is the first study to provide the empirical investigation into the effect of network externalities for the Russian retail payments market. To the best of the knowledge, only Krivosheya and Korolev (2016) study the characteristics of the cardholding and card usage of Russian individuals. Their study, however, focuses on the aggregate notion of cardholders' benefits from the participation in the retail payments market and does not provide any investigation into the effect of the network externalities on individuals' payment behavior. This research aims to fill this gap by providing empirical analysis of the effect of network externalities on the cardholding and card usage probabilities at the Russian retail payments market. Also, this study is the first to investigate the effect of network externalities on the cardholding probability separately from the card usage probability. Although the card usage is found to be affected by the network externalities at the developed markets (Arango-Arango et al., 2018; Bounie & Francois, 2006; Bounie et al., 2016) the cardholding decision is a prerequisite for the card usage. Cardholding demand is formed on the basis of fixed rather than variable benefits, which changes the mechanisms of influence of other variables on this demand (Bedre-Defolie & Calvano, 2013; Krivosheya & Korolev, 2016). The effect of network externalities, hence, might be different for this probability.

The results of the study are important from the practical point of view because they help to understand the degree of potential influence different stimulating measures might have on the behavior of the individuals at the retail payments market, in particular, cardholding and usage. The effect of network externalities cannot be explicitly changed by any stimulating programs or other government and private sector intervention. Therefore, there is some probability that can not be altered by any financial market policies. It would be valuable for the practitioners related to the development of the financial services market such as the Central Bank of Russia, commercial banks and payment systems to understand the degree of influence they can have on the individuals at the retail payments market. Besides, understanding the degree of network effects contributes to the understanding of the organic market growth resulting from the multiplicative effect of increased payment activity across two market sides.

Using the representative sample of 1500 individuals from all Russian regions this article finds significant and robust evidence in favor of positive correlation between the degree of network externalities and individuals' activity at the retail payments market. Increased share of merchants that accept payment cards increases the probability that each cardholder holds payment card and pays by it for goods and services. This result stays unchanged despite the measure of network externality used. Similar results are obtained for the direct network externalities both at the regional and federal region levels: increased share of cardholders and card users increases the probability that each cardholder holds the credit cards and pays by it.

These results are significant not only from the statistical point of view but also from the economic point of view. One standard deviation increase in the average federal region card acceptance by merchants increases probability of card holding by 3.79 percentage points and card usage by 2.41 percentage points. Direct externalities have similar effect: one standard deviation increase in the average federal region usage rate of payment cards increases the probability of card holding by 2.9 percentage points and using by 3.34 percentage points. Combined, one standard deviation increase in the factor reflecting both network externalities at the federal region level increases the probability of card holding by 3.13 percentage points and using by 3.96 percentage points. In comparison, being a high income instead of middle income individual increases card usage probability by 2.9 percentage points, while having beginning professional education increases the probability of cardholding by 8.33 percentage points in comparison with only school.

Following this introduction, there are five sections in this work. In the subsequent section, the theoretical mechanisms of the effect of direct and indirect network externalities on cardholders' holding and usage probability will be explained. The third section explains empirical set-up which consists of data, empirical model

description and the estimation method. Section 4 explains the main results from statistical and economical outlook. Section 5 concludes, identifies limitations and outlines directions for further research.

Theoretical framework

The aim of this study is to analyze the effect of network externalities (effects) on the probability of card holding and usage in the retail payments market. In general, network effect occurs when the utility that a user extracts from consumption of the product or service increases with the number of other agents consuming this product or service. In the context of the retail payments market this effect can be separated into direct effect or indirect effect according to Katz and Shapiro (1985). In other words, the goal is to analyze how direct and indirect network externalities separately affect the probability of card holding and usage.

Direct network effect can take different forms in the framework of merchants and cardholders. If we focus on the cardholders, we analyze how the value of net benefits of one cardholder associated with the cardholding and card-usage is affected by the total activity of other cardholders. In contrast, if we looked at the merchant side of the market, we would analyze how one merchant is affected by the total share of cashless payments accepting merchants. In the work we concentrate on the cardholders' side of the market and, hence, investigate the former relationship.

Indirect network effect can also take several forms in the same framework as before. If we focus on the cardholders, we would like to analyze how a cardholder is affected by the retail payments activity of merchants. In contrast, if we looked at the merchants' side of the market, we would analyze how a merchant's accepting benefits are affected by the activity of the cardholders. Due to the focus of this study on the cardholding side of the market, this work focuses on the former definition of the indirect network effects.

A decision to hold and use a payment card by an individual is based on the relative size of his benefits and costs associated with holding and using cashless payments (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Bolt & Chakravorti, 2008; Krivosheya & Korolev, 2016; Rochet & Tirole, 2002, 2003, 2006). In any model of the retail payments market equilibrium, an individual chooses to engage in the market if the size of the net benefits (benefits associated with cashless payments compared to cash payments less any costs attributed to the cashless payment methods compared to the cash-based ones) exceed zero (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Guthrie & Wright, 2007; Krivosheya & Korolev, 2016; Rochet & Tirole, 2002; Wright, 2004). Direct and indirect network effects can change the size of the benefits and fees (Bedre-Defolie & Calvano, 2013; Bolt & Chakravorti, 2008; Krivosheya & Korolev, 2016). To begin with, it is important to define both concepts in the context of the work.

Benefits are rewards for cardholders from the holding card and its usage compared to the holding and using cash instead. Individuals, unlike merchants, make two decisions at the retail payments market: first, they choose whether to hold a card and, then, they choose whether to use a card for payments for goods and services (e.g., Baxter, 1983; Bolt & Chakravorti, 2008; Krivosheya & Korolev, 2016). That is why, benefits are usually separated into fixed and variable (Bedre-Defolie & Calvano, 2013; Krivosheya & Korolev, 2016). Variable benefits (b) represent the benefits arising from each particular transaction. Due to the nature of such benefits, variable benefits arise only in case of card usage. Such benefits may be manifested, for instance, in the form of increased speed of transactions, satisfaction from paying with card compared to cash, ability to defer payments, declined risk of fraud or easier personal financial management (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Grauwe, Paul, & Rinaldi, 2002; Guthrie & Wright, 2007; Krivosheya & Korolev, 2016). Fixed benefits (B) represent the benefits from issuing and holding a card instead of holding alternative methods of payment (e.g., cash or cheques). They, therefore, do not depend on the number of transactions. These benefits are associated with the cardholding demand. The examples of fixed benefits include the improved security and protection against robberies and the ability to consume larger amounts due to easier usage (e.g., no withdrawal costs, no need to calculate the necessary amount of cash holdings before transactions) (Bedre-Defolie & Calvano, 2013; Grauwe et al., 2002; Hunt, 2003; Krivosheya & Korolev, 2016).

Fees or costs are tariffs set by banks for cardholders for holding (issuing) a card and its subsequent usage. Similarly to the benefits, the fees are also separated into fixed and variable. Variable fees (f) are the payments charged by the bank per transaction. Whereas usually in theory this payment is non-negative in Russia it is negative since the issuing banks usually offer cardholders some forms of stimulating programs (e.g., bonuses, cashback) for making payments by card (Chernikova, Faizova, Egorova, & Kozhevnikova, 2015; Chizhikova, 2013; Krivosheya & Korolev, 2016). Fixed fees (F) are the payments for card issuance and service, which are independent of the number of transactions (for example, annual service fees) (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Krivosheya & Korolev, 2016).

In this context, a person will issue a card if his/her fixed benefits (B) are greater than the costs of issuing a card (F), i.e. B>F. A person will use the card for payments for goods and services if her/his variable benefits (b) are greater than the variable costs of using the card (f). That is, b> f. Network externalities may affect the value of all these four parameters, thereby altering the demand for cardholding and card usage. In the subsequent subsections we will outline possible underlying theoretical mechanisms that explain how each of the two network effects impacts the probability of holding (fixed net benefits) and using (variable net benefits) cards in the retail payments market.

Direct network effects

The direct network effects, in the context of this study, result from the increased activity (cardholding and card usage) of the cardholders. In other words, the direct network effects are associated with the increase in the quantity demanded for the issuing bank services. In this case, banks are more inclined to give interest on the remaining account balances and other bonuses (e.g., vip passes to the airport lounges, concierge services, etc.) for holding money on the card account when the number of cardholders rise (Borzekowski, Elizabeth, & Shaista, б. д.; Ching & Hayashi, 2010; Hayashi, 2008; D. B. Humphrey, 2010). Such effect arises from the nature of issuing banks competition. In case of few cardholders, issuing banks can easily segment the potential cardholders and find its own niche among the individuals without payment cards (Hasan, Schmiedel, & Song, 2012; Meadows & Dibb, 1998; Todd & Lawson, 2003). Segmentation of the potential customers allows issuers charging higher fees than in case of the competition for existing cardholders with other issuing banks (Hasan et al., 2012; Todd & Lawson, 2003). The quality of services and the level of fees are among the key factors for choosing a bank for cardholders (Arango-Arango et al., 2018; Bagnall et al., 2014; Borzekowski et al., 2008.; Bounie & Francois, 2006; Bounie et al., 2016). Taking this fact into the account, issuing banks are likely to change the quality of services without increasing the fees levied on the individuals or decrease the fees without decreasing the quality of services (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Hasan et al., 2012; Rochet & Tirole, 2002). In Russia, issuing banks started to show these particular patterns of behavior during the recent years (Chernikova et al., 2015; Chizhikova, 2013; Krivosheya & Korolev, 2016). In either of these two cases (quality increase or fees decrease), individuals will enjoy the higher value of net benefits, therefore, the more people possess payment cards, the higher is the probability of cardholding demand.

Another important factor for the size of fixed individuals' benefits is the perception of payment cards holding (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Krivosheya & Korolev, 2016). Payment card, especially of premium type, may be considered as a signal of status (Arango-Arango et al, 2018; Roberts & Jones, 2005; Souvignet et al, 2014). In case few people in a particular region own a payment card, the signal is likely to be ignored by the peers in a group (Arango-Arango et al., 2018; Souvignet et al., 2014). Similarly, the larger the share of cardholders, the more likely other cardholders are to recognize the difference between payment instrument types. Besides, cardholders are subject to the herding behavior: once an individual sees that other individuals own payment cards, she/he associates it with smaller risks, higher benefits and, overall, more positive experience (Bagnall et al., 2014; Darban & Amirkhiz, 2015; Shy, 2011). Therefore, the more people hold and use cards the more is each individual likely to become a cardholder.

Finally, an increase in the share of cardholders leads to higher payment systems' spending on anti-fraud systems and other issues of security because of the economies of scale present in the industry (Kadhiwal & Zulfiquar,

2007; Kim, Tao, Shin, & Kim, 2010). Security of cashless payments has been an issue of particular focus for the payment systems during the last decades due to the increase of cyberrisks and data breaches (Kim et al., 2010). As a part of the response, payment systems started to invest in the anti-fraud systems more heavily, especially in the regions of higher cashless usage and holding. This also led to the standardization of the fraud management systems in banks (Kadhiwal & Zulfiquar, 2007; Kim et al., 2010). Therefore, the more people have cards, the more each individual is willing to hold cards as the security investments and monitoring are more heavily funded.

Krivosheya and Korolev (2016) empirically evaluate the benefits and fees of the individuals at Russian retail payments market. They found that the level of net fixed individual benefits is greater than zero, hence, the decision to hold payment card is associated with the larger amount of benefits rather than the costs. They also hypothesize that part of this result might be explained by the network externalities. Overall, all of the mechanisms outlined above suggest that the direct network effects should be associated positively with the cardholding demand. The first hypothesis is, therefore:

H1: The probability of cardholding increases with larger share of cardholders and users of cashless payments.
In order to investigate the effect of direct network externalities on the card usage demand by the cardholders we need to analyze how increased number of cardholders and card users affects net variable benefits. Similarly to the arguments above, an increase in the share of the card users and cardholders is equivalent to the increase in the quantity demanded for the issuing banks' services. Similarly to the case with the interest on account balances, issuers are more likely to provide cardholders with loyalty (e.g., cashback and bonus) reward programs or other stimulating measures activated per each transaction (Bedre-Defolie & Calvano, 2013; Carbó-Valverde & Liñares-Zegarra, 2011; Hasan et al., 2012; Krivosheya & Korolev, 2016; Rochet & Tirole, 2002). When the number of cardholders and card users is small, the issuers can easily segment the market of potential cardholders and card users and charge them higher fees or provide lower quality of services (Hasan et al., 2012; Meadows & Dibb, 1998; Todd & Lawson, 2003). Once the number of cardholders rise, issuing banks start to compete for the existing card users with other issuers, thereby improving the quality of services without altering the fees or by charging lower usage fees (providing better stimulating programs and cashbacks) without changing the quality of basic services (Bedre-Defolie & Calvano, 2013; Hasan et al., 2012; Rochet & Tirole, 2002). Therefore, the more people hold and use payment cards, the more each cardholder is willing to use cashless payment instruments.
The perception of card usage by cardholder may also be altered as a result of the increased share of card users. Once a cardholder sees that more people are paying by card for the transactions, he/she thinks that it can be safer to use payment cards (Arango-Arango et al., 2018; Darban & Amirkhiz, 2015; Gresvik, 2008; D. B. Humphrey, Pulley, & Vesala, 1996). This is similar to the herding behavior outlined above. Therefore, the more people use cards, the more likely each cardholder is to begin to pay by cards.

Payment systems are found invest more funds into the processing systems to increase the speed per transaction with a larger number of cardholders (Asokan, Janson, Steiner, & Waidner, 2000; Massoth & Bingel, 2009; Teo, Ooi, Yew, Tan, & Hew, 2015). Payment systems respond to the fact that the the network becomes busier (more users — longer processing) by perpetually improving the processing infrastructure in more active regions (Asokan et al., 2000; Massoth & Bingel, 2009). In fact, they do not allow the processing speed to drop below the initial level as a result of platform competition in order not to decrease the quality of services (Asokan et al., 2000; Teo et al., 2015). Therefore, each individual is able to enjoy the benefit of faster processing speed as a result of the increased card usage demand.

More active card usage in a region fosters payments innovations (Ali, Barrdear, Clews, & Southgate, 2014; Milne, 2006; Rysman & Schuh, 2017). Payments may become more convenient as a result of these innovations (e.g., Apple Pay / Samsung Pay / Android Pay, other wallets and contactless payments, etc.) (Au & Kauffman, 2008; de Kerviler, Demoulin, & Zidda, 2016; Mas & Radcliffe, 2010; Slade, Williams, & Dwivedi, 2013; Souvignet et al., 2014; Wang, 2008). Providers of such services (e.g., issuing banks, startups, technological firms) find it profitable to enter a particular region if the number of potential users allows them to break even (Hasan et al., 2012; Milne, 2006; Rysman & Schuh, 2017). Therefore, the more people hold and use payment

cards, the more likely payment innovations are to appear and the larger is the value of benefits of each potential card user.

Finally, the higher share of the individuals engaged with the payments market may foster the creation of cardholders' associations aimed at protecting and improving the cardholders' welfare (Chernikova et al., 2015; Krivosheya & Korolev, 2016; Rochet & Tirole, 2002). Bargaining power of such associations is usually higher than of each particular individual, which allows it to effectively protect the interests of cardholders (e.g., set pressure on tariffs -or vote against the interchange fee cuts, etc.) (Carbo-Valverde & Liñares-Zegarra, 2012; Malaguti & Guerrieri, 2014; McGinnis, 2012; Weiner & Wright, 2005). The more cardholders there are in the issuing banks' portfolios, the larger is the bargaining power of such associations and the more favorable the conditions at the retail payments market are for the cardholders. As a part of their analysis, Krivosheya and Korolev (2016) also evaluate the value of net variable individual benefits. Despite the high role of cash and habit of using cash for payments in Russia (Plaksenkov et al., 2015; Krivosheya & Korolev, 2016), as in case of the fixed benefits, these are, on average, greater than zero, hence, the decision to use payment card is also associated with the larger amount of benefits rather than the costs. Overall, all of the mechanisms outlined above suggest that the direct network effects should be associated positively with the card usage demand. The second hypothesis is, therefore:

H2: The probability of card usage increases with larger share of cardholders and users of cashless payments.
Indirect network effects
Indirect network effects in this context are associated with the higher acceptance rate at the merchants' side of the market. As in the previous section of the study, we will explain how the net fixed and variable benefits are affected as a result of the increased share of accepting merchants. First of all, payments product diversity increases as a result of higher merchants' acceptance rates. The stores can offer the co-branded cards (Arango & Taylor, 2008; Manchanda & Saqib, 2008; Worthington, 1999). This type of cards usually takes the form of a merchant's bonus or loyalty card with a payment function provided by some bank. The probability that a particular individual finds a suitable payment product from the merchant increases when the number of shops, which accept cashless transactions increase (Arango-Arango и et al., 2018; Bounie & Francois, 2006; Gresvik, 2008). Besides, the co-branded card products and co-branded loyalty programs are usually associated with better quality of loyalty programs (Manchanda & Saqib, 2008), which may translate to the higher fixed and variable benefits of the cardholders (Krivosheya & Korolev, 2016).

In addition, the overall development of the payment network resulting from higher acceptance rates is associated with the creation of more sophisticated products (payment innovations, etc.) by banks (Ali et al., 2014; Hasan et al., 2012; Milne, 2006; Rysman & Schuh, 2017). As a result, a potential cardholder can find a product that is more suitable for her/his needs and preferences. Some banks are also likely to be both acquirers and issuers (Bolt & Chakravorti, 2008; Chizhikova, 2013; Krivosheya & Korolev, 2016; Rochet & Tirole, 2002), hence, as a result of higher acceptance rates they may redistribute funds within the departments of the bank and promote cardholding more actively (Krivosheya, 2018). Such active promotion may, again, take the form of improved quality of services without the fee levels change or smaller fees level charged by banks for the same level of services. Net fixed cardholders' benefits are, hence, likely to be larger when higher share of merchants accept payment cards.

All in all, higher share of accepting merchants is likely to translate to higher net fixed benefits levels. In other words, indirect network externalities are likely to be positively associated with the probability of cardholding. The third hypothesis is, hence:

H3: The probability of cardholding increases with higher share of accepting merchants.
Finally, the card usage demand might also be affected by the higher share of merchant acceptance. First of all, cardholders have more chances to use cashless payments when more merchants accept cards. As a result, the option value to pay with a card increases for each particular individual, therefore increasing his/her benefits value (Bedre-Defolie & Calvano, 2013). In addition, the variable benefits can be enjoyed by the cardholder only

in case there are places to use cashless payments. In case fewer merchants accept payment cards, the value of benefits for each particular cardholder becomes smaller even in the presence of high motivation and willingness to pay with a card (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Krivosheya & Korolev, 2016; Rochet & Tirole, 2002).

Cashless payments become convenient to all of the market participants in case more merchants accept payment cards. The cashiers become more skilled and trained in case the acceptance rates are higher (knowing how to operate a POS terminal becomes a job requirement for the cashiers) (Arango & Taylor, 2008; D. Humphrey, Willesson, Lindblom, & Bergendahl, 2003; Jonkers, 2011). This improves the speed of transactions and decreases the probability of fraud at the point of sale (e.g., when the payment card is taken from the cardholder) (Arango & Taylor, 2008; Bedre-Defolie & Calvano, 2013; Krivosheya & Korolev, 2018). Besides, equipment gets more innovative when the number of merchants accepting cards increases, which further increases the benefits associated with the card paying (Ali et al., 2014; Rysman & Schuh, 2017). Therefore, the more merchants accept cards, the higher is the cardholders demand for using payment cards.

Some loyalty programs are conditional on the type of merchants and particular merchant brands. For instance, some banks provide higher cashback for some merchant categories or assign more bonuses as a result of a transaction at the partnered merchants' locations (Bolton, Kannan, & Bramlett, 2000; Carbó-Valverde & Liñares-Zegarra, 2011; Ching & Hayashi, 2010). The probability that a particular store, where an individual uses payment card, is a participant of some kind of banking loyalty program is higher when more stores accept payment cards. Hence, variable fees may be reduced (stimulating programs may be of higher quality) as a result of increased merchant acceptance rates.

To summarize, the larger acceptance shares by merchants is likely to increase the probability of card usage because of increased net variable benefits. In other words, indirect network externalities influence not only the cardholding demand but also the card usage demand of the individuals.
H4: The probability of card usage increases with higher share of accepting merchants.

General effects of transition towards cashless economy

Combined together, direct and indirect network effects are related to the overall development of the retail payments market in a country. This is equivalent to the transition towards the cashless economy. Such transition provides a number of benefits to all of the participants of the economy, including the government. In fact, Plaksenkov, Korovkin and Krivosheya (2015) find that the government enjoys one of the largest benefits from the transition to cashless economy and, therefore, has incentives to stimulate the market development.

Key benefits of the government are related to the increased transparency, higher stability of the banking sector and enhanced growth (Plaksenkov et al., 2015). Firstly, the economy is more transparent, not anonymous, so it is harder to participate in the illegal economic transactions. (Bayero, 2015; Krivosheya, Korolev and Plaksenkov, 2015; Krivosheya et al., 2017). Secondly, banking system is more stable as banks receive balances on accounts which can be used for the liquidity purposes and funding (Chernikova et al., 2015; Hasan et al., 2012; Humphrey, 2010). Thirdly, GDP grows as people spend more using cashless payment instruments, which increases the consumption (Arango-Arango et al., 2018; Bagnall et al., 2014).

Government, thus, can initiate regional or national campaigns and stimulating measures. Krivosheya, Korolev and Plaksenkov (2015) provide the analysis of such initiatives both for Russian and global markets. Governments can introduce compulsory salary cards for the budget workers, national loyalty programs, electronic payments for housing, communal services, taxes and other public services as well as national payment systems and other incentives. All of these usually result in higher merchant acceptance rates and cardholding and card using shares, which lead to the higher impact of the network effects at the retail payments market (Bounie et al., 2016; Milne, 2006; Shy, 2011). Therefore, transition towards the cashless economy may generate additional

benefits for the governments, which, in turn, increase the effect of the network externalities at the retail payments market.

Commercial agents such as banks and payment systems receive benefits from the cashless economy creation as well (Krivosheya et al., 2015; Bayero, 2015; Hasan et al., 2012). They can also propose the stimulating programs in order to boost the acceptance and usage rates by merchants and cardholders (Bedre-Defolie & Calvano, 2013; Humphrey, 2010; Rochet & Tirole, 2006). For instance, banks and other financial institutions usually launch programs and events to increase financial literacy for the cardholders (Bayero, 2015; Krivosheya et al., 2015). Most of the individuals that do not own a card are afraid of the potential perceived losses and risks they associate with cardholding (Arango et al., 2018; de Kerviler et al., 2016; Gresvik, 2008; Humphrey et al., 1996). Such programs can improve the quality of information among the market participants and help boost the cashless methods usage rates, thereby further signifying the role of network externalities (Bayero, 2015; Hunt, 2003; Milne, 2006). There are also other measures to encourage the use of cards such as discounts on VAT, loyalty programs, nation-wide lotteries, etc (Krivosheya et al., 2015) all aimed at the increase of acceptance and usage rates.

The stimulating measures implemented by the public and private sector increase the likelihood that people will start to hold and use the card to pay for goods and services. Hence, they must strengthen our hypotheses. Overall, the theoretical mechanisms outlined above suggest that both the direct and indirect network externalities are positively correlated to the probability of holding and using cashless payments. However, in Russia, the role of cash and the share of the shadow economy are still large (Krivosheya & Korolev, 2016; Krivosheya et al., 2015), which may decrease the effect of the network externalities and undermine at least some of the mechanisms presented in this section. In order to test the presence and significance of the network externalities for Russian cardholders, we test the hypotheses developed above using the real market data in the subsequent sections.
Empirical Set-Up

Data

The main data is collected from the proprietary sources provided by the "Finance, Payments, and e-Commerce" chair established by Moscow School of Management SKOLKOVO. The chair conducted the national survey of Russian cardholders in 2013-2014. The survey is representative for the whole Russian economy as well as Russian regions and includes quotas for age, gender and regions to ensure that the valid proportion of different groups of individuals (in terms of income, age, gender and geographical area) is sampled. The survey was organized as face-to-face interviews and included the individuals who are at least 18 years old and are living in the cities with at least 500 thousand citizens. Three stage probability sampling was performed in order to guarantee sample representativeness.

The questionnaire includes sections on the individual's payment behavior and socio-demographic profile (age, education, gender, income, location and work). The survey also includes a separate data sample on 800 traditional (offline) merchants focused on their profile and behavior at the retail payments market. The latter is used for the calculation of indirect network effects.

The final sample for the analysis includes1500 individuals. As in official Russian statistics as at 2013-2014, 44.4% of all respondents are female, while 55.6% are male. 26.7% of the respondents are from Moscow, 11.3% from Saint-Petersburg and the rest 62% are from other Russian regions. 73.5% of all the respondents hold at least one payment card, whereas 26.5% do not have any cashless payment instruments at all. 75% of all the cardholders use cards to pay for their transactions and the rest 25% always pay by cash. In order to mitigate the selection bias problem, we include both individuals who hold and do not hold a card. Representativeness for the Russian retail payments market (major characteristics of the sample outlined above coincide with the Russian official population statistics) ensure that the selection bias is minimized. The sample is further reduced based on the availability of control variables.

Model

The key research questions are: do the network effects affect the probability to hold payment card and to use it as a payment instrument for goods and services? In order to test the hypotheses developed in previous section and answer these questions, we construct the following models for, respectively, cardholding and card usage probabilities:

Where i refers to each individual. $Holding_i$ is a dummy variable, which gets 1 if an individual has at least one card and 0 otherwise. $Usage_i$ denotes a dummy variable, which attains 1 if an individual who has a card uses it

to pay for goods and services and 0 otherwise. DNE_i represents the vector of direct network externalities while INE_i represents the vector of indirect network effects. ED_i stands for the vector of education level related characteristics. SD_i is a vector of social & demographic characteristics of the individual. $Travel_i$ denotes the vector of characteristics related to the travel frequency. $Payment\ characteristics_i$ is about a vector of variables reflecting payment behavior and contract details. Finally, $\alpha, \beta, \gamma, \theta$ are the vectors of coefficients and ε_i refers to the independently identically distributed error term.

The first model is independent from the second one. In order to mitigate potential selection bias arising from the fact that the individuals can only pay with a card when they are the cardholders (i.e., Holding variable is 1 for all the potential users of the card in the sample) the second model is not independent from the first one and is rather considered as a second step in the estimations. Some unreported robustness checks are performed with the assumption that the models are independent. Although the key results regarding the network externalities stay the same as in the main analysis, we decided to focus on the interrelated representation of the models as the tests provided in the regression outputs suggest that the models should be considered together in order to minimize selection bias. Further analysis assumes that the second model is based on the first model as a selection equation.
Dependent variables
There are two dependent variables in the analysis, one per each of the two models. The first is card holding dummy ($Holding_i$) that takes the value 1 if the individual has at least one card and 0 if an individual possesses no payment cards. This data is available directly from the survey. The questionnaire contained the direct question: Do you own a bank payment card issued in your own name? This dependent variable is used in the first (selection) equation, which is used to test the hypotheses H1 and H3 relating to the cardholding demand. The second dependent variable used to test hypotheses H2 and H4 is the card usage dummy, which takes the value of 1 if the cardholder uses the card as a payment instrument or 0 if he/she pays for goods and services in cash. The data for this dependent variable is also available directly from the survey because the questionnaire asked those respondents, who owned at least one payment card, whether they use their payment cards for purchases of goods and services. Since only those individuals who possess at least one payment card were asked the question, the data on potential card users, who do not own a payment card yet is not available. In order to solve this problem of potential selection bias, the usage dummy variable is estimated as a second step after the selection equation.

Independent variables
Explanatory variables

There are two key categories of the explanatory variables in the models: direct and indirect network effects. In order to measure the network effects we adapt the measures developed in Bounie et al. (2014, 2017), who use the survey data on the French (2014) and European (2017) cardholders and merchants. Their measures of network externalities included the average value of purchases at particular merchant industry and the estimates of the probability that the purchase will be paid for by card given a particular merchant type and transaction value. These measures, however, do not separate the direct and indirect network effects. Besides, they depend on a number of assumptions and calculations performed by authors on proprietary central bank data (Bounie et al., 2014, 2017). The separation of effects was not possible because their surveys of merchants and cardholders were conducted in different years.

Sample used in this study allows mitigating the potential problems of not separated network effects and possibly unrealistic assumptions necessary for calculations. Due to the fact that the individuals and merchants surveys were conducted in the same time period and geographic regions the adapted measures of the previous studies are based on actual average individuals and merchants payment activity in the region. Geographic regions include eight federal districts and thirty three regions. Direct network effect is measured in four possible variations. It could be either the regional average holding of cards or the federal region average holding of cards. Both are calculated as the average share of cardholders in survey sample in a particular region. The latter measure is preferable because the sample was constructed in such way to represent the federal regions. Data on regions may, sometimes, be over- or underestimated due to the absence of quotas at regional level. However, regional variables are used for robustness checks. At the same time, direct network externalities can be measured as either the regional average usage of cards or federal region average usage of cards. Unlike holding of cards, the usage of cards is observed by other cardholders, which may better reflect some of the theoretical mechanisms outlined in the previous sections (e.g., regarding the psychological factors).

Although in theory the effect of the direct network effects may be subject to reverse causality issue because it is calculated as an average occurrence of dependent variable in the sample, this is not the case in the data. Individual decision to hold or use a card is unlikely to affect aggregate outcomes because of the size of the industry. In each of the 8 federal regions there are at least 70 individuals with most of the regions containing more than 100 individuals (except eastern and southern federal regions). Central federal region contains more than 400 individuals. Therefore, individuals cannot affect aggregate outcomes. There are at least 30 people sampled in each of the regions with some regions having more than 100 individuals. Similarly, the aggregate outcomes are unlikely to be affected by individual decision at either regional or federal region levels.
Indirect network effect are based on the sample of 800 traditional (offline) merchants surveyed in the same time period. The nation wide survey included quotas for merchant types and federal regions to ensure sample representatives for Russian merchants market. These network externalities have two possible ways of measurement. The first one is regional average card acceptance rate by merchants. The second one is federal region average card acceptance rate by merchants. Again, the latter is preferred as the data was sampled to be representative at federal region level, while the former is used for the robustness checks.

Control variables

In order to isolate the effect of network effects from the potential effects of other variables that have been found to influence the payment behavior of the individuals we introduce a number of control variables. The key control variables identified in the previous studies include socio-demographic characteristics of an individual, his education and income levels, travel frequency and the details of a contract with an issuers (Arango-Arango et al., 2018; Bagnall et al, 2014; Bounie & Francois, 2006; Bounie et al., 2016; Gresvik, 2008; Humphrey et al., 1996). The set of controls chosen for the models follow Krivosheya and Korolev (2016), who use the same data sample in order to estimate the effect of individual's benefits level on his/her payment frequency. In a number of unreported robustness checks we also add the regional level characteristics. Although the main results

concerning the effect of the network externalities do not change, these are not included in the main analysis because of significant sample reductions due to limited availability of regional level data on relevant characteristics such as the share of grey economy and the intensity of tax evasion practices. The first set of control variables indicate the respondent's age. This data is available directly from the survey. We follow Krivosheya and Korolev (2016), who use age group dummies instead of direct age variable. Previous literature have found that people of older age are less active at the retail payments market, however, the relationship is non-linear because young people are less often involved in the workforce and, hence, do not always have enough funds to maintain card balances by themselves (Arango-Arango et al., 2018; Gresvik, 2008). Age group dummies will reflect such non-linear relationship. Dummies are included for 5 separate groups: 18-24 years old, 25-34 years old, 35-44 years old, 55-64 years old, 65+ years old. 45-54 years old is chosen as a reference category to mitigate perfect multicollinearity.

Another factor affecting the probability to hold and use payment cards is education. Education might reflect the level of financial literacy of a respondent, which links to the level of information an individual processes about the retail payments (Bagnall et al., 2014; Bounie & Francois, 2006; Bounie et al., 2016; Gresvik, 2008). Education is evaluated by beginning professional, middle professional and higher professional dummies, while school is set as a reference category.

Social & demographic measures include married status dummy, children dummy, advanced PC user dummy. Marital status and the number of children can affect the probability to hold and use payment card because of improved family financial management provided by basic banking services related to the payment cards account (e.g., SMS informing about balances) (Bagnall et al., 2014; Bounie et al., 2016; Humphrey et al., 1996). Besides, children and partners can have several payment instruments issued to one account balance, which improves the transfer and uses of income across family members (Bagnall et al., 2014; Bounie et al., 2016; Krivosheya & Korolev, 2016). The level of proficiency with the technology links to the person's ability to conduct cashless payments using basic software and hardware (e.g., digital payments, POS terminals) (Bounie & Francois, 2006; Krivosheya & Korolev, 2016). Technology adoption is proxied by the self-assessment of the level of proficiency with the PC provided by an individual during the survey.

The level of income reflects the ability of an individual to cover fees and expenses associated with payment card issuance and usage (Bagnall et al., 2014; Bounie & Francois, 2006; Krivosheya & Korolev, 2016). The data on income level of an individual was collected during a survey using the standard sociological FOM (public opinion fund) guidelines regarding the income-related questions. Income level is determined by low income and high income dummies with middle income as a reference category. Threshold levels are determined based on Krivosheya and Korolev (2016).

The cost of cash increases outside of the domestic region because of the forex risks and additional search and transaction costs related to the currency exchange (Arango-Arango et al., 2018; Bagnall et al., 2014; Gresvik, 2008). This argument is especially important for foreign travels. Besides, individuals tend to issue cashless payment instruments for the uses outside home region more often because of the ability to pay larger sums of money than they brought with themselves in cash (Bounie & Francois, 2006; Gresvik, 2008; Krivosheya & Korolev, 2016; Wang, 2008). In fact, the use in travels is one of the top reasons for issuing a card in the sample. Travel frequency is controlled in the holding model and is excluded from the usage model in order to allow for the differences necessary for the model estimation. Some robustness checks are performed with including travel frequency and excluding other control variables groups. The results stay the same. Travel frequency is evaluated using three distinct dummies: frequent travels within Russia dummy, frequent travels within the neighboring foreign countries dummy and frequent travels around the world dummy. The reference category is no traveling at all.

Finally, the characteristics relating to the payment behavior and the contract with an issuer are controlled for in the usage (second stage) model. This vector of controls consists of three dummies: participation in the loyalty program, credit card and the absence of fees for a payment card dummy. Loyalty programs provide additional

motivation for using payment cards in order to be reimbursed in bonuses or cashback (Carbó-Valverde & Liñares-Zegarra, 2011; Ching & Hayashi, 2010; Krivosheya & Korolev, 2016). Withdrawals on credit cards are charged additional fees, which make it harder to use cash for a credit card holder (Krivosheya & Korolev, 2016; Rochet & Wright, 2010; Wang, 2008). In case there are no fees paid by an individual, he or she may associate payment card with a costless instrument and, hence, will not be psychologically biased to use a card more often in order to cover the issuance costs (Bagnall et al., 2014; Bounie & Francois, 2006; Krivosheya & Korolev, 2016).

Statistic and econometric methods

In order to mitigate the potential selection and survivorship biases resulting from the fact that the data on usage is available only in case an individual is already a cardholder we need to treat the second model as dependent on the first one. The first (holding) model can, however, be used independently of the usage model. Such dependence of the usage model is possible using the two-stage Heckman selection model. Following Schuh and Stavins (2010) and Krivosheya and Korolev (2016), we use the probit model to estimate cardholding probability and, then, the two-stage Heckman selection model to estimate the card usage probability. The results of probit model estimation for cardholding probability are also used as a selection equation in card usage probability modeling.

Probit model addresses several issues appearing in OLS (linear probability model) regressions. Firstly, it solves the unboundedness problem which means that predicted probability does not take values out of the [0,1] range. Secondly, probit allows for changing marginal effect of factors across sample. However, probit has some disadvantages as well. For example, probit estimates are inconsistent unless the error term is normal. Moreover, it is more computationally difficult.

The main strength of two-stage Heckman is that it allows to correct for selection bias, which is common in empirical analyses. In the first stage, the probit model estimates the probability that a person has at least one card. The second stage estimates the probability that a person who has at least one card uses it to pay for goods and services. It uses the inverse Mills ratio in order to control for the selection bias. Krivosheya and Korolev (2016), who use the same dataset as the study suggest that the Heckman two stage model outperforms the alternatives, when used to estimate the Russian individual's payment behavior. There are also some drawbacks that need to be accounted for during the second stage of the modeling. These can include the potential multicollinearity of explanatory variable in the second stage which leads to inconsistent estimates. To solve this problem, we need to add at least one extra predictor in the first step. In the usage model we exclude the travel related control variables and add payment characteristics vector instead. We use robust standard errors in all of the models to account for potential heteroscedasticity as well as other error related issues.

In order to address economic significance of the network effects in the both models we also calculate the marginal effects at the average values of all the characteristics included into the regression.

Table 1 provides descriptive statistics and cross-correlations of the variables used in the main analysis. Most of the correlation coefficients sign at the absence of multicollinearity as the correlations are less than 50%, except for the relationship between federal and regional variables. These variables are not used in most of the regression specifications simultaneously. Some specifications towards the end of the study include these variables simultaneously using the aggregated factors obtained from the results of the principal component analysis (PCA) to mitigate the multicollinearity problem. These factors are provided in table 1 as well.

Table 1

		Mean	S.D.	Min	Max
-1	18-24 y.o.	0.16	0.37	0.00	1.00
-2	25-34 y.o.	0.21	0.41	0.00	1.00
-3	35-44 y.o.	0.17	0.37	0.00	1.00
-4	55-64 y.o.	0.16	0.37	0.00	1.00
-5	65+ y.o.	0.13	0.34	0.00	1.00
-6	beg_prof	0.09	0.29	0.00	1.00
-7	mid_prof	0.32	0.46	0.00	1.00
-8	high_prof	0.34	0.48	0.00	1.00
-9	Married	0.60	0.49	0.00	1.00
-10	Have children	0.38	0.49	0.00	1.00
-11	Advanced PC User	0.71	0.45	0.00	1.00
-12	Low income	0.11	0.31	0.00	1.00
-13	High income	0.31	0.46	0.00	1.00
-14	Frequent travels within Russia	0.05	0.22	0.00	1.00
-15	Frequent travels within the neighboring foreign countries	0.02	0.13	0.00	1.00
-16	Frequent travels around the world	0.03	0.16	0.00	1.00
-17	Participates in the loyalty program	0.16	0.36	0.00	1.00
-18	Credit card	0.04	0.20	0.00	1.00
-19	No fees for card	0.30	0.46	0.00	1.00
-20	Regional Component: Usage	0.00	1.20	-3.09	3.29
-21	Federal Region Component: Usage	0.00	1.26	-3.44	3.29
-22	Federal Region Average Holding of Cards	0.73	0.06	0.49	0.79
-23	Federal Region Average Usage of Cards	0.55	0.06	0.46	0.72
-24	Regional Average Holding of Cards	0.73	0.11	0.42	1.00
-25	Regional Average Usage of Cards	0.55	0.13	0.05	0.88
-26	Federal Region Average Acceptance Rate	0.50	0.06	0.39	0.63
-27	Regional Average Acceptance Rate	0.52	0.09	0.20	0.70

Results and discussion
Unilateral tests

Before conducting the complete multilateral analysis using the method set-up in the previous section we present the results of unilateral analysis. In order to do so we start with the comparison of means between the sub samples of card holding and non-holding individuals. The t-statistic for the equality of means of federal region average cardholding is -5.18, which allows rejecting the hypothesis of mean equality at any reasonable significance level. Similarly, the t-statistic for the equality of means of federal region card usage is -3.13. Regional level definition of direct network externalities produces the same results. Thus, unilateral tests show that the individuals holding payment cards are, on average, exposed to larger indirect network effects. This supports hypothesis H1.

Similarly, for the using and non-using cardholders sub-samples the t-statistic is -2.86 for the average federal region cardholding rate and -4.73 for the average federal region card usage rate. Hence, H3 is also not rejected yet. Federal region acceptance level is also different for the subsamples by holding and usage of payment cards. Respective t-statistics are -3.47 and -3.67, which supports H2 and H4 hypotheses. Therefore, we can conclude that the network effects do affect the probability of credit card holding and usage. This allows me to move to the multirateral tests in order to explain that the association found is indeed present and is not the result of omitted variable bias or spurious correlations.

Multirateral tests
Cardholding probability
We begin by analyzing the determinants of the cardholding probability using the probit estimation method for the first model developed in the previous section. Table 2 presents the results. These results address hypotheses H1 and H3 regarding the effect of network externalities on cardholding probability.

Table 2

VARIABLES	(1) Baseline Model	(2) Direct NE: Regional Holding	(3) Direct NE: Federal Regional Holding	(4) Direct NE: Regional Usage	(5) Direct NE: Federal Regional Usage	(6) Indirect NE: Regional Acceptance	(7) Direct NE: Federal Regional Acceptance
NETWORK EFFECTS							
Regional Average Holding of Cards		3.227***					
		(0.359)					
Federal Region Average Holding of Cards			2.687***				
			(0.612)				
Regional Average Usage of Cards				1.777***			
				(0.311)			
Federal Region Average Usage of Cards					1.555**		
					(0.692)		
Regional Average Acceptance Rate						1.103**	
						(0.524)	

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Federal Region Average Acceptance Rate							2.000**
							(0.782)
Regional Component: Usage							
Federal Region Component: Usage							
AGE							
18-24 y.o.	-0.0813	-0.0998	-0.0706	-0.0816	-0.0767	-0.214	-0.218
	(0.142)	(0.147)	(0.143)	(0.146)	(0.143)	(0.173)	(0.173)
25-34 y.o.	0.137	0.111	0.151	0.125	0.140	0.155	0.153
	(0.135)	(0.140)	(0.135)	(0.137)	(0.135)	(0.161)	(0.161)
35-44 y.o.	0.110	0.0810	0.105	0.0924	0.120	0.121	0.131
	(0.139)	(0.143)	(0.140)	(0.141)	(0.140)	(0.164)	(0.165)
55-64 y.o.	0.0429	-0.0369	0.0232	0.0264	0.0384	0.149	0.143
	(0.130)	(0.132)	(0.130)	(0.131)	(0.130)	(0.160)	(0.161)
65+ y.o.	-0.646***	-0.655***	-0.653***	-0.634***	-0.632***	-0.501***	-0.490***
	(0.135)	(0.138)	(0.136)	(0.137)	(0.135)	(0.172)	(0.172)
EDUCATION							
Beginning Professional	0.293**	0.273**	0.289**	0.306**	0.308**	0.376**	0.350**
	(0.135)	(0.138)	(0.135)	(0.136)	(0.135)	(0.163)	(0.162)
Middle Professional	0.452***	0.391***	0.436***	0.435***	0.442***	0.485***	0.472***
	(0.0994)	(0.103)	(0.100)	(0.101)	(0.0999)	(0.126)	(0.127)
Higher Professional	0.465***	0.481***	0.472***	0.494***	0.473***	0.503***	0.503***
	(0.102)	(0.106)	(0.103)	(0.104)	(0.102)	(0.126)	(0.126)
SOCIAL & DEMOGRAPHIC CHARACTERISTICS							
Married	0.0706	0.0805	0.0892	0.0655	0.0676	-0.0715	-0.0755
	(0.0819)	(0.0840)	(0.0827)	(0.0834)	(0.0825)	(0.101)	(0.101)
Have children	0.0712	0.0894	0.0489	0.112	0.0594	-0.0353	-0.0574
	(0.0885)	(0.0910)	(0.0896)	(0.0898)	(0.0889)	(0.103)	(0.104)
Advanced PC User	0.589***	0.547***	0.560***	0.561***	0.580***	0.741***	0.741***
	(0.101)	(0.103)	(0.102)	(0.103)	(0.101)	(0.128)	(0.128)
INCOME LEVEL							
Low income	-0.191	-0.204*	-0.217*	-0.218*	-0.220*	-0.295*	-0.291*
	(0.118)	(0.119)	(0.119)	(0.119)	(0.118)	(0.157)	(0.156)
High income	0.0589	0.0904	0.0789	0.0807	0.0611	0.0863	0.101
	(0.0890)	(0.0920)	(0.0893)	(0.0899)	(0.0889)	(0.104)	(0.105)
TRAVEL FREQUENCY							

Frequent travels within Russia	0.222	0.253	0.214	0.240	0.234	0.142	0.160
	(0.208)	(0.216)	(0.209)	(0.208)	(0.206)	(0.220)	(0.220)
Frequent travels within the neighboring foreign countries	-0.159	-0.119	-0.142	-0.115	-0.158	0.243	0.218
	(0.341)	(0.337)	(0.339)	(0.338)	(0.341)	(0.404)	(0.403)
Frequent travels around the world	-0.350	-0.408	-0.359	-0.336	-0.333	-0.661**	-0.617**
	(0.271)	(0.263)	(0.267)	(0.266)	(0.268)	(0.304)	(0.304)
Constant	-0.0670	-2.345***	-2.014***	-1.025***	-0.910**	-0.736**	-1.143***
	(0.131)	(0.290)	(0.460)	(0.219)	(0.398)	(0.318)	(0.416)
Observations	1,500	1,500	1,500	1,500	1,500	1,019	1,019
Pseudo R2	0.145	0.191	0.157	0.165	0.149	0.149	0.150

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

To begin with, the initial specification (1) is the baseline model with the factors outlined in previous studies (e.g., Krivosheya & Korolev, 2018). It includes only control variables identified in the previous section. Network externalities are not yet included. According to the Panel A of Table 2 significant variables and their signs are the same as expected and correspond to the previous studies (Krivosheya, Korolev 2016). In particular, the probability to hold payment cards decreases with age (dummy variable for 65+ years old is significant and exhibits negative correlation with cardholding probability). Also, education increases cardholding probability significantly. All of the dummy variables indicate that the more educated individuals are more likely to hold cards. Proficiency with technology positively affects cardholding probability as expected. All of the other controls are not significant, however, they cannot be excluded from the model since their exclusion may lead to the omitted controls problem and result in inconsistent estimates. We can further use these variables as controls and collected data to analyze the relationship between dependent and explanatory variables.

Panel A of Table 2 presents the results for the effect of the direct and indirect network effects on cardholding probability. Predictive power of the models is similar to the previous studies in this area (e.g., Arango-Arango et al., 2018; Krivosheya & Korolev, 2018). .Models (2)-(5) add different measures of the direct network effect to the baseline model. In model (2) the direct network effect is measured as the regional average holding of cards. The positive effect is significant at 1% significance level. In model (3) we change the direct network effects measure for the federal region average holding of card. The result stays similar to model (2). Model (4) introduces regional average usage of card, which is observable to the cardholders in region and, hence, may introduce distinct mechanisms outlined in the theoretical framework section. The result is, again, significant at 1% significance level and the effect is positive. Finally, model (5) uses federal region average usage of card. As in all of these cases the direct network externality effect is positive and significant. Other controls also exhibit the same significance and direction of the effects as in baseline model. These results support hypothesis H1 stated in the theoretical framework meaning that the positive mechanisms on the fixed net benefits are indeed present at Russian retail payments market. In order to assess economic significance of results we also calculate the marginal returns of the presented models. When federal region usage is used as direct network externalities proxy, one standard deviation increase in this measure increases cardholding probability by 2.9 percentage points.

Having analyzed the direct network effect separately, we do the same with the indirect network effects in models (6) & (7). We add two measures of the indirect network effects to the baseline model. Again, the indirect network effect is measured as either the regional average acceptance rate or the federal region average acceptance rate by merchants. Similarly to direct effect, the indirect network effect is always positively significant and increases the demand for cardholding. Model (6) shows that at 5% significance level regional average acceptance rate increases the probability of cardholding. Similarly, Model (7) introduces the main measure of indirect network effects at federal region level and concludes the same: at 5% significance level there is positive association between cardholding probability and indirect network effects. So, the hypothesis H3 that probability of cardholding increases with higher share of accepting merchants is also not rejected. Merchant acceptance induces higher net benefits for individuals, which leads to higher cardholding probability.

From the economics point of view, one standard deviation increase in the federal region average acceptance rate increases the probability of cardholding by 3.79 percentage points, holding all other parameters fixed. Similarly, having beginning professional education increases the probability of cardholding by 8.33 percentage points in comparison with only school. The result is economically significant.

In order to compare the results with the previous studies that did not separate the effects of direct and indirect network effects we add these two network externalities simultaneously in panel B. In these models we separately aggregate the network effects on regional level and federal region level . First, we add the regional average holding of cards and regional average acceptance rate in model (8) to investigate the simultaneous effect of both network externalities. In this case indirect network externality becomes insignificant. When tested in model (9), same result persists on the federal region level. Potential explanation may be linked to the multicollinearity problem between direct and indirect network effects at the same level of aggregation (correlation coefficients between acceptance and holding (usage) are 0.69 (0.82) at federal region level). In order to mitigate the multicollinearity problem and get valid results we use principal component analysis (PCA) based on (federal) regional usage and (federal) regional acceptance levels to construct an aggregate factor. The results of model estimation with such factors are presented in models (10) and (11). Both federal and regional components are significant at 5% significance level.

Simultaneously network effects account for smaller share of probability than the simple sum of two separate contributions. This happens because some of the underlying mechanisms coincide for both externality types. One standard deviation increase in aggregate factor at federal region level results in 3.13 percentage points increase in cardholding probability. The result is significant economically as well as statistically.

Overall, according to the results of the probit model estimation hypotheses H1 and H3 about cardholding probability are confirmed. An individual is indeed more likely to hold the card if the network effects are greater. Therefore, the mechanisms outlined in the theoretical framework regarding the effects of the network externalities on net fixed benefits hold in case of Russian retail payments market. The results are robust to the changes in measures from federal region to regional level.

Card usage probability

To test the remaining two hypotheses regarding the card usage probability we present the results of the analysis using the two-step Heckman model. Results are outlined in table 3. Selection equations presented in models (2) and (7) are equivalent to the results of baseline model estimation in previous subsection and represent the first step of the Heckman two-step procedure. Mills ratio is presented on the line lambda. As in Krivosheya and Korolev (2018) the results suggest that using the Heckman two-stage model provides better model fit than the separate probit models because of the potential selection (or survivorship) bias as a result of the fact that the data on card usage is available only on cardholders.

Table 3

VARIABLES	(1) Baseline Model	(2) Baseline Model	(4) Direct NE: Regional Holding	(5) Direct NE: Regional Holding	(7) Direct NE: Federal Regional Holding	(8) Direct NE: Federal Regional Holding	(10) Direct NE: Regional Usage
NETWORK EFFECTS							
Regional Average Holding of Cards			-0.103 (0.0969)				
Federal Region Average Holding of Cards					-0.176 (0.206)		
Regional Average Usage of Cards							0.522*** (0.0838)
Federal Region Average Usage of Cards							
Regional Average Acceptance Rate							
Federal Region Average Acceptance Rate							
Regional Component: Usage							
Federal Region Component: Usage							
AGE							
18-24 y.o.	0.0779* (0.0423)	-0.0813 (0.144)	0.0774* (0.0418)	-0.0813 (0.144)	0.0768* (0.0420)	-0.0813 (0.144)	0.0785* (0.0412)
25-34 y.o.	0.0723* (0.0392)	0.137 (0.134)	0.0754* (0.0390)	0.137 (0.134)	0.0731* (0.0390)	0.137 (0.134)	0.0686* (0.0383)
35-44 y.o.	0.0199 (0.0397)	0.110 (0.136)	0.0215 (0.0393)	0.110 (0.136)	0.0211 (0.0394)	0.110 (0.136)	0.0186 (0.0387)
55-64 y.o.	-0.0724* (0.0724)*	0.0429	-0.0683*	0.0429	-0.0706*	0.0429	-0.0804**

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	(0.0393)	(0.129)	(0.0391)	(0.129)	(0.0391)	(0.129)	(0.0384)
65+ y.o.	-0.154	-0.646***	-0.164	-0.646***	-0.162	-0.646***	-0.161
	(0.124)	(0.138)	(0.124)	(0.138)	(0.124)	(0.138)	(0.122)
EDUCATION							
Beginning Professional	-0.0873	0.293**	-0.0850	0.293**	-0.0840	0.293**	-0.0682
	(0.0643)	(0.138)	(0.0639)	(0.138)	(0.0641)	(0.138)	(0.0630)
Middle Professional	-0.0188	0.452***	-0.0123	0.452***	-0.0149	0.452***	-0.0124
	(0.0717)	(0.0989)	(0.0717)	(0.0989)	(0.0717)	(0.0989)	(0.0703)
Higher Professional	0.0126	0.465***	0.0164	0.465***	0.0159	0.465***	0.0315
	(0.0721)	(0.102)	(0.0719)	(0.102)	(0.0720)	(0.102)	(0.0707)
SOCIAL & DEMOGRAPHIC CHARACTERISTICS							
Married	0.000124	0.0706	0.000491	0.0706	0.000278	0.0706	-0.00534
	(0.0262)	(0.0828)	(0.0259)	(0.0828)	(0.0260)	(0.0828)	(0.0256)
Have children	0.00970	0.0712	0.00951	0.0712	0.0104	0.0712	0.0170
	(0.0260)	(0.0857)	(0.0257)	(0.0857)	(0.0258)	(0.0857)	(0.0254)
Advanced PC User	0.0700	0.589***	0.0760	0.589***	0.0752	0.589***	0.0798
	(0.0937)	(0.102)	(0.0935)	(0.102)	(0.0937)	(0.102)	(0.0919)
INCOME LEVEL							
Low income	-0.00695	-0.191	-0.00926	-0.191	-0.00808	-0.191	-0.0153
	(0.0514)	(0.119)	(0.0511)	(0.119)	(0.0512)	(0.119)	(0.0503)
High income	0.0647**	0.0589	0.0655***	0.0589	0.0657***	0.0589	0.0654***
	(0.0252)	(0.0893)	(0.0250)	(0.0893)	(0.0251)	(0.0893)	(0.0246)
PAYMENT BEHAVIOR DETAILS							
Participates in the loyalty program	0.192***		0.190***		0.189***		0.179***
	(0.0267)		(0.0267)		(0.0269)		(0.0263)
Credit card	0.147***		0.147***		0.145***		0.138***
	(0.0461)		(0.0460)		(0.0461)		(0.0453)
No fees for card	0.352***		0.355***		0.353***		0.325***
	(0.0215)		(0.0216)		(0.0215)		(0.0215)
TRAVEL FREQUENCY							
Frequent travels within Russia		0.222		0.222		0.222	
		(0.205)		(0.205)		(0.205)	
Frequent travels within the neighboring foreign countries		-0.159		-0.159		-0.159	
		(0.355)		(0.355)		(0.355)	
Frequent travels around the world		-0.350		-0.350		-0.350	

		(0.268)		(0.268)		(0.268)	
Constant	0.560**	-0.0670	0.618**	-0.0670	0.676**	-0.0670	0.257
	(0.243)	(0.134)	(0.248)	(0.134)	(0.278)	(0.134)	(0.243)
Lambda		-0.224				-0.209	
		(0.301)				(0.301)	
Observations	1,500	1,500	1,500	1,500	1,500	1,500	1,500
P-value of comparison test	0	0	0	0	0	0	0

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Model (1) provides the results of the baseline model estimation without network effects. with new a baseline model. Column (2) is the selection equation for all of the models containing 1500 observations (models (1)-(6)). Most of the controls remain as in probit models but we also include payment behavior details instead of travel frequency. The significance and signs of the controls are the same as in previous studies, so the data and control variables allow me to analyze the association between dependent and explanatory variables. In particular, all of the payment characteristics details (i.e., loyalty program participation, absence of fees and credit card) are significant at 1% significance level and increase the probability of card usage. Also, high income dummy remains significant for the card usage probability. The hypothesis on non-linear association with the age groups is also confirmed as in Arango-Arango et al. (2018) and Krivosheya & Korolev (2018).

As before we begin by adding direct network effects into the baseline model and obtain first four specifications presented in the Panel A of Table 3. Direct network effects is evaluated by the same average holding and usage levels as before at both regional and federal region levels. Models (3) and (4) suggest that the average holding levels are not significant for the card usage probability. As outlined in the theoretical framework, some of the mechanisms behind the influence of the average cardholding levels are not strong enough for the variable net benefits as the cardholding decisions are rarely evident to the individuals and more often affect only the behavior of issuing banks.

In models (5) and (6) we add the average regional and federal region usage levels instead of holding levels. The effect of direct network effects becomes positive and significant at any reasonable significance level. From the economic point of view, a standard deviation increase in the average federal region usage of cards results in the 3.34 percentage point increase in card usage probability by each particular merchant. In comparison, being a high income instead of middle income individual increases card usage probability by 2.9 percentage points, which allows concluding that the direct network effects are significant both economically and statistically. Therefore, hypothesis H2 is not rejected and the direct network effects increase the probability of the card usage even when controlled for other individual characteristics and potential selection bias.

In order to test hypothesis H4 we add the indirect network effects in models (8) and (9). Some reduction in the number of observations happens due to the availability of data on merchants acceptance. In model (8) regional level average acceptance rate is used as a proxy for the indirect network effects, while federal region average acceptance rate is presented in model (9). In contrast to the direct network externalities results, the indirect network effects are always positive and significant for the card usage probability. It is important to note that the federal region average acceptance level is significant only at 10% significance level. This partial decrease in the results significance is explained by the fact that there are fewer mechanisms underlying the effect of indirect

network effects on the variable net cardholders' benefits and, hence, the effect on card usage probability might be smaller compared to the cardholding probability. This is indeed evident from the economic point of view, because, as revealed by the marginal effects, one standard deviation increase in federal region acceptance level increases the probability of card usage by 2.41 percentage points. This effect was larger for the cardholding demand. However, since the effect is still significant, the hypothesis H4 that the probability of card usage indeed increases with the higher share of accepting merchants is also not rejected and we may conclude that the theoretical mechanisms identified in the previous sections of this research indeed persist in case of Russian cardholders. This result persists when we use regional average card acceptance levels instead of federal region level.

Finally, we repeat the final step of probit analysis and add both direct and indirect network effects into the baseline model. Models (10) – (13) of panel B present the results. As in probit, only PCA analysis provides us two valid specifications which show that combined network effects are positively associated with the card usage probability and significant at 1% significance level. Once the network effects are included separately, the effect of both (in model (10)) and indirect (in model (11)) disappears. This is, again, explained by high correlation between the explanatory variables and, therefore, support the robustness of the presented results regarding hypotheses H2 and H4. From the economic point of view, a standard deviation in federal region component increases cashless payment usage probability by 3.96 percentage points.

Having analyzed the results of both models estimations, we can conclude that both direct and indirect effects are important for card holding and card usage as was stated in the theoretical framework. All of the hypotheses presented in this study are not rejected. Despite the high role of cash and yet fragile payment preferences of the Russian individuals noted in previous studies this research was able to show that the effects of indirect and direct network externalities are present in reality. Therefore, net cardholders' benefits are in fact affected by the level of the retail payments market development at regional and federal region levels. The results are robust to changes in measures. The effect of aggregated network effects persists in case of Russian markets in line with the articles that analyzed the network effects at other geographies. However, separation of the network externalities into direct and indirect allows capturing the differences between the underlying mechanisms at play, which were provided only in theory before.

Conclusion

This research empirically evaluates the effect of direct and indirect network externalities for cardholding and card usage probabilities in Russia. The survey on which this research is based was conducted to form a representative sample of 1500 individuals from all Russian regions. This article finds significant and robust evidence in favor of positive association between the degree of both types of network externalities and the individuals' activity at the Russian retail payment market. Indirect network effects, associated with the higher acceptance rate at the merchants' side of the market increase the probability of cardholding and card usage. Similarly, direct network effects that result from the increased activity of individuals (in terms of cardholding and card usage) rise the probability that each cardholder holds the payment cards and pays by it. Besides, the results are significant from economical point of view. Direct externalities have similar effect: one standard deviation increase in the average federal region usage rate of payment cards increases the probability of card holding by 2.9 percentage points and using by 3.34 percentage points. One standard deviation increase in the average federal region card acceptance by merchants increases probability of card holding by 3.79 percentage points and card usage by 2.41 percentage points. One standard deviation increase in the combined factor reflecting both network externalities at the federal region level increases the probability of card holding by 3.13 percentage points and using by 3.96 percentage points. These results are significant in comparison to the effects of other control variables.

This research aims to contribute to the rising literature on the determinants of cashless payments instrument holding and usage (Arango-Arango, Bouhdaoui, Bounie, Eschelbach, & Hernandez, 2018; Bagnall et al., 2014; Bounie & Francois, 2006; Bounie, François, & Hove, 2016; Carbó-Valverde & Liñares-Zegarra, 2011; Gresvik,

2008). Most of the studies do not investigate the presence of network externalities for the customers empirically and those that do fail to distinguish between direct and indirect network externalities. Besides, none of the articles outline the network externalities on Russian retail payments market. Also, none of the studies provide empirical investigation of the effects of network externalities on the cardholding probability and study the effect only on the usage. This study fills these gaps by analyzing empirically the effect of network externalities at Russian retail payments market in the context of cardholding and card usage probabilities of an individual.

Only Krivosheya and Korolev (2016) study the characteristics of the cardholding and card usage of Russian individuals. Their study, however, focuses on the evaluation of the aggregated cardholders' benefits resulting from the participation in the retail payments market compared to using cash based instruments. It does not, therefore, provide any investigation into the effect of the network externalities on individuals' probability to hold and use cards. This research is complementary to Krivosheya and Korolev (2018) and extends the findings by providing empirical estimates of the effect of network externalities.

The results of the study are important not only from theoretical but also from practical point of view. Financial structures implement different stimulating programs aimed at cardholding and usage behavior stimulation. However, the degree of potential influence depends on the magnitude of the network effects which can not be explicitly changed by pure public or private sector intervention. Accounting for this, the real degree of influence could be measured and forecasted by Central Bank of Russia, commercial banks and payment systems.

There are some limitations in this study that provide the directions for further research. First of all, we analyzed network effects only in Russia but this effect could vary from country to country. In developing countries there could be no network effects at all due to the early stage of market development. Other countries could be analyzed both separately and together to investigate the effect of cross-border payments and the presence of network externalities among groups with smaller degree of communication. Secondly, the data was collected from the cities with at least 500 thousand inhabitants but there are also smaller cities, where the degree of network externalities may be smaller. Although this restriction does not threaten the representativeness of the data, it is worth considering them either separately or as a part of similar national study. Thirdly, the latest available data was collected in 2013-2014. Despite the fact that the direction and presence of network externalities should not differ much, the association between network effects and demand for card holding and acceptance may intensify due to the evolution of payment technologies and innovation. Future studies could test this hypothesis empirically.

References

Ali, R., Barrdear, J., Clews, R., & Southgate, J. (2014). Innovations in Payment Technologies and the Emergence of Digital Currencies. Rochester, NY: Social Science Research Network.

Arango, C., & Taylor, V. (2008). Merchant Acceptance, Costs, and Perceptions of Retail Payments: A Canadian Survey (Discussion Paper No. 08–12). Bank of Canada.

Arango, C., & Taylor, V. (2008). Merchants' Costs of Accepting Means of Payment: Is Cash the Least Costly? Bank of Canada Review, 2008–2009(Winter), 17–25.

Arango-Arango, C. A., Bouhdaoui, Y., Bounie, D., Eschelbach, M., & Hernandez, L. (2018). Cash remains top-of-wallet! International evidence from payment diaries. Economic Modelling, 69, 38–48.

Asokan, N., Janson, P., Steiner, M., & Waidner, M. (2000). State of the art in electronic payment systems. B M. V. Zelkowits, Advances in Computers (53, 425–449). Elsevier.

Au, Y. A., & Kauffman, R. J. (2008). The economics of mobile payments: Understanding stakeholder issues for an emerging financial technology application. Electronic Commerce Research and Applications.

Bagnall, J., Bounie, D., Huynh, K. P., Kosse, A., Schmidt, T., Schuh, S. D., & Stix, H. (2014). Consumer Cash Usage: A Cross-Country Comparison with Payment Diary Survey Data. Rochester, NY: Social Science Research Network.

Baxter, W. F. (1983). Bank Interchange of Transactional Paper: Legal and Economic Perspectives. The Journal of Law & Economics, 26(3), 541–588.

Bayero, M. A. (2015). Effects of Cashless Economy Policy on Financial Inclusion in Nigeria: An Exploratory Study. Procedia - Social and Behavioral Sciences, 172, 49–56.

Bedre-Defolie, O., & Calvano, E. (2013). Pricing Payment Cards. American Economic Journal: Microeconomics, 5(3), 206–231.

Bolt, W., & Chakravorti, S. (2008). Economics of payment cards: a status report. Economic Perspectives, Q IV, 15–27.

Bolton, R. N., Kannan, P. K., & Bramlett, M. D. (2000). Implications of Loyalty Program Membership and Service Experiences for Customer Retention and Value. Journal of the Academy of Marketing Science, 28(1), 95–108.

Borzekowski, R., Elizabeth, K. K., & Shaista, A. (2008). Consumers' Use of Debit Cards: Patterns, Preferences, and Price Response. Journal of Money, Credit and Banking, 40(1), 149–172.

Bounie, D., & Francois, A. (2006). Cash, Check or Bank Card? The Effects of Transaction Characteristics on the Use of Payment Instruments. Rochester, NY: Social Science Research Network.

Bounie, D., François, A., & Hove, L. V. (2016). Consumer Payment Preferences, Network Externalities, and Merchant Card Acceptance: An Empirical Investigation. Review of Industrial Organization, 1–34.

Carbó-Valverde, S., & Liñares-Zegarra, J. M. (2011). How effective are rewards programs in promoting payment card usage? Empirical evidence. Journal of Banking & Finance, 35(12), 3275–3291.

Carbo-Valverde, S., & Liñares-Zegarra, J. M. (2012). Payment Card Interchange Fees: Assessing the Effectiveness of Antitrust Investigations and Regulation in Europe. Rochester, NY: Social Science Research Network.

Chernikova, L. I., Faizova, G. R., Egorova, E. N., & Kozhevnikova, N. V. (2015). Functioning and Development of Retail Banking in Russia. Mediterranean Journal of Social Sciences, 6(6 S4), 274.

Ching, A. T., & Hayashi, F. (2010). Payment card rewards programs and consumer payment choice. Journal of Banking & Finance, 34(8), 1773–1787.

Chizhikova, E. S. (2013). The Current Payment System of the Russian Federation. Middle-East Journal of Scientific Research, 14(2), 244–247.

Darban, M., & Amirkhiz, H. (2015). Herd Behavior in Technology Adoption: The Role of Adopter and Adopted Characteristics. 2015 48th Hawaii International Conference on System Sciences (cc. 3591–3600).
de Kerviler, G., Demoulin, N. T. M., & Zidda, P. (2016). Adoption of in-store mobile payment: Are perceived risk and convenience the only drivers? Journal of Retailing and Consumer Services, 31, 334–344.

Grauwe, D., Paul, & Rinaldi, L. (2002). A Model of the Card Payment System and the Interchange Fee. Rochester, NY: Social Science Research Network. Извлечено от

Gresvik, O. (2008). Payment habits at point of sale : different methods of calculating use of cards and cash in Norway.

Guthrie, G., & Wright, J. (2007). Competing Payment Schemes*. The Journal of Industrial Economics, 55(1), 37–67.

Hasan, I., Schmiedel, H., & Song, L. (2012). Returns to Retail Banking and Payments. Journal of Financial Services Research, 41(3), 163–195.

Hayashi, F. (2008). Do U.S. Consumers Really Benefit from Payment Card Rewards?

Humphrey, D. B. (2010). Retail payments: New contributions, empirical results, and unanswered questions. Journal of Banking & Finance, 34(8), 1729–1737.

Humphrey, D. B., Pulley, L. B., & Vesala, J. M. (1996). Cash, Paper, and Electronic Payments: A Cross-Country Analysis. Journal of Money, Credit and Banking, 28(4), 914.

Humphrey, D., Willesson, M., Lindblom, T., & Bergendahl, G. (2003). What Does it Cost to Make a Payment? Review of Network Economics, 2(2).

Hunt, R. M. (2003). An Introduction to the Economics of Payment Card Networks. Review of Network Economics, 2(2).

Jonkers, N. (2011). Card Acceptance and Surcharging: the Role of Costs and Competition : Review of Network Economics.

Kadhiwal, S., & Zulfiquar, A. U. S. (2007). Analysis of mobile payment security measures and different standards. Computer Fraud & Security, 2007(6), 12–16.

Kim, C., Tao, W., Shin, N., & Kim, K.-S. (2010). An empirical study of customers' perceptions of security and trust in e-payment systems. Electronic Commerce Research and Applications, 9(1), 84–95.

Krivosheya, E., & Korolev, A. (2016). Benefits of the retail payments card market: Russian cardholders' evidence. Journal of Business Research, 69(11), 5034–5039.

Krivosheya, E., & Korolev, A. (2018). Benefits of the retail payments card market: Evidence from Russian merchants. Journal of Business Research, 88, 466–473.

Krivosheya, E., Korolev, A., & Plaksenkov, E. (2015). Measures for stimulating a cashless economy in Russia. Moscow School of Management SKOLKOVO working paper.

Krivosheya, E., Semerikova, E., Korolev, A. & Tarusova, E. (2017). Cashless economy in Russia 2030: Scenarios for market and industry. Moscow School of Management SKOLKOVO Working Paper.

Krivosheya, E. (2018). Evaluating efficient multilateral interchange fees: evidence from end-user benefits. Moscow School of Management SKOLKOVO Working Paper.

Malaguti, M. C., & Guerrieri, A. (2014). Multilateral Interchange Fees: Competition and regulation in light of recent legislative developments. ECRI Research Report No. 14, 31 January 2014

Manchanda, R. V., & Saqib, N. (2008). Consumers' evaluations of co-branded products: the licensing effect. Journal of Product & Brand Management, 17(2), 73–81.

Mas, I., & Radcliffe, D. (2010). Mobile Payments go Viral: M-PESA in Kenya. Worldbank, CGAP.

Massoth, M., & Bingel, T. (2009). Performance of Different Mobile Payment Service Concepts Compared with a NFC-Based Solution. 2009 Fourth International Conference on Internet and Web Applications and Services (cc. 205–210).

McGinnis, P. C. (2012). Misguided Regulation of Interchange Fees: The Consumer Impact of the Durbin Amendment. Loyola Consumer Law Review, 25, 285.

Meadows, M., & Dibb, S. (1998). Assessing the implementation of market segmentation in retail financial services. International Journal of Service Industry Management, 9(3), 266–285.

Milne, A. (2006). What is in it for us? Network effects and bank payment innovation. Journal of Banking & Finance, 30(6), 1613–1630.

Plaksenkov, E., Korovkin, V., & Krivosheya, E. (2015). Cashless economy in Russia: Tendencies, perspectives, opportunities. Moscow School of Management SKOLKOVO Working Paper.

Roberts, J. A., & Jones, E. (2001). Money Attitudes, Credit Card Use, and Compulsive Buying among American College Students. Journal of Consumer Affairs, 35(2), 213–240.

Rochet, J.-C., & Tirole, J. (2002). Cooperation among Competitors: Some Economics of Payment Card Associations. The RAND Journal of Economics, 33(4), 549–570.

Rochet, J.-C., & Tirole, J. (2003). Platform Competition in Two-sided Markets. Journal of the European Economic Association, 1(4), 990–1029.

Rochet, J.-C., & Tirole, J. (2006). Two-sided markets: a progress report. The RAND Journal of Economics, 37(3), 645–667.

Rochet, J.-C., & Wright, J. (2010). Credit card interchange fees. Journal of Banking & Finance, 34(8), 1788–1797.

Rysman, M., & Schuh, S. (2017). New Innovations in Payments. Innovation Policy and the Economy, 17, 27–48. Shy, O. (2011). A Short Survey of Network Economics. Review of Industrial Organization, 38(2), 119–149.

Slade, E. L., Williams, M. D., & Dwivedi, Y. K. (2013). Mobile payment adoption: Classification and review of the extant literature.

Souvignet, T., Hatin, J., Maqua, F., Tesniere, D., Léger, P., & Hormière, R. (2014). Payment card forensic analysis: From concepts to desktop and mobile analysis tools. Digital Investigation, 11(3), 143–153.

Teo, A.-C., Ooi, K.-B., Yew, K.-T., Tan, G. W.-H., & Hew, T.-S. (2015). The effects of convenience and speed in m-payment. Industrial Management & Data Systems, 115(2), 311–331.

Todd, S., & Lawson, R. (2003). Consumer preferences for payment methods: a segmentation analysis. International Journal of Bank Marketing, 21(2), 72–79.

Wang, Y. (2008). Determinants Affecting Consumer Adoption of Contactless Credit Card: An Empirical Study. CyberPsychology & Behavior, 11(6), 687–689.

Weiner, S., & Wright, J. (2005). Interchange Fees in Various Countries: Developments and Determinants. Review of Network Economics, 4(4), 1–34.

Worthington, S. (1999). Branding and relationships issues in affinity and co-branded credit cards. Journal of Brand Management, 6(3), 188–197.

Wright, J. (2004). The Determinants of Optimal Interchange Fees in Payment Systems. The Journal of Industrial Economics, 52(1), 1–26.

Network Effects at Retail Payments Market: Evidence from Russian Merchants

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Abstract

This research examines the role of network externalities in card acceptance by merchants on the retail payments market in Russia. The work empirically tests the effects of both direct and indirect network externalities for the merchants' card acceptance probability based on the representative survey of 800 traditional (offline) merchants from all Russian regions. The main finding of this study is that the probability of cashless payments acceptance by merchants increases with the presence of direct and indirect or both types of network externalities, controlling for a large set of control variables, including merchants' characteristics and location-specific differences between the retailers. The results are robust to the changes in measures of network externalities and inclusion of shadow economy controls. The findings are significant both statistically and economically.

Keywords: Retail payments; payment cards; network effects; merchants' acceptance; financial services

JEL Codes: G21, D53, E42, L14

Introduction

The increasing share of cashless means of payment up to the complete displacement of cash from circulation is one of the most discussed topics on the financial world agenda in recent years. Moving towards a "cashless economy" is one of the priorities of financial regulators in a number of countries, both developed and developing. At the same time, a significant number of private companies and business associations are working on the creation and application of the necessary tools and platforms that would stimulate the economy efficiently. On the other hand, despite numerous efforts of different market participants there is still a lack of development in this area in some countries.

The development of the digital economy depends largely on the spread of non-cash payments. In this regard, it is important to understand the proportion of cashless payments in Russia and the dynamics of it. The Central Bank of Russia has recently announced that it intends to increase the share of cashless payments up to 47-50% by the end of 2018 year, as compared to 32% in 2016 and almost 40% in 2017. The total volume of operations with the use of payment keeps growing (see Graph 1) along with an increasing share of payment transactions for goods and services and decreasing pace of growth of cash withdrawal operations (see Graph 2). The proportion of non-cash expenses in the country is largely determined by the proportion of income that the population receives on a Bank card and does not withdraw in cash, but uses for payments. This payment activity on cards, in turn, depends on many factors, ranging from the availability of payment card services in retail outlets and ending with the general trust of the population and different agents to the financial system. According to a study of analysts of the Alfa-Bank service "Potok", which conducted a survey of over 200 000 merchants, in March 2017 only 39.5% of Russian companies accepted cards. This is almost 25% more than in March 2016. However, there is still a huge potential for the growth of the acquiring market — about 60% of "cash" companies, according to the

research, lose up to 20% of possible transactions because they refute cards. Government, banks and payment systems should account for the prospects and stimulate the merchants to implement acquiring systems.1

Retail payments market is a two-sided market. Most of the payment schemes nowadays follow the 4 party payments scheme. One side of the market consists of the individuals, who choose whether to issue and use cashless payment instruments and the issuing banks, who offer these payment acceptance products to the potential cardholders.

The other side of the market, which this study focuses on consists of the merchants and acquiring banks. Unlike individuals, the merchants make only one choice at the retail payments market: a choice whether to accept a cashless payment instrument. According to the latest market statistics, as at 2017, approximately 62% of the merchants accept cashless payments. This figure has increased dramatically since 2014, when only 51% of the merchants accepted payment cards.

One of the most important factors that explains up to 50% of the card acceptance demand at some market is network externalities. Put simply, the network externality is a positive effect that the usage of one user of some service has on other users of this same service. Due to the two-sided nature of the market, there are two key types of network externalities present at the retail payments market, namely, direct and indirect network externalities. In the context of this research, the direct network externalities refer to the extent towards which the higher acceptance of payment services by merchants influence the demand for accepting these payment services by other retailers. Indirect network externalities similarly capture the effect that the increased usage of retail cashless payment services by individuals has on the acceptance demand by the merchants. The aims of this study are to investigate the existence and empirically evaluate the effect of both types of network externalities for the merchants' card acceptance demand at Russian retail payments market. Key research questions, hence, can be formulated as follows: Are network externalities of either of the types present at Russian retail payments market? To what extent do the network externalities influence the merchants' demand for cashless payments acceptance? This research aims to contribute to the small but rising literature on the determinants of card acceptance demand by merchants (Arango & Taylor, 2008a; Bounie, François, & Van, 2016; Carbó-Valverde, Liñares-Zegarra, & Rodríguez-Fernández, 2012; Hayashi, 2006; Krivosheya & Korolev, 2018; Loke, 2007; Rochet & Tirole, 2011). This literature already investigated the number of determinants including the characteristics of merchants (e.g., size, assortment, profitability), regional development (e.g., volume of retail trade in particular region, access to banking services) and contract characteristics (e.g., merchant fee, quality of services). The role of the network externalities have been established in the theoretical studies and have often been hypothesized to influence the cashless payments usage and acceptance. However, there are few empirical studies evaluating the magnitude of the network effects at the retail payments market. Moreover, to the best of my knowledge, none of the studies separate between the types of the network effects, especially in Russian market, where the role of cash has historically been high and the end-users behavior habits are yet forming. This article aims to fill these gaps by providing the empirical estimates of the effect of both direct and indirect network externalities for the merchants' card acceptance demand at Russian retail payments market.

After analyzing the literature, this is the first study to provide the empirical investigation into the effect of network externalities for the Russian retail payments market. To the best of my knowledge, only Bounie et al. (2016), Carbó-Valverde et al., (2012) and Rysman, (2007) analyze the influence of network externalities on the card acceptance probability of merchants. These studies, however, do not investigate direct and indirect network effects simultaneously focusing on the indirect network effects rather than both. The mechanisms explaining the influence of direct and indirect network externalities differ significantly and, therefore, may provide different empirical results. The former concerns, mainly, the strategic decisions of the merchants, while the latter – convenience benefits maximization (Bedre-Defolie & Calvano, 2013; Krivosheya & Korolev, 2018). This study

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1 According to Alfa Bank's "Potok" service analysts research, published at 12.05.2017 http://news.potok.digital/statistika-ekvayringa-v-rossii/

aims to fill this gap by providing empirical investigation of the effect of both direct and indirect network effects at the retail payments market.

Besides, none of the studies provide the analysis of the network externalities at Russian retail payments market. Krivosheya and Korolev (2018) conduct the research on the determinants of merchants' behavior and estimate the levels of benefits at the Russian retail payments market. My study is complementary to the mentioned paper and uses the same dataset of Russian merchants to empirically investigate the effect of network effects on the cashless payments acceptance probability. Russian market is characterized by the high role of cash, which may affect some of the mechanisms underlying the effect of network externalities (Plaksenkov, Korovkin & Krivosheya, 2015).

Theoretical mechanisms explaining the link between merchants' acceptance demand and network externalities are linked to the level of net merchants' benefits associated with cashless payments acceptance. A merchant will accept payment cards in case its net benefits (benefits associated with payment card acceptance less of any costs attributed to such decision) exceed zero (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Krivosheya & Korolev, 2018; Rochet & Tirole, 2002, 2003, 2011). Network externalities may change the value of the net benefits. Direct network externalities result from the increased share of accepting merchants, which influence the quality or the cost of the acquiring services as acquirers compete for the retailers. At the same time, in case of higher acceptance rate among the competitors, merchants may also decide to accept cashless payments in order not to lose the potential customers (maximize the opportunity benefits), which incorporate the ability to pay with cashless instruments into the choice of the retailer. Indirect network effects increase the value of direct or convenience benefits such as decreased queues, increased speed of transactions and reduced criminality rates for each particular merchant (Bedre-Defolie & Calvano, 2013; Bolt & Chakravorti, 2008; Bolt & Mester, 2017; Krivosheya & Korolev, 2018; Rochet & Tirole, 2002, 2011). Besides, higher activity of individuals at the retail payments market signifies the importance of the merchants' opportunity benefits. All in all, despite some costs associated with the card acceptance decisions as well as the habits of accepting and paying with cash present at the Russian market, based on the underlying mechanisms of influence, this study hypothesizes positive relationship between direct and indirect network externalities and card acceptance probability.

Using the representative sample of 800 traditional (offline) merchants from all Russian regions this article finds evidence in favor of such positive relationship. Increased share of merchants that accept payment cards increases the probability that each particular merchant accepts payment cards. This result is robust to the changes in measure of network externality and the effect persists even when I use regional level average acceptance level or the perceived acceptance share among the competitors instead of the federal region average acceptance rates as a proxy for direct network externalities. Similar results are obtained in relation to the indirect network externalities: significant positive association between acceptance demand and the share of cardholders and card users is found both at the regional and federal region levels.

The result is also economically significant. One standard deviation increase in average federal region card acceptance increases probability of acceptance by each particular merchant by 7.4 percentage points. Indirect externalities have similar effect: one standard deviation increase in average federal region usage rate of payment cards increases merchant acceptance probability by 7.04 percentage points. Combined, a standard deviation increase in the component reflecting both network externalities increase the merchant acceptance probability by 7.74 percentage points. For comparison, additional year of operations contribute to less than 1 percentage point increase in merchant acceptance probability.

From the practical point of view, the results of the article might unveil the degree of influence on the card acceptance that different stimulating measures can have. On the one hand, network externalities might be considered as a multiplier for the different policies aimed at retail payments market. If they exist, the magnitude of the effect of the network externalities will reflect the degree towards which an increase in payment activity of end users influences the acceptance by merchants. Therefore, any stimulating measure will influence market in two ways: directly influencing the acceptance or usage of payment services by the recipient of stimulating

measures and indirectly influencing the merchant acceptance via the network externalities. On the other hand, the effect of network externalities cannot be changed immediately by any existing stimulating measures. Therefore, the magnitude of the effect of such externalities also show the part of the merchants' demand that cannot be altered by any financial market policies. Thus, it would be extremely valuable for practitioners related to the development of the financial services market, in particular, retail cashless payments to realize the degree of influence they might have on the industry.

This work consists of five sections. In the next section, the theoretical mechanisms of the effect of network externalities on merchant acceptance demand will be explained. Then, relevant variables, description of the data set, descriptive statistics and methodology will be discussed in the empirical set-up in section 3. Section 4 outlines key results of empirical estimations. Section 5 concludes and outlines directions for further research.

Theoretical Framework and Literature Review

The decision whether to accept cashless payments or not is based on the relative levels of merchants' benefits and costs. There are two major types of benefits and costs of merchants: fixed and variable. Fixed benefits (Bs) and costs (M) are not dependent on the number and volume of transactions that happen at a particular merchant's location. On the contrary, variable benefits (bs) and costs (m) depend on the number of cashless transactions at a particular retailer. Russian merchants do not incur explicit fixed costs with the cashless payments acceptance decision because all the necessary infrastructure is provided by the acquiring bank. Therefore, M is usually assumed to be zero. Once the size of benefits per transaction exceed the level of costs per transaction merchant starts to accept payment cards (Bedre-Defolie & Calvano, 2013; Rochet & Tirole, 2002, 2003, 2011; Baxter, 1983).

Network externalities may affect the size of all these four parameters. Network externalities are, effectively, equivalent to the increase in the number of customers at either sides of the market. The mechanisms via which the increased number of merchants and cardholders affect the benefits and fees for every merchant are explained in the following subsection. Formal review of the relevant literature studying merchant acceptance is provided towards the end of this section.

Direct network externalities

Direct network externalities in the context of this study refer to the increase in the net benefits attributed to cashless payments acceptance for each particular merchant as a result of the increased total number of merchants accepting cashless payments. I follow Krivosheya and Korolev (2018), who separate benefits of merchants into direct (those, attributed directly to the acceptance decision) and opportunity (the benefits arising from the transactions that would be forgone if the merchant did not accept payment cards). Direct net benefits may be affected by the quality of services, merchant's perception of cashless acceptance and the level of costs incurred by the merchant as a result of card acceptance. Opportunity net benefits are most likely to be affected by the share of accepting competitors as well as by the importance of the cashless payments to the customers.

Higher share of cashless payments acceptance by merchants is equivalent to the increased quantity demanded for the acquiring services (Bolt & Chakravorti, 2008; Guthrie & Wright, 2007; Hunt, 2003). Acquirers react to the increased quantity demanded by either lowering merchant discount fees charged for the same bundle of services (in terms of quality and/or quantity) or by improving the offered bundle of services without raising any acceptance costs (Bedre-Defolie & Calvano, 2013; Hasan, Schmiedel, & Song, 2012; Krivosheya & Korolev, 2018; Milne, 2006). Such change in the offering by acquirers results mainly from the nature of competition. When the acceptance levels are low, acquirers compete for the non-accepting merchants and may segment the market easier (Armstrong, 2005; Bolt, 2012; Chakravorti & Roson, 2006; Rochet & Tirole, 2002; Todd & Lawson, 2003). Segmentation of the market allows them charging higher level of fees. In case of higher acceptance levels, acquirers start to compete for the same type of merchants — accepting merchants. Merchant fees and the quality of services are among the top factors affecting the merchant's decision to accept payment

cards (C. A. Arango, Huynh, & Sabetti, 2011; C. Arango & Taylor, 2008a; Arango-Arango, Bouhdaoui, Bounie, Eschelbach, & Hernandez, 2018; Bounie et al., 2016; Hayashi, 2006; Jonkers, 2011), that is why, the acquirers change these parameters first in order to attract the merchants from competing acquirer (Baxter, 1983; Bedre-Defolie & Calvano, 2013). The merchant decides to accept payment cards in case the net benefits level are non-negative (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Krivosheya & Korolev, 2018). Increased quantity demanded will bring the net benefits of a merchant closer to the threshold of zero both in case of improved services quality and decreased acceptance costs. Either way, the net merchants' benefits associated with cashless payments acceptance increase leading to higher probability of cashless payments acceptance.

Another important parameter affecting the level of merchants' benefits is the perception of acquiring services by merchants. Financial markets and financial services are usually subject to the herding behavior (Chiang & Zheng, 2010; Darban & Amirkhiz, 2015; Scharfstein & Stein, 1990; Trueman, 1994). Retail payments are not different in this regard (Ali, Barrdear, Clews, & Southgate, 2014; Darban & Amirkhiz, 2015; Reinartz, Dellaert, Krafft, Kumar, & Varadarajan, 2011). On the one hand, this is explained by the behavioral biases of the managers responsible for card acceptance decisions. Once the larger share of merchants that the manager tracks start accepting payment cards, the manager decides to accept payment cards as well in order to be in line with the competitors' strategies (Bounie et al., 2016; Rochet & Tirole, 2011). On the other hand, the higher interest in cashless payments by merchants in a particular region may produce the positive spillovers, which may be exploited by the financial services organizations aimed at acceptance increase. For instance, payment systems regularly conduct educational and marketing events aimed at explaining the benefits of cashless payments acceptance (Kabakova, Plaksenkov, & Korovkin, 2016; Krivosheya, Korolev & Plaksenkov, 2015). Such events and initiatives may change the perception of the merchants and increase the value of benefits by decreasing the amount of misinformation and other informational or behavioral biases (Bayero, 2015; Bolt & Mester, 2017; Kabakova, Plaksenkov, & Korovkin, 2016; Malphrus, 2009), thereby increasing the probability of cashless payments acceptance. Besides, regional governments or branches of financial services may subsidize the acceptance in case merchants show increased interest in cashless payments (Block & Keller, 2015; Chizhikova, 2013; Rauch & Schleicher, 2015).

The degree of acceptance among the competitors in itself may also affect merchants' decision to accept cashless payments (Bounie et al., 2016; Krivosheya & Korolev, 2018; Rochet & Tirole, 2002, 2011). Rochet and Tirole (2002) provide an intuition for this mechanism: in a two-sided market merchants that face higher competition are more likely to accept cards in order to attract customers from competitors who do not accept cashless payments. On the other hand, merchants may feel obliged to accept cards in order to retain customers that might otherwise choose the merchant location that accepts payment cards (Bounie et al., 2016; Krivosheya & Korolev, 2018; Rochet & Tirole, 2011). This is especially important for the merchants, whose target customers are active at the retail payments market and, therefore, incorporate the option to pay with a cashless method while choosing a merchant location for shopping (C. A. Arango et al., 2011; C. Arango & Taylor, 2008a; Arango-Arango et al., 2018; Krivosheya & Korolev, 2016).

Overall, the mechanisms outlined above show that the higher acceptance rates among merchants should increase the probability of the acceptance for each particular merchant. This study, therefore, hypothesize the positive relationship between the demand for acceptance and direct network externalities at the retail payments market.
H1: An increase in the amount of merchants that accept cards leads to higher probability of card acceptance by each particular merchant.

Indirect network externalities

Indirect network externalities are associated with the benefit enjoyed by each particular merchant as a result of higher activity of the individuals at the retail payments market (Bounie et al., 2016; Carbó-Valverde et al., 2012; Krivosheya & Korolev, 2018; Loke, 2007). Unlike merchants, the individuals have two decisions at the retail payments market: to hold a payment card and to use it for the payments for goods and services. As in the previous subsection, I analyze the effect of increased share of holding and usage of cashless payments on the

value of net benefits (both benefits and fees) associated with the cashless payments acceptance in order to analyze the effect on cashless payments acceptance demand.

The first major aspect of acceptance demand could be explained by the 'wanna take' phenomenon introduced by Bounie et al. (2016): merchants accept payment cards because their utility/cost ratio is at least as good as that of other payment instruments. The potential benefits can be presented not only in the form of qualitative improvements that enhance merchants' operations, but also in the form of the acquiring contract recoupment in case when the POS terminals are used more frequently (Krivosheya & Korolev, 2018; Rochet & Tirole, 2011; Weiner & Wright, 2005; Wright, 2004). For Russian retail payments market the latter one is not the case because acquiring banks provide merchants with the POS terminals as a part of acquiring contract. Hence, in other words, in Russia merchants bear only the variable costs (merchant discount fees), avoiding fixed costs as those are incorporated by banks. This specific feature may possibly lead to the lower effect of network externalities on card acceptance as compared to the other geographic markets case where merchants bear both types of costs.
Moreover, cashless payments acceptance is associated with the increase in the indirect and operating costs for merchants. First of all, cashless methods acceptance is associated with the staff retraining (C. Arango & Taylor, 2008a; Hayashi, 2006; Krivosheya & Korolev, 2018). Besides, some merchants may refute cashless payments because of tax evasion or other shadow economy practices (Bolt, 2012; Bolt & Chakravorti, 2008; Krivosheya & Korolev, 2018; Malphrus, 2009). Finally, merchants get an additional fee per every transaction (merchant discount fee) that lowers the retailing profit margins (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Rochet & Tirole, 2002, 2011). Despite this, a study by Krivosheya and Korolev (2018) found that both direct and total net benefits of the merchants in Russia exceed zero, on average, meaning that it is beneficial for most of the Russian merchants to accept cashless payments. A part of this result is attributed to the network externalities that lower the merchant fees due to the acquiring banks competition and increase merchants' direct and opportunity benefits.

First of all, the merchants' direct benefits associated with the card payments acceptance increase with the number of card-paying customers. An increase in the share of cardholders and payers with cashless payment instruments is associated with an increase in the convenience benefits of card acceptance (Rochet & Tirole, 2011). Such benefits include the faster speed of service at the point of sale and decreased queue length, higher customer throughput, lower degree of crime at the point of sale (e.g., cashier robberies and shortfalls) and lower cash handling costs (Bedre-Defolie & Calvano, 2013; Chatterjee & Rose, 2011; Krivosheya & Korolev, 2018; Rochet & Tirole, 2002, 2011). Convenience benefits are lower in case fewer cardholders pay with card because the POS terminal in this case is not used and the benefits of cashless payment acceptance cannot be enjoyed in full. All these benefits enjoyed by the merchants also lead to the higher satisfaction by consumers (Bolton, Kannan, & Bramlett, 2000; Kim, Tao, Shin, & Kim, 2010; Krivosheya & Korolev, 2016), which produce higher loyalty, more frequent visits by customers, larger sales and improved revenues for merchants (Carbó-Valverde & Liñares-Zegarra, 2011; Ching & Hayashi, 2010).

Besides, individuals are found to buy more and spend larger amounts of money when they use cashless payment methods (Bolton et al., 2000; Krivosheya & Korolev, 2016). Such behavior is explained by the ability to spend more than an individual have in his/her wallet and lower costs of money withdrawal (Baxter, 1983; Bedre-Defolie & Calvano, 2013; Wright, 2004). Cardholders also engage in impulse buying, which results in higher revenues for merchants (Bolton et al., 2000; Plaksenkov et al., 2015) and, thus, higher level of motivation to accept payment cards.

Another aspect of merchant acceptance demand is associated with the 'must take' explanation: merchants who are not motivated to accept cashless payments by their potential benefits may nevertheless accept them because of the fear that they might lose customers or even the whole business if they refute cards (Bounie et al., 2016). This idea is also reflected by the opportunity benefits (Krivosheya & Korolev, 2018). There is a positive relationship between the popularity of cards among consumers and the level of opportunity benefits: the more consumers prefer to pay by card, the higher the potential loss for the merchant because the more likely a consumer is to incorporate the ability to pay by card at a point of sale when he/she chooses between the retailers.

In case the retailer does not accept cashless payments it risks losing an individual, who is active at the payments market, to a competitor that accepts payment cards. At the same time, the decision to accept payment cards is strategic and may be undertaken in order to attract card-paying customers to a particular merchant (Arango & Taylor, 2008b; Bedre-Defolie & Calvano, 2013; Jonkers, 2011; Krivosheya & Korolev, 2018; Rochet & Tirole, 2011). Hence, as in case with merchant competition, higher shares of cardholders and payers will lead to higher opportunity benefits and, hence, acceptance demand.

Indirect network externalities, therefore, are also positively associated with the acceptance demand. In order to test the effect of indirect network externalities at the retail payments market empirically, this study, therefore, hypothesizes the following:

H2: The more cardholders choose to hold and use cashless payments, the more probable merchants are to accept the payment cards.

Effect of cashless payments market development on the acceptance demand

Due to the fact that the direct and indirect network effects are associated with the cashless payments market development at both sides of the market, the increase in cashless payments acceptance, holding and usage is equivalent to the transition towards the cashless economy. Such transition is associated with a number of benefits for all of the stakeholders at the market (Plaksenkov et al., 2015). In case of the cashless economy development, government and commercial agents may produce policies and initiatives aimed at higher acceptance rates among the merchants in order to increase the benefits associated with the cashless economy that they enjoy. The first major group of such benefits is associated with the government, while the second with the commercial players.

Government benefits from moving towards a cashless economy are associated with increased transparency of the economy due to the fact that cashless operations are not anonymous and may be easily tracked, sustainability of the banking sector and enhanced growth (Plaksenkov et al., 2015; Krivosheya, Korolev & Plaksenkov, 2015). Increased sustainability is achieved by the use of funds by banks at the merchant and individuals accounts, which may improve the liquidity of the banking system as well as produce more funds for financing purposes (such as loan generation) (Hasan et al., 2012; Plaksenkov et al., 2015). Higher growth is achieved because of the increased spending by the customers at various merchant locations when they use cashless payments (Bolton et al., 2000; Krivosheya & Korolev, 2016).

As a result, government may promote card acceptance more aggressively using various stimulating measures and programs (Block & Keller, 2015; Krivosheya et al., 2015; Rauch & Schleicher, 2015). An analysis of such measures for both global and Russian markets is presented in Krivosheya et al. (2015), however, merchant acceptance may be promoted by nation-wide loyalty programs, acceptance subsidies and VAT discounts. Some of these measures (e.g., acceptance subsidies) are actively promoted in Russia as well. In case a particular region is active at the retail payments market, the government benefits associated with the cashless economy in this region are likely to be larger and, hence, government will promote cards even more actively, thereby increasing the magnitude of the network externalities. All in all, government promotion of cashless payment methods should support the hypotheses presented above.

Commercial players, like in case of the government, may also engage in cashless promotion campaigns (Krivosheya et al., 2015; Krivosheya, Semerikova, Korolev & Tarusova, 2017). In case a particular merchant location is active in terms of cashless retail payments transactions, commercial players such as banks and payment systems may further support the development by providing special offers, loyalty programs and educational or marketing seminars and events for the merchants (Carbó-Valverde & Liñares-Zegarra, 2011; Ching & Hayashi, 2010; Hasan et al., 2012; Krivosheya & Korolev, 2018). Participation in such programs is usually associated with higher acceptance demand, which, again, may be due to the enhanced effect of network externalities.

Overall, theoretical mechanisms suggest that the both types of network externalities are associated with higher acceptance demand. This study further tests these hypotheses empirically in order to investigate whether the effect of network externalities is present at Russian retail payments market.

Empirical Set-up
Data sources

The study uses a representative sample of 800 traditional retail locations in all regions of Russia. The data is available from the proprietary database provided by the "Finance, payments and e-commerce chair" of Moscow school of management SKOLKOVO that contains the results of the nation-wide surveys of Russian merchants and Russian individuals. The survey was conducted in 2013-2014 by Public Opinion Fund (ФОМ, "Фонд общественного мнения") together with CEFIR (Center of Economic and Financial Research). Survey consisted of face-to-face interviews and used an extensive questionnaire with focus on card acceptance and behavior of merchants at the retail payments market. Quotas for federal regions as well as the retailers size and types were introduced to ensure the representativeness for the Russian retail payments market. The survey includes only traditional (offline) merchants as it constitutes the largest share of the payments market (more than 2/3 according to the official Russian statistics (Rosstat)).

Key questions are related to the acceptance of cashless payment instruments, as well as the details on acceptance motives, reasons for refuting cards, perception of competitors' card acceptance levels and other information regarding payments related behavior and acquiring contract details. The questionnaire also includes information on the merchant's characteristics, such as sales revenues, age, geography of the shop locations, type and services or goods offered by the merchant. Another part of the database includes similar survey of 1500 individuals Russian individuals regarding their payments behavior. The survey is representative for all Russian market as a whole and at the federal region level. Survey included quotas on age, gender and incomes and was constructed using the three stage probability sampling.

The resulting sample consists of 800 merchants, 408 of which accept cashless payments. Both accepting and non-accepting merchants are included in order to mitigate potential selection bias. The survey reveals that 50% of merchants are indifferent between cash and cards as a method of payments; nonetheless, 33% stated that they prefer being paid in cash even when they accept cards. This may be explained by the tax evasion practices and shadow economy activities. Cash is perceived as convenient and cheap, therefore, the role of it is still pointed out to be high by the merchants. These results are in line with previous research on Russian retail payments market (Chernikova, Faizova, Egorova, & Kozhevnikova, 2015; Chizhikova, 2013; Krivosheya & Korolev, 2018).

Model

In order to answer the main research questions (how direct and indirect network externalities affect card acceptance probability by merchants) this study uses the following baseline model for the initial acceptance of payment cards:

$Acceptance_{ij} = \alpha + \beta \times DirectNE_j + \gamma \times IndirectNE_j + \theta \times M_i + \lambda \times R_j + \varepsilon_{ij}$ Where:

$Acceptance_{ij}$ – the acceptance of payment cards by merchant i from region j (dependent, binary variable);

$DirectNE_j$ – the vector of direct network externalities in region j;

$IndirectNE_j$ – the vector of indirect network externalities in region j;

M_i – the vector of characteristics of merchant i;

This vector of control variables includes such characteristics as the type of the merchant (supermarket, kiosk, pharmacy, etc. with a reference category being minimarkets), the age of the merchant, merchants' reference to the network, product groups (food and beverage, durables and clothes).

R_j – the vector of characteristics of region j;

These control variables include the natural logarithm of thevolume of cashless transactions on goods and services in the region per capita, dummy variables for the population of the merchant's location (over 1 million

people, between 500 thousand and 1 million, less than 100 thousand), with reference category being cities with population between 100 and 500 thousand people, logarithm of retail turnover per capita, logarithm of GRP per capita.

ε_{ij} – normally distributed iid errors with zero-mean and constant variance. The robust version of errors estimation is used to alleviate the potential econometric issues such as heteroscedasticity.

α, β, γ, θ, λ - are the vectors of coefficients.

Dependent Variable

Acceptance$_{ij}$ is the main dependent variable. It is a binary variable that represents the fact of merchant's card acceptance. Thus, it takes the value of o 1, if a merchant is accepting cashless payments and 0 otherwise. The data on merchants' acceptance is available directly from the survey of merchants. Questionnaire asked merchants the following question: Do you accept payment cards for the payments for products and services?

Explanatory Variables

In this work the explanatory variables are DirectNE$_j$ and IndirectNE$_j$, which stand
for direct and indirect network externalities respectively.

Direct Network Externalities

Direct network externalities represent the effect of increased merchants' acceptance on the probability of acceptance of cashless payments by each particular merchant. Outlined mechanisms include both the effects of perceived acceptance rates by the merchants' competitors, which may affect the strategic decisions implemented by each particular merchant and actual acceptance levels in particular region, which may affect the behavior of acquirers and governments as well as the merchants. In order to test the former mechanisms explicitly this study uses the perceived level of acceptance across competitors.

The degree of competition affects merchants' decision to accept cards because in the light of competitive pressure merchants are morelikely to accept cards in order to attract customers from the competitors who do not accept cashless payments or may feel obliged to accept cards in order to retain customers that may otherwise choose other retailers (theoretical models are provided in Rochet & Tirole, 2002, 2003, 2011).

Evans and Schmalensee (1999) have also suggested that if a merchant finds that all his competitors accept cards, this may indicate to the merchant that his competitors find credit cards acceptance to be profitable. Hence, the merchant is motivated to match the competitors and is more likely to accept cards as well. The findings in their study show that the higher the percentage of competitors that accept credit cards in transactions as perceived by the merchant, the higher likelihood that the merchant is motivated to participate in the card payment schemes.

Data on perceived acceptance among the competitors is available from the surveys of Russian merchants. , Merchants were asked to self-assess the share of competitors in their market who accept cards. In case they exhibited problems with naming an exact number, they were provided a multiple choice type question with estimated ranges (less than a quarter, 25-50%, 50-75%, 75-100%). Based on the responses to these questions I generate a dummy variable, which takes value 1 if the merchant perceives that more than 50% of its competitors accept cards as a method of payments, and 0 if this share is less than 50%. The notion of competitors is not defined explicitly by an interviewer and was assessed by the merchant itself.

In order to test the mechanisms relating to the actual acceptance levels I use the average level of actual acceptance in the Region/Federal Region. Similar measure is provided in Bounie et al. (2014, 2016). They used the representative surveys on European (in 2016) and French (in 2014) merchants and individuals. Their studies are based on the following proxies for network externalities: the probability that the purchase in a merchant of particular type and transaction value is completed using cashless method and the average value of transactions in specific retail segment. However, these measures do not separate direct and indirect network effects. They are

also based on strict assumptions regarding cardholders' preferences on accepting merchants choice and include authors' calculations performed on proprietary ECB data (Bounie et al., 2014, 2016). Because the surveys on the individuals and merchants conducted in these studies were held in different years, the use of direct acceptance rate is impossible, which leads to no separation of the externalities' effects.

Since both surveys used in this study were conducted in the same time period, I am able to use the first best measure of the network externalities and calculate the average share of merchants that accept cashless payments in a particular region and federal region. Since the survey data is sampled in a way to represent federal regions, I use the latter measure for the main analysis and leave the regional measures for the robustness checks. The variable is calculated as a ratio of the number of accepting merchants in region or federal region to the total number of merchants sampled from this region. The problem of reverse causality is unlikely to arise in my analysis despite the fact that the average acceptance rate might be theoretically affected by the acceptance of each particular merchant in sample. There is enough variation at both regional and federal region level and one particular merchant and merchant location is unlikely to affect the aggregate outcomes at regional or federal region levels due to the size of the retail industry. There are at least 100 observations sampled per each of the 8 federal regions and each of the 21 Russian regions is represented by at least 25 merchants (most of the regions, however, include more than 30 merchants). Therefore, the acceptance fact by each particular merchant will not affect the average acceptance level in region or federal region. Besides, potential reverse causality issue is addressed by using the perceived share of acceptance among competition dummy variable outlined above in some of the regression specifications.

Indirect Network Externalities

Similarly to the case with the direct network externalities, the actual share of the individuals holding and using payment cards are calculated for each particular region and federal region in sample. Proxies similar to those in Bounie et al. (2014) were also used in Carbo-Valverde et al. (2013), however, their measures do not account for the separation of the direct and indirect externalities that are important for the two-sided nature of the retail payments market. There are four versions of the indirect network effects calculated for my study. The first two proxies are the average holding of cards at Regional and a Federal Region level. Although the holding of cards might reflect some of the mechanisms outlined in theoretical framework, other mechanisms relating to the size of the merchants benefits appear only when the individual uses a card. That is why, apart from the individuals' average holding of cards I also use the average usage of cards for cashless transactions at Regional and Federal Region levels. There are 8 federal regions and 21 regions used in individuals' survey. Due to high correlation between the holding and usage levels at the same level I use these proxies separately.

In order to compare the results with previous studies I also aggregate both network externalities in one variable. To do so I use the principal component analysis and predict the factor using the network externalities proxies based on their cross correlations. In most of the samples these are the (federal) regional usage of cards and (federal) regional acceptance levels.

Control variables

Following the existing literature, a number of control variables is included in order to account for other variables that possibly explain card acceptance by merchants. I follow Krivosheya and Korolev (2018), who use the same sample of merchants and estimate the probit model as the first stage in two-step Heckman selection model to analyze the determinants of merchants' benefits size. All of the merchant-level data is available from the survey data. All of the regional data is collected from official Russian statistics (Rosstat).

Firstly, it is important to account for the merchant's type. Loke (2007) has found the type of business is a significant determinant to explain the participation of merchant in card payment schemes. Historically, different merchant segments started accepting cards in different time periods (Arango & Taylor, 2008a; Hayashi, 2006; Jonkers, 2011). In order to account for these historical differences, I define six dummy variables for each type of

a shop: hypermarkets/supermarkets, specialized food stores, specialized non-food stores, stalls/kiosks/micro-retailers, pharmacies and minimarkets. The last one (minimarkets) is used as a reference category.

Secondly, the retail network affiliation may affect merchants' card acceptance. Retailers are more likely to accept cashless payments because they make a decision once at the middle management level rather than for each individual merchant location (Arango & Taylor, 2008b; Krivosheya & Korolev, 2018). In order to control for the retail networks I introduce a dummy variable, which takes the value of 1 if a retailer is a part of the retail chain and 0 otherwise.

Thirdly, the age of the merchant is accounted for. Loke (2007) and Arango & Taylor (2008a) explain that the card acceptance may take form of learning-by-doing and more experienced merchants may, firstly, expand enough to experience pressure from the consumers demanding cashless payments and, secondly, may realize the benefits of cashless payments acceptance. I introduce the merchant's age variable, which is measured in years, with minimum and maximum values being 0 and 54 years accordingly, the mean age of the sample is 7.20 years.

Fourthly, I account for the product assortment. Different product categories may affect acceptance probability because of the marketing ways of selling products (e.g., food and beverages require faster payment processing compared to other groups, especially durables, due to shorter product lifecycle). Following Bounie et al. (2016) I implement dummies for assortment groups adapted to the data set: shops selling food and beverages, durable goods and clothes, which take the value of 1 if a merchant sells these products in its store and zero otherwise.

Environment in which merchant operates may also affect the cashless payments acceptance probability. Following Krivosheya and Korolev (2018) and Bounie et al. (2016) I introduce the number of regional controls to account for the state of retail transactions, city size and other determinants of region that were found significant in previous studies.

Firstly, as locations in which merchants are presented are inhabited differently, the control for the population size should be applied. Larger cities are more likely to accept payment cards as convenience benefits of acceptance become larger(Arango & Taylor, 2008b; Bounie et al., 2016; Loke, 2007). I implement the four dummy variables for the city size: with population of over 1 million people, population between 500 thousands and 1 million, population between 500 and 100 thousands and population less than 100 thousands. The reference category is the cities with population between 500 and 100 thousands.

Secondly, regional centers status may also influence the probability of merchant's acceptance. The regional centers in Russia have different financing, subsidizing and tourism level, road networks, which are crucial to merchants in the sense of logistics and presented assortment, convenience of payments and quality of bank services (Chernikova et al., 2015; Chizhikova, 2013). Regional center is accounted for using the dummy variable, which takes value of 1 if the city is a regional center and 0 otherwise.

Thirdly, regional development was controlled for. I include the GRP per capita to account for the scale and efficiency of the regional economy in which the merchant is located. Larger regions have better banking quality and average transactions volume, which may induce merchants to accept cashless payments (C. Arango & Taylor, 2008b; Bounie et al., 2016; Hayashi, 2006). In order to normalize the value of GRP per capita I take natural logarithm of this value. To account for the state of retail sector development, the volume of retail trade per capita in the region was controlled for, also transformed using natural logarithm. Finally, to account for the volume of cashless payments market development and the average check, logarithm of cashless payments value is taken as control. Although these variables are used in the main analysis, I exclude these variables in a number of robustness checks to address potential multicollinearity issues. My main results stay unchanged regardless of inclusion of these variables.

Finally, in a number of robustness checks I also control for the shadow economy and economic crimes intensity, as Russia was included in top-5 countries with the greatest shadow economy level (about 33.7% of GDP according to IMF survey). Previous studies hypothesized that the grey activity in a sector may affect probability of cashless payments acceptance. On the one hand, merchants are more likely to refute transparency offered by

cashless payments (Malphrus, 2009). On the other hand, regional governments may stimulate cashless payments acceptance if tax evasion practices are widespread and region suffers from shadow economy segment (Chernikova et al., 2015; Chizhikova, 2013; Krivosheya et al., 2015). Two control variables were considered. The first one is the logarithm of the average size of additional fees resulting from checks, measured in thousand rubles. The second one is the logarithm of the number of economic crimes in region. Data is taken from Rosstat.

Estimation method

Previous literature used binary choice models (e.g. Loke, 2007; Bounie et al., 2015, 2017) to model the probability of merchant's card acceptance. I use a standard binary probit model as it allows measuring the strength of influence of the explanatory variables on the dependent variable and is appropriate for determining core factors that influence probability of card acceptance by merchants. This study follows Bounie, François, and van Hove (2016) and uses probit to estimate merchants' acceptance probability. Besides, probit model is undertaken following Krivosheya and Korolev (2018), who used the same dataset as in this study and used probit to estimate the selection equation before implementing a two-step Heckman section model. Probit and logit models provide similar results but the probit model might provide better estimation of probability at the expense of computational complexity. Unlike linear probability model, the resulting probability estimates do not exceed the range from 0 to 1. Also, probit allows for non-constant marginal effects across sample. Economic significance is analyzed using the marginal effects calculation at average values of independent variables. Robust standard errors are used in the analysis to control for potential problems with errors such as heteroscedasticity.

Descriptive statistics for the variables used in the analysis are provided in Table 1, outlining the minimum and maximum values, as well as standard deviations and mean values. Multicollinearity is one of the potential problems for the parametric regression because it leads to inconsistency of standard errors and hinders the power of regression. To account for it, correlation matrix, presented in Table 2, was analysed. Cross-correlations of the variables included in the analysis indicate that there are some signs of multicollinearity among the variables chosen for the models, but the exclusion and inclusion of the correlating variables and the series of the variables doesn't change the results of regression. Key variables, however, do not exhibit the signs of multicollinearity. I have decided to leave those variables that could potentially lead to multicollinearity, as all of them are theoretically important for the explanation of why merchants may or may not accept cards for payment and, therefore, mitigate omitted variable bias. Most of the specifications do not include highly correlated variables simultaneously.

Table 1a

	Mean	S.D.	Min	Max
Merchant accepts cards	0.51	0.50	0.00	1.00
Hypermarket, Supermarket	0.06	0.24	0.00	1.00
Specialized Food Store	0.05	0.21	0.00	1.00
Specialized non-food Store	0.14	0.34	0.00	1.00
Stalls, kiosks, micro-retailers	0.35	0.48	0.00	1.00
Pharmacy	0.07	0.26	0.00	1.00
Retail Network	0.25	0.43	0.00	1.00
Merchant's age	7.20	6.27	0.00	54.00
Food, Beverages	0.55	0.50	0.00	1.00

Durables	0.05	0.22	0.00	1.00
Clothes	0.11	0.32	0.00	1.00
More than 1 mln	0.38	0.48	0.00	1.00
From 500 thous. to 1 mln	0.15	0.36	0.00	1.00
Less than 100 thous	0.15	0.36	0.00	1.00
Regional Center	0.59	0.49	0.00	1.00
GRP per cap, log	5.77	0.49	5.04	7.17
Volume of cashless transactions per cap., log	-8.78	1.10	-10.54	-6.02
Volume of retail trade per cap. in region, log	5.10	0.24	4.57	5.63
More than 50% of competitors accept cards	0.31	0.46	0.00	1.00
Regional Average Acceptance Level	0.51	0.12	0.20	0.70
Federal Region Average Acceptance rate	0.51	0.07	0.39	0.63
Regional Average Usage of Cards	0.54	0.09	0.40	0.76
Regional Average Holding of Cards	0.71	0.11	0.42	0.88
Federal Region Average Usage of Cards	0.54	0.08	0.46	0.72
Federal Region Average Holding of Cards	0.72	0.09	0.49	0.79
PCA of Regional Network Effects	0.00	1.19	-2.57	2.82
PCA of Federal Region Network Effects	-0.00	1.33	-1.96	2.86

	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	-21	-22	-23	-24	-25	-26
-1 Merchant accepts cards	1.00																									
-2 Hypermarket, Supermarket	0.21	1.00																								
-3 Specialized Food Store	-0.06	-0.06	1.00																							
-4 Specialized non-food Store	0.10	-0.10	-0.09	1.00																						
-5 Stalls, kiosks, micro-retailers	-0.27	-0.19	-0.17	-0.29	1.00																					
-6 Pharmacy	0.12	-0.07	-0.06	-0.11	-0.21	1.00																				
-7 Retail Network	0.33	0.38	-0.04	0.06	-0.14	0.15	1.00																			
-8 Merchant's age	0.03	-0.01	0.02	0.01	-0.09	0.07	0.07	1.00																		
-9 Food, Beverages	-0.07	0.13	0.17	-0.41	-0.14	-0.24	-0.08	0.02	1.00																	
-10 Durables	0.11	0.08	-0.05	0.17	-0.01	-0.06	0.09	0.09	-0.19	1.00																
-11 Clothes	0.04	0.13	-0.08	0.13	0.03	-0.07	0.03	-0.05	-0.23	0.06	1.00															
-12 More than 1 mln	0.05	0.00	-0.02	0.13	-0.06	-0.00	0.06	0.02	-0.04	-0.05	0.00	1.00														
-13 From 500 thous. to 1 mln	0.04	-0.02	-0.05	-0.03	0.05	0.06	-0.01	0.02	-0.13	0.14	0.08	-0.32	1.00													
-14 Less than 100 thous	-0.10	-0.01	-0.03	-0.06	0.04	-0.03	0.04	-0.00	-0.03	0.04	-0.00	-0.05	-0.33	-0.18	1.00											
-15 Regional Center	0.06	0.01	0.07	0.12	-0.07	0.03	0.08	0.01	-0.07	0.01	0.06	0.64	0.12	-0.51	1.00											
-16 GRP per cap, log	0.07	-0.02	-0.08	0.12	-0.05	-0.00	0.02	-0.13	-0.15	0.03	0.00	0.24	0.07	-0.02	0.09	1.00										
-17 Volume of cashless transactions per cap., log	-0.05	-0.05	-0.11	-0.05	0.02	-0.04	-0.06	-0.06	0.02	0.01	-0.07	-0.47	-0.15	0.62	-0.81	0.27	1.00									
-18 Volume of retail trade per cap. in region, log	0.06	-0.03	-0.11	0.11	-0.06	-0.01	-0.00	0.09	-0.10	-0.01	0.00	0.47	-0.08	-0.11	0.12	0.73	0.23	1.00								
-19 More than 50% of competitors accept cards	0.40	0.24	-0.08	0.10	-0.20	0.11	0.28	0.02	-0.01	0.06	0.01	0.08	-0.01	-0.04	0.09	-0.00	-0.05	-0.02	1.00							
-20 Regional Average Acceptance Level	0.24	-0.03	-0.11	0.01	-0.03	-0.01	0.05	0.03	-0.03	-0.02	0.02	0.09	0.02	-0.13	0.03	0.28	0.06	0.26	0.18	1.00						
-21 Federal Region Average Acceptance rate	0.14	-0.02	-0.04	-0.02	-0.03	0.01	0.03	-0.03	-0.03	0.02	-0.04	-0.02	0.05	-0.03	-0.02	0.32	0.12	0.08	0.11	0.59	1.00					
-22 Regional Average Usage of Cards	0.08	0.00	0.00	0.07	-0.06	-0.01	0.06	0.12	0.03	-0.03	-0.03	0.20	-0.27	-0.04	0.08	-0.04	-0.03	0.14	0.12	0.40	0.60	1.00				
-23 Regional Average Holding of Cards	0.09	-0.01	0.05	0.12	-0.10	-0.03	0.09	0.09	0.03	-0.05	-0.01	0.32	-0.33	-0.00	0.22	-0.09	-0.16	-0.02	0.17	0.41	0.54	0.62	1.00			
-24 Federal Region Average Usage of Cards	0.11	0.00	-0.04	0.03	-0.03	0.00	-0.01	-0.08	-0.02	-0.01	-0.03	0.06	-0.08	0.00	-0.01	0.43	0.17	0.24	0.10	0.45	0.77	0.74	0.31	1.00		
-25 Federal Region Average Holding of Cards	0.11	0.01	0.01	0.13	-0.10	-0.01	0.07	-0.06	-0.04	0.01	-0.01	0.12	-0.09	0.07	0.12	0.34	0.01	0.01	0.13	0.46	0.78	0.48	0.77	0.57	1.00	
-26 PCA of Regional Network Effects	0.17	0.00	-0.01	0.03	-0.05	-0.01	0.07	0.07	0.00	-0.04	-0.01	0.13	-0.18	-0.01	0.04	0.18	0.02	0.22	0.15	0.84	0.76	0.84	0.62	0.77	0.66	1.00
-27 PCA of Federal Region Network Effects	0.13	-0.01	-0.04	0.01	-0.03	0.01	0.01	-0.06	-0.02	0.01	-0.04	0.02	-0.02	-0.01	-0.02	0.40	0.15	0.17	0.11	0.55	0.94	0.71	0.44	0.94	0.72	0.81

Results

Unilateral tests

At first, statistical tests are performed to examine the relationship between the probability of acceptance and the explanatory variables. Although simple correlation coefficient might provide the misleading results in case of a binary variable, some insights are unveiled by looking at the correlation between the probability of merchant's card acceptance and the perception of the merchant about competitors acceptance. It is positive (0.40) and statistically significant at any reasonable significance level. The correlation between the probability of card acceptance and average acceptance level is also positive (0.24 for the Regional level and 0.14 for the Federal Region level) and statistically significant at any reasonable significance level. Therefore, there is some correlation between my key explanatory variables proxying the network effects and the fact that merchant accepts payment cards.

To test it more formally, I conduct the comparison of means test using the sub- samples of accepting and non-accepting merchants. First, I compare the means of the perceived share of competitors accepting payment cards. The corresponding t-statistic for the comparison of means test is -12.57, which means that the perceived share of competitors accepting payment cards is larger across the accepting merchants. Similar is also true for the other variables proxying the direct network effects. T-statistic for the equality of means of the actual (federal) regional average acceptance rate is -7.01 (-4.02). Hence, direct network effects variables are indeed larger for the sub-sample of accepting merchants, which supports the hypothesis H1.

In order to pre-test the hypothesis H2 I conduct similar equality of means test using the indirect network externalities measures. Simple correlation between the probability of card acceptance and average card holding is positive (0.09 for the Regional level and 0.11 for the Federal Region level) and statistically significant at any reasonable significance level. T-statistic for the equality of means test of the average cardholding rate variables is - 2.21 (-3.13) at (federal) regional level. The correlation coefficient between the probability of card acceptance and average card usage is also positive (0.08 for the Regional level and 0.11 for the Federal Region level) and statistically significant at any reasonable significance level. T-statistics for the equality of means across the sub-samples are respectively -2.17 and -3.1 at the regional and federal region levels for the usage variables.

These results are in line with the mechanisms developed in the theoretical framework section and support hypothesis H2. However, to test these hypotheses properly I conduct the multilateral tests set-up in the previous section.

Multilateral tests

In order to answer my main research question I estimate the card acceptance probability model using the probit estimation method as outlined in the empirical set-up. I first test the effect of the direct network externalities in order to test hypothesis H1. The results are presented in Table 3.

At first, I introduce a model without the inclusion of any network externalities. Model (1) presents the results of the regression estimation for this baseline model, which reveals the relationship between the probability of card acceptance by the merchant and control variables. The explanatory power of the model can be measured by the pseudo-R- squared, which is equal to 11.8%. It is similar to that found in the literature (e.g., Arango & Taylor, 2008a; Bounie et al., 2016; Carbó-Valverde et al., 2012; Krivosheya & Korolev, 2018). Among the significant controls found in the regression model, shop type affects probability of card acceptance: supermarkets are more likely to accept cards, whereas stalls, kiosks and micro-retailers are overall less likely to accept them. Retail network affiliation also positively influences the probability of card acceptance, which can altogether be explained by the economies of scale, higher patency of buyers and reputational issues. Overall, all of the controls are in line with the previous literature and are of expected sign (e.g., the significance of controls coincides with Krivosheya & Korolev (2018)). Since the controls have expected influence I can proceed with tests for my key hypotheses and use the sample in order to extend findings from existing literature.

Table 3

VARIABLES	(1) Baseline Model	(2) Direct NE: Share of competitors	(3) Direct NE: Share of competitors with economic crimes	(4) Direct NE: Regional Acceptance	(5) Direct NE: Federal Region Acceptance	(6) Direct NE: Federal Region Acceptance with economic crimes
NETWORK EFFECTS						
More than 50% of competitors accept cards		0.962*** (0.123)	0.959*** (0.123)			
Regional Average Acceptance Level				3.361*** (0.499)		
Federal Region Average Acceptance rate					2.681*** (0.766)	2.322** (0.908)
Regional Average Holding of Cards						
Regional Average Usage of Cards						

Federal Region Average Holding of Cards						
Federal Region Average Usage of Cards						
PCA of Regional Network Effects						
PCA of Federal Region Network Effects						
SHOP TYPE						
Hypermarket, Supermarket	0.651**	0.295	0.305	0.893***	0.702**	0.694**
	(0.307)	(0.344)	(0.352)	(0.345)	(0.313)	(0.313)
Specialized Food Store	-0.415*	-0.291	-0.312	-0.243	-0.384	-0.397
	(0.240)	(0.247)	(0.251)	(0.244)	(0.243)	(0.244)
Specialized non-food Store	-0.109	-0.208	-0.200	-0.0673	-0.0805	-0.0801
	(0.186)	(0.194)	(0.194)	(0.192)	(0.188)	(0.188)
Stalls, kiosks, micro-retailers	-0.687***	-0.628***	-0.655***	-0.690***	-0.674***	-0.685***
	(0.124)	(0.126)	(0.126)	(0.129)	(0.125)	(0.126)
Pharmacy	0.136	0.00576	-0.00826	0.284	0.176	0.165
	(0.229)	(0.236)	(0.235)	(0.233)	(0.229)	(0.229)
MERCHANT'S CHARACTERISTICS						
Retail Network	0.827***	0.730***	0.752***	0.801***	0.817***	0.828***
	(0.130)	(0.137)	(0.138)	(0.131)	(0.131)	(0.133)
Merchant's age	-0.00577	-0.00637	-0.00730	-0.0100	-0.00627	-0.00650
	(0.00880)	(0.00954)	(0.00952)	(0.00909)	(0.00889)	(0.00889)
PRODUCT ASSORTMENT						
Food, Beverages	-0.136	-0.152	-0.154	-0.140	-0.130	-0.132
	(0.131)	(0.133)	(0.133)	(0.137)	(0.133)	(0.132)
Durables	0.523**	0.583**	0.590**	0.614**	0.521**	0.523**
	(0.254)	(0.280)	(0.282)	(0.278)	(0.260)	(0.259)
Clothes	0.0717	0.141	0.169	0.0733	0.0909	0.0976
	(0.178)	(0.187)	(0.188)	(0.183)	(0.181)	(0.182)
CITY SIZE						
More than 1 mln	0.140	0.00156	0.153	0.246	0.112	0.175
	(0.204)	(0.222)	(0.233)	(0.214)	(0.206)	(0.224)
From 500 thous. to 1 mln	0.0611	0.0102	0.190	0.148	0.0609	0.130
	(0.175)	(0.188)	(0.203)	(0.185)	(0.178)	(0.199)
Less than 100 thous.	-0.348*	-0.297	-0.302	-0.289	-0.271	-0.289

	(0.207)	(0.211)	(0.218)	(0.213)	(0.210)	(0.216)
Regional Center	-0.163	-0.287	-0.243	-0.0838	-0.145	-0.129
	(0.222)	(0.233)	(0.235)	(0.227)	(0.227)	(0.228)
REGIONAL CHARACTERISTICS						
GRP per cap, log	0.0855	0.112	0.171	-0.132	-0.136	-0.0731
	(0.164)	(0.171)	(0.198)	(0.174)	(0.177)	(0.207)
Volume of cashless transactions per cap., log	-0.0298	-0.133	-0.0503	0.0337	-0.0539	-0.0156
	(0.125)	(0.133)	(0.144)	(0.131)	(0.127)	(0.141)
Volume of retail trade per cap. in region, log	0.0434	0.397	2.11e-05	-0.101	0.397	0.154
	(0.391)	(0.414)	(0.615)	(0.397)	(0.410)	(0.629)
Average size of additional fees resulting from checks (thous. RUR), log			0.101			0.0504
			(0.126)			(0.122)
Number of economic crimes in region, log			0.378**			0.130
			(0.187)			(0.214)
Constant	-0.733	-3.705	-3.384	-0.0222	-2.860	-2.231
	(2.526)	(2.702)	(3.394)	(2.580)	(2.634)	(3.342)
Observations	785	785	785	785	785	785
Pseudo R2	0.118	0.185	0.190	0.163	0.129	0.130

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In model (2) I extend the baseline model by adding the direct network externalities variable, measured by the merchant's perception of competitors' cashless payments acceptance level. Controlling for the shop type, merchant characteristics, product assortment, city size and regional characteristics, the merchant's perception of competitors acceptance is positively and significantly ($p < 0.01$) associated with the probability of merchant's card acceptance. Higher level of acceptance rate among the competitors perceived by merchant increases the likeliness that the merchant will start accepting cards as a method of payments (everything else being equal). The result is robust to the addition of economic crimes controls, as can be seen from model (3). From the economic point of view, if a merchant perceives that more than half of the competitors accept payment cards, the probability of merchants' acceptance increases by 35.97 percentage points (compared to the situation when less than 50% are expected to accept payment cards).

Models (4) and (5) extend these results using the alternative measures for the direct network externalities, i.e. average acceptance level for the region and federal region accordingly. Both Models (4) and (5) show that higher average acceptance level leads to higher probability of card acceptance by a merchant on both regional and federal region levels. The variables are significant at 1% significance level. From the economic point of view, one standard deviation increase in the federal region average acceptance rate increases the probability of card acceptance by 7.4 percentage points. Model (6) also controls for the economic crimes. Federal Region average acceptance remains significant.. The variable positively and significantly affects the probability of cards acceptance, though now at 5% level, possibly, because of the potential multicollinearity between shadow economy variables. When all of the regional level controls are excluded in the unreported robustness checks, the results of all the direct externalities variables remain significant and of the same sign.

Overall, models (2) – (6) test the H1 hypothesis of the presence of direct network externalities on Russian retail payments market. All of the listed above models confirm positive and significant effect of the direct network externalities. This result is also robust to changes in the composition of controls and changes in the explanatory variable estimation method. Mechanisms outlined in the theoretical framework persist on Russian market despite the role of the shadow economy and the habits of using cash. Hence, net benefits of each particular merchant increase as a result of increased activity of other merchants and, thus, lead to higher probability of cashless payments acceptance.

Table 4

VARIABLES	(7) Indirect NE: Regional Holding	(8) Indirect NE: Regional Usage	(9) Indirect NE: Federal Regional Holding	(10) Indirect NE: Federal Regional Usage	(11) Indirect NE: Federal Regional Usage with economic crimes
NETWORK EFFECTS					
More than 50% of competitors accept cards					
Regional Average Acceptance Level					
Federal Region Average Acceptance rate					
Regional Average Holding of Cards	1.167** (0.547)				
Regional Average Usage of Cards		1.455** (0.614)			
Federal Region Average Holding of Cards			1.556** (0.631)		
Federal Region Average Usage of Cards				2.207*** (0.697)	1.758** (0.792)
PCA of Regional Network Effects					
PCA of Federal Region Network Effects					
SHOP TYPE					
Hypermarket, Supermarket	0.597 (0.370)	0.583 (0.371)	0.677** (0.308)	0.652** (0.307)	0.649** (0.308)

Specialized Food Store	-0.272 (0.307)	-0.244 (0.306)	-0.416* (0.241)	-0.398* (0.241)	-0.415* (0.242)
Specialized non-food Store	-0.112 (0.205)	-0.110 (0.205)	-0.131 (0.187)	-0.115 (0.186)	-0.108 (0.186)
Stalls, kiosks, micro-retailers	-0.697*** (0.138)	-0.704*** (0.138)	-0.668*** (0.124)	-0.691*** (0.124)	-0.706*** (0.125)
Pharmacy	0.153 (0.252)	0.154 (0.256)	0.162 (0.227)	0.140 (0.229)	0.130 (0.229)
MERCHANT'S CHARACTERISTICS					
Retail Network	0.884*** (0.144)	0.886*** (0.145)	0.814*** (0.131)	0.838*** (0.131)	0.850*** (0.133)
Merchant's age	-0.0192** (0.00973)	-0.0200** (0.00962)	-0.00555 (0.00887)	-0.00543 (0.00869)	-0.00608 (0.00871)
PRODUCT ASSORTMENT					
Food, Beverages	-0.130 (0.148)	-0.139 (0.149)	-0.135 (0.132)	-0.143 (0.132)	-0.145 (0.132)
Durables	0.858*** (0.284)	0.850*** (0.283)	0.522** (0.259)	0.531** (0.257)	0.531** (0.257)
Clothes	-0.0221 (0.202)	-0.00567 (0.202)	0.0691 (0.179)	0.0876 (0.180)	0.102 (0.182)
CITY SIZE					
More than 1 mln	0.371 (0.520)	0.377 (0.515)	0.0789 (0.207)	0.159 (0.206)	0.249 (0.220)
From 500 thous. to 1 mln	0.349 (0.417)	0.289 (0.402)	0.102 (0.178)	0.136 (0.178)	0.231 (0.194)
Less than 100 thous.	-0.232 (0.268)	-0.151 (0.269)	-0.374* (0.208)	-0.289 (0.209)	-0.305 (0.215)
Regional Center	-0.573* (0.315)	-0.547* (0.305)	-0.188 (0.227)	-0.182 (0.224)	-0.153 (0.227)
REGIONAL CHARACTERISTICS					
GRP per cap, log	0.269 (0.201)	0.333 (0.204)	-0.123 (0.186)	-0.111 (0.175)	-0.0299 (0.203)
Volume of cashless transactions per cap., log	-0.122 (0.203)	-0.147 (0.202)	-0.0383 (0.126)	-0.0502 (0.126)	0.00494 (0.140)
Volume of retail trade per cap. in region, log	-0.0138 (0.474)	-0.249 (0.481)	0.434 (0.424)	0.210 (0.400)	-0.0833 (0.611)
Average size of additional fees resulting from checks (thous. RUR), log					0.0654 (0.122)

Number of economic crimes in region, log					0.228
					(0.204)
Constant	-3.016	-2.351	-2.686	-1.830	-1.346
	(3.414)	(3.417)	(2.661)	(2.583)	(3.301)
Observations	642	642	785	785	785
Pseudo R2	0.133	0.134	0.123	0.126	0.128

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In order to test hypothesis H2 I proceed with testing the effect of indirect network externalities separately from the analysis outlined above. The corresponding models are presented in Table 4. Firstly, I analyze regional level indirect network effects and then proceed to the federal region level ones. Baseline model is the same as the one used in table 3. Model (7) reveals that the regional average level of cardholding positively and significantly ($p < 0.05$) affects the probability of cashless payments acceptance by a merchant.

Although cardholding does affect some of the mechanisms explained in the theoretical framework, card usage is observable by merchants and lead to higher convenience benefits (e.g., Krivosheya & Korolev, 2018). Hence, I add the regional level card usage variable in order to address the robustness of results. Model (8) presents the results. Regional average usage of cards positively and significantly correlates ($p < 0.05$) to the probability of card acceptance by a merchant.

Similarly, models (9) and (10) measure indirect network externalities effect at the Federal Regions. Although there is enough variation at the regional level, the sample was constructed in a way to represent federal regions and, thus, results using federal regions may provide better effect estimates despite some loss of variation in the explanatory variable. Model (9) exploits average holding variable and shows that it positively and significantly affects ($p < 0.05$) the probability of card acceptance by a merchant. In Model (10) I undertake the average usage approach and find that Federal Region average usage of cards positively and significantly affects (at 1% significance level) probability of card acceptance by a merchant. Economic significance of the result is also calculated using the marginal effects at average values of all of the variables. One standard deviation increase in average federal region usage rate of payment cards increases merchant acceptance probability by 7.04 percentage points.

Finally, I also control for the economic crimes in Model (11). The results are robust to the inclusion of these additional controls for the average size of additional fees resulting from checks and number of economic crimes in region. Besides, when all regional variables are excluded from the model to mitigate potential multicollinearity problem, the effect of indirect network externalities stays unchanged. This further highlights the robustness of the regression results.

Models (7) – (11) outlined above test the H2 hypothesis of the presence of indirect network externalities on Russian retail payments market. All of the listed models confirm the positive and significant effect of the indirect network externalities. Hence, individuals' activity at retail payments market indeed affects the net benefits of the retailers, which in turn increases the probability to accept cashless payments.

Table 5

VARIABLES	(12) Direct + Idirect NE	(13) Direct + Idirect NE	(14) Direct + Idirect NE: Regional level separated	(15) Direct + Idirect NE: Federal Region leve separated	(16) Direct + Idirect NE: Regional level component	(17) Direct + Idirect NE: Federal Region level component	(18) Direct + Idirect NE: Federal Region level component with economic crimes
NETWORK EFFECTS							
More than 50% of competitors accept cards	1.056***	0.938***					
	(0.141)	(0.124)					
Regional Average Acceptance Level			3.701***				
			(0.768)				
Federal Region Average Acceptance rate				2.063*			
				(1.198)			
Regional Average Holding of Cards							
Regional Average Usage of Cards	0.992		-0.405				
	(0.641)		(0.742)				
Federal Region Average Holding of Cards							
Federal Region Average Usage of Cards		1.681**		0.780			
		(0.711)		(1.096)			
PCA of Regional Network Effects					0.222***		
					(0.0478)		
PCA of Federal Region Network Effects						0.146***	0.126***
						(0.0406)	(0.0482)
SHOP TYPE							
Hypermarket, Supermarket	0.116	0.297	0.693*	0.690**	0.635*	0.679**	0.674**

	(0.417)	(0.343)	(0.395)	(0.312)	(0.379)	(0.310)	(0.310)
Specialized Food Store	-0.107	-0.282	-0.159	-0.385	-0.199	-0.387	-0.401*
	(0.325)	(0.247)	(0.302)	(0.243)	(0.304)	(0.242)	(0.243)
Specialized non-food Store	-0.216	-0.214	0.00990	-0.0894	-0.0741	-0.0973	-0.0945
	(0.212)	(0.193)	(0.209)	(0.188)	(0.207)	(0.188)	(0.187)
Stalls, kiosks, micro-retailers	-0.633***	-0.633***	-0.694***	-0.679***	-0.698***	-0.683***	-0.693***
	(0.138)	(0.127)	(0.141)	(0.125)	(0.139)	(0.125)	(0.125)
Pharmacy	-0.0954	0.00662	0.239	0.169	0.212	0.161	0.151
	(0.264)	(0.235)	(0.256)	(0.229)	(0.254)	(0.229)	(0.229)
MERCHANT'S CHARACTERISTICS							
Retail Network	0.819***	0.739***	0.886***	0.824***	0.872***	0.829***	0.838***
	(0.151)	(0.137)	(0.145)	(0.132)	(0.146)	(0.131)	(0.133)
Merchant's age	-0.0223**	-0.00604	-0.0232**	-0.00603	-0.0228**	-0.00583	-0.00614
	(0.0108)	(0.00946)	(0.00993)	(0.00883)	(0.00971)	(0.00879)	(0.00880)
PRODUCT ASSORTMENT							
Food, Beverages	-0.159	-0.153	-0.104	-0.133	-0.125	-0.136	-0.138
	(0.150)	(0.134)	(0.151)	(0.132)	(0.150)	(0.132)	(0.132)
Durables	0.915***	0.598**	0.962***	0.525**	0.907***	0.527**	0.528**
	(0.327)	(0.282)	(0.287)	(0.259)	(0.287)	(0.259)	(0.258)
Clothes	0.0476	0.153	0.00718	0.0920	-0.00188	0.0917	0.0986
	(0.207)	(0.187)	(0.204)	(0.181)	(0.204)	(0.181)	(0.182)
CITY SIZE							
More than 1 mln	-0.258	0.0249	0.670	0.125	0.594	0.137	0.200
	(0.542)	(0.223)	(0.523)	(0.207)	(0.523)	(0.206)	(0.223)
From 500 thous. to 1 mln	-0.147	0.0682	0.467	0.0873	0.479	0.106	0.172
	(0.424)	(0.189)	(0.408)	(0.181)	(0.407)	(0.177)	(0.196)
Less than 100 thous.	0.0664	-0.253	-0.504*	-0.268	-0.280	-0.270	-0.289
	(0.286)	(0.212)	(0.286)	(0.210)	(0.270)	(0.210)	(0.216)
Regional Center	-0.488	-0.300	-0.221	-0.156	-0.482	-0.165	-0.146
	(0.327)	(0.233)	(0.320)	(0.227)	(0.305)	(0.225)	(0.228)
REGIONAL CHARACTERISTICS							
GRP per cap, log	0.401*	-0.0411	-0.221	-0.155	0.151	-0.155	-0.0881
	(0.216)	(0.180)	(0.242)	(0.178)	(0.203)	(0.178)	(0.208)
Volume of cashless transactions per cap., log	-0.408*	-0.146	0.172	-0.0556	-0.00710	-0.0554	-0.0152
	(0.216)	(0.133)	(0.214)	(0.127)	(0.205)	(0.127)	(0.141)

Volume of retail trade per cap. in region, log	0.318	0.518	-0.112	0.374	-0.326	0.338	0.0931
	(0.512)	(0.417)	(0.489)	(0.414)	(0.483)	(0.407)	(0.625)
Average size of additional fees resulting from checks (thous. RUR), log							0.0527
							(0.122)
Number of economic crimes in region, log							0.137
							(0.214)
Constant	-7.610**	-4.475*	1.672	-2.757	0.951	-1.096	-0.685
	(3.654)	(2.717)	(3.528)	(2.645)	(3.481)	(2.552)	(3.291)
Observations	642	785	642	785	642	785	785
Pseudo R2	0.208	0.189	0.163	0.130	0.150	0.129	0.130

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

After analyzing the direct and indirect network externalities separately, I include both of the explanatory variables simultaneously to measure the total effect of the network externalities on the probability of merchant's card acceptance. Table 5 reveals the outcomes of this analysis.

In model (12) direct externalities are measured by the merchant's perceptions about his competitors' acceptance share, while indirect externalities are presented in the form of regional average usage of cards. The effect of direct network externalities remains to be significant (p < 0.01) and positively affect the dependent variable, while indirect externalities become insignificant at any reasonable significance level. When I use the federal Region average usage of cards instead of regional one in model (13), the indirect network externalities once again become significant at 5% significance level and positively affect the probability of card acceptance by the merchant. Model (13) leaves the direct network externalities measure as in the previous model changing only the measure of the indirect externalities. Direct externalities effect remains positive and significant (p < 0.01). Such a result can be explained by the sample specificity, as it is representative for federal regions rather than lower level regions. The effect of control variables remains the same as in baseline model.

In further models I change the variable proxying the direct network externalities and use the actual acceptance level instead of perceived one. First, I investigate the total network externalities effect on regional and federal region levels separately. The explanatory variables in Model (14) are: regional average acceptance level for direct externalities and regional average usage of cards for indirect externalities. Once again, the direct externalities turn out to be significant at 1% significance level, while the indirect externalities are not significant at any reasonable significance level. Similarly, the indirect network effects are insignificant in model (15) when I use the same explanatory variables at federal region level. This can be explained by the problem of multicollinearity (correlation between these variables are, respectively, 50% and 77%). Multicollinearity can be resolved by introducing the principal component analysis (PCA), which was outlined in empirical set-up. The PCA used in this study includes just two variables: usage and holding rates at regional and federal region levels. The respective components are, then, constructed. Besides, the aggregated component will allow examining the aggregate effect of network externalities, which was partially investigated in previous literature in the context of

other geographic markets. Further Models (16) – (18) use PCA of Region/Federal Region network effects as explanatory variables.

Model (16) exploits one common explanatory variable to reveal the total network effects – PCA of region network effects. Leaving the control variables unchanged, the model shows that network effects positively and significantly ($p < 0.01$) affect the probability of card acceptance by merchants. In Model (17) I use PCA of Federal Region network effects instead, which gives similar results to the regional level PCA. To check for the robustness of the results I also add controls for the economic crimes into the later specification in Model (18). The results have not changed after the introduction of the two controls for shadow economy.

As a result, when I test the H1 and H2 together I find that the indirect externalities can appear insignificant in some frameworks. The problem that leads to such an outcome is the presence of multicollinearity. When I overcome this econometric issue by introducing of the results of the principal component analysis, the result becomes positive and significant at 1% significance level. These findings are in line with previous studies (Loke, 2007; Bounie et al., 2016) as well as with the theoretical mechanisms outlined in this study.

Overall, models (2) – (11) show support for the mechanisms identified in the theoretical framework. Hypotheses H1 and H2 of the presence of direct and indirect network externalities respectively cannot be rejected. The presence of only direct, only indirect or both network externalities at the same time positively and significantly affects the probability of card acceptance as a method of payments by any particular merchant. The results are robust to the changes in control variables.

Marginal Effects

However, it should be understood that coefficients obtained in the probit model show only the sign of the effect, but not the strength of the influence on the dependent variable. In order to investigate the magnitude of the network effects I additionally calculate the marginal effects for the last three specifications presented in the previous sub- section.

Network externalities have strong significance in economic sense as well. The results of the marginal effects analysis at the average values of independent variables for the last three models are presented in Table 6. One standard deviation increase in component of the regional network effects leads to a 10.50 percentage point increase in the probability of cards acceptance by a merchant. Similarly, one standard deviation increase in PCA of Federal Region Network effects leads to a 7.74 percentage point increase in the probability of cards acceptance by a merchant. When economic crimes are controlled for, the magnitude of the effect becomes smaller: one standard deviation increase in the factor reflecting average federal region usage rate leads to 6.7 percentage point increase in the probability of cashless payments acceptance by a merchant.

Overall, approximately 11.6% of the probability of card acceptance is explained by the network externalities effect. Thus, there are 88.4% remaining that are attributed to the social-demographic profile of the merchants, regional characteristics and other factors that may be directly affected by the CB and other market players via the obligatory changes in fee levels, acceptance subsidies, mandatory acceptance policies, taxes regulations and other stimulating mechanisms (e.g., Krivosheya et al. (2015) provides the list of stimulating measures for cashless economy development).The above analysis of the marginal effects confirms the economic significance of the network externalities. H1 and H2 cannot be rejected, as the results are not only statistically, but also economically significant.

Conclusion

This research examines the role of network externalities in card acceptance by merchants on the retail payments market in Russia. The main finding of this study is that the probability of cards acceptance by merchants increases with the presence of direct and indirect or both types of network externalities, controlling for a large set of control variables, including merchants' characteristics and other location-specific differences between retailers. The results are robust to the changes in measure of network externality. The effect persists when regional level explanatory variables are used instead of the federal region ones and after the introduction of controls for economic crimes. The findings are significant both statistically and economically. From the practical point of view, understanding the magnitude of influence of the network externalities might explain the extent to which the government, commercial banks, payment systems and other market participants can influence the probability of card acceptance by merchants.

The article contributes to the small but rising literature on the determinants of card acceptance demand by merchants (C. Arango & Taylor, 2008a; Bounie et al., 2016; Carbó- Valverde et al., 2012; Hayashi, 2006; Krivosheya & Korolev, 2018; Loke, 2007; Rochet & Tirole, 2011). The role of the network externalities have been established in the theoretical studies and have often been hypothesized to influence the cashless payments usage and acceptance, but there is a lack of empirical studies evaluating the magnitude of the network effects at the retail payments market. Moreover, to the best of my knowledge, none of the studies separate between the direct and indirect the network effects. Also, there is a lack of empirical studies regarding cashless payments acceptance on Russian market, where the role of cash has historically been high and the end-users behavior habits are yet forming. This article fills these gaps by providing the empirical analysis based on the survey of 800 traditional (offline) merchants from all Russian regions, and shows estimates of the effect of both direct and indirect network externalities for the merchants' card acceptance probability at Russian retail payments market.
This research complements recent empirical studies by Bounie et al. (2016) and Arango-Arango et al. (2018), which focuses on the role of network externalities at the retail payments market. The former study focuses on the merchant side of the retail payments card market and explains the card acceptance probability in France. Previous studies, however, could not efficiently separate the effect of direct network externalities from the indirect ones due to data limitations (Bounie et al. (2016) have different time periods for individuals and merchants samples). Apart from other gaps, this study fills this gap by investigating the indirect network externalities and the total network effect alongside the direct network effects in the context of Russian market. I also implement more control variables to avoid the potential omitted variable bias following the set of control variables established by Krivosheya and Korolev (2018) for the Russian retail payments market that arise not only from merchant but also from the geographical and economic specificities.

For each type of the network externalities I show evidence for both regional and federal region level proxies. Empirically, all of the introduced explanatory variables appear to be statistically significant, thus, increasing the probability of cards acceptance by merchants. Due to the fact that (federal) regional usage and acceptance levels might correlate I also introduce the principal component of different network effects variables to analyze the aggregate effect of both network externalities on the card acceptance probability. The PCA variables for the total network effects provide the same results at both Regional and Federal Region levels in Russia. These results are in line with the findings of previous literature that investigated the aggregate network effects influence on card acceptance probability at the developed retail payments markets (Bounie et al., 2016; Carbó-Valverde et al., 2012).

All of the results are robust to changes in measures and are also economically significant. One standard deviation increase in average federal region card acceptance increases the probability of acceptance by each particular merchant by 7.4 percentage points. Indirect externalities have similar effect: a standard deviation increase in average federal region usage rate of payment cards increases merchant acceptance probability by 7.04 percentage points. Combined, one standard deviation increase in the PCA factor reflecting both network externalities at the federal region level increases the merchant acceptance probability by 7.74 percentage points. In comparison,

additional year of operations contribute to less than 1 percentage point increase in merchant acceptance probability.

From the practical point of view the results of this analysis unveil the extent to which different stimulating measures can affect merchants' card acceptance probability. Network externalities can be perceived as a multiplier for the policies that are aimed at the retail payments market stimulation. The magnitude of the effect of the network externalities reflects the degree towards which an increase in payment activity of cardholders and other merchants influences the acceptance rates by merchants. Hence, any stimulating measure is able to influence the payments market in two ways: directly influencing the acceptance or usage of payment services and indirectly influencing the merchant acceptance via the network externalities. The effect of network externalities cannot be changed immediately by any existing stimulating measures. Therefore, the magnitude of the effect of the network externalities shows the share of the merchants' demand that cannot be altered by any financial market policies implemented by market participants such as the commercial banks, payment systems and central banks.

As any other analysis, this study has certain limitations that can be used to set up the directions for further research. First of all, the sample used in this study does not account for the online merchants. Online retailing market increased actively during the past decades both in Russia and in the world. Merchants have more incentives to accept cards as a method of payments in digital space because online markets have specific nature of competition, which is not dependent on the merchant's physical location, and which is usually more intense compared to offline retail (Au & Kauffman, 2008; Krivosheya & Korolev, 2018). It can, thus, be expected that the effect of the direct network externalities will intensify due to the increased competition. Besides, the increasing stimulating measures by bank-issuers, such as cash-back and discounts incentivize consumers to prefer online card payment rather than cash-on-delivery. Thereby, the inclusion of online- merchants may as well intensify the indirect network effects. Secondly, the sample used includes the data on 2013-2014 period only. Although the correlations between the network effects and the acceptance probability are unlikely to change, it would be interesting to see how the effects of new regulation and technologies have altered the degree of influence of network externalities in Russia. Finally, global retail payments markets can be added to the analysis to assess the differences in the extent to which network externalities affect developed, developing and underdeveloped countries. Besides, international comparison allows including more insights on the cross-border payments, which may unveil different mechanisms behind network effects because of lower degree of communication between foreign merchants and individuals.

References

Национальное агентство финансовых исследований (НАФИ) (2014), Барьеры — в голове. Российская Бизнес-газета - No951 (22) [Online].

Национальное агентство финансовых исследований (НАФИ) (2017), Доверие банкам, страховым компаниям и НПФ заметно снизилось. Аналитика от 8 сентября 2017. [Online].

Центральный Банк Российской Федерации (2014), Платежные и расчетные системы. Анализ и статистика», выпуск 42. [Online].

Центральный Банк Российской Федерации (2016), Платежные и расчетные системы. Анализ и статистика», выпуск 50. [Online].

Ali, R., Barrdear, J., Clews, R., & Southgate, J. (2014). Innovations in Payment Technologies and the Emergence of Digital Currencies. Bank of England Quarterly Bulletin 2014 Q3.

Arango, C., Huynh, K. P., & Sabetti, L. (2015), Consumer payment choice: Merchant card acceptance versus pricing incentives. Journal of Banking & Finance, 55, 130-141.

Arango, C. A., Huynh, K. P., & Sabetti, L. (2011). How Do You Pay? The Role of Incentives at the Point-of-Sale. ECB Working Paper No. 1386.

Arango, C., & Taylor, V. (2008). Merchants' Costs of Accepting Means of Payment: Is Cash the Least Costly? Bank of Canada Review, 2008–2009(Winter), pp. 17–25.

Arango-Arango, C. A., Bouhdaoui, Y., Bounie, D., Eschelbach, M., & Hernandez, L. (2018). Cash remains top-of-wallet! International evidence from payment diaries. Economic Modelling, Volume 69, January 2018, pp. 38-48.

Armstrong, M. (2005). Competition in Two-Sided Markets. The RAND Journal of Economics, Volume37, Issue3, September 2006, pp. 668-691.

Au, Y. A., & Kauffman, R. J. (2008). The economics of mobile payments: Understanding stakeholder issues for an emerging financial technology application. Electronic Commerce Research and Applications, 7(2), pp. 141–164.

Bagnall, J., Bounie, D., Huynh, K. P., Kosse, A., Schmidt, T., Schuh, S. D., & Stix, H. (2014), Consumer cash usage: A cross-country comparison with payment diary survey data. International Journal of Central Banking, 2016, vol. 12, issue 4, 1-61.

Baxter, W. F. (1983). Bank Interchange of Transactional Paper: Legal and Economic Perspectives. The Journal of Law & Economics, 26(3), pp. 541–588.

Bayero, M. A. (2015). Effects of Cashless Economy Policy on Financial Inclusion in Nigeria: An Exploratory Study. Procedia - Social and Behavioral Sciences, 172, pp. 49–56.

Bedre-Defolie, Ozlem, & Calvano, E. (2013). Pricing Payment Cards. American Economic Journal: Microeconomics, 5(3), pp. 206–231.

Block, F. L., & Keller, M. R. (2015). State of Innovation: The U.S. Government's Role in Technology Development. Routledge.

Bolt, W. (2012). Retail Payment Systems: Competition, Innovation, and Implications (DNB Working Paper No. 362). Netherlands Central Bank, Research Department. De Nederlandsche Bank Working Paper No. 362.

Bolt, W., & Chakravorti, S. (2008). Economics of payment cards: a status report. Economic Perspectives, (Q4/2008), pp. 15–27.

Bolt, W., & Mester, L. J. (2017). Introduction to Retail Payments: Mapping Out the Road Ahead. Journal of Financial Services Research, 52(1–2), pp. 1–3.

Bolton, R. N., Kannan, P. K., & Bramlett, M. D. (2000). Implications of Loyalty Program Membership and Service Experiences for Customer Retention and Value. Journal of the Academy of Marketing Science, 28(1), pp. 95–108.

Bounie D., François A., & Van Hove L. (2015), Consumer payment preferences, network externalities and merchant card acceptance: An empirical investigation. Review of Industrial Organization, 51(3), 257-290.

Bounie D., Francois A., & Van Hove L. (2016), Merchant acceptance of payment cards:'must take' or 'wanna take'?. Review of Network Economics, Vol. 15, No. 3, p. 117-146.

Carbó-Valverde, S., & Liñares-Zegarra, J. M. (2011). How effective are rewards programs in promoting payment card usage? Empirical evidence. Journal of Banking & Finance, 35(12), pp. 3275–3291.

Carbo-Valverde, S. и Linares-Zegarra, J. (2012), Payment Card Interchange Fees: Assessing the Effectiveness of Antitrust Investigations и Regulation in Europe. Available at SSRN 2052056.

Carbó- Valverde, S., Liñares Zegarra, J., Rodríguez Fernández, F., (2012), Feedback Loop Effects in Payment Card Markets: Empirical Evidence, Review of Network Economics, vol. 11, Issue 2, article 2.

Chakravorti, S., & Roson, R. (2006). Platform competition in two-sided markets: The case of payment networks. Review of Network Economics, 5(1).

Chernikova, L. I., Faizova, G. R., Egorova, E. N., & Kozhevnikova, N. V. (2015). Functioning and Development of Retail Banking in Russia. Mediterranean Journal of Social Sciences, Vol. 6. No. 6., pp. 274–284.

Chiang, T. C., & Zheng, D. (2010). An empirical analysis of herd behavior in global stock markets. Journal of Banking & Finance, 34(8), pp. 1911–1921.

Ching, A. T., & Hayashi, F. (2010). Payment card rewards programs and consumer payment choice. Journal of Banking & Finance, 34(8), pp. 1773–1787.

Chizhikova, E. S. (2013). The Current Payment System of the Russian Federation. Middle-East Journal of Scientific Research, 14(2), pp. 244–247.

Darban, M., & Amirkhiz, H. (2015). Herd Behavior in Technology Adoption: The Role of Adopter and Adopted Characteristics. In 2015, 48th Hawaii International Conference on System Sciences (pp. 3591–3600).

Doyle M. A., Fisher, C., & Yadav, A. (2017), How Australians Pay: Evidence from the 2016. Consumer Payments Survey. Reserve Bank of Australia.

33. Economides N. (1996), Network Externalities, Complementarities, and Invitations to Enter. European Journal of Political Economy, Vol. 12(2), pp. 211-2

Evans, D., and Schmalensee, R. (1999), Paying with Plastic: The Digital Revolution in Buying and Borrowing. MIT Press: Cambridge, MA.

Guthrie, G., & Wright, J. (2007). Competing Payment Schemes. The Journal of Industrial Economics, 55(1), pp. 37–67.

Hasan, I., Schmiedel, H., & Song, L. (2012). Returns to Retail Banking and Payments. Journal of Financial Services Research, 41(3), pp. 163–195.

Hayashi, F. (2006). A Puzzle of Card Payment Pricing: Why Are Merchants Still Accepting Card Payments? Review of Network Economics, Vol. 5, Issue 1.

Hunt, R. M. (2003). An Introduction to the Economics of Payment Card Networks. Review of Network Economics, Vol. 2(2).

Jonker, N., (2011), Card Acceptance и Surcharging: the Role of Costs и Competition, Review of Network Economics, 10 (2).

Kabakova, O., Plaksenkov, E., & Korovkin, V. (2016). Strategizing for Financial Technology Platforms: Findings from Four Russian Case Studies. Psychology & Marketing, 33(12), pp. 1106– 1111.

Kim, C., Tao, W., Shin, N., & Kim, K.-S. (2010). An empirical study of customers' perceptions of security and trust in e-payment systems. Electronic Commerce Research and Applications, 9(1), pp. 84–95.

Krivosheya, E., & Korolev, A. (2016). Benefits of the retail payments card market: Russian cardholders' evidence. Journal of Business Research, 69(11), pp. 5034–5039.

Krivosheya, E., & Korolev, A. (2018). Benefits of the retail payments card market: Evidence from Russian merchants. Journal of Business Research, 88, pp. 466–473.

Krivosheya, E., Korolev, A., & Plaksenkov, E. (2015). Measures for stimulating a cashless economy in Russia. Moscow School of Management SKOLKOVO working paper.

Plaksenkov, E., Korovkin, V., & Krivosheya, E. (2015). Cashless economy in Russia: Tendencies, perspectives, opportunities. Moscow School of Management SKOLKOVO Working Paper.

Krivosheya, E., Semerikova, E., Korolev, A. & Tarusova, E. (2017). Cashless economy in Russia 2030: Scenarios for market and industry. Moscow School of Management SKOLKOVO Working Paper.

Loke, Y. J., (2007), Determinants of Merchant Participation in Credit Card Payment Schemes, Review of Network Economics, 6 (4).

Malphrus, S. (2009). Perspectives on Retail Payments Fraud. Economic Perspectives, Vol. XXXIII, No. 1, 2009.

Milne, A. (2006). What is in it for us? Network effects and bank payment innovation. Journal of Banking & Finance, 30(6), pp. 1613–1630.

Promothesh C. and Randall L. (2012), Do Payment Mechanisms Change the Way Consumers Perceive Products? Journal of Consumer Research, 38(6).

Rauch, D. E., & Schleicher, D. (2015). Like Uber, But for Local Governmental Policy: The Future of Local Regulation of the "Sharing Economy". George Mason Law & Economics Research Paper No. 15-01.

Reinartz, W., Dellaert, B., Krafft, M., Kumar, V., & Varadarajan, R. (2011). Retailing Innovations in a Globalizing Retail Market Environment. Journal of Retailing, Vol. 87, Supplement 1, pp. S53– S66.

Rochet, J.-C., & Tirole, J. (2002). Cooperation among Competitors: Some Economics of Payment Card Associations. The RAND Journal of Economics, 33(4), pp. 549–570.

Rochet, J.-C., & Tirole, J. (2003). Platform Competition in Two-sided Markets. Journal of the European Economic Association, 1(4), pp. 990–1029.

Rochet, J.-C., & Tirole, J. (2011). Must-Take Cards: Merchant Discounts and Avoided Costs. Journal of the European Economic Association, 9(3), pp. 462–495.

Rysman, M. (2007), An Empirical Analysis of Payment Card Usage. The Journal of Industrial Economics, 55 (1): 1-3

Scharfstein, D. S., & Stein, J. C. (1990). Herd Behavior and Investment. The American Economic Review, 80(3), pp. 465–479.

Todd, S., & Lawson, R. (2003). Consumer preferences for payment methods: a segmentation analysis. International Journal of Bank Marketing, 21(2), pp. 72–79.

Trueman, B. (1994). Analyst Forecasts and Herding Behavior. Review of Financial Studies, 7(1), pp. 97–124.

Vickers, J. (2005), Public Policy and the Invisible Price: Competition Law, Regulation and the Interchange Fee, Proceedings of a conference on "Interchange Fees in Credit and Debit Card Industries" (Federal Reserve Bank of Kansas-City, Santa Fe, New Mexico, May 4-6, 2005) pp. 231– 247.

Visa USA Research Services (2006), Visa Payment Panel Study: Payment Trends Summary.

Wakamori N., Welte A. (2017), Why Do Shoppers Use Cash? Evidence from Shopping Diary Data. Bank of Canada.

Weiner, S., & Wright, J. (2005). Interchange Fees in Various Countries: Developments and Determinants. Review of Network Economics, 4(4), pp. 1–34.

Weitzel T., Wendt O., Falk G. von Westarp and Konig W. (2003), Network Effects and Diffusion Theory: Network Analysi International Journal of IT Standards and Standardization Research 1(2), pp. 1-21

Wright, J. (2004). The Determinants of Optimal Interchange Fees in Payment Systems. The Journal of Industrial Economics, 52(1), pp. 1–26.

National Environment Management Authority Board of Directors' Practices on Wetland Protection in Uganda: A Case of Kinawataka Wetland

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Abstract

This study aimed at establishing NEMA board of directors' practices towards wetland protection in Uganda. It particularly sought to find out a) the contribution of NEMA directors' policy formulation towards the protection of Kinawataka wetland, b) the contribution of NEMA directors' supervision of enforcement of environmental law towards the protection of Kinawataka wetland, and c) to determine the contribution of NEMA board of directors' monitoring and evaluation effect towards the protection of Kinawataka wetland. A cross-sectional study design guided the study for purposes of triangulation. Both quantitative and qualitative research approaches were used. The target population was 179 respondents and a representative sample of 122 respondents was selected for investigation basing on simple random and purposive sampling. The study employed interviews, observation and a questionnaire survey as methods of data collection. Narrative analysis was used to relate findings with the social context. Descriptive analysis and inferential statistics were used to generate frequencies and means. Correlations, regression analysis were used to summarize the results and determine relationships between the key variables. Correlation findings revealed the board's policy formulation practices have a statistically significant strong positive contribution to wetland protection; a positive significant contribution of NEMA board of directors' supervision of enforcement of environmental law to wetland protection; and NEMA board of directors' monitoring and evaluation has a significant positive contribution towards the protection of Kinawataka wetland. Conclusively, it was noted that improvements in policy formulation, board of directors' supervision of enforcement of environmental law and NEMA board of directors' monitoring and evaluation will lead to improvements in protection of Kinawataka wetland. The study thus recommended NEMA board to endeavour improving its performance on policies of wetland management to ensure proper conservation; enhance the staff capacity to conduct support supervision; increase the resources needed to supervise wetland protection in Kinawataka; transparent feedback to all stakeholders; producing reports and disseminating information.

Keywords: Uganda, Environment, Management, Corporate Governance, Directors, Wetlands protection, NEMA

Introduction

Wetlands constitute 0.01% of the world's fresh water and occupy approximately 0.8% of the earth's surface (David Dudgeon, 2006). Nevertheless this tiny fraction of global water supports at least 100000 species out of approximately 1.8 million which is almost 6% of all described species habited in wetlands and lakes. Inland waters and freshwater biodiversity constitute a valuable natural resource, in economic, cultural, aesthetic, scientific and educational terms. Scholars emphasises that their conservation and management are critical to the interests of all humans, nations and governments yet this precious heritage is in crisis (Sax, 2010). Lwasa (2007) and Banadda et al (2009) suggest that Kinawataka wetland in Kampala is a classic example of resources that

suffer the problem of the tragedy of the commons whereby every other person tries to reap the greatest benefit from a given resource. As majority increasingly demand and compete for resources, the supply becomes overwhelmed, thus any additional consumption by the consumer directly harms others who can no longer enjoy the benefits. Prilleltensky and Prilleltensky (2007) argued that a common resource is easily available to all persons and that the challenge of commons happens when a few minorities neglect the welfare of communities in the pursuit of individual gain. In other words, the misfortunate bit about commons is that moment when single users acting with self-interests, abuse the public good of all other customers by depleting common resources through their collective action. Corporate governance is one of the ways scholars have suggested as an antidote to the problem of the tragedy of the commons since organizations such as National Environmental Management Authority (NEMA) is managed by a board of directors that can effectively control, give direction and administer wetland management (Finkelstein and D'aveni , 1994; Denis, 2001 and King (2009) through the establishment of structures and processes with appropriate checks and balances that enable board of directors to discharge their legal responsibilities. Effective governance is basically about effective leadership, with leaders craving to address the challenges and concerns raised by the public if there is any chance of effective responses..

The study thus examined the contribution of NEMA board of directors' practices in wetland protection in Uganda. It sought to have the following questions answered:-

1. What is the contribution of policy formulation by NEMA board towards the protection of Kinawataka wetland?

   Hypothesis 1: NEMA board of directors' policy formulation significantly contributes to the protection of Kinawataka wetland.

2. What is the contribution of NEMA board of directors' supervision of enforcement of environmental laws towards the protection of Kinawataka wetland?

   Hypothesis 2: NEMA board of directors' supervision of enforcement of environmental law significantly contributes to the protection of Kinawataka wetland.

3. What is the contribution of NEMA board of directors' monitoring and evaluation to the protection of Kinawataka wetland?

   Hypothesis 3: NEMA board of directors' monitoring and evaluation significantly contributes to the protection of Kinawataka wetland.

This paper will begin by giving the background, then the theoretical perspectives, then the methodology, followed by the findings and the implications of those findings. It will end by providing some recommendations on the way forward.

Background

The all-embracing legal framework which gives mandate to the NEMA board of directors to take lead on the environmental and wetlands protection puts this study in context: The Constitution of Uganda 1995, provides the foundation for the protection of natural resources in the country under its national objectives and directive principles of state policy objective XIII. The policy, "states that the state shall protect important natural resources including land, water, wetlands, minerals, oil, fauna and flora on behalf of the people of Uganda". Objective XXVII (ii) pronounces that the state shall take all possible measures to prevent or minimize damage and destruction to land, air, and water resources resulting from pollution or other causes. The Land Act Cap 227 lays down the control and operational measures for the protection of wetlands, rivers, lakes, and other fragile eco-systems. Section 44 of the Land Act reiterates Article 237 (2) (b) of the constitution declaring natural resources as public trust resources. Furthermore, Section 44 (b) states that a government or local government

shall not lease out or otherwise alienate any natural resource referred to in this section. However, section 44 (5) of the Land Act, states that the government or local government may grant concessions, licenses or permits in respect to natural resources including wetlands as long as the law is followed.

The National Environment Management Act Cap 153 and associate regulations is a framework law on the environment. Although Section 36(i) of the Act allows for controlled use of wetlands, the following activities are forbidden in the wetlands, the reclamation or drainage of wetlands, the assembly, construction or placement of any structure in a wetland. The disturbance of a wetland by drilling or tunnelling in any way that is likely to have unfavourable effects on the wetland, the dumping in, on or under any wetland of any substance that is likely to have adverse effects on the wetland, the destruction, damage or disturbance of any wetland in such a way that may negatively affect any plants, animals or their habitats.

The introduction of any poisonous or introduced plants or animals in a wetland unless with the permission of NEMA board of directors. Similarly, King (2009) on the role played by the board in the running of the organizations argues that, the board should play a prominent role in the strategy development process and should not be the mere recipient of a strategy proposed by the management. The board needs to balance its role of maintaining prudent control with the performance of the organization. Wetlands in Kampala district continue to face serious threat of total destruction. According to the report of the Kampala Urban Study (KCC, 1994), high population density (approx.3, 974 persons per km^2) is one of the main causes of wetland resource degradation in the district. It is estimated that about three quarters of the wetland area has been significantly affected by human activity. In 1993 it was noted that 13% of the wetland area was severely degraded. However, the estimate in 1999 showed that 46% of the wetland was severely degraded.

Research findings by Namaalwa et al, (2013), showed that due to unplanned and uncontrolled development activities such as industrial construction within wetlands, there is a threat of vanishing especially the Kinawataka wetland between Nakawa and Kireka area. In addition to that, poor maintenance of surrounding areas' drainage channels, irresponsible solid waste management and sewerage disposal especially at Kinawataka and many other poorly unregulated activities have also significantly impaired wetlands which has greatly affected the size of Kinawataka wetland. Related to the above, President Museveni in a keynote speech at the 1987 World Environmental Day said, "The problem of environmental degradation here in Africa is largely as a result of development without planning" (Owor, 2012).

In his book, entitled, *"The role of wetland policies in the conservation of water birds the case of Uganda"*, Mafabi argues that the drainage activities going on in these vital swamps like that of Kinawataka should be prevented in the interest of public health and conservation of birds that use swamps as habitats (Mafabi, 2000). Related to the above, it was noticed during the civil society participation in urban sanitation and solid waste management report in Uganda 2010, that the Kampala district state of the environment wetlands, like other resources elsewhere in the country, are affected by a number of factors (Tukahirwa et. al, 2010). The single most important factor affecting the protection of wetlands is ownership. In a recent journal article by Akello (2007) on success and challenges in the environmental regulation in Uganda, findings showed that customary land tenure is the predominant form of land ownership, a factor contributing to mismanagement and complacency in wetland use.

This challenge, coupled with others, was also noticed during a survey conducted by Namaalwa, et. al (2013) that under the customary land tenure system, wetlands served as a common resource property without well-defined responsibility for their maintenance and conservation. Moreover, local customs are ineffective in addressing the challenges posed by modern needs of conservation or protection of wetlands. In the absence of stringent regulatory measures, wetland conservation on privately held mailo land is difficult in that government does not have the authority to intervene.

Although there are individuals with wetland tittle ownerships especially in Kampala district, many wetlands are legally supposed to be controlled and managed by governments. Part of Kinawataka wetland between Nakawa and Kireka has been leased to companies for industrial development and subsequently the wetland has been

destroyed. This is contrary to "section 44 of the Land Act of 1998", which states that local and central governments hold wetland resources in trust and for the good of all citizens, and the National Environment (Wetlands, Riverbanks and Lakeshore Management) regulations further prohibit central and local governments from leasing out or alienating wetlands. The implementation of the state provisions means that no person has got authority to claim ownership of wetlands.

A significant part of Kinawataka-Ntinda industrial area is located within the Kinawataka wetland area. The catchment for this area is formed by the valleys of Nakawa, Ntinda, Kyambogo, Kireka and Banda. While wetlands are considered environmentally sensitive areas, the Kinawataka wetland in Kampala was zoned and gazetted for industrial use (The state of Environment Report for Uganda 2004/5). The 1972 Structural Plan prepared for Kampala City by the Town and Country Planning Board identified a total of 1,678 Hectares (4,143 Acres) of land for industrial development and most of this lay in areas described by then as wetlands. Of the total land zoned for industrial growth, Kinawataka wetland comprised of 334 hectares (824.98 acres), this has been greatly reduced by industrial development and human activity, (NEMA, 2014).

In the circumstances, therefore, all developments in this area must of necessity be subjected to an environmental impact assessment (EIA). Such an EIA will be aimed at trying to identify what would be the potential negative impacts of the projects, and ways to mitigate them, while at the same time not compromising the latent values of the wetland and this engenders wetland protection in Kinawataka (NEMA, 2003).

Statement of the Problem

Environmental legal instruments have been enacted to support the NEMA board of director's mandate to protect and conserve wetland resources. For instance, with regard to Kinawataka, NEMA board of directors' contribution is seen in terms of policy formulation whereby all NEMA's environmental activities are implemented in accordance with the policy framework of government of Uganda. These include, inter alia, decentralization where the day-to-day protection of wetlands was transferred to districts (NEMA, 2003). With regard to supervising enforcement of environmental laws, NEMA's board contribution is seen in enforcing cabinet resolution on cancellation of land tittles in the wetlands especially Kinawataka. For example, the board of directors cancelled about 10 development projects that had been approved by NEMA management. Additionally, the board's contribution is seen in monitoring and evaluation of wetland protection through regular surveillance supported by environmental police.

Unfortunately, there is continued abuse of wetlands in the country. The abuse is more pronounced in urban centres especially in Kampala, the capital city (NEMA briefing, 2014). Rather than develop existing vacant land, many developers have found it more profitable or perhaps convenient to encroach on wetlands which are meant to assist in the removal of the city's carbon waste. In 1993, it was noted that 13 per cent of the country's wetland area was severely degraded; by 1999 the estimates show that 46 per cent of the wetland area was severely degraded and by 2002 only 3.3 percent was remaining, and was continuing to be degraded (NEMA, 2003). There is an ongoing overall decline in wetlands. In 1994, Kinawataka wetland covered 11.84 square kilometres but it had reduced to 9.54 square kilometres by 2008 (Ministerial Statement, March 2014). There is no new data on its current size yet there are no signs that degradation has stopped.

Many sections of the wetland have been converted to industrial use or have gradually been taken over by semi-slum residential housing and associated uses such as cultivation, solid waste and sewerage disposal in the wetland leading to foul smell and "Jua kali" or informal commerce like car washing and illegal markets taking place within the wetland (State of environment report for Uganda 2004/2005). Additionally, Kinawataka being a wetland, it is obvious that the water table is near the surface therefore any inappropriate human activities like sand mining, constructions can trigger a deadly disaster.

There is hardly any absorptive capacity of the area, hence frequent floods are experienced in the areas of Kyambogo, banda and Kireka whenever it rains. The several factories are discharging their effluents directly into the wetland. Sewerage from Naguru slum area is currently being discharged on the wetland untreated according to the state of environment report for Uganda (2004/5). The wetland is contaminated and simply "*a large septic*

tank". If no intervention measures are taken seriously, the Kinawataka wetland area might degenerate into an environmental disaster. It is at this point that the NEMA board should re-enforce the supervision of the enforcement of law on the ground by increasing the resource budget, to enable there team conduct routine operations as a way of scaring off and holding perpetrators accountable. It is against this background that this study investigated the practices of NEMA board of directors towards the protection of Kinawataka wetland.

Theoretical Framework

This research was guided by the Barry Mitnick and Stephen Ross' theory of Agency in 1970's, in examined NEMA board of directors' contribution to wetland protection in Kinawataka (Mitnick, 2007). This theory postulates that, the uncertainties within performance results are basically attributed to the state of nature, adverse selection and moral hazards. By then, Stephen Ross as one of the proponents that coined the theory was responsible for the economic theory of agency, and Barry Mitnick for the institutional theory of agency (Mitnick, 2006). This agency theory assumes that the principal is conversant with the consequences likely to result from the manager's actions, thus understanding whether the manager's actions are served within the principal's best interest. This theory, further suggests that problems will arise whenever someone does something for somebody else (Bruce et al, 2005).

Steen, (2012) defines Agency theory as "a relationship between the principals, such as shareholders and agents such as the company managers" (Steen, 2012). The fact that both the agent and the principal are looking towards attaining the same desired goal, both share similar interests. According to this theory, boards arise as a control mechanism when there is separation of ownership and control. In other words, agency problems are the raison d'être for boards (Clarke, 2004). The theory postulates that the principals who are in this case the owners or shareholders of the firm, contract managers / agents to execute tasks. Work is left in the hands of the contracted managers who are the principal's agents to handle. Tricker, (2009) asserts that shareholders of the firm do not run the firm directly but instead assign this task to a Chief Executive Officer (CEO) and management. By separation of ownership and management we get a specialization of resources where the principal or shareholder is the supplier of finance, whereas the agent or managers are the supplies human capital. The idea of the agency theory is that managers or agents are expected to perform and undertake decisions in the principal's interests (Steen, 2012).

This does not necessarily mean that agents make decisions that are more suitable to the principals' interests but rather manage on behalf (Berle and Means, 1967). This challenge was highlighted by Adam Smith during the 18th century and later by Steen in 2012. Certainly, this challenge rising from the separation of control and ownership in agency theory was highlighted by Davis and Donaldson (1991). This phenomenon is referred to as the agency problem. The theory is relevant for this study because it will help to explain the extent to which the performance of NEMA board affects wetland protection through various functions and agents. However, the agency theory has various weaknesses which have received objection to the theory especially with the assumption that self-interested managers seek to maximize personal economic wealth (Bruce et al, 2005). In agency relationships the agent has a moral responsibility for own actions, which cannot be dismissed simply because h/she acts as an agent.

Similarly, the Stakeholder theory was propounded in 1984 by R. Edward Freeman. In his argument, Freeman concluded that the responsibility of agents within organisations is not to "shareholders" / "stockholders" (that's to say share owners of the organisations that stand for financial gains), but rather than "stakeholders" (Freeman, 1984). The theory assumes that organizations have obligations for all operations. Precisely, organizations have responsibilities for their stakeholders (Blattberg, 2004). In this research, the theory points out that corporations are social entities that affect the welfare of many stakeholders where stakeholders are groups or individuals that interact with the organization and that affect or are affected by the achievement of the organization's objectives (Freeman, 2010).

The stakeholder theory is criticized majorly for assuming that the interests of the various stakeholders can be, at best, compromised or balanced against each other which is the chief mode of dialogue for dealing with conflicts between stakeholder interests. Blattberg recommends the conversation instead and this leads him to defend what he calls a 'patriotic conception' of the corporation as an alternative to that associated with stakeholder theory (Blattberg, 2004). The study constructs, which are in line with the agency theory and the stakeholder theory, support the notion that the NEMA board of directors' practices contribute to wetland protection in Kinawataka.

Methods

The study used a cross-sectional study design to enable the researcher collect data from a pool of participants from various settings (with different characteristics) at the same time simultaneously as suggested by (Yin, 2013). The purpose for adopting this design was to understanding the social phenomenon from different perspectives as supported by (Yin, 2011). The study was conducted in Kinawataka wetland which was selected because it is among the wetlands that are at the verge of extinction in Kampala, thus greatly affected by encroachment of both human and industrial activities according to the Ministerial statement, of March (2014). The target population was 179 respondents and a representative sample of 122 respondents was selected for investigation basing on simple random and purposive sampling. The study employed interviews, observation and a questionnaire survey as methods of data collection. Narrative analysis was used to relate findings with the social context. Descriptive analysis and inferential statistics were used to generate frequencies and means. Correlations, regression analysis were used to summarize the results and determine relationships between the key variables the quantitative approach was used to quantify incidences, current conditions and investigate the role of the board of directors in wetland protection using information gained from the questionnaire. The qualitative approach was used to give an explanation on the study variables under investigation using interviews (Amin, 2005). All this enabled the researcher to obtain more valid and reliable evidence to find solutions for the research objectives, questions and hypotheses on NEMA board of directors' contribution to wetland protection. Despite the high value of knowledge gained through research, it cannot be derived at the expense of human dignity (Osso and Onen, 2009). The respondents were informed about the study and its procedures. Participation was by choice and those who wished to opt out were allowed to do so and were not disadvantaged in any way. Privacy and confidentiality were maintained by keeping all respondents anonymous.

Findings

NEMA board of directors' policy formulation and wetland protection

Most of the respondents agreed that the NEMA board has performed well in policy formulation to protect Kinawataka wetland as highlighted by the mean 4.32 and standard deviation of 1.161. A bigger proportion of respondents agreed that the NEMA policies on wetland management have contributed to: protection of Kinawataka wetland (mean = 4.31); proper conservation of Kinawataka wetland (mean = 3.74) and restoration of Kinawataka wetland (mean = 4.19). The above findings show that the NEMA board has contributed significantly to the protection of Kinawataka wetland were rated to have a limited positive contribution to the protection of Kinawataka wetland. This shows that the majority of the respondents have agreed that the NEMA board has to some extent formulated policies to protect Kinawataka wetland. Conversely, the above findings were supported by a respondent during a face-to-face interview who reported thus:

…yes, it's true NEMA board has promoted wetland protection policies in Kinawataka but within the realm of their mandated functions but note that externalities play a major role in degradation of the wetland (Respondent six, 9 February 2017).

The findings above indicate that NEMA board of directors have to an extent made a contribution towards policy formulation leading to protection of Kinawataka wetland. However, the respondents were neutral on whether the NEMA wetland policies have helped to: ensure proper conservation in Kinawataka wetland (mean = 2.58); reduce encroachment in Kinawataka (mean = 3.43); prohibit further drainage in Kinawataka wetland (mean = 2.59); and ensure wise use of Kinawataka wetland (mean = 3.12). These were rated as having a neutral contribution towards the protection of the Kinawataka wetland. This shows that the performance of the NEMA board is still inadequate to ensure wise use of the wetland, reduce encroachment on the wetland and also prohibit further drainage of the wetland.

In addition, the study findings further revealed that the respondents strongly agreed that the NEMA board has: performed well in policy formulation to protect Kinawataka wetland (mean = 4.67); as well as formulating policies in support of wetland protection (mean = 4.82). This means the NEMA board has performed very well in formulating policies aimed at ensuring protection of the Kinawataka wetland which have strongly led to a positive contribution towards the protection of Kinawataka wetland. This agrees with findings from key informant interviews where a board member highlighted that:

> *NEMA has demarcated the Kinawataka wetland in addition to producing a wetland atlas for all wetlands in Uganda to guard against encroachment. This has protected the wetland to the extent of what is existing as Kinawataka wetland* (Respondent eight, 11 February 2017).

From the findings above, it shows that NEMA board of directors has done some work with regard to Kinawataka wetland demarcation. Thus the board has put in some effort though more effort is needed in other wetland protection areas.

The researcher investigated the contribution between policy formulation and wetland protection at NEMA. The hypothesis was established that: "*NEMA board of directors' policy formulation significantly contributes to the protection of Kinawataka wetland.*" This hypothesis was tested using Pearson Product Moment Correlation. The result is presented in Table 1.

Table 1: Pearson correlation analysis for policy formulation and wetland protection

		Policy formulation	Wetland protection
Policy formulation	Pearson Correlation	1	.632[**]
	Sig. (2-tailed)		.000
	N	114	114
Wetland protection	Pearson Correlation	.632[**]	1
	Sig. (2-tailed)	.000	
	N	114	114

**. Correlation is significant at the 0.01 level (2-tailed).

The result in Table 12 showed Pearson correlation analysis of the relationship between policy formulation and wetland protection. The statistic indicates that policy formulation has a statistically significant strong positive contribution to wetland protection [r = 0.632, p<.01]. This value is significant at 0.01 level and thus wetland policy formulation significantly contributes to wetland protection. Therefore, according to the results, the alternative hypothesis: "*NEMA board of directors' policy formulation significantly contributes to the protection*

of Kinawataka wetland" that was earlier postulated is accepted. The findings above inform that NEMA board of directors' policy formulation has a key role in wetland protection this is key in enhancing continuity in environmental development and protection to avoid wetland degradation.

Regression analysis was used to establish the extent (if any) to which policy formulation contributes to wetland protection in Kinawataka. The coefficient of determination (R Square) was used and the results are presented in Table 2 below.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.632	.269	.262	.35389

a. Predictors: (Constant), Policy Formulation

Table 2 shows that the coefficient of determination (Adjusted R Square) is 0.262. This implies that policy formulation accounts for 26.2% of the variance in wetland protection in Kinawataka. Therefore, there are other factors outside the study variable that contribute to the greater percentage of wetland protection of Kinawataka wetland. To assess the overall significance of the model, Analysis of Variance (ANOVA) was generated and the results are presented in Table 3 below.

Table 3: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.832	1	4.832	38.586	.000[b]
	Residual	13.150	105	.125		
	Total	17.982	106			

a. Dependent Variable: Wetland Protection
b. Predictors: (Constant), Policy Formulation

In determining whether a regression model is significant, the decision rule is that the calculated p-value (level of significance) must be less than or equal to 0.05. Since the calculated p-value of (.000) is less than 0.05, the regression model was found to be statistically significant (F=38.586, df = 1, p<0.05). This means that policy formulation has a significant contribution to wetland protection of Kinawataka. Research findings from correlation analysis established that policy formulation has a statistically significant contribution to wetland protection in Kinawataka. Findings from regression analysis further affirmed that policy formulation has a significant contribution to wetland protection of Kinawataka.

In summary, there are some areas where the respondents were strongly in agreement with regards to NEMA board of directors' policy formulation. These include: the NEMA board has performed well in policy formulation to protect Kinawataka wetland; and Wetland protection is supported by policies formulated by NEMA board. However, there were some issues which were divergent to the responses of the respondents which included: NEMA wetland policy formulation process conforms with the law in Kinawataka; NEMA wetland policy making process involves all their stakeholders in Kinawataka; NEMA board policy formulation process is transparent and considers public interest in Kinawataka; NEMA board formulates appropriate effective policies to address wetland protection in Kinawataka; Do you think NEMA wetland policies in Kinawataka are enforceable? And, NEMA board has contributed significantly to the formulation of wetland protection policies. This means that much as the NEMA board policy formulation has contributed to the protection of the

Kinawataka wetland, there are some issues that are still lacking and need immediate attention so as to boost the protection of Kinawataka wetland.

 Quantitative data revealed that the NEMA board of directors' policy formulation had strong positive contribution towards wetland protection in Kinawataka. This was further supported by data from interviews which also highlighted that the NEMA board has promoted wetland protection policies in Kinawataka but within the realm of their mandated functions; while noting that externalities play a major role in the degradation of the wetland. This showed convergence of quantitative and qualitative data collected for the study and thus an indication that the NEMA board of directors has formulated policies aimed at protecting the Kinawataka wetland.

The findings of the study revealed that NEMA wetland policy-making process is transparent and considers public interest. This has augmented the protection the Kinawataka wetland since wetland policies were formulated with consideration of the public interests. The findings further indicated that the board formulates appropriate and effective policies that address wetland protection in Kinawataka. This is in the light of Dominique (1996), who contends that the role of board directors includes, but is not limited to, policy formulation, supervising performance, monitoring and evaluating implementation strategies, which was discovered from the findings.

In addition, the Institute of Corporate Governance (2008), noted that the government involvement in business organizations is obviously on behalf of the people of Uganda and is therefore a matter of public concern that these institutions operate with a measure of accountability, transparency and the other principles of corporate governance. Above all, the selection of board of directors for such establishments is a matter of public interest and definitely must be carried out in a transparent and fair manner because the board of directors is critical in the governance of an organization.

It was also noted that the NEMA wetland policy-making process involves all their stakeholders in Kinawataka. This has promoted ownership of the wetland policies amongst the stakeholders which has ensured protection of the Kinawataka wetland. This is supported by Ramsar (2002) who contend that guidelines for establishing and strengthening local communities and indigenous people's participation in the protection and management of wetlands provide an extremely valuable list of indicators to help measure the extent of community involvement. In a related argument, Otika (2011) underlines that participation of the local people in the planning process to protect the wetland is essential because it gives them an opportunity to identify and determine their priority needs and provide for all the necessary requirements for activities carried out in a wetland.

Furthermore, Robert Chambers (1994), a protagonist of participatory methods, is of the same opinion that participatory methods enable the local communities to share, enhance and analyze their knowledge of life and condition, to plan and to act. Local communities have great capacity to map, model, rank and estimate features of their wetland environment hence mapping techniques form the core of participatory methods because of their extensive local knowledge of the area and the wetland.

The study findings revealed that the NEMA board has performed well in policy formulation to protect Kinawataka wetland. This is supported by the NEMA Act (1995) which mandates the board of directors to ensure the integration of environmental concerns in overall national planning through coordination with the relevant ministries, departments and agencies of government. It is important, therefore, to examine how boards have been used as governance instruments in the public enterprise sector. This is in line with the National Environmental policy regulations (2000) which state that, for the purposes of protecting all wetlands in Uganda the government shall hold in trust for the people and protect wetlands for the common good of the citizens of Uganda. In addition, the central or local government shall not lease out or otherwise alienate any wetland. The spirit of the above policy objective is to provide for the conservation and wise use of wetlands in Uganda and to give effect to article 237(2) of the constitution.

According to the study findings, NEMA board's performance on policy formulation has contributed to restoration of Kinawataka wetland. This is supported by King (2009) who noted that the board should play a

prominent role in the strategy development process and should not be the mere recipient of a strategy proposed by the management. Therefore, the board needs to balance its role of maintaining prudent control with that of organizational performance. Additionally, Tricker (2009), posits that to make policies and strategies operational, companies need regulations, procedures, systems, plans and in some cases projects which provide the criteria against which the board of directors can subsequently monitor management's performance and fulfil their duty to supervise, guide and constrain executive management.

NEMA board supervision of enforcement of environmental law and wetland protection

Respondents agreed that NEMA board enforcement of: environmental policies (mean = 4.49); environmental laws and standards have led to limited encroachment of Kinawataka wetland (mean = 4.87). In addition, the NEMA board's supervision practice has: eliminated further drainage of Kinawataka wetland (mean = 4.43); and contributed to the restoration of Kinawataka wetland (mean = 4.47). This has led to positive contribution towards the protection of Kinawataka wetland. This implies that NEMA board's enforcement of environmental policies and standards has, to some extent, limited encroachment and enhanced the protection of Kinawataka wetland.

However, respondents disagreed with the NEMA board on having the staff capacity to conduct supervision of wetland protection policies (mean = 2.48). This was rated as having a negative contribution on wetland protection in Kinawataka. The failure to have the staff capacity to conduct supervision of wetland policies to ensure protection of wetland has resulted into poor supervision during the enforcement of environmental laws by the NEMA board which has accelerated the degradation of Kinawataka wetland. This indicates that the NEMA board, through its poor supervision of policies has, to a limited extent, inhibited the protection of Kinawataka wetland. This was further supported by key informant who said that:

> ...in order to increase the visibility of NEMA board's supervisory role and enforcement of environment laws, it has to allow institutional functioning and decision making of the board; increase staffing levels and budgets at local governments as well as public education on a continuous basis (Respondent Nine, 12 February 2017).

Currently, there is a huge concern of illegal sand mining in wetlands, an issue raised by the parliament of Uganda, accusing NEMA for lacking proper coordination between environmental officers and the body which works as a contributing factor to the lapse in environmental regulations. Companies that are given fishing licenses rather end up diverting to sand mining while others are operating illegally. Environmental degradation is on the increase around areas were sand mining is being carried out such as the shores of Lake Victoria and Lwera in particular. Equally the NEMA board has to enhance its supervisory role to promote institutional functioning and visibility of the boards' initiatives in the enforcement of environmental laws so as to have better protection of Kinawataka wetland. This informs that once this is done, better enforcement of the policies of NEMA will be achieved and implemented.

In addition, respondents also disagreed on whether the NEMA board has: the resources to supervise wetland protection (mean = 1.18); done the necessary supervision for proper conservation of Kinawataka wetland (mean = 1.42); contributed to the wise use of Kinawataka wetland (mean = 2.48). This has led to a negative contribution to wetland protection. The above findings indicate that the NEMA board has insufficient resources as well as inadequate staff capacity to conduct supervision of wetland protection in Kinawataka which has introverted proper conservation of the wetland. The above finding was supported by a respondent from the NEMA board who had this to say:

> Much as the NEMA board may not have met all the expectations of Ugandans regarding wetland protection, which is as result of the numerous challenges faced in the supervision and enforcement of environmental laws. These challenges include but not limited to; Local political interference, local government disempowerment, inadequate manpower at the centre and local government among others (Respondent ten, 11 February 2017).

The findings above inform that NEMA has challenges which include, but are not limited to; Local political interference especially during the election periods when politicians tend to interfere with the actions of NEMA of evicting squatters; illegal occupants that have encroached on the gazetted wetlands with the politicians hoping for political support from the local people, which has introverted proper conservation of the wetland.

The researcher set out to investigate how NEMA board of directors' supervision of enforcement of environmental law contributes to the protection of Kinawataka wetland. To verify this, a hypothesis was derived as: "*NEMA's board of director's supervision of enforcement of environmental law significantly contributes to the protection of Kinawataka wetland.*" Table 16 below shows the correlation between supervision of enforcement of environmental law and wetland protection.

Table 4: Pearson correlation analysis for NEMA board of director's supervision of enforcement of environmental law and wetland protection

		Supervision of enforcement of environmental law	Wetland protection
Supervision of enforcement of environmental law	Pearson Correlation	1	.540[**]
	Sig. (2-tailed)		.003
	N	114	114
Wetland protection	Pearson Correlation	.540[**]	1
	Sig. (2-tailed)	.003	
	N	114	114

**. Correlation is significant at the 0.01 level (2-tailed).

Apparently there exists a positive significant relationship between NEMA board of director's supervision of enforcement of environmental law and wetland protection since the p value (.003) is less than the level of significance (0.01). The correlation coefficient (.540) is considered to be moderate, implying that the NEMA board of directors' supervision of enforcement of environmental law has a moderate positive relationship on wetland protection in Kinawataka. Therefore the NEMA board of directors' supervision of enforcement of environmental law has a moderate significant positive contribution on wetland protection in Kinawataka.

Regression analysis was used to establish the extent (if any) to which NEMA board of directors' supervision influences wetland protection. The coefficient of determination (R Square) was used and the results are presented in Table 17 below.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.540[a]	.021	.011	.40954

a. Predictors: (Constant), NEMA board of director's supervision

Table 5 shows that the coefficient of determination (Adjusted R Square) is 0.011. This implies that NEMA board of directors' supervision accounts for 1.1% of the variance in wetland protection. There are therefore other factors outside the study that contribute to the greater percentage of wetland protection. To assess the overall

significance of the model, Analysis of Variance (ANOVA) was generated and the results are presented in Table 6 below. In determining whether a regression model is significant, the decision rule is that the calculated p-value (level of significance) must be less than or equal to 0.05. Since the calculated p-value of 0.001 is less than 0.05, the regression model was statistically significant (F=2.213, df = 1, p>0.05). This means that NEMA board of directors' supervision has had a significant contribution to wetland protection. In summary, there are some areas where the respondents were strongly in agreement with regard to NEMA board of directors' supervision. These include: NEMA board enforcement of environmental laws has contributed to the protection of Kinawataka wetland; and NEMA board enforcement of environmental standards has led to limited encroachment of Kinawataka wetland.

Table 61: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.371	1	.371	2.213	.001[b]
	Residual	17.611	105	.168		
	Total	17.982	106			

 a. Dependent Variable: Wetland Protection.
 b. Predictors: (Constant), NEMA board of directors' supervision

However, there were some issue which were divergent to the responses of the respondents which included; NEMA board has the staff capacity to conduct supervision of wetland protection policies in Kinawataka; NEMA board has the resources to supervise wetland protection in Kinawataka; NEMA board supervises enforcement of environmental policies in Kinawataka; NEMA board supervision has resulted in proper conservation of Kinawataka wetland; the NEMA board supervision practice has eliminated further drainage of Kinawataka wetland; the NEMA board role of supervising enforcement of environmental laws and regulations has contributed to the restoration of Kinawataka wetland; the NEMA board supervision has contributed to the wise use of Kinawataka wetland.

Quantitative data from the study revealed that the NEMA board of directors' supervision has contributed to the protection of Kinawataka wetland, leading to limited encroachment of Kinawataka. This is highlighted by the correlation coefficient (0.540) which depicts a positive contribution of NEMA board of director's supervision to the protection of Kinawataka wetland. However, results from qualitative data from interviews were contrary and revealed that there is need to increase the visibility of NEMA board's supervisory role and enforcement of environment laws as well as increase the budgets at local governments to support the supervision of wetlands.

During the study it was noted that the NEMA board has limited resources to supervise wetland protection in Kinawataka which has resulted into poor conservation of Kinawataka wetland. This has inhibited the efforts of the NEMA board regarding the conservation of the wetland. This is in line with the Kampala wetland status report (2000) which stated that the lack of enforcement mechanism of the various environmental laws and regulations in place to plan and manage the wetlands due to contradictory, vague and lack of necessary statutory instruments for implementation. As a consequence, it is often impossible to charge developers without running the risk of losing the case and paying damages to the developer. This makes the supervision and enforcement of environmental wetland protection policies quite difficult.

According to the study findings, the NEMA board supervises enforcement of environmental laws and standards which has contributed to the protection of Kinawataka wetland. This practice has eliminated further drainage of the wetland and also led to limited encroachment of Kinawataka wetland. This is supported by Muhairwe (2009), who posits in his book, *Making Public Enterprises Work,* that the vital role played by the board in supervising and enforcing the performance of an organization is to provide direction through influencing and guiding management to sustainable performance.

NEMA board supervises enforcement of environmental policies which has ensured wetland protection in Kinawataka. This is in line with the King Committee on Governance Report (2009), which contends that for corporate governance to be effective it has to involve the establishment of structures and processes with appropriate checks and balances that enable the board of directors to discharge their legal responsibilities including enforcement and supervision. Similarly, the Report of the Task Force on the State of the Environment (1999) identified enforcement and supervision as important functions for the success of any project. This has therefore influenced and enhanced wetland protection in Kinawataka.

NEMA board of directors' monitoring and evaluation and wetland protection

NEMA board sensitizes all the agency's stakeholders through meetings and field visits (mean = 4.42); conducts on spot random checks during monitoring and evaluation to ensure the protection of Kinawataka wetland (mean = 3.51); has built capacity for environmental monitoring and evaluation (mean = 4.33); disseminates environmental information which has contributed to restoration practices in Kinawataka wetland (mean = 3.57); conducts regular monitoring and evaluation to prevent all illegal and prohibited activities (mean = 4.38); is competent to conduct environmental policy monitoring and evaluation (mean = 4.48); and through monitoring and evaluation has significantly improved to wetland protection (mean = 3.81). The findings show a limited positive contribution of NEMA board towards the protection of Kinawataka wetland. This means that the NEMA board has had a significant contribution to wetland protection in Kinawataka through sensitization of all its stakeholders through meetings and field visits; dissemination of environmental information as well as conducting on spot random checks so as to prevent all illegal and prohibited activities in the wetland. These monitoring and evaluation activities have to some extent contributed to the protection of Kinawataka wetland. This corroborated with qualitative data collected from the interviews where a key informant said that:

> *The monitoring and evaluation activities should be complemented with a logistics budget that is commensurate to the planned activities in addition to engaging other stakeholders in the wetland protection initiatives to enhance protection of Kinawataka wetland* (Respondent Twelve, 11 February 2017).

The findings above emphasized that much as the NEMA board has conducted the monitoring and evaluation activities, the budget for this aspect is still limited and not proportionate to the planned activities which has inhibited effective protection of Kinawataka wetland and thus calls for mutual efforts with the other stakeholders.

Likewise, data generated from study participants informs the researcher that monitoring and evaluation activities have to some extent contributed to the protection of Kinawataka wetland though these activities should be complemented with a logistics budget that is commensurate to the planned activities in addition to engaging other stakeholders in the wetland protection initiatives to enhance protection of Kinawataka wetland. Conversely, respondents disagreed with the NEMA board on whether: it gives accountable and transparent feedback to the stakeholders in Kinawataka (mean = 1.51); it has the resources to conduct monitoring and evaluation of wetland protection (mean = 2.48); it gives accountable and transparent feedback to the stakeholders in Kinawataka (mean = 2.41); and the Nakawa Urban Division Council complements NEMA's efforts in monitoring and evaluation (mean = 2.34).

These were rated as having a limited negative contribution on the protection of Kinawataka wetland. The implication was that NEMA board's transparency and accountability feedback was not visible to the various stakeholders in Kinawataka, just as there was failure of Nakawa Urban Division Council to support NEMA's efforts in monitoring and evaluation towards protection of Kinawataka wetland. NEMA board needs to identify strategies that will stimulate transparency and accountability feedback among the stakeholders in addition to advocating for more support from the Nakawa Urban Division Council to support its efforts. The above findings were supported by an interviewee who said that:

NEMA board contribution in monitoring and evaluation of wetland protection efforts should be supported with increase in staff members to fill the approved organisation structure positions and also support funding at local government so that wetland protection initiatives can be decentralized and intensified at the local level (Respondent thirteen, 12 February 2017).

The findings above inform that NEMA board needs to identify strategies that will stimulate transparency and accountability feedback among the stakeholders in addition to advocating for more support for its efforts from the Nakawa Urban Division Council.

Similarly, the study findings further show that the respondents were neutral on whether the NEMA board produces reports and disseminates them to all stakeholders (mean = 3.31). This implies that despite NEMA board's efforts on wetland protection, their efforts are not yet visible in terms producing reports and disseminating them. Therefore, the NEMA board has to implement better strategies like promoting wider stakeholder participation, among others, which will augment its performance towards the protection of Kinawataka wetland. This was supported by a key informant revealed that:

NEMA needs to allow institutional functioning where monitoring and evaluation implementation is intensified at the local level. Public education should also be intensified on a continuous basis to increase sensitization of the public on wetland protection (Respondent fifteen, 14 February 2017).

The findings above inform that NEMA board has to implement better strategies like promoting wider stakeholder participation, among others, which will augment its performance towards the protection of Kinawataka wetland. The Pearson correlation analysis for NEMA board of director's monitoring and evaluation and wetland protection manifested in table 7 reveals that NEMA board of director's monitoring and evaluation has a significant positive relationship with the protection of Kinawataka wetland since the p − value (.001) is less than the significance level. The correlation coefficient (.511) indicates a moderate positive relationship between monitoring and evaluation and Kinawataka wetland protection. Therefore, NEMA board of directors' monitoring and evaluation has a statistically significant moderate positive contribution to the protection of Kinawataka wetland, which confirms the hypothesis: "*NEMA board of directors' monitoring and evaluation significantly contributes to the protection of Kinawataka wetland*" that was earlier stated. Thus, NEMA board of directors' monitoring and evaluation has a significant positive contribution to the protection of Kinawataka wetland.

Table 7: Pearson correlation analysis for NEMA board of director's monitoring and evaluation and wetland protection

		Monitoring and evaluation	**Wetland protection**
Monitoring and evaluation	Pearson Correlation	1	.511**
	Sig. (2-tailed)		.001
	N	114	114
Wetland protection	Pearson Correlation	.511**	1
	Sig. (2-tailed)	.001	
	N	114	114

**. Correlation is significant at the 0.01 level (2-tailed).

In addition, the researcher conducted a linear multiple regression analysis so as to test the relationship among variables (independent) on the protection of Kinawataka wetland. The findings indicated in 8 revealed that

NEMA board of directors' policy formulation, NEMA board of directors' supervision of enforcement of environmental law and NEMA board of director's monitoring and evaluation significantly predict wetland protection in Kinawataka since the p – value (.000) is less than the significance level (0.05). The correlation coefficient (.683) revealed that the study variables had a strong positive contribution towards the protection of the Kinawataka wetland.

Table 8: Model summary of the study variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.683[a]	.780	.725	.31865	.780	14.208	3	106	.000

a. Predictors: (Constant), Monitoring and Evaluation, Policy Formulation, Supervision

The adjusted R square is the coefficient of determination. This value explains how the protection of the Kinawataka wetland varied with NEMA board of directors' policy formulation, NEMA board of directors' supervision of enforcement of environmental law and NEMA board of directors' monitoring and evaluation. The three independent variables that were studied explain 78% of the protection of Kinawataka wetland.

Multiple regression analysis was conducted so as to determine the relationship between the protection of Kinawataka wetland and the NEMA board of directors' practices. According to the regression equation established, taking all factors into account (policy formulation, supervision and monitoring and evaluation) constant at zero, the protection of Kinawataka wetland will be 2.213 as indicated in table 9.

Table 9: Coefficient of determination of the study variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.213	.423		3.746	.021
	Policy Formulation	.568	.152	.578	3.739	.001
	Supervision	.267	.110	.314	2.421	.023
	Monitoring and Evaluation	.212	.100	.213	2.118	.045

a.   Dependent Variable: Wetland Protection

Source: Primary data

The data findings analysed also show that, taking all other independent variables at zero, a unit increase in policy formulation will lead to a 0.568 increase in the protection of Kinawataka wetland; a unit increase in supervision will lead to a 0.267 increase in the protection of Kinawataka wetland; and a unit increase in monitoring and evaluation will lead to a 0.212 increase in the protection of Kinawataka wetland. This implies that policy formulation contributes more to the protection of Kinawataka wetland, followed by monitoring and evaluation. At 5% level of significance and 95% level of confidence, policy formulation had a 0.001 level of significance; supervision had a 0.023 level of significance; monitoring and evaluation showed a 0.045 level of significance. Therefore, the most significant factor in contributing to the protection of Kinawataka wetland is policy formulation.

During the study, it was noted that the NEMA board conducts onspot random checks during monitoring and evaluation to ensure the protection of Kinawataka wetland. This is in line with Otika (2001) who says that the compliance function performed by the board of directors related to monitoring is a duty of ensuring that the set laws, regulations, rules, standards and best practices developed by the state and legislators, regulators, standard setting bodies and professional organizations to create a compliance framework for public companies in which to operate and achieve their goals are implemented.

NEMA board conducts regular monitoring and evaluation to prevent all illegal and prohibited activities in Kinawataka wetland. This has enabled the board to ensure that the environment policies, laws and regulations are closely followed in the protection of Kinawataka wetland. This is corroborated by Davidson and Finlayson (2007) who assert that wetland inventory, assessment and monitoring are widely recognized as essential tools for a range of purposes that underpin sound decision-making and the management of wetlands so as to maintain their ecological character, including the critical services they provide to people -- thus the need to conduct monitoring and evaluation of the wetlands.

Study findings further revealed that NEMA gives accountable and transparent feedback to the stakeholders in Kinawataka and disseminates environmental information which has contributed to restoration practices in Kinawataka wetland. This has significantly improved wetland protection in Kinawataka. This is in line with Cheyanne and Rogers, (2005) who contend that monitoring and evaluation activities need to report on their results -- for example, on key issues of sustainability which have become increasingly as important as financial reporting. Therefore, the relationship of monitoring, evaluation and reporting are all ways of building relationships, trust and mutual learning for wetland protection through a process of co-designing and co-monitoring that can ensure that all stakeholders work together, each playing its own role towards commonly held goals and meaningful outcomes.

Reccomendations and Implications for Policy and Research

The conclusions drawn in the previous subsection of this study provided a basis upon which recommendations were made according to the study objectives basing on the significant factors that were established.

Improving communication and knowledge-sharing by including a communication strategy as a key component of technical assistance during policy formulation

The study recommends that NEMA should endeavour to improve the board's performance on policies of wetland management to ensure proper conservation of wetlands. This can be done through improving communication and knowledge-sharing by including a communication strategy as a key component of technical assistance during policy formulation which enables the successful implementation of new policies where relevant and provision of support to improve communication strategies for the policies. This will increase awareness of the policies, reduce encroachment and prohibit further drainage of the Kinawataka wetland. Additionally, the study further recommends that the policy formulation process should be transparent and consider public interest in Kinawataka since this will contribute to wise use of wetland. This can be done through more public engagements through various stakeholders, i.e. local council leaders, general public who in the end will improve and defend the polices agreed upon.

Enhance technical capacity in supervision of wetland protection policies and increase on resources

Basing on the study findings, it was recommended that the NEMA board should enhance its technical capacity in the requisite fields to conduct supervision of wetland protection policies. This can be done through training, mentoring and benchmarking with other environmental regulatory bodies so as to widen and improve their knowledge and skills.

The NEMA board should also devise strategies that will increase the resources needed to supervise wetland protection in Kinawataka to completely eliminate encroachment on the Kinawataka wetland. This will result into increased supervision of environmental laws whereby the culprits are caught and prosecuted in courts of law and thus contribute to increased compliance to the environment laws and policies in Kinawataka wetland through joint efforts with the local community leaders.

Conduct a diagnosis of the M&E system at NEMA and involve stakeholders to produce a report on the protection

It is recommended from the study the NEMA board should conduct a diagnosis of the M&E system at NEMA and involve stakeholders to produce a report on the protection of Kinawataka wetland. This will enable the NEMA board to provide a more accountable and transparent feedback mechanism to all its stakeholders in Kinawataka through producing quarterly reports and disseminating environmental information to these stakeholders. This will help in building and enhancing relationships based on trust and mutual learning for wetland protection through a process of co-monitoring and co-evaluating that can ensure that all stakeholders, i.e., the public, policy makers, civil society organizations work together and play their roles towards commonly held goals and meaningful outcomes.

Conclusion

This study has made an invaluable contribution towards ascertaining that NEMA board's policy formulation practices have a statistically significant strong positive contribution to wetland protection; a positive significant contribution of NEMA board of directors' supervision of enforcement of environmental law to wetland protection; and NEMA board of directors' monitoring and evaluation has a significant positive contribution towards the protection of Kinawataka wetland. The study thus recommended NEMA board to endeavour improving its performance on policies of wetland management to ensure proper conservation; enhance the staff capacity to conduct support supervision; increase the resources needed to supervise wetland protection in Kinawataka; transparent feedback to all stakeholders; producing reports and disseminating information. The next studies should focus on stakeholder-inclusive participation in promoting environment protection. This is important because effective stakeholder participation promotes ownership of the environment laws and policies enacted which enhances compliance to these environment laws, policies and guidelines. This also helps to develop environment protection policies that are practical and provide a true reflection of what is in the community. Wetland protection, however, remains the key aspect of stimulating environment protection approaches globally.

References

Amin, M.E. (2005). *Social Science Research: Conception, Methodology and Analysis.* Kampala: Makerere University Printery.

A Briefing by NEMA, March 2014.

Bakema, R. J. and Iyango, L. (2000). Engaging Local Users in the Management of Wetland Resources: The Case of the National Wetland Programme, Uganda, Working Paper No. 3

Barbier, E.B., Acreman, M.C. and Knowler, D. (2006*). Economic Valuation of wetlands: A Guide for Policy Maker and Planners, Institute of Development Studies,* University of Sussex.

Barlie, A.A. and Means. (1967). *The Modern Corporation and Private Property, and Commerce.* New York: Clearing House.

Blattberg, Charles. (2004). *Welfare: Towards the Patriotic Corporation. From Pluralist to   Patriotic Politics: Putting Practice First*. New York: Oxford University Press.

Bruce, A., Buck, T. and Main, B. G. M. (2005). Top executive remuneration: A view from Europe. *Journal of Management Studies* 42(7), 1493-1506.

Chambers, Robert, (1994). *The Origins and Practice of Participatory Rural Appraisal. World Development.* Oxford University Press.

Clarke, Thomas (ed.), (2004), *Theories of Corporate* Governance*: The Philosophical Foundations of Corporate Governance.* London and New York: Routledge.

Clarkson, M. (1995). A Stakeholder Framework for Analysing and Evaluating Corporate Social Performance. *Academy of Management Review*, Vol. 20, No.1.

Davidson, N. C. & Finlayson, C. M. (2007). Earth Observation for wetland inventory, assessment   and monitoring. *Aquatic Conservation: Marine and Freshwater Ecosystems*, *17*(3), 219-228.

Dominique Pannier. (1996). *Corporate Governance of Public Enterprises in Transitional Economies.* International Bank for Reconstruction and Development / World Bank, Washington DC, USA.

Donaldson, L. and Davis, J. (1991). Stewardship Theory or Agency Theory, CEO Governance and Shareholder Returns. *Australian Journal of Management*.

Earth Summit. (1992). UN Conference on Environment and Development of Rio de Janero.

Eisenhardt, K.M. (1989). Building Theories from case study research. *Academy of Management Review.*

Emerton, Lucy I., Luwum P. and Malingo, A. (1999). *The present value of Nakivubo wetland in Kampala*, IUCN, Uganda.

Evangelinos, K. I. (2010). Local attitudes on protected areas: Evidence from three Natura 2000   wetland sites in Greece. *Journal of Environmental Management*, *91*(9), 1847-1854.

Freeman, R. Edward. (1984). *Strategic Management: A stakeholder approach*. Boston: Pitman.

Gibbs, G. R. (2007). Analyzing qualitative data. In U. Flick (Ed.), *The Sage qualitative research kit*.   Thousand Oaks, CA: Sage.

GOU. (1995). *National Environment Act Cap 153*, Government of Uganda Printery, Entebbe.

GOU. (1964). *The Company Act*, Government of Uganda Printery, Entebbe, Uganda.

GOU. (1995). *The Constitution of the Republic of Uganda*. Government of Uganda Printery, Entebbe, Uganda.

GOU. (1998*). The Land Act Cap 227*. Government of Uganda Printery, Entebbe, Uganda.

GOU, (1997), *The Local Government Act Cap 247*. Government of Uganda Printer, Entebbe, Uganda.

GOU. (2000). *The National Environment (Wetlands, Riverbanks and Lakeshore Management)*

Regulations. Government of Uganda Printer, Entebbe, Uganda.

Institute of Corporate Governance of Uganda. (2008). *Corporate Governance Manual* United Printers, Kampala, Uganda. Institute of Statistics (2012) Makerere University.

Japheth Kato, Simeon Wanyama and Miriam Ekirapa Musaali. (2014). *Corporate Governance in Uganda: An Introduction to Concepts and Principles,* Fountain Publishers, Kampala Uganda.

Judith Bell. (1999). *Doing Your Research Project: A guide for first time researchers on Education and Social Sciences.* 3rd Edition, Open University Press, Buckingham, UK.

Kaberuka, Will. (2003). *Statistical Techniques: A basic course for social sciences*, Makerere University Printery, Kampala.

Kampala City Council Structural Plan. (1972). Prepared by the Town and Country Planning Board.

Kampala Wetlands Status Report (2000)

King. (2009). The Business Leaders, Draft Code of Governance, Principles for South Africa: King Committee on Governance Institute of Directors in Southern Africa.

Liu, J., Dietz, T., Carpenter, S. R., Alberti, M., Folke, C., Moran, E.,... & Ostrom, E. (2007).   Complexity of coupled human and natural systems. *science*, *317*(5844), 1513-1516.

Mackenzie C. (2007). Boards, Incentives and Corporate Social Responsibility: The Case for a Change of Emphasis. *Corporate Governance, an International Review* Vol. 15, No. 5

Ministerial Statement on the Degradation of Kinawataka Wetland to the Ninth Parliament (2014)

Mugenda, O.M and Mugenda, A.G. (1999). *Research Methods, Quantitative and Qualitative Approaches,* Laba Graphics Services, Nairobi, Kenya.

Muhairwe, William T. (2009). *Making Public Enterprises Work, From Despair to Promise a Turnaround Account*. Kampala: Fountain Publishers.

Mitnick. (2006). The Origins of Agency Theory.

National Environment Management Authority, Annual Report 2003.

National Environment Management Authority, Newsletter 2007, Vol. 5 No. 24

Neuman, W.L. (2006), *Social Research Methods: Qualitative and Quantitative Approaches,* 6th Edition, Boston: Allyn and Bacon.

Ndiritu, G. G., Oyieke, H. A., & Gichuki, N. N. (1998). Assessment and monitoring of wetlands for conservation and development in dry lands: A case study of Kajiado District, Kenya.

Nkalubo, Micheal. (2006). Socio-Economic and Perceptions about Gazetting Nakivubo Wetland in Kampala District Uganda: A Research Paper Submitted in Partial Fulfillment of the Requirement for the Award of Master of Business Administration of Esami.

Nuwamanya, R.B. (2012). *Public Policy: Basics and Practices*. New Life Publishers, Uganda.

OECD. (2004). *OECD Principles of corporate governance*. Paris.

Okurut, Isaac Tom. (2014). Assessing the Current Management Status of Kinawataka Wetland, A Dissertation Submitted to the Institute of Natural Resources in Partial Fulfillment of the Requirement for the Award of Bachelor Degree of Environmental Science of Makerere University.

Otika, Leonard. (2001). Assessment of wetland management in Lira Municipality: MSc Thesis in Environment and Natural Resources of Makerere University, Kampala.

Owor, Alloysius. (2012). Analysis of Land Use Conflicts in Mutungo Wetland, A Dissertation Submitted to the Department of Environmental Management in Partial Fulfillment of the Requirement for the Award of the Degree of Bachelor of Environmental Science of Makerere University.

Pittock, J. (2011). National climate change policies and sustainable water management: conflicts and synergies. *Ecology and Society*, *16*(2).

Ramsar. (2005). A Conceptual Framework for the wise use of wetlands and maintenance of their

Ecological character: Ramsar Convention on Wetlands Resolution XVII. Vol. IV

Ramsar. (2002). Guidelines for Allocation and Management of water for maintaining the ecological character and functions of wetlands: Ramsar convention on wetlands, Resolution VIII.   Vol.I

Ramsar, I. (1971). Convention on Wetlands of International Importance, Especially as Waterfowl Habitat. *Ramsar (Iran)*, *2*.

Report of the task force on the state of the environment in Kinawataka wetland 1999.

Saunders, Lewis and Thornhill. (1998). *Research Methods for Business Students*. Prentice Hall, Financial Times.

Sekaran, U. (2009). *Research Methods for Business.* I Illinois: John Willey and Sons Inc.

Wanyama, Simeon. (2006). Corporate Governance and Accountability in Uganda: An Analysis of Stakeholder Perspectives, A thesis submitted to the University of Dundee in fulfillment of the requirements for the degree of Doctor of Philosophy.

Shapiro, J. (2007). *Monitoring and Evaluation*. Civicus: Johannesburg/Washington. Available: http://www.civicus.org.

Starik, M. and Rands, G. (1995). Weaving an Integrated Web, Multilevel and Multisystem Perspectives in Ecological Sustainability Organizations. *Academy of Management Review*, Vol. 20, No. 4.

Tricker, Bob. (2009). *Corporate Governance: Principles, Policies and Practices*. Oxford University Press, New York, United States.

Turner, R. K., Van Den Bergh, J. C., Söderqvist, T., Barendregt, A., Van Der Straaten, J., Maltby,   E., & Van Ierland, E. C. (2000). Ecological-economic analysis of wetlands: scientific   integration for management and policy. *Ecological Economics*, *35*(1), 7-23.

Uganda National State of the Environment Report for Uganda 2012: Harnessing our Environment for wealth Creation, NEMA

Uganda Wetland Atlas (2015) Volume one, Kampala City, Mukono and Wakiso districts, Printed by Progress Press Ltd, Malta.

Uganda Wetland Inventory Guide Version 2. (1998)

UNCTD. (2003). *Selected Issues in Corporate Governance: Regional and Country Experiences.* New York and Geneva.

United Nations Economic Commission for Africa, (2010) Wetland Sector Strategic Plan 2001 – 2010, Kampala.

WHO 2003, Climate Change and Human Health: Risks and Responses, Geneva.

WHO (1968 – 1974) Murchison Bay Resource Group.

Williams M. (1993). *Wetlands A Threatened Landscape*. Alden Press Limited, Onsey Mead, Oxford University.

Woodhill, J., and Robins, L. (1998). *Participatory Evaluation, Landscape and Catchment Groups, a Guide for Facilitators*. Yaha Lumba Press, Australia.

Zabihollah, Rezaee. (2009). *Corporate Governance and Ethics*. John Wiley and Sons Publishers,   United States.

Is China's Integration to the International Markets a Threat for Western Economies?

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Abstract

In People's Republic of China (PRC), in which the communist regime was practically implemented from its establishment until 1978, gradually liberalization reforms were accomplished to keep pace with the changing world conjuncture. Before the reforms, the poverty of being a closed economy in the PRC, where GDP values are lower than those of the surrounding countries, has become unable to be explained to the whole world. Deng Xiaoping, who acceded after the death of President Mao Zedong, has carried out economic growth-based reforms. However, even many steps have been also taken to liberalize the system and to make it open, the government's control over the economy has not remained. By carrying out together that the planned economy and the market economy, it has been obtained a considerable growth in a short run. In spite of the being the Chinese Communist Party at the country's management, the new mixed economic model is called "socialist market economy" in the literature. In the market economy model that was in force under government's supervision, while substantial growth values were acquired, the per capita GDP indicators remained low due to the large population. Due to the deflation in any years after the reform, it is possible to see some adverse impacts partly on consumption based growth. The macroeconomic values obtained by the PRC in a short period of time were closely followed by the western economies, privately in the USA. As a result of this following, many international relations theories and scenarios have been arisen. The most remarkable one of those is perception that China is a threat for global economies, both in the market and in the supply of raw materials.

*Keywords***:** China, socialist market economy, decentralization, gradual reforms.

Introduction

In the inception years of reform, the communal agriculture system was partially changed to attach importance to the efficiency of agricultural production. In following years, industrial-based growth was targeted and part of the labor force migrated from rural to urban areas. By the increasing in employment in manufacturing industry and agriculture, unemployment has decreased considerably in the early years of reform. In following years, unemployment has come to the agenda again with the appearence of supply surplus and devaluation. While the political side of the administration is focused on growth, it encourages the increase of exports, the technocrathic administrators have inseminated that credit taps should be reduced in order to prevent Yuan's depreciation.

The PRC's economy has attracted the attention of global actors as it has grown progressively, since the initial years of reforms. The country's economy is about decuple size of GDP growth within 25 years from the beginning of the reform. The instantaneous increase in manufacturing capacity has increased energy and raw material imports, and the supply of resources to other countries in the region has started to carry risks. China, the largest energy customer in Russia, privately in the supply of natural gas, risks the energy supply security of the other energy importer countries.

By the establishment of free economic zones in the 1990s and the entry of foreign direct investors into the country, there has been a significant increase in export components. However, since free zone implementations have been gradually practiced within the years, income distribution inequalities have arised between regions. Innovations such as free trade zones, export incentives ,import restrictions, modernization of gov's owned enterprises, the surplus of foreign trade have came out in macroeconomic balance. Then again; the current account surplus even after the 1997 Asian Crisis indicates the potential of the PRC.

The other reason for the increase occasionally in foreign trade is the import quotas that the central government has set. The PRC, whic was in a closed economy before the reforms, continued to tightly inspect imports, despite the fact that the reforms had grossly gained GDP growth. Although some easings have been introduced in the process, foreign trade balance proceeds to be export side.

Foreign Direct Investments and WTO Membership

Foreign direct investments (FDI) have acted as a leverage over economic growth. In the country, the transition from the labor-intensive production to capital-intensive and technology-intensive production has been opened. In the first twenty years of the reform, labor-intensive employment-based growth has led to a gradual decline in unemployment, but with increased R&D spendings since the new century, capital and technology-intensive investments have also increased. This circumstance has led to an increase in the rate of unemployment. Although the employees, who are most affected by the economic transformation, it would be unrealistic to tell about a painful transformation process as it is the instantaneously transformations in other Central Asian Commonwealth of Independent States. Since, the reforms were realized regionally and gradually.

The PRC, which became a member of the World Trade Organization (WTO) in the new century, accelerated its globalization and regionalization affairs at this point. The membership of the WTO is a cornerstone in the economic background of the PRC to attract foreign direct investors to the country. This membership has led the economic actors of the PRC to comply with changing world standarts and to establish more isolated relations with international markets. Given some concessions and commitments in foreign trade made by other countries, the integration process has accelerated. Given that the foreign trade volume of the PRC, the WTO membership has made positive contributions not only to China but also to the GDP values of other countries that have been exporters.

In the initial 25 years of the reform, central government has actually targetted to growth-based on real production. Thus, one of the important factors in achieving economic growth has been the increasing of the modernization and efficiency of public enterprises. In addition to private enterprises into the system, gov's enterprises and local governments that control these businesses are the main actors of the growth. With the production surplus privileges recognized by local governments, more of the quota surplus left to the agricultural sector has been the only factors incenting productivity.

Financial Liberalization Process

Since the year 2000, the transition from the real sector markets to the financial markets has begun. The changing conjuncture prevented the PRC from becoming indifferent to the international financial system. The volume of transactions obtained in securities in the previously established Shenzen and Shangai stock exchanges has, in the 2000s, to intergrate the country into international financial markets, partially. At times, due to the cyclical fluctuayions, restrictive and expanding legal regulations have been had recoursed to money and capital markets. China has also been affected by the global crisis of 2007-2008. Such that; the increase in derivative transactions generated on mortgage loans has led to an explosion in housing sales, accompanied by heating in the economy. Again, central government has been attempted to make restrictive decisions in the face of conceivably increases in magrin trading affairs and the emergence of a balloon in this zone.

An important factor that effects the foreign trade volume of PRC is exchange rate policy. China, which was a closed economy before the reform, selected to be closed in the exchange rate policy after the reform. As the foreign trade volume increases, the central government that wants to remove the dominance on the foreign exchange, has started to release the foreign exchange retentions of the investors in partial quantities. The realization that the fixed exchange rate system will cause degrowth of the investor in import and export has opened up a little bit of exchange rate policy. However, as the exchange rate regime is still fixed, the exchange rate regime and the capital liberty policies are in contradiction. With the world's second largest economy and foreign exchange reserves exceeding 3 trillion US dollars, PRC is trying to maintain price stability by fixed exchange order.

In case the growth of the stock market, restrictive decisions in the housing sector and the sectoral shrink have been effective. The tendency of real estate investments to stock markets has increased the transaction volume of securities. Since 2000, the gravity center of investments in capital markets and real sector has changed with the frequent interventions of central government. As a matter of fact, the stock market which has risen after the shrink of the real estate has been evaluated by the central government as "non-productive investment" and led the central bank to take restrictive measures.

The fact that the PRC stock markets are not completely integrated with foreign markets, the fluctuations that are happening do not reflect much on the stock exchanges of other countries. Then again; it would be unrealistic to tell the volatility of stock markets, as market actors in the contry do not appeal to leveraged transactions. The fact that securities are not exposed to speculative trading does not mean that they are not fragile against external factors. The central government and central bank authorities, aware of this condition, have often expressed their positive approaches on the integration of financial markets. However, the restrictive measures on stocks, bonds, bills, etc. have prevented it. Additionally, in recent years, threatening policies for transactions of government bonds and stock between the USA and PRC have given clues to the reserves of the PRC and encouraged other contries to create protective policies.

The banking sector has been conducted by the government with majority in the PRC. Private capital established banks carried on business in order to support certain sectors, closed to the market economy. Foreign banks that came to the country after the reforms decreased the profitability ratios of the domestic banks, but the market circumstances started to reveal. Competition has developed in the sector and productivity has increased. However, the performance of the PRC in the opening up to the international financial markets has not been as advanced as the successful reforms in domestic markets.

Conclusion

The issues that have been investigated for PRC, are usually after 1978, in other words, after the reforms. In the same years, the liberalization process in industrialized countries is about to be completed, while emerging economies have started to exist. Until the reforms, PRC has followed closely with thick population and the economy isolated from international markets. All activities, which are production, commerce, banking all others are in trust of central government and under restrictive controls.

The system, called the socialist market economy, reminds Keynesian policies after the 1929 Depression, yet the planned economy model is not only fiscal policies, but also leaving the western World because of the content of all micro and macro policies. It can not be argued that the purpose of the reforms is completely catching up the modern time. It is obseerved that the PRC has been slow and reluctant for integration to the international markets. This circumstance, which is generally expressed as "gradually" in the literature, is not only about being unwilling, but also about the population, geography and many other dimensions of the country. However, the historical and political reasons for China to take reformist steps in Deng Xiaoping government are much preponderating.

One of the remarkable factors of the market economy is the withdrawal of the government from the sectoral activities that are outside the mandatory and strategic services, namely privatization affairs. It is observed that the privatization affairs in the PRC's reform process are not adequate. The government behaves slowly to withdraw from its own enterprises not want to leave control untouched. One of the drawbacks of privatization affairs is the apprehension of increasing unemployment. In addition to the technology-intensive production model, when privatization is added, unemployed communities will emerge at a rate that can not be compensated.

Consequently, it can be said that China is a World power because of its GDP but, at the same time it is in developing counties course, because of its population and per capita GDP. A growing economy is not a threat for global environment. Foreign trade volume contributes all foreign traders beside Chine. Actually, growth and liberalization of China will harbor many opportunities for other countries. A major country that uses enegy sources for manufacturing provides cheaper and standart goods and services to the World, at the same time creates employment.

Financial liberalization and integration of PRC is another opportunity for international Money and capital markets. The entrance of capital to the global financial markets creates multiples and products value.

References

Bahng, J. S. and S-M. Shin (2003). Do Stock Price Indices Respond Asymmetrically? Evidence from China, Japan and South Korea. *Journal of Asian Economics*. (14). 541-563. https://ac.els-cdn.com/S1049007803000940/1-s2.0-S1049007803000940-main.pdf?_tid=8cd756ad-4fb9-42e4-a6c3-4d59bbfefbdb&acdnat=1533649215_12bf0c2b55c02c4a240c78fad719fbf6 (accessed on 07.08.2018)

Barth, J. R., Li, L., Li, T. and Song, F. (2013). "Policy Issues of China's Financial Globalization". In *The Evidence and Impact of Financial Globalization*, ed. G. Caprio. Massachussets: Elsevier Inc. 355-365. http://www.auburn.edu/~barthjr/publications/2013/China%20Fin%20Globalization.pdf (accessed on 11.08.2018)

Chen, H., Jonung, L. and Unteroberdoerster, O. (2009). Lessons for China from Financial Liberalization in Scandinavia. *European Commission Economic and Financial Affairs Economic Papers*, (383). http://ec.europa.eu/economy_finance/publications/pages/publication15805_en.pdf (accessed on 08.08.2018)

Chen, Y. (2009). *Transition and Development in China – towards Shared Growth*. Cornwall, Bodmin: MPG Books Ltd.

Cheng, L. K. and Kwan, Y. K. (2000). What are the Determinants of the Location of Foreign Direct Investment? The Chinese Experince. *Journal of International Economics*, (51), 379-400. http://www3.nccu.edu.tw/~jthuang/What%20are%20the%20determinants%20of%20the%20location%20of%20foreign%20direct%20investment%20The%20Chinese%20experience.pdf (accessed on 13.08.2018)

Dong. J. and Xia, L. (2018). China's Financial Liberalization: Time to Restart. *Banco Bilbao Vizcaya Argentaria Research Paper.*

https://www.bbvaresearch.com/wp-content/uploads/2018/05/201805_China-Financial-Liberalization_edited.pdf (accessed on 08.08.2018)

Fishman, T. C. (2005). *China, Inc. – How the Rise of the Next Superpower Challenges America and the World*. New York: Scribner Inc.

Gabriele, A. (2009). The Role of the State in China's Indstrial Development: A Reassesment. *Munich Personal Repec Archive Papers*, (14551).
https://mpra.ub.uni-muenchen.de/14551/1/MPRA_paper_14551.pdf
(accessed on 11.08.2018)

Girardin, E. and Z. Liu (2007). The Financial Integration of China: New Evidence on Temporally Aggregated Data for A-Share Markets. *China Economic Review*. (18). 354-371.
https://ac.els-cdn.com/S1043951X07000168/1-s2.0-S1043951X07000168-main.pdf?_tid=7107a063-5b01-4526-bc6d-055a8e60721a&acdnat=1533648589_b02cd27d04dd11c43bab8409be7faa4c
(accessed on 07.08.2018)

Jones, D., Li, C. and Owen, A. L. (2003). Growth and Regional Inequality in China During the Reform Era. *William Davidson Working Papers*, (561).
https://core.ac.uk/download/pdf/3102612.pdf (accessed on 13.08.2018)

Lane, P. R. and Schmukler, S. L. (2007). The International Financial Integration of China and India. *World Bank Policy Research Paper*, (4132).
http://documents.worldbank.org/curated/en/391541468281395480/pdf/wps4132.pdf
(accessed on 07.08.2018)

Laurens, B. J. and Maino, R. (2007). China: Strengthening Monetary Policy Implementation. *IMF Working Paper*, (07/14).
https://www.imf.org/en/Publications/WP/Issues/2016/12/31/China-Strengthening-Monetary-Policy-Implementation-20230 (accessed on 11.08.2018)

Li, W. (2011). Effects of Foreign Bank Entry on Efficiency of Chinese Commercial Banks. *Proc. 57th World Statistical Congress, 2011, Dublin*, 6082-6088.
http://2011.isiproceedings.org/papers/950120.pdf (accessed on 11.08.2018)

Li, T. W. (2016). The Impact of Foreign Bank Deregulation on Firm Performance: Evidence from China. Doctorate Dissertation. Baltimore: Maryland University.
https://pdfs.semanticscholar.org/1336/2adf6621adf2c932d10e7b1f1faa0b028ed5.pdf
(accessed on 07.08.2018)

Lim, M-H and Lim, J. (2012). Asian Initiatives at monetary and Financial Integration: A Critical Review? *UNCTAD Backgroud Paper*, (4).
http://unctad.org/en/PublicationsLibrary/ecidc2012_bp4.pdf (accessed on 07.08.2018)

Mantzopoulos, V. and Shen, R. (2011). *The Political Economy of China's Systemic Transformation – 1979 to the Present*. New York: Palgrave Macmillan.

Masson, P., W. Dobson and R. Lafrance (2008). China's Integration into the Global Financial System. *Bank of Canada Review*. 17-29.
https://www.bankofcanada.ca/wp-content/uploads/2010/06/masson.pdf
(accessed on 11.08.2018)

Pomfret, R. (1997). Growth and Transition: Why Has China's Performance Been So Different? *Journal of Comparative Economics*, (25). 422-440.
https://www.sciencedirect.com/science/article/pii/S0147596797914773
(accessed on 13.08.2018)

Rumbaugh, T. And Blancher, N. (2004). China: International Trade and WTO Accession. *IMF Working Paper*, (04/36).
https://www.imf.org/external/pubs/ft/wp/2004/wp0436.pdf
(accessed on 13.08.2018)

Seo, J. I., Chao, G. S. and Park, S-B. (2013). An Empirical Study on the Impacts of the Chinese Banking Industry by Foreign Bank's Entry. *International Journal of Economy and Finance*, 5(1). 210-217.
http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.903.7374&rep=rep1&type=pdf (accessed on 11.08.2018)

Stiglitz, J. E. (1994). The Role of the State in Financial Markets. *World Bank Working Papers*, (14334).
http://documents.worldbank.org/curated/en/239281468741290885/pdf/multi-page.pdf
(accessed on 11.08.2018)

Walter, C. E. and F. J. T. Howie (2006). *Privatizing China Inside China's Stock Markets*. Singapore: John Wiley & Sons (Asia) Pte Ltd.

Yin, L. (2013). Get In or Get Out: The Impact of Financial Liberalization on China's Growth. *Honors Theses*. (56).
https://digitalcommons.csbsju.edu/cgi/viewcontent.cgi?article=1057&context=honors_theses (accessed on 08.08.2018)

The Fourth Industrial Revolution and Turkey: A Study in the Framework of the National Innovation System

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Abstract

The technology, which has evolved quite slowly and in an evolutionarily way until the 18th century, has increased its momentum in the last 250 years and has caused changes called as industrial revolutions. With mobile technologies and intelligent algorithms, the process of industrialization is on the verge of a new revolution in countries that shaped national cultures with scientific enthusiasm and support of the technical inventions. In this study, the general-purpose technologies of the fourth industrial revolution and the Turkish national innovation system were explained. As a result of the study, it was emphasized that the national innovation system should be structured on the axis of general-purpose technologies of the new revolution.

Keywords: The Fourth Industrial Revolution, National Innovation System, Technology
Jel Codes: O14, Q16

Introduction

Three major industrial revolutions have occurred in the last 3 centuries (Kagermann et al., 2013). The first industrial revolution is a process which lasts from about 1760s to 1850s, expresses the mechanical production transformation on the axis of energy conversion. With this revolution, production has shifted from workshops to large plants called factories. The second industrial revolution occurred in the late 19th and early 20th centuries. The raw material of this revolution is steel. In general, this revolution is associated with the use of electricity in production and standardization. The third industrial revolution started in the 1970s when information technology and programmable robots began to be used for the first time in production. With the third revolution, the sub-units of the production chains have begun to optimize themselves.

As a result of the third revolution and the globalization of the world economy, capital has begun to shift to the most profitable areas. Production has shifted to countries with the lowest costs, especially to the Far East, due to the low labor costs. Western countries that have lost industrial production to Far East countries and started to feel uncomfortable in this situation have begun to develop technologies that will remove the cheap labor advantage of the East and transform their industries in the base of these technologies (Eğilmez, 2017). These technologies, which will reduce the workforce in production as much as possible, are described as a new revolution by many

authors. The aim of this paper is to review the technological innovations that lead to a new revolution and Turkey's national innovation system that will shape the effects of these innovations on the Turkish economy.

The Fourth Industrıal Revolutıon

One of the popular topics of recent years in Innovation Economics is the new industrial revolution. The debate first started at the Hannover Fair in Germany in 2011. The concept of Industry 4.0, discussed at the fair, was used to describe how the revolution will transform the organization of production chains (Schwab, 2016). In the same period, the German government prepared the 'High Technology Strategy Action Plan' within this concept. Following Germany, it was launched national initiatives under the names of "Advanced Factories" in Spain, "Smart Factories" in Italy, and "Future Industry" in France (TUBITAK, 2016). However, regardless of the name of the policies, the change in the production process is basically the same.

This new revolution, called the fourth industrial revolution in the economic literature, involves a construction which can completely change the production process. This structure can be defined as a production system that can adapt to the changing needs of the consumer instantaneously. Similarly, this structure can be defined as intelligent production systems that are in constant communication and coordination with each other (Akçıl, 2016). Kagerman et al. (2013) define this revolution as a new value chain organization and management throughout the life cycle of products, while Mrugalska and Wyrwicka (2017) describe it as the integration of complex physical machines and devices into networked sensors and software to better predict, control and plan commercial and social outcomes. Kolberg and Zühlke (2015) describe this revolution as a networked approach structured with internet standards proven to work well with components and machines. All these definitions point out that devices connected continuously with each other is the basis of the new revolution. The technological innovations that will shaped the fourth industrial revolution are shown in figure 1.

Figure 1. Basic Components of the Fourth Industrial Revolution

Cyber-Physical Systems (CPS)

Cyber-physical systems constitute the framework of the Fourth Industrial Revolution. The main task of Cyber-physical systems is to fulfil the dynamic requirements of the production process and to raise the efficiency of the entire industry. These systems usually contain embedded software, communication technologies, sensors and actuators to interact with the real world (Özsoylu, 2017). It combines the real world and the cyber (virtual or digital) world and in this way, the physical processes are combined with the computing power. This integration provides a new form of control, surveillance, transparency and productivity in the production process (Yildiz, 2018). CPS use technological innovations such as the Internet of Things, Big Data and Artificial Intelligence. In other words, CPS represents an integrated structure of these technologies.

Internet of Things (IoT) and Big Data
The Internet of Things first expressed by Kevin Ashton in 1999 is a network that physical things are linked to each other or larger systems (Greengard, 2017). Internet of Things describes the vision that all kinds of objects such as clothes, houses, major appliance, transportation vehicles, cargo packages, etc. will be equipped with

various sensors, processors and communication systems and can be connected with the internet (Ege, 2014). In addition, this vision may be linked to all the machines and tools used in the production process. In this case, it is generally called Industrial IoT (Ercan & Kutay, 2016).

Big data is data that collected continuously from objects equipped with sensors. The concept of Big data is not only about the volumetric size of the data. It emphasizes that the collected data is an instant and uninterrupted process (Usta & Doğantekin, 2017). Due to the uninterrupted flow of data, the Internet of Things offers a new data management system that accelerate the process control. In this respect, the IoT serves as a platform for gathering and transforming information to stimulate and activate the CPS (Lee et al., 2015).

Artificial Intelligence, Advanced Robotic, Additive Manufacturing: Smart Factories

Developed countries are investing in intelligent manufacturing units to maintain their competitiveness in the globalizing world. They create policies in this framework. In 2016, the US government created the Intelligent Production Leadership Coalition (Department of Energy, 2016) to provide research and development of intelligent production technologies. In the same year, the Japanese government announced its Community 5.0 plan, which combines intelligent production systems with social transformation. The Turkish government has announced the "Intelligent Manufacturing Systems Technology Roadmap" in order to develop smart factories. (Japan Business Federation, 2016, TUBITAK, 2016).

The report prepared by TUBITAK stated the critical technologies of the new revolution as in table 1.

Table 1. 'Intelligent Manufacturing Systems' Critical and Leading Technologies

Digitalization	Big Data and Cloud Computing Virtualization Cyber Security
Interaction	Internet of Things Sensor Technologies
Factories of the future	Additive Manufacturing Advanced Robotics Automation and Control Systems

Source: (TUBİTAK, 2016, s. 5)

Besides CPS, IoT and Big Data, other important factors in the creation of smart factories are artificial intelligence, advanced robotics and additive manufacturing. The facilities equipped with advanced robotics and additive manufacturing devices and the coordination of these devices provided by artificial intelligence constitute the smart factories of this revolution (Qin, Liua, & Grosvenora, 2016). In these plants, additive manufacturing is at the forefront of prototyping and product customization, while advanced robotics is at the forefront of serial production of products. These factories are also called the dark factories because they are equipped with intelligent technologies and almost no one is employed. The first examples of dark factories are beginning to be seen nowadays. A mobile phone module manufacturer in China has reduced the number of workers from 650 to 60 with the effective use of robots in the manufacturing process. The percentage of defective parts at the output of the product decreased from 25 percent to 5 percent (Aksoy, 2017, s. 38).

Communication and close links between products, machines, transport systems and people are expected to change the current production pattern. In a smart factory, products can find their way independently within the manufacturing process and can be easily identified and located at any time. This production process enables cost-efficient, highly flexible and customized products (Hoffman & Rüsch, 2017).

National innovation system (NIS) of Turkey

The fourth industrial revolution will have a multifaceted impact on the world economy. All economic variables such as GDP, investment, consumption, employment, foreign trade, inflation, income distribution, etc., will be affected. One of the most important factors in shaping the revolution's impact on Turkey's economy will be Turkey's national innovation system. NIS take an active role in the transfer of technologies from different countries, in reverse engineering, in the development of new knowledge and technologies, and in the spreading of the effects of innovations.

Attempt to establish a national innovation system began with the 'First Five-Year Development Plan' in 1963. TUBITAK was established in 1963 to carry out basic and applied researches in natural sciences, to direct the researches to be done, to organize, to establish business and to encourage them. After this date, TUBITAK has a separate importance in the development of science and technology in Turkey. TUBITAK has rapidly developed as a scientific research institution to educate scientists and researchers and to promote science and technology policy proposals (Kepenek, 2016: 654-655).

Besides TUBITAK, another important institution for the establishment of science, technology and innovation policies is The Supreme Council for Science and Technology. This council is the top decision maker in the development of the NIS in Turkey. Established in 1983, the main objectives of the council are to disseminate scientific thinking, to identify and plan research objectives, to educate researchers, to provide policy recommendations to the Turkish government, and to coordinate between institutions related to technology development (Saatçioğlu, 2005).

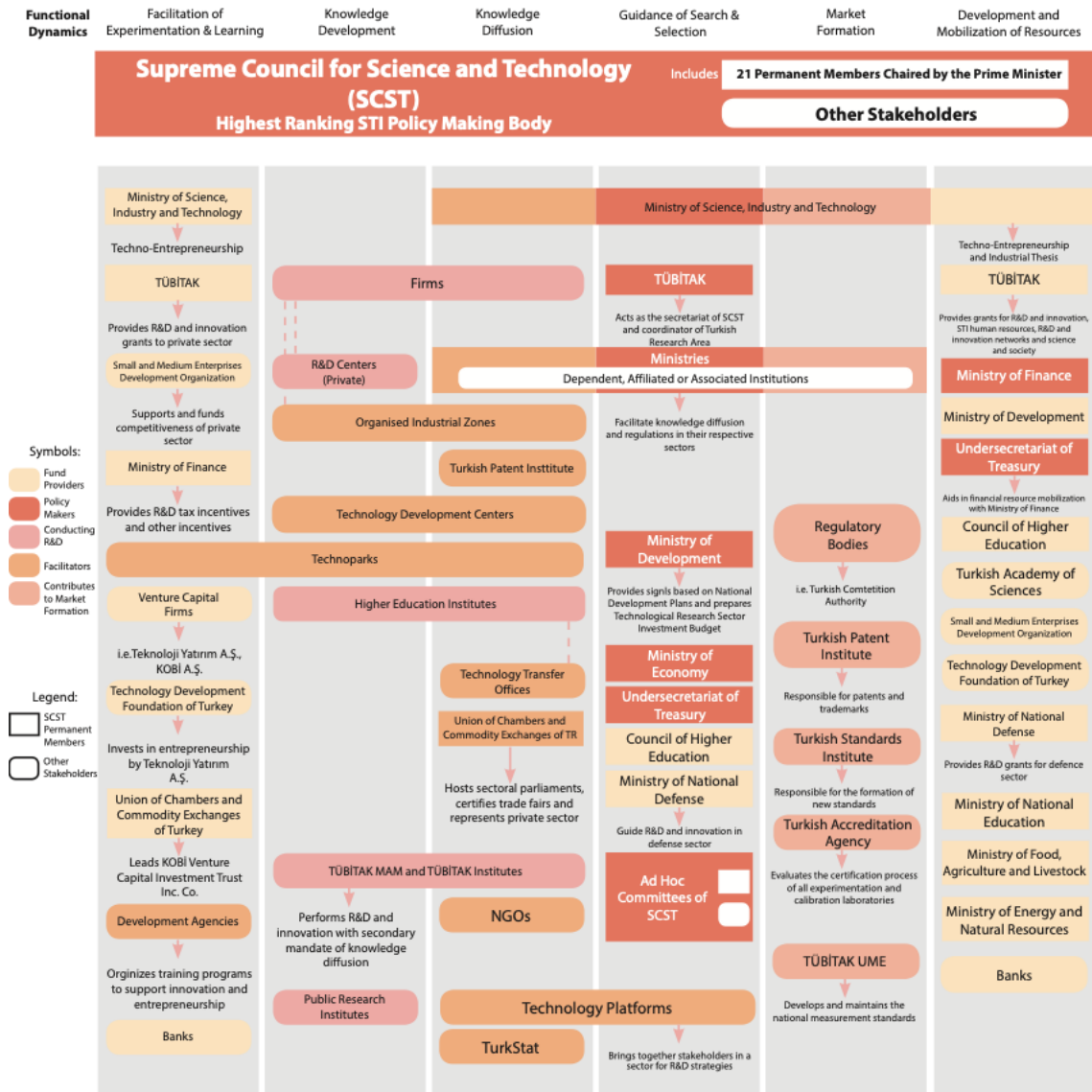The following figure prepared by TUBITAK shows the stakeholders of the national innovation system.

Figure 2: Major Actors in Turkish National Innovation System

Source: (TÜBİTAK, 2012)

According to the figure, the Turkish national innovation system consists of 6 layers that involves 5 different types of institutions and organizations. Layers are listed as promoting entrepreneurship, information production, information dissemination, R&D and innovation orientation, market formation, and finally resources development and mobilization. The institutions forming the layers are listed as fund providers, contributors to the market formation, potential providers, R&D actors and policy makers.

Especially during the last 20-25 years, there have been significant developments in the creation of the components of the NIS and in the development of the network between its components. Funds provided by

institutions such as TUBITAK and KOSGEB have been increased to a great extent. The topics supported by KOSGEB were expanded and the support budget, which was 143 million TL in 2006, has been increased by 7 times in 10 years to 991 million TL (KOSGEB, 2017). In addition to financial support, new universities have been established to improve the science and education system throughout the country. The number of universities which were 53 in 1992 increased to 207 in 2017 (YÖK, 2017). Technology development zones (technoparks) have been established in many universities. Currently, 57 are in operation and 24 are under construction stage (Ministry of Industry and Technology, 2017). The quantitative increase in the components of the NIS rise the capacity of innovation production of the country.

However, the increase in the number of technoparks, research institutes or universities is not enough for the effective NIS. In these institutions, it is necessary to employ the people who have sufficient scientific knowledge. Despite many positive steps taken in the development of the NIS, the population with higher education has not reached the level of developed countries. Today in Turkey, only 18% of the population has received higher education. In 2017, OECD average is 35%, and this ratio is 45.5% in South Korea, which is less developed than in Turkey in 1960s. In OECD countries, only Mexico, and Italy have lower ratios than Turkey (OECD, 2018).

Similar to the low university graduate rate, there is a lack of academicians. In 2017, there are approximately 158 thousand faculty members in Turkey. The distribution of faculty members according to academic titles is as follows: 24,000 professors, 15,000 associate professors, 35,000 assistant professors, 35,000 teaching staff and 46,000 research assistants. These numbers can be seen tremendously. However, considering the number of students per faculty member, it is understood that the faculty member is actually quite inadequate. While there are 5 students per faculty member in developed countries, there are 25 students per faculty member in Turkey (Sen, 2017, p. 103).

The basic element of being one of the leading countries in the fourth industrial revolution is the scientific knowledge production capacity of the country. The lack of academicians and the low level of education are reflected in the number of scientific papers. The table below shows the number of articles published in 2003, 2010 and 2016 in selected countries, the change between these years and the ratio to the total number of articles in the world. Only 1.13% of the articles published in 2003 in the world was published in Turkey. This ratio rose to 1.48% in 2016. When the developing countries in the table are examined, it is seen that this increase is relatively weak. Even Iran under sanctions for many years has shown a better performance than Turkey. China has been able to increase its share in the world from the 7.3% level to the 18.5% level.

Table 2. Article Numbers of Selected Countries

	Articles (2003)	World Share (%)	Articles (2010)	Change (%)	World Share (%)	Articles (2016)	Change (%)	World Share (%)
Turkey	13.354	1,13	25.584	91,59	1,31	33.902	32,51	1,48
Korea	23.201	1,96	50.935	119,54	2,61	63.063	23,81	2,75
Brazil	16.752	1,41	41.755	149,25	2,14	53.607	28,38	2,33
Iran	3.768	0,32	25.209	568,95	1,29	40.975	62,54	1,78
India	26.797	2,26	62.790	134,32	3,21	110.320	75,70	4,80
China	86.621	7,30	316.915	265,86	16,21	426.165	34,47	18,56
Germany	70.448	5,94	97.179	37,95	4,97	103.122	6,11	4,49
EU	388.657	32,77	568.066	46,16	29,06	613.774	8,05	26,73
USA	321.766	27,13	409.853	27,38	20,97	408.985	-0,21	17,81
World	1.185.942		1.954.924	64,84		2.296.271	17,46	

Source: It is regulated by World Bank data.

One of the most important objectives of technology and innovation policies is to improve R&D activities, which are the basic input of the technology development process. Turkey has succeeded in raising the share of R&D expenditure in GDP in the last 15 years. While the share of R&D expenditures in GDP was 0,53% in 2001, it increased to 0.80% in 2010 and to 0.94% in 2016 (TÜİK, 2018). However, when compared with other countries, it is seen that the rate of 0.94% is not enough. While Israel allocates 4.25% of its GDP to R&D, South Korea allocates 4.22% of its GDP. The OECD average is 2.33%. In OECD countries, only seven countries have lower shares than Turkey (OECD, 2018).

The data expressed in the preceding paragraphs are quantitative indices belonging to the units that make up the framework of the NIS. It is also important to look at the technology intensity of the goods produced in this system or the numbers of the country's patents in order to see how the current NIS produces output. The share of high-tech products in total exports of Turkey is extremely low. In 2017, the share of high-technology products is 2.7%, the share of medium-high technology products is 33.6%, the share of medium-low technology products is 29.4% and the share of low technology products is 34.3%. OECD's triple patents data which include the data of the three major patent offices, the European Patent Office, the US Patent and Trademark Office and the Japanese Patent Office, are frequently used to compare countries. Turkey ranks the 29th among 54 countries with 49.6 Triadic patent number (OECD, 2018).

Finally, it is necessary to examine the data of the NIS in terms of the information and communication technologies. As explained earlier, the fourth industrial revolution is possible when the devices used in the production process can communicate with each other instantly. Therefore, it is necessary for the countries which want to achieve this revolution to develop information and communication technologies and use these technologies as a leverage in the production of value-added by adding many different sectors. In this respect, it is important to examine the data for Turkey's information and communication technology. The share of ICT goods in total exports in 2016 is around 1.34% in Turkey. Turkey is well below the world average in producing and exporting ICT. This rate is 22.27% in South Korea and 11.28% on average in the world (World Bank, 2018). Turkey is trying to carry out the digitization by imports of ICT. However, it is not a sustainable structure to try to achieve digitalization with a large amount of ICT imports.

Conclusi**on**

The speed of technological developments is increasing day by day. The general-purpose technologies of the fourth revolution are spreading much more rapidly than before. It took 120 years for the spinning machines, the icon of the first industrial revolution, to move out from Europe. In spite of this, the Internet has spread all over the world in less than 20 years. A similar diffusion is experienced in mobile technologies. The developed countries are producing policies in order to be the pioneer of the Fourth Industrial Revolution. Therefore, there is no time to lose for Turkey. Turkey's national innovation system must be restructured in the axis of the new revolution's general-purpose technologies such as Artificial Intelligence, Cyber-physical Systems, Internet of Things and Additive Manufacturing.

References

Akçıl, S. (2016). Üretim İçin Yeni Bir İzlek: Sanayi 4.0. *Journal of Life Economics*, 19-30.

Aksoy, S. (2017). Değişen teknolojiler ve Endüstri 4.0: Endüstri 4.0'ı anlamaya dair bir giriş. *SAV Katkı*(4), 34-44.

Dünya Bankası. (2018). *ICT Exports*. World Data Indicatior: https://data.worldbank.org/indicator/TX.VAL.ICTG.ZS.UN?locations=TR-KR-1W adresinden alındı

Department of Energy. (2016, 06 20). *FACT SHEET: President Obama Announces Winner of New Smart Manufacturing Innovation Institute and New Manufacturing Hub Competitions*. Energy: https://www.energy.gov/eere/amo/articles/smart-manufacturing-transforming-american-manufacturing-information-technology adresinden alındı

Eşiyok, B. A. (2016, Nisan 29). Yeni Türkiye'nin Ekonomisi: Düşük ve Orta Teknoloji Temelli. *Herkese Bilim Teknoloji*, s. 23.

Ege, B. (2014, Mayıs). Dördüncü Endüstri Devrimi Kapıda Mı? *Bilim ve Teknik*.

Ercan, T., & Kutay, M. (2016). Endüstride Nesnelerin Interneti (IoT) Uygulamaları. *Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi*, 599-607.

Eğilmez, M. (2017, 05 08). *Endüstri 4.0*. mahfieğilmez.com: http://www.mahfiegilmez.com/2017/05/endustri-40.html?m=1 adresinden alındı

Greengard, S. (2017). *Nesnelerin İnterneti* (1 b.). (M. Çavdar, Çev.) İstanbul, Türkiye: Optimist Kitap.

Hoffman, E., & Rüsch, M. (2017). Industry 4.0 and the current status as well as future prospects on logistics. *Computers In Industry*(89), 23-34.

Japan Business Federation. (2016, Nisan). *Toward realization of the new economy and society - Reform of the economy and society by the deepening of "Society 5.0"*. http://www.keidanren.or.jp/en/policy/2016/029_outline.pdf adresinden alındı

Kagermann, H., Wahlster, W., & Helbig, J. (2013). *Recommendations for implementing the strategic initiative INDUSTRIE 4.0: Securing the Future of German Manufacturing Industry; Final Report of the Industrie 4.0 Working Group*. Forschungsunion.

Kolberg, D., & Zühlke, D. (2015). Lean Automation enabled by Industry 4.0 Technologies. *IFAC - PapersOnLine, 48*(3), 1870-1875.

KOSGEB. (2017, 11 28). *Plan, Raporlar ve Mali Tablolar.* KOSGEB: http://www.kosgeb.gov.tr/Content/Upload/Dosya/PERFORMANS_2016.pdf adresinden alındı

Lee, J., Ardakani, H. D., Yang, S., & Bagheri, B. (2015). Industrial big data analytics and cyber-physical systems for future maintenance & service innovation. *Procedia CIRP*(38), 3-7.

Mrugalska, B., & Wyrwicka, M. K. (2017). Towards Lean Production in Industry 4.0. *Procedia Engineering, 182*, 466-473.

OECD. (2018). *Population with tertiary education*. https://data.oecd.org/eduatt/population-with-tertiary-education.htm adresinden alındı

OECD. (2018). *Triadic patent families (indicator).* OECD DATA: https://data.oecd.org/rd/triadic-patent-families.htm adresinden alındı

Qin, J., Liua, Y., & Grosvenora, R. (2016). A Categorical Framework of Manufacturing for Industry 4.0 and Beyond. *Procedia CIRP*(52), 173-178.

Özsoylu, A. F. (2017). Endüstri 4.0. *Çukurova Üniversitesi İİBF Dergisi*, 41-64.

Ross, A. (2016). *The Industries of the Future* (1 b.). Simon & Schuster.

Saatçioğlu, C. (2005). Ulusal Yenilik Sistemi Çerçevesinde Uygulanan Bilim ve Teknoloji Politikaları: İsrail, AB ve Türkiye Örneği. *Anadolu Üniversitesi Sosyal Bilimler Dergisi, 1*, 179-198.

Sanayi ve Teknoloji Bakanlığı. (2017). *İstatistikler*. Teknoloji Geliştirme Bölgeleri: https://btgm.sanayi.gov.tr/Handlers/DokumanGetHandler.ashx?dokumanId=fc58fc90-5bc4-4786-8b12-0125a54394a1 adresinden alındı

Schwab, K. (2016). *Dördüncü Sanayi Devrimi* (1 b.). (Z. Dicleli, Çev.) İstanbul: Optimist.

Şen, Z. (2017). *Bilim ve Türkiye.* TÜBİTAK.

TÜBİTAK. (2012). *Türkiye'nin Bilim, Teknoloji, Yenilik Sistemi ve Performans Göstergeleri.*

TÜBİTAK. (2016). *Akıllı Üretim Sistemlerine Yönelik Çalışmaların Yapılması [2016/101]*. https://www.tubitak.gov.tr/sites/default/files/2016_101.pdf adresinden alındı

TÜİK. (2018). *Araştırma-Geliştirme Faaliyeti İstatistikleri*. http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=1620 adresinden alındı

TÜİK. (2018, 02 28). *Dış Ticaret İstatistikleri, Ocak 2018*. Ağustos 2018 tarihinde Haber Bülteni: http://www.tuik.gov.tr/PreHaberBultenleri.do?id=27784 adresinden alındı

TUBİTAK. (2016). *Yeni Sanayi Devrimi Akıllı Üretim Sistemleri Teknoloji Yol Haritası.* Bilim, Teknoloji ve Yenilik Politikaları Daire Başkanlığı.

Usta, A., & Doğantekin, S. (2017). *Blockchain 101*. İstanbul: MediaCat.

Yükseköğretim Kurumu. (2017). *YÖK*. İstatistik: https://istatistik.yok.gov.tr adresinden alındı

Yıldız, A. (2018). Endüstri 4.0 ve akıllı fabrikalar. *Sakarya Üniversitesi Fen Bilimleri Enstitüsü Dergisi, 2*(22), 546-556.

The Evaluation of Turkey's Military Operations in Syria in Terms of International Law Rules

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Abstract

The Arab Spring process has spread to Syria in 2012 and the conflicts in this country have started between the regime forces and the opponents. With the inclusion of regional states and global powers, Syria has become a war zone and the state authority has been destroyed in this country. ISIS, PYD and other paramilitary structures which fledgling in this lack of authority has been a major security threat for Syria's neighbors, especially for Turkey. As a result of Assad`s regime, coalition forces and the UN can not solve this security problem effectively, Turkey launched an operation under the name of Euphrates Shield in order to ensure their safety and so it has been carrying out a number of military operations in Syrian territories. In this context, the study is aimed that Turkey`s deploying troops in Syria will be discussed. This study which is prepared in order to analyze whether Turkey`s operations are legitimate in terms of international law, is also important.because it will create a prediction on the sustainability of this policy and Turkey`s deploying troops in this country in the future. In the first part, use of force in international law will be studied, in the second part, Turkey`s operations and conditions requiring these operations will be analyzed, and finally, the legitimacy of these operations will be discussed.

Keywords: International Law, Use of Force, Turkey, Syria, Shah Euphrates

Introduction

The Arab Spring process has spread to Syria in 2012 and the conflicts in this country have started between the regime forces and the opponents. With the inclusion of regional states and global powers, Syria has become a war zone and the state authority has been destroyed in this country.

The results of this situation in Syria affected even international politics, mostly affected the countries neighboring Syria. Espacially Turkey is one of these countries. More than 3 million refugees coming from mass immigration have caused serious economic, political and social disadvantages. This has created many new threats espacially including economic security, identity security, medical safety, social safety, public security and national security areas in Turkey. In addition to that the Kurdish independence movement in northern Syria has constituted a significant risk in terms of Turkey's national security. The attacks of the terrorist organizations such as ISIS, PYD and YPG in Turkey has increased. So national security has become the primary concern of the country.

Because of the power struggle and interests accounts of the regional and global actors which involved in this chaos in Syria,iIt has not been possible to reach a consensus on a clear solution strategy at the bilateral or multilateral summits and even in the UN, so threat and dangerous factor can not be eliminated, For this reason,

Turkey has launched military operation which limited area near their border in order to disposal of available resources and prevent the formation of new threats for ensure their safety and prevent to their own national security

There are both opposing and supporting parties to Turkey which was regading its military operations as self-defense. This balance in the present conjuncture makes it possible to Turkey's millitary enter in Syrian territory, albeit limited. If it is a permanent solution on Syria crisses, Turkey will not need to conduct military operations. Even if he wants, this opportunity will disappear. However, in a situation where permanent solution can not be found, the current military presence will be shaped in the future by the international law and legality of driving operations.

International Law and The Use of Force
Prohibition of the use of force in international law

In today's international law, it is in principle forbidden for a state to use force against another state in order to prevent wars and occupations, establish and maintain international peace and security.

The first developments in this area were seen after the First World War. In 1925, with the signing of the Treaty of René, signed between England, France, Germany, Italy and Belgium, the first prohibited use of force in international law and the Briand-Kellogg Treaty signed in 1928 reached a size that encompasses many countries.[1] After the Second World War the prohibition of use of force has gained importance and than the idea that the prohibition on the use of force should be made universal, be binding with sanctions.[2] These thoughts were embodied under the United Nations framework established. [3] In Article 2/4 of the Charter of the United Nations, it is forbidden in a clear sense that States use force against other states or that there is a danger in this respect;

> *"All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations."[4]*

This prohibition in Charter of The United Nations, which established to ensure and maintenance of international peace and security ss a result of gained experiences from the WW I and WW II and its conclusions, differs from the previous one as a universal principle. As can be understood from the "any state" statement in the charter, the treaty deals with this prohibition not only member states but also non-member states.

Exceptions to the Use of Force

Although the use of force is prohibited as principle on a universal scale in international relations, there are cases where such acts are lawful. These situations are; "Self-defense" and "using force with the UN decision".[5]

Using Force With The UN Decision

In the article 42 and 43 of UN Treaty, it is stated that the use of force on behalf of the U.N with the decision of UN competent bodies against situations that could jeopardize international peace and security is in accordance with the law. This issue, which was included in the seventh chapter of the UN Charter entitled "Actıon Wınter Respect To Threats To The Peace, Breaches Of The Peace, And Acts Of Aggressıon", has been expressed in Articles 42 and 43;

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[1] Malcolm N. Shaw Qc, Internatıonal Law, Cambridge University Press, Newyork, 2008. Pp 1121-1122.
[2] Milorad Petreski, The Internatıonal Publıc Law And The Use Of Force By The States, Journal Of Liberty And International Affairs | Vol. 1, No. 2, 2015, Pp. 2.
[3] Oliver Dörr, "Use Of Force, Prohibition Of", Encyclopedia Of Oxford Public International Law, Oxford University Press, 2015, Pp. 2.
[4] "Charter Of The Unıted Natıons And Statute Of The Internatıonal Court Of Justıce" Un Publication, San Francısco, 1945, Pp.3. (Access: Https://Treaties.Un.Org/Doc/Publication/Ctc/Uncharter.Pdf)
[5] Momir Milojević, Prohıbıtıon Of Use Of Force And Threats In Internatıonal Relatıons, : Law And Politics Series Of Facta Unıversıtatıs Vol. 1, No 5, 2001, Pp.599.

Article 42: "*Should the Security Council consider that measures provided for in Article 41 would be inadequate or have proved to be inadequate, it may take such action by air, sea, or land forces as may be necessary to maintain or restore international peace and security. Such action may include demonstrations, blockade, and other operations by air, sea, or land forces of Members of the United Nations.*"[6]

Article 43: "*1-All Members of the United Nations, in order to contribute to the maintenance of international peace and security, undertake to make available to the Security Council, on its call and in accordance with a special agreement or agreements, armed forces, assistance, and facilities, including rights of passage, necessary for the purpose of maintaining international peace and security. 2- Such agreement or agreements shall govern the numbers and types of forces, their degree of readiness and general location, and the nature of the facilities and assistance to be provided.3- The agreement or agreements shall be negotiated as soon as possible on the initiative of the Security Council. They shall be concluded between the Security Council and Members or between the Security Council and groups of Members and shall be subject to ratification by the signatory states in accordance with their respective constitutional processes*".[7]

Using Force in Right of Self-Defense

Self-Defense in international law; it means defending itself by using force when a state confronts another state or a plurality of states with the act of using an unlawful force. This right is explicitly stated in Article 51 of the UN treaty as follows;

"*Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defence shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.*"[8]

Although it is not written in international treaties and agreements, the use of self-defense right has been tied to certain principles. These principles;[9]
- It is necessary to have an exist actual attack.
- The self defense of the attacked country must be proportionated to the threat or attack
- The self-defense of the attacked state is limited by the time it the UNSC takes for action to this attack.

Also, decisions which regarding the use of the right to self-defense of International Court of Justice have become generally applicable as well as treaties and principles. In this context, there are two different type of self defense in implementation of international law. These implementations are; "self-defense in order to protect its own citizen" and "self-defense against to terrorism".

In 1976, a passenger plane bearer Jewish people was abducted and hijacked by pirates. In response to this situation, Israel has carried out operations in the Uganda, during this operation not only hijackers but also ugandian people were killed and many of the aircrafts belongs to uganda were dropped.[10] In this case led to the ICJ, it has been decided that Israel has the right to self-defense in order to protect its own citizen in the foreign country and that it uses it.

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[6] "Charter Of The United Nations And Statute Of The International Court Of Justice" Un Publication, San Francisco, 1945, Pp.9. (Access: Https://Treaties.Un.Org/Doc/Publication/Ctc/Uncharter.Pdf)
[7] Ibid,
[8] Ibid
[9] Kalliopi Chainoglou, Reconceptualising Self-Defence İn International Law, King's Law Journal, Vol.18, Issue:1, Pp.74-75.
[10] David J. Gordon, Use Of Force For The Protection Of Nationals Abroad: The Entebbe Incident, Case Western Reserve Journal Of International Law, Volume 9, Issue 1, 1977, Pp.117-118.

In the 1980s, terrorists in the territory of Nicaragua attacks against the United States, so the U.S. entered operations in Nicaragua without permission. In the decision of ICJ about the Nikaragua – U.S case in 1986, it was emphasized that a state terrorist acts against to itself carried out had the right to take "proportional" measures to stop these terrorist attacks.[11]

Syria Crisis and Turkey Military Operations
Backround of Crisis in Syria

The Arab Spring process, which started in North Africa in 2010 and spread to the Middle East, jumped to Syria in 2011 and damaged the state authority in a large extent on Syria. With the beginning of this process, it is impossible to talk about a single sovereign authority that could provide security and stability in Syrian territory. While the Assad's regime maintains its dominance in the southern Syria, the middle and northern regions of the country are in conflict with betwen the ISIS, Assad's opponents and the Kurdish Movement.

Reflection of the Syria Crisis to Turkey

The Syrian Crisis has negatively affected Turkish national security in many respects. Existing security problems have increased while emerging new security issues such as border security, terrorism, refugee issues, health security, energy security, food security, social security, economic security, community security and more. Within these security problems, terrorism threat, border security and refugee problem have become security issues which are on the front.

Terror threat for Turkey, living with the threat of the PKK for many years, is not a new phenomenon. However, this threat has significantly increased with the state's collapse in Syria.[12] Turkey was targeted 89 times by different terrorist organizations from 2011 to the end of 2016. ISIS, PKK and their connected terrorist structures have the biggest share in these attacks The attack of this organization and affiliated group does not depend on just the developments in Syria. Also the existing structure of the PKK in the country Turkey's policy of democratic opening caused it. However, because of the weakness of the border security allows the terrorist to pass and the strengthening of PYD reflected to PKK, the north of Syria situation has triggered the rise of PKK terrorism in Turkey.

The attack from the PKK and its associated YPG-TAK-HPG is as follows;[13]
- 5 attacks in 2015 and killed 26 people
- 18 attacks in 2016 and killed 340 people
- 4 attacks in 2017 and killed 11 people

There is similar situation also for ISIS. However, the Syrian affiliation of ISIS is much more dominant. The attacks of ISIS are as follows;[14]
- 1 attack and 52 deads in 2013
- 1 attack and 3 deads in 2014
- 6 attacks and 140 deads in 2015
- 6 attacks and 124 deads in 2016,
- 1 attack and 39 deads in 2017

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[11] "Case Concernıng Mılıtary And Paramılıtary Actıvıtıes In And Agaınst Nıcaragua" Reports Of Judgments Advısory Opınıons And Orders, Internatıonal Court Of Justıce, 27 June 1986, P.127.
[12] Mevlut Cavusoglu, The Meaning Of Operation Olive Branch, Foerign Policy, Aprıl 5, 2018, Https://Foreignpolicy.Com/2018/04/05/The-Meaning-Of-Operation-Olive-Branch/
[13] "Türkiye'de Son Beş Yılda Patlayan Bombalar" Deutsche Welle, 29.06.2016   Https://Www.Dw.Com/Tr/T%C3%Bcrkiyede-Son-Be%C5%9f-Y%C4%B1lda-Patlayan-Bombalar/A-19363717
[14] Ibid

In addition to these terrorism, El Nusra and militans of the Assad's regime's forces led to another terrorist attacks. Between 2013 and 2016, there was a loss of more than 120 people during the attacks related to these.

The civil war in Syria revealed the wars of sovereignty in the north of the country. These regions have become a time-losing but constantly contested area of conflict between the regime forces, the FSA, the PYD and the ISIS. This clash occurred near the boundary settlement, especially when the Turkish territory, has created major security weakness for Turkey. In addition, falling howitzer and missiles thrown to land of Turkey has arisen many times the loss of life and property due to conflict near the border of country. Only between January and May 2016, falling howitzer and missiles thrown to Kilis and its vicinity exceeded 160. Moreover, while the uncontrolled borders of Syria caused the problem of the transition of the informal economy and uncontrolled refugees, due to the lack of authority in Syria, the problem of terrorism became a separate problem. Another security weakness brought about by this situation is the ease of entry of smuggled goods, goods and people. In this context, it has been a serious weakness in the fight against drug trafficking, weapons smuggling and other similar trans-border crime.

Since the early days of the civil war in Syria, over 3.5 million Syrian refugees have came to Turkey.[15] Initially, it were planned for about 250,000 refugees and they placed to the prepared refugee camp. When the number of refugees goes above this figure, the refugees have begun to spread into the country. When this brought together many problems, the real problem emerged in the mass immigration that came with a sudden wave. After ISIS Kobani surround, over the 100 thousand people passed the border and they entered into Turkey in only 3 nights. Over the next few days, more than 200 kobanian passed the border in 20 days. This situation led to problems in Turkish cities as well as it was required a serious effort to manage the crisis because of a sudden progress. In addition to this, a similar risk has arisen in the Aleppo attacks. It was seen large groups fled to Turkey.

Turkish Operations
Euphrates Shield Operation

Turkey has started the "Euphrates Shield Operations" in order to ensure the safety against the all these threats on August 24, 2016. The operation started when Turkish troops entered Celabrus and ended with under the control of Al-Bab.

Map 1 : Map of Euphrates shield operation

Kurdish Groups (PYD/YPG)   Turkish soldier   ISIS   Assad Regime

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[15]   Mevlut Cavusoglu, The Meaning Of Operation Olive Branch, Foerign Policy, Aprıl 5, 2018, (Access: Https://Foreignpolicy.Com/2018/04/05/The-Meaning-Of-Operation-Olive-Branch/)

Resource: Stratejik Ortak (Access: https://www.stratejikortak.com/2018/08/firat-kalkani-harekati.html)

It was taken back 33 villages in the first 6 days and ISID has been removed from all the villages on the border with Turkey in 11th day of the operation.[16] In October, Mare-Azez-Cerablus-Çobanbey and its surroundings were fully controlled. In February, al-Bab was under control. it was announced that the operation was completed on March 30, 2017 after 216 days from the start of the operation.

Olive Branch Operation
The Turkish Armed Forces and the Free Syrian Army initiate military operations against PKK, KCK, PYD-YPG and ISIS in the Syria's Afrin and Azez regions on 20 January 2018 in order to ensure and control both of the border line security and the region people living there.
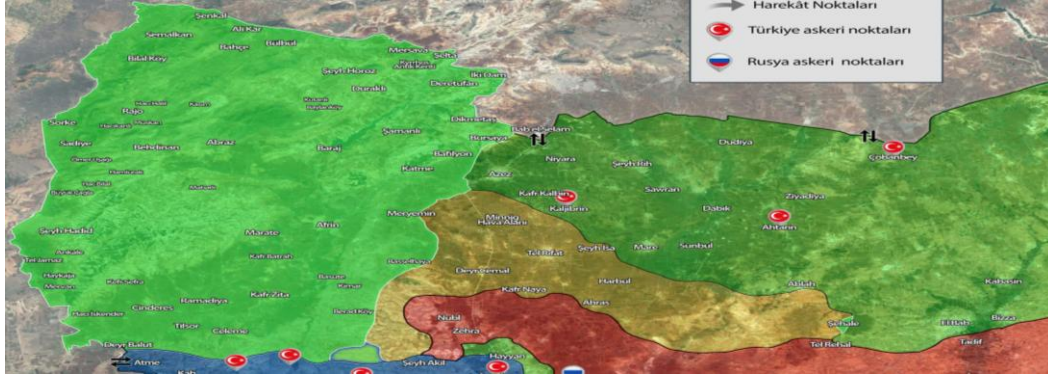
Map 1 : Map of Olive Branch Operation
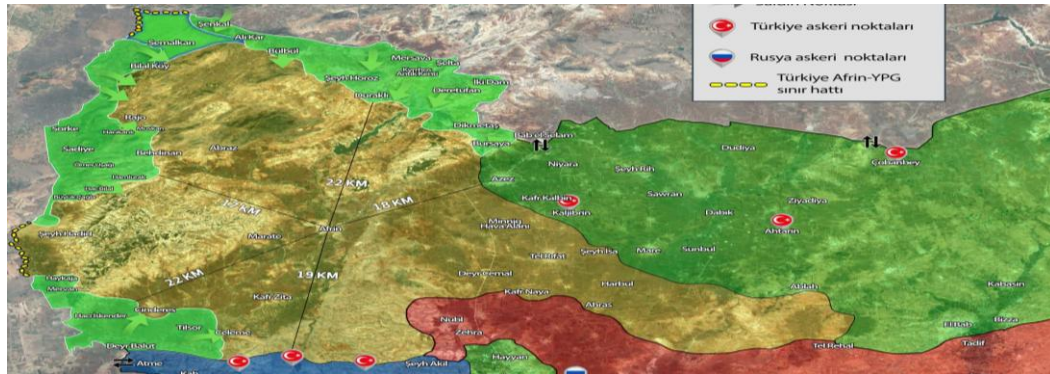
Kurdish Groups (PYD/YPG)   Turkish soldierAnd FSA   Russian Army   Assad Regime

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[16] Fırat Kalkanı Harekatı Ve Harita Çizelgesi, Stratejik Ortak, 28.08.2018 (Access: Https://Www.Stratejikortak.Com/2018/08/Firat-Kalkani-Harekati.Html)

Resource: Stratejik Ortak (Access: https://www.stratejikortak.com/2018/07/zeytin-dali-harekati-harita.html)

50 strategic points including Bülbül, Cinderes, Mabatlı, Raco, Şeran and Sheikh Hadid municipalities and 282 villages, strategic 23 mountains and hills, 1 dam, 1 airport and 1 base until 26 March 2018; A total of 332 regions were under control by Turkey and the Turkish Armed Forces backed Free Syrian Army.[17] March 24, 2018 and in all of Afrin district was seized by the Turkish Armed Forces and FSA forces backed Turkey. In addition, Nearly 5,000 terrorists were killed and ISIS was thrown out of this area by the operation.

Internation Law Status of Operations

It would not be wrong to say that the operations carried out by Turkey is within self-defense right. Even if it is not written in the direct agreement, the ICJ decision about US-Nikaragua case is a peer. Turkey's operations is not within the scope of attack crime. it is in the framework of self-defense against terrorism. In addition, Turkish operations are also appropriate in terms of the criteria for the use of the right to self-defense.

- First of all, Although it has been not carried out by a state, there have been multiple attacks on Turkey. Although this situation and the demand of Turkey for the creation of safe zones have been on the UN's agenda many times, there is no decision taken by the UNSC to solve this problem.
- These operations took place only near the border of Turkey where the threat factor can be seen. Therefore, operations are at a proportional level.
- When there is a permanent solution in Syria and no need for a safe zone, Turkey will not need operations. So, Turkey's military presence will not be permanent and in a limited time.

Conclusion

International law rules has originated not only through treaty or contracts, but also international judicial decisions. In this context, the scope of the "offense" statement, as expressed in Article 51 of the UN treaty has expanded coverage by ICJ decisions, while emerging as only to state from stete. In this reason, fighting against terrorism is considered within the scope of self-defense in current international law rules.

Threat of a terrorism that requires to Turkey's operation is give legitimacy to the operation at the same time. The decision of the ICJ about Nicaragua case and its generalizable structure has also been the supporting for this. This situation will continue as long as take decision to solution for Syria crises in the UN, which is the agenda of global politics.

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[17]   Zeytin   Dalı   Harekatı: Güncel   Afrin   Son   Durum   Haritası,   Stratejik   Ortak,   20.07.2018,   (Accesss: Https://Www.Strategikortak.Com/2018/07/Zeytin-Dali-Harekati-Harita.Html)

Turkey has taken measures with his operation against threats that may come from the West side of Turkey-Syria border. But the east side of border still has a variety of risks. These area are under the control of the PYD and YPG which it is saw as the terrorists by Turkey. If the power struggle on the Syrian continues and the problem can not be solved, this area will come to the agenda for new operations. When Turkey caught an appropriate balance in the global policy, it will want to benefit from this situation. So, it will expand its operations eastward.

References

 "Case Concernıng Mılıtary And Paramılıtary Actıvıtıes In And Agaınst Nıcaragua" Reports Of Judgments Advısory Opınıons And Orders, *International Court Of Justıce*, 27 June 1986,

"Charter Of The Unıted Natıons And Statute Of The Internatıonal Court Of Justıce" Un Publication, San Francısco, 1945, (Access: Https://Treaties.Un.Org/Doc/Publication/Ctc/Uncharter.Pdf)

"Fırat Kalkanı Harekatı Ve Harita Çizelgesi", *Stratejik Ortak*, 28.08.2018 (Access: Https://Www.Stratejikortak.Com/2018/08/Firat-Kalkani-Harekati.Html)

 "Türkiye'de Son Beş Yılda Patlayan Bombalar" *Deutsche Welle*, 29.06.2016 Https://Www.Dw.Com/Tr/T%C3%Bcrkiyede-Son-Be%C5%9f-Y%C4%B1lda-Patlayan-Bombalar/A-19363717

"Zeytin Dalı Harekatı: Güncel Afrin Son Durum", *Stratejik Ortak*, 20.07.2018, (Accesss: Https://Www.Stratejikortak.Com/2018/07/Zeytin-Dali-Harekati-Harita.Html)

CAVUSOGLU, Mevlut, "The Meaning Of Operation Olive Branch", *Foerign Policy*, Aprıl 5, 2018, (Access: Https://Foreignpolicy.Com/2018/04/05/The-Meaning-Of-Operation-Olive-Branch/)

CHAİNOGLOU, Kalliopi, "Reconceptualising Self-Defence İn International Law", *King's Law Journal*, Vol.18, Issue:1, Pp. 61-94

DÖRR, Oliver, "Use Of Force, Prohibition Of", Encyclopedia Of Oxford Public International Law, Oxford University Press, 2015, Pp. 2.

GORDON, David J., "Use Of Force For The Protection Of Nationals Abroad: The Entebbe Incident", *Case Western Reserve Journal Of International Law*, Volume 9, Issue 1, 1977, Pp.115-132.

MİLOJEVİĆ Momir, "Prohıbıtıon Of Use Of Force And Threats In Internatıonal Relatıons", *Law And Politics Series Of Facta Unıversıtatıs,* Vol. 1, No 5, 2001, pp.581 – 604.

PETRESKİ, Milorad, "The Internatıonal Publıc Law And The Use Of Force By The States", *Journal Of Liberty And International Affairs*, Vol. 1, No. 2, 2015.

SHAW, Malcolm N., *Internatıonal Law*, Cambridge University Press, Newyork, 2008.

Optimization Approach to Customs Tariff Rates Formation Applicable to Customs Regulation in the Russian Federation

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Abstract

An optimization approach to the rationale for customs tariff rates is suggested in the article. The basic idea of this approach is the formal model for justification of the rational customs tariff rates in the form of corresponding liner programming problem.

Keywords: Foreign trade activity, customs regulation, Customs Tariff, Duty Rate

Introduction

Customs regulation of foreign trade in the Russian Federation encompasses establishment and application of rules regulating the movement of goods across the customs border. It includes customs and tariff regulation, prohibitive measures and restrictions on import and export of goods.Customs and tariff regulation is a process of regulating foreign trade activities by the government by means of customs duties.

The key elements of customs and tariff regulation of foreign trade activity are the Commodity Nomenclature of Foreign Economic Activity and the Customs Tariff. In Russia, the Common Commodity Nomenclature of Foreign Economic Activity of the Eurasian Economic Union (EAEU CN of FEA) is applied in the interests of customs and tariff regulation. It is a systematized list (classifier) of goods. It is based on the nomenclature of The Harmonized Commodity Description and Coding System, also known as the Harmonized System (HS), of the World Customs Organization (WCO) and the tariff-and-statistical Combined Nomenclature of the European Union (CN EU).

Structurally, it is formed to classify and distribute each separate product assigned with a particular classification code into five levels of detail:

> 1st level - Sections;
> 2 nd level - Chapters (two-digit code);
> 3rd level – Headings (four-digit code);
> 4th level - Sub-headings (six-digit code);
> 5th level – TARIC code (ten-digit code).
> At the level of Chapters, goods are classified by industry.

The formation of groups is based on the following features: the manufacturing and product development degree (from raw materials and semi-finished products to finished products); raw material used for the product manufacture; product functions and some other characteristics.The formation of Headings and Sub-headings is governed by the following characteristics: the type of raw material used for the product manufacturing; production capacity; value of goods in the world trade. The last four digits of the 10-digit Sub-heading code reflect the detailing of the goods nomenclature in accordance with the characteristics adopted in the countries-members of the Customs Union.

In general, EAEU CN of FEA consists of 21 sections, 97 Chapters, more than 1,200 Headings, more than 5,000 Sub-headings and 11,000 TARIC codes.

The customs tariff is a set of import customs duties rates systematized in accordance with the Common Commodity Nomenclature of Foreign Economic Activity of the Eurasian Economic Union (EAEU CN of FEA). The Russian Federation uses the Common Customs Tariff of the Eurasian Economic Union. (EAEU CCT). It performs fiscal and regulatory functions. *The fiscal function* is to collect customs fees determined by tariff rates when moving goods across the customs border. Fulfilling the fiscal function customs payments serve as one of the main sources of the federal budget.

The regulatory function is to establish rates to limit or stimulate the import of certain types of goods.

Formation of the customs tariff rates primarily entails an estimation of economic consequences of such actions for the benefits of the government. For such an assessment an appropriate methodical apparatus is needed. Such approach should consist of establishing a measure of the economic consequences as the result of customs tariff adjustment and formation of a method for determining it. In the first approximation change in the budget revenues per an adjustment in CCT rates can be considered as a measure of these consequences, determined by the relation [1]

$$\Delta Y(T_0, T_k) = Y(T_k) - Y(T_0),\qquad(1)$$

where $\Delta Y(T_0, T_k)$ - change in federal revenue from tariff T_0 to tariff T_k;

$Y(T_0), Y(T_k)$ - federal revenue came from tariffs T_0, T_k, respectively.

For the purposes of an a priori assessment of changes in federal revenue per customs tariffs adjustment, their expected values are considered as $Y(T_0)$, $Y(T_k)$. In the first approximation they are determined on the assumption that the tariff rate is equal to the average value for the Chapter, Heading and Sub-heading of the EAEU CN of FEA, and the flow of goods that belongs to the specified product section remains constant for tariffs T_0, T_k. This assumption is made with relatively small variations in tariffs.

The average value of the ad valorem rate of a duty as -th chapter of EAEU CN of FEA is calculated by the formula:

$$\overline{X_j(T_k)} = \frac{\sum_{i-1}^{n} x_{ij}(T_k)}{n_j} \quad j = 1,2,...,J, \quad k = 0,1,\qquad(2)$$

where $x_{ij}(T_k)$ – the value of *i*-th duty rate in the *j*-th chapter of T_k - th Customs Tariff;

n_j – the number of duty rates in the *j* –th subset of CCT;

J- the number of elements in the selected subset of the EAEU CN of FEA (with sections *J*=21, and chapters - *J*=97).

For special tariff rates calculations in (2) ad valorem rates are considered [2].

The average ad valorem rate of the tariff section is multiplied by the amount of the corresponding value that reflects customs duties contribution to customs payments, that is

$$Y_j(T_k) = \overline{X}_j(T_k)D_j ,\tag{3}$$

where D_j – total volume of goods moved across the customs border related to, j-th section of CN of FEA.

The total contribution of customs payments to the federal budget at the application of the Customs Tariff is determined by the ratio

$$Y(T_k) = \sum_{j=1}^{J} Y_j(T_k) .\tag{4}$$

In general, the relations (2) - (4) allow us to estimate the total customs payments contribution to the budget of each member of EAEU when applying the CCT. The substitution (4) in (1) allows to estimate the change in budget revenue per adjustments in import customs tariff rates.

The adjustments in CCT rates has a significant impact on budget revenue. Worth noting that budget revenue can both increase and decrease with the growth of tariff rates. Therefore, it creates the necessity to establish an optimal CTT that maximizes revenue to the budget as a result of customs duties collection.

Formally the procedure of establishing the optimal CCT can be represented in the form of the following mathematical programming problem [3]:

Determine the values x_{ij} ($i = 1,2,\ldots,n$, $j = 1,2,\ldots,J$) of Customs Tariff Duty rate which ensure the fulfillment of the condition

$$Y = \sum_{j=1}^{J}\sum_{i=1}^{n} D_{ij}x_{ij} \xrightarrow[x_{ij}]{} \max \tag{5}$$

under the conditions

$$\overline{X^r}_j = \frac{\sum_{i-1}^{n} x_{ij}}{n_j} \le X_j^{\max}, \quad j = 1,2,\ldots,J ,\tag{6}$$

where D_{ij} - the volume of ij-th type of goods moved across the customs border;

$X_j^{\max}$ - the maximum allowable average duty rate for goods of the j-th section of the EAEU CN of

FEA in accordance to international agreements.

Ratio (5) is a formal representation of the requirement to maximize budget revenue as a result of customs duties collection.

Ratio (6) takes into account the restrictions on customs duties according to international agreements.

The problem (5) - (6) is a linear programming problem. Its solution can be found on the basis of the simplex method. If such solution exists, it ensures the optimality of the customs tariff.

To sum up the proposed approach provides an opportunity for an a priori assessment of the impact of CCT rates adjustments and recommendations for their rational alteration based on such assessments.

References

Bogoyeva YE.M. and others. CONCEPTUAL ASPECTS OF STRATEGIC ANALYTICS FOR SHAPING CUSTOMS POLICY OF THE CUSTOMS UNION In the collection: Analysis of development and security of the country: realities and prospects Materials of the First Russian Conference; The motto of the conference is "Intellectual potential of society for the benefit of development and security of Russia." Public Chamber of the Russian Federation; 2014. P. 148-157

Saurenko T.N. ECONOMIC AND CUSTOMS RISK MANAGEMENT Monograph / State Public Educational Institution of Higher Education "Russian Customs Academy". Moscow, 2015.

Anisimov V.G. and others. MODEL FOR FORMATION OF OPTIMUM ADAPTIVE SOLUTIONS AT PLANNING   INVESTMENT   PROCESSES Economics and Entrepreneurship. 2013. No. 10 (39). Pp. 640-642.

Are Free Riders Rational or Immoral?

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Abstract

This paper aims at answering the question whether free riders are rational actors or they are immoral persons. I begin by considering a couple of examples and next examine the arguments which defend that free riders are immoral persons because of social, environmental and governmental considerations. Then, I will give the opposite arguments which claim that free riders are not immoral or at least not all cases of free riding is an immoral act. Since the problem of free riding is multi-faceted, I will concentrate on whether we can accuse free riders of violating any moral value within the constraints of a specific moral theory, namely utilitarian ethics. I will conclude that there are cases in which there may not be a sharp contrast between the utility of a person as a free rider and the utility from the social and cultural perspective.

Keywords: Free riders, philosophy, rationality, game theory, morality.

Introduction

Consider an apartment manager developed a penalty system for the tenants who do not pay $60 as condo fee monthly. The manager installs a code-operated system in the elevator cab and gave the password to the apartment owners only to those who pay the fee. The warning message posted by the manager at the entrance of the apartment says: "The residents who do not pay the monthly condo fee for their apartments were not allowed to use the elevator." One resident who lives on the 8th floor does not pay the fee at all. She says, "I do not pay the fee due to a certain problem between me and the manager concerning maintenance of the building. I am victimized in this case, because I live on the last floor, and this prohibition is against the elevator regulations of the buildings." Is she right not to pay the building fee by citing a specific reason, which she thinks justifies her behavior and still think that she is entitled to use the facilities of the building including the elevator? Or is she violating a moral code or value?

In this case, the tenant acts as a free rider benefiting a public good but not contributing to it and believes that it is not rational for her to pay the fee but irrational not to use the elevator. Many would believe that rationality does not deprive a person from benefiting from public goods freely even if one does not contribute at all. So, a free rider can be defined as a person who obtains benefits from positive external goods which are produced by other actors and parties but does not contribute for their production (Lever, 2012:25). In our example, the manager wants to punish the tenant by establishing a secret code-operated system, which denies access to those who do not pay their due. The manager sees depriving the tenant from the common facilities of the apartment as a rational option in order to extort the fee. But even if the manager is right to demand the fee in accordance with the regulations, his attempt to punish the tenant may not be right due to the excessive hardship he levies on her. This, however, might mean that other tenants are to pay extra for the fee to cover the loss. It is true that people tend to be hesitant about punishing the free riders and they usually prefer to ignore them or their behavior. If it is rational not pay the fee for the free rider, it should also be rational for the rest not to cover the loss. However, by shying away from punishing the free riders or ignoring their behavior, they become irrational actors themselves. Nevertheless, it is not so obvious what is the right thing to do in relation to the extra cost. In some cases, individuals may prefer not to punish free riders on the grounds that punishment will not provide a net benefit for

the community. Why punish anyway, if the public good will continue regardless of whether free rides ride or not?

Now consider a second example, a teacher in a classroom makes the following offer to 20 students in the class: "In a moment I shall pass my bag round and each of you can, if you wish, put 10$ into it. No one else will know whether you do or not. When the bag gets back to me, I shall multiply the total by ten and share it out equally among you, non-contributors included." What will happen? Will everyone put money in the bag? If you are a rational person, which situation best for you? There are three options: *Option 1(cooperation)*: If everyone puts $10 in, then (10x20x10/20: 100) each will get $100 back. Everybody wins net $90. *Option 2(others are free rider)*: If nobody puts money in but you, then (10x10/20:5) each will get $5, but you will lose $5. *Option 3(you are free rider)*: If everyone puts $10 but you, then (10x19X10/20: 95) each will get $85, but you will get net $95. In this case, there are two alternatives: one is cooperation and the other is free riding. Students must cooperate in order to have the optimal outcome, assuming that they do not know each other's strategy (incomplete information). Nevertheless, for the third option, there is a chance for you to get even more than the first option (Hollis, 1996).

Free riding seems beneficial from the perspective of the person who rides freely, since maximizing one's utility without paying any fee or doing anything extra is better than otherwise. This assumption, however, may be taken as justifying the claim that everyone should be free riders. If the utility maximization is taken as the most basic instinct, does it mean that everybody has an incentive to ride freely? The answer mostly depends on what we understand from free riding and how we define basic instinct or incentive. In the following, I will list some reasons to justify free riding as a behavior violating a moral code. In the last section, I will argue that the problem of free riding creates a moral dilemma: in some cases, free riders can be seen as immoral and in others as moral. Although this paper does not cover any empirical research regarding decision process and behavior of free riders, some surveys provide valuable insights on judgments of individuals with regard to the perceptions of the morality of free riding. According to Cubitt et al. (2011), individuals have different opinions about free riders depending upon different scenarios and frames. While in a case, free riders are condemned because of their "immoral" behaviors, in others, they are considered praiseworthy and smart; namely if the free rider knows that others has already free ridden then free riding "is judged morally commendable to 'rat on a rat'" (Cubitt et al., 2011: 262).

Reasons that Makes Free Riding as Immoral

There are three reasons that are given to justify free riding as an immoral behavior. *First*, free riders are detrimental to group solidarity. Society cannot merely be composed of individuals who pursue merely their own self-interest. Such a system would not be stable, and human life would be reverted to the conditions of state of nature, which is "nasty, brutish and short" as Hobbes would have surmised. According to Hirshleifer, "[t]he paradox is that all lose when all pursue their sole self-interest, and yet each has no guarantee that his or her restraint will be matched by the restraint of others. The essence of the free rider problems is that private costs must be incurred for group benefits" (1980: 562). If the majority in a given society continues collectively to believe that contribution and cooperation is better than free riding, then they will continue to contribute and cooperate. However, if numbers of free riders increase, then the group may set up another norm to reduce the number of free riders. Yet, there is another risk that increase in the number of free riders can force other members of the group to go for individual benefits, assuming that cooperation and coordination will no longer be retainable in that society. This means that everybody loses in the end.

A relevant argument made by Olson who claims that free riders threaten the cohesive nature of the group by increasing the cost of providing a common good, and reaping the benefits of the common good without contribution to it. He bases his argument on three axioms. The first axiom states that the larger the group, the smaller each individual's net benefit from the public good. Second, the larger the group, the less likelihood there is that any individual member of the group will unilaterally contribute to the group. Finally, the larger the group, the greater the cost of providing the public good there is (Olson, 1965). Using public resources with no

obligation or contribution is individually desirable. Yet, if everyone in the group pursues this course of action, how can these resources be maintained and social cooperation be regulated? This question leads to Olson to reject the idea of group rationality (Hardin, 2013).

Second, free riding is immoral since free riders cause the tragedy of commons. The tragedy of commons is strictly connected to the free rider problem since it shows that if everyone in society eager to be free rider and consume public goods as much as possible for their own benefit then these goods will start to diminish soon. Public goods are available in shared areas, and they range from schools and hospitals to roads and parks, which are provided, financed and maintained by governmental resources. The key term *sharing* seems to imply cooperation between the citizens and the government: citizens give taxes and in return, governments build common areas and facilities. What if some citizens do not want to give taxes, but still want to benefit from common goods? Instrumental rationality suggests that people are rational and they maximize their utility by choosing the best option from their alternative set. This assumption logically leads to claim that everyone should be free riders. But, the problem we face is that if all individuals acted as free riders in a society by choosing the best strategy for their individual benefits, then nobody would pay taxes, and in the end common goods would not be provided.

Third, free riding is immoral since it leads to governmental failures. It is true that government plays a considerable role in producing and providing goods such as museums, theaters, art, televisions, radios, schools and universities that are suitable for national goals and values. The main motivation behind this is that private market cannot produce cultural common goods properly and conveniently in a way available to all the levels of communities. If these goods are left to private sector, it would have been costly for the citizens to enjoy them and only a minority would be able to afford them. There are some public goods, however, which will be available for the use of the citizens even if they did not contribute. These are free and subsidized goods by the governments regardless of the contribution. How can people be reasonably expected to pay for weather to breath, for water to drink, and for roads or sidewalks to step on. (Adanali, 2016: 168). This will be ended up as an economic burden or a kind of failure which is coined as "market failure" by some public choice scholars such as James M. Buchanan (1975: 99). However, Buchanan and those who think like him claim that this failure is mainly a result of government intervention. As Pasour emphasizes "[w]hen an economic good is provided at no cost to the user, the user has no incentive to economize but rather has an incentive to use the good or service as though it were a free good" (Pasour, 1981:455). Not everyone agrees with this assessment and some even claim that that government intervention is necessary to prevent free riding. They think that without governmental sanctions, the system will collapse due to snowballing of free riders leading to total exploitation. However, not all goods are public and even in private sector free riding problem arises as we have seen in our apartment example. The main problem in both public and private spheres remain: to prevent free riding requires imposition of punishment or sanctions and this brings further extra cost. In short, free riding is costly if not to the riders, to the rest.

Reasons to Claim Free Riders are not Necessarily Immoral

The claim that free riding is immoral seems to some a bit strong, and they bring in some social, environmental and governmental considerations to argue against the immorality of free riding at least in some cases. They muster their case by citing four reasons. *First*, individuals are instrumentally rational. To be rational is to reduce costs and to increase benefits in deciding and choosing among alternatives. If a person is rational, this means she can calculate and recalculate among the alternatives and prefer one of them according to her benefits. This makes behavior of free riding can be legitimate from the perspective of utility maximization.

Second, maximizing utility is a natural outcome of instrumental rationalization. It is assumed that individuals consider all possibilities and carefully compares all alternatives along with the pluses and minuses of each case. If a person is a rational, and tries to maximize her personal interests in her choices, then she is a utility maximizer. In the case of free riding, the incentive for maximizing utility justifies itself. It is individually desirable to benefit from public goods without any obligation or no contribution. We can mention that the elders

do not oppose to and on the contrary welcome the free use of public transportation and nobody blames them as immoral for their preference. More recently, downloading music from internet tends to be seen among young generation as acceptable (Demuijnck, 2012).

Third, Public good is generally accepted as non-exclusive and non-rivalry. There is a common practice that nobody can be excluded from using public goods. Just because someone pays for a certain public good does not mean that nobody can use it except those who pay for it. When people realize that they continue to consume public goods even if they have not paid for them, then they are motivated for being a free rider. Since some public goods do not require continuous support, there is no need for contribution. This opens up some space for free riders. Listening to a radio station, as an example, does not produce extra cost, no matter how many people listen at the same time or download a book, which is available from the internet. Or, if someone visits a public exhibition, even if she does not support art or pay taxes, nothing will reduce the value of the work of art. Thus, to prevent free riders from consuming public goods may not be possible and even desirable. In addition, preventing free riders from using public goods even if they did not contribute to their production will make these goods more costly for those who pay for them? Finding, punishing, disengagement free riders from the society may cost much more what free riders cost to societies; to collect data and report them to the government by using information technology will also pose a threat to individual freedoms.

Fourth, criterion for free riders is ambiguous. Since human behavior in collectivities is so interwoven that there is a difficulty to show those who are free riders or non-free riders.

Moral Dilemma

The reasons that are mentioned above for or against free riding with regard to its moral status show that there is more to free riding than its sheer private or social utility or its economic cost or benefit. The moral status of free riding is a complex matter that cannot be reduced to a single rule of utility or duty. Nevertheless, some people ride freely and others pay their share and we still need to find an answer why free riding is not the norm for human behavior in a given society, and it remains on the fringes of human social interactions. Why do we follow moral norms, anyway? Among others, two potential answers are given for this question. First, we follow moral norms for the benefits that they bring for us or for the community in which we live, and second we follow moral norms for their own sake. If we follow moral rules for the benefits that they bring, then we may hope that some our expectations will be met in due time such as social approval, living in a secure environment, recognition as a good person, or a devout or moral being. That is, moral behavior is valuable as a means to certain ends for its followers. If one can get a reputation for behaving morally, one can enjoy the consequences that it produces. In the second case, however, we follow moral rules since moral behavior can be intrinsically valuable. That is, they are valuable as ends in themselves such as being moral is good in itself, being moral makes one rational or being moral gives one happiness and provides meaning in life.

In *Republic*, Plato deals with the same question and tries to explain why we follow moral rules through the story of the ring of Gyges as mentioned in Glaucon's example. According to the story, Gyges with the help of a ring that made him invisible, kills the king, marries the queen and becomes the new king. Glaucon argues that if people have a chance to get away with a crime without getting caught, they would act in ways similar to that of Gyges. According to Glaucon, people act morally because they fear the punishment that their behavior incurs upon them. If they behave immorally, they can be ostracized from their community or deprived of certain rights and privileges or they may lose their access to public goods. Those who cannot bear the consequences of immoral acts would act as if they are moral. As the experimental psychologist C. Daniel Batson argues, to think of moral principles as always intrinsically motivated seems unrealistic. He thinks that "[r]ather than intrinsically motivating, we may adhere to principle only to avoid social and self-punishments or gain social and self-rewards, including the rewards of being seen by others and ourselves as good and moral" (2011, 234). His findings also show that evidence of hypocrisy can be more prevalent than moral integrity and "one does not

value being moral as an ultimate goal, only as an instrumental means to obtain desired self-benefits, reinforcing the tendency to value morality extrinsically rather than intrinsically" (2011, 232).

Results of these considerations pose a dilemma: Why do people easily think that free riders are immoral even when they realize that the border between instrumentally moral and intrinsically moral is not always clear? Furthermore, if we define morality instrumentally, then there is a way that free riders can consider themselves as moral persons as long as there are no practical disadvantages or costs stemming from their actions for societies. If a free rider harms no one, what is it about her conduct that makes it immoral, unfair or unjust? The instrumentally rational persons know that they may realize greater overall advantage by complying with moral norms when and only when they find them optimal to do so. This means that they can pretend to act as if they are moral individuals. Moral character may be instrumentally praised by governments to ensure manageable and secure community, by society to ensure social integrity among members, by family to ensure feeling safe and healthy.

I end stating three conclusions. First, since the reason why people follow moral rules is not always clear, some rule followers can act in line with their benefits and pretend to be moral. From the utility maximization point of view, this makes it hard to decide which behavior is immoral: free riding or pretending to be moral. Second, since public goods give individuals free riding as an option, free riders cannot be considered immoral in every case such as listening to a radio station, entering museum on free day, or obtaining a free-pass for public transportation. Lastly, as long as the number of free riders is low and their negative effects are limited, society will tolerate them and compensate for the cost or damage they cause.

Acknowledgment

References

Adanali, Y.K. (2016). *Rational Choice Theory: Its Merits and Limits in Explaining and Predicting Cultural Behavior*. Germany: Verlag LAP Lambert.

Batson, C.D. (2011). "What's Wrong with Morality?" *Emotion Review*. 3 (3), pp.230–236.

Buchanan, J. M. (1975). *The Limits of Liberty: Between Anarchy and Leviathan*. Chicago: University of Chicago Press.

Cubitt, R. P. et al. (2011). "Moral Judgments in Social Dilemmas: How bad is free riding?" *Journal of Public Economics*. 95(3–4). pp. 253-264.

Demuijnck, Geert. (2012). "Illegal Downloading, Free Riding and Justice." In *New Frontiers in the Philosophy of Intellectual Property*. 261-283. Annabelle Lever (ed.). Cambridge: Cambridge University Press.

Hardin, R. (2013). "The Free Rider Problem." *The Stanford Encyclopedia of Philosophy* Edward N. Zalta (ed.). https://plato.stanford.edu/entries/free-rider/ (Access: 15 July 2018).

Hirshleifer, J. (1980). *Price Theory and Applications*. 2nd ed. Englewood Cliffs, N.J: Prentice Hall.

Hollis, M. (1996). "The Public Good and The Free Rider." The Times Literary Supplement. https://www.the-tls.co.uk/articles/private/the-public-good-and-the-free rider/. (Access: June 3, 2018)

Lever, A. (2012). "Philosophy of intellectual property-incentives, rights and duties." In *New Frontiers in the Philosophy of Intellectual Property*. 1-32. Annabelle Lever (ed.). Cambridge: Cambridge University Press.

Olson, M. (1965). *The Logic of Collective Action*. Cambridge, MA: Harvard University Press.

Pasour, E. C. Jr. (1981). "The Free Rider as a Basis for Government Intervention" *The Journal of Libertarian Studies*. 5 (4), pp.453-464.

Plato. (1968). *Republic*. Allan Bloom (int.). USA: Basic Books A Division of Harper Collins Publishers.

Firm Specific Characteristics Influencing Market Timing Abilities. A Study Using Own Stock Transactions

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Abstract

Which firms are more likely to time the market? Using a relative transaction price approach, this paper focus on 37997 own stock transactions from Euronext Lisbon listed firms, ranging from 2005 to 2015, to estimate the relationship between the market timing ability of firms and a set of firm specific characteristics. Results show that smaller, more efficient but less valuable companies are more likely to be successful to time the market.

Keywords: Repurchase, Resale, Own Stock, Opportunistic Behavior, Market Timing, Own Stock Transaction Performance, Firms Characteristics, Fundamentals

JEL Codes: G14, G15

Introduction

Different firms tend to achieve different results while trading own stock. Physiognomies such as dimension, financial performance, efficiency, valuation, and liquidity levels may be used to characterize firms, thus allowing to explain the different ability to time the market.

Thus, this paper uses firm specific characteristics and relative prices to derive which type of firms are more likely to time the market while trading own stock. This is done by comparing the firm's trading performance directly with other traders' performances while trading the same stock, and regressing proxies for dimension, financial performance, efficiency, valuation, and liquidity levels on the relative transaction price. This paper focus on repurchases and resales as well as both open market or OTC transactions. Additionally, the paper tackles frequency and a major macroeconomic shifting event as controls for the analysis.

We also use different benchmark periods. This allows to analyse if the performance of a firm changes depending on their profile given a change on the benchmark used. Thus, showing different ability levels to analyse past performance and manage future expectations.

For this, we focus on the Portuguese stock exchange listed firms, using data on 37997 transactions from 2005 to 2015. Our dataset is of daily frequency and allows to establish the event-date and benchmark specific windows (with different lengths) in order to calculate the relative transaction prices such as in Santos and Gama (2017). The various intervals are designed to capture dissimilar trading activity with a higher or lower frequency.

To complement the analysis, we use dummy variables accounting for the firms trading frequency status, to distinguish between open market and over the counter transactions, and to signalize the impact of major macroeconomic event, in our case the 2011 bailout[1] by the European Union (EU) and the International Monetary Fund (IMF) to Portugal. We also divide our analysis into a specific section focusing on the financial sector only. This is due to its major weight in our sample. Our main results are the following:

First, when analysing the full range of transactions, we found that, smaller firms, with lower relative performance when compared to its share value, are better performers when trading own stock.

This is also true for firms with lower overall results. Still, improved market timing capabilities are also linked to higher levels of overall efficiency. This was proved true, both, when repurchasing and reselling own stock.

Second, after the 2011 bailout firms proved to have better performance when trading own stock. Here, infrequent traders were the ones showing better potential to time the market. As a complement, we also show that OTC trading is linked to lower market timing capabilities.

Third, when we focused solely on the transactions made by financial sector listed firms, we found some dissimilarities from the previous results. More specifically, within this subsample, the higher the relative performance of a firm when compared to its share value, the higher its capabilities to time the market through repurchase operations.

Fourth and final, when focusing on the expectation power measurement of firms by estimating results using only forward looking RTP's as dependent variables, results proved similar for both the general and the financial data samples. However, our proxy for relative valuation now showed inverse results, although very small.

The dummy variables respective signal stayed true to the previous full sample analysis. However, and curiously, the regressions using only forward looking RTP's as dependent variables proved stronger in most of the cases, showing that the past cannot be seen as a sole driver for choosing to trade own stock.

The remaining of this paper is organized as follows. Section 2 presents the literature review of the most relevant studies. Section 3 describes the dataset, the data-collection process and computations as well as the regression model. Section 4 presents and discusses the empirical results. Section 5 concludes the paper.

Literature review

The relevant literature on the relationship between firm characteristic and market timing abilities is scarce. One exception is Dittmar and Field (2015) which focuses on characteristics such as EPS forecasts and were able to show a correlation between harder to value firms and better market timing capabilities.

Also focusing on EPS, Voss (2012) states that, when repurchasing stock, firms remove outstanding shares from the market, and this decreases the average shares outstanding that is the denominator used on the earnings per share indicator.

Throught the same train of thought, it is simple to understand that other metrics, i.e. the price to earnings ratio, are also affected by the activity of trading own stock. Activity that may also be used to increase the wealth of the remaining shareholders (Schneider & Kohlmeyer, 2015).

However, along with some benefits associated to repurchasing stock, some researchers also present some negative outcomes. Naturally, to repurchase stock, firms do should possess a superior or equal amount of cash

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[1] The bailout period can be identified as having started in April 2011 (Fernandes, Gama and Vieira, 2015).

exceeding the needs to complete the repurchase operation (Mintz, 2007), and this is not always easy to accomplish.

Sometimes cash is limited, and even when it isn't, although repurchasing brings value in the short-term, that value replaces the investment in R&D, new assets, human capital or other activities that could add value in a larger time-horizon (Russolillo, 2014). Therefore, is it better to repurchase or to invest in medium to long term investments? This seems to be a hard question to answer, but truth is that "…each dollar used to buy back a share is a dollar that is not spent on business activities that would otherwise stimulate economic growth." (Asness et al., 2018). Thus, we can see that medium to long-term investments are placed in what can be called a myopic field. This is true for virtually all investment segments. Bending et al., 2017 paint a good picture on myopic marketing management, which is a specific version of this behaviour.

One other aspect impacting on the decision to buy or sell own stock is the management of a firm. As we previously discussed, repurchasing stock does increase some operational metrics by reducing the number of available shares in the open market.

Thus, performance-related compensation agreements may, in fact, be a factor influencing own stock trading behaviour and performance. This is, in fact, a situation that endangers the firm's health (Schneider & Kohlmeyer, 2015).

When we look at own stock trading and more specifically to the repurchase activity as an activity to increase operational metrics such as the EPS, we can easily deduce that, on the limit, the company would have no more shares to repurchase, and therefore if this is the only strategy to increase results, it will not work for a long time. Also, in the process of repurchasing stock, the firm would have to continuously be spending money coming from asset sales, borrowings or other sources, which similarly have limitations (Schneider & Kohlmeyer, 2015).

It is also known that, the literature presents evidence that by repurchasing leverage ratios can be increased (Opler and Titman (1996) and Dittmar (2000)).

However, with the literature regarding the characterization of firms which trade own stock being limited, it is worth it to state that other motivations for trading own stock have been presented in the past decades. These with more specific appeals.

It is clear that there are three mainstream reasons for trading own stock. These are the insider trading option model (Vermaelen and Ikenberry, 1996), the free-cash-flow hypothesis (Jensen, 1986), and the market-signaling hypothesis (Vermaelen, 1981).

But there are even more specific purposes for repurchasing own stock. Jolls (1996), Fenn and Liang (1997), and Dittmar (2000) proposed that repurchasing helps firms to diminish the employees' stock options effects.

Nonetheless, as we briefly stated before, transacting own stock is more than just repurchasing stock. Reselling is also seen as a window of opportunity for firms. Timing the market when addressing both types of operations is an activity that can prove to be largely profitable for firms. Due to the lack of studies focusing in reselling operations, tackling this issue can be one way we add to the literature.

Focusing on the performance results found on the literature, recently, Fu and Cheng (2015) defend that due to a liquidity increase in the stock market, result of a decrease of the trading costs and the increase on the institutional investors seeking for new opportunities, long-run abnormal returns related to repurchase transactions have been disappearing in the latest years.

However, it seems fair to say that even though information flows faster, market prices do have a lot more information reflected on them and trading costs are lower, markets can still be inefficient. Thus, firms can still profit for over/undervaluation of their shares. See Kumar et al., (2017).

Thirty years ago, it was true that there was an opportunity to profit if managers indeed found their shares to be selling below their value (Buffet, 1984), and this is still true now.
When analysing the performance of a firm transacting own stock, long-run abnormal returns may not be the best measure to evaluate own stock trading performance due to its lack of benchmarking ability (Dittmar and Field 2015; Santos and Gama 2017).

A better tool for evaluating market timing capabilities through trading own stock is the relative transaction price (RTP's), which was used introduced as relative repurchase price by Dittmar and Field (2015) and modified for higher frequency and broader application by Santos and Gama (2017).

With this, we complement the related literature by cross analysing firm specific characteristics and relative prices to derive which type of firms are more likely to time the market with own stock trading. We cover buy and sell operations as well as trades made on the open market or OTC.

Furthermore, we add to the literature by including frequency and major macroeconomic shifting event into the analysis.

Research Design

This section presents the data, relative transaction price calculation procedure, the frequency classification criteria, as well as the fundamental characteristics analysed in the sample.

Data collection

In order to tackle firm specific characteristics and its links to the ability to time the market when trading own stock, we focused on the dataset introduced by Santos and Gama (2017). The corresponding sample comprises data on 821 individual disclosure documents, totalling for 33 firms (which comprises the full universe of firms which traded and reported within the analysis timeframe), with data ranging from January 2005 to March 2015 and accounting for 37997 transactions.

The documents were gathered from the CMVM[2] and show original, unfiltered data uploaded by the firm itself. The number of disclosed documents and active trading firms on the market changes along the time spawn of the sample.

According to Santos and Gama (2017), firms are required to disclose in very specific conditions[3] and these make our sample fitted to study own stock transactions with a high degree of reliability.
In order to deal with the high frequency of operations (intra-daily[4]), aggregation was done by computing the weighted average daily trade price. This was made separately for repurchase operations and resale operations in

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[2] The Portuguese Securities Market Commission (CMVM), established in April 1991 focus on supervising and regulating securities and other financial instruments and the activity of all those interact within said markets. http://www.cmvm.pt/en/Pages/homepage.aspx,
[3] Quoting the CMVM regulation Section II of the n. º 5/2008: Own shares transactions are required to be disclosed when: The cumulative value of own shares transactions adds up to 1% or successive multiples of the total nominal value of their shares (calculated since the last effective disclosure), or if in the same market session, the amount of transacted stock is higher than 0.05% of the total firm traded shares.
Disclosing information must be done within three days counting from the respective date on which there was a transgression of one of the thresholds. Other countries in Europe follow a slightly different approach (Drousia et al., 2016)
[4] Original PDF files can disclose trading data trade by trade (high frequency), or daily aggregated, or even aggregated by order (which may be executed in several different trades). Aggregating data daily allows for comparing all different scenarios.

the open market, or over the counter[5]. Here, we followed the same approach as Santos and Gama (2017) (See annex I).

To address human error on disclosing, we filtered the data for outlier prices, misdating of operations as well as market opening incoherence regarding the stipulated trading calendar.

We also readjusted all historical data to all capital events occurring from the disclosing date until the present analysis date. Capital change events[6] with an adjustment factor different from zero were considered in this task. The outcome of this procedure was a robust dataset of 3740 aggregated daily observations for studying own stock transactions through repurchasing or reselling.

Firm Characteristics

The behaviour and performance while trading own stock is not constant between firms. Thus, to further ~~try and~~ understand this phenomena, we focused on analysing firm specific characteristics and its impact on the market timing capabilities of firms while repurchasing or reselling stock.

For this, we gathered information proxying dimension, financial performance, efficiency, valuation, and liquidity levels, which, that we have knowledge, have not been previously studied in the related literature.

To proxy for the previously stated dimensions we used the following[7]: the market capitalization for dimension, the return on assets for efficiency, EBITDA and the basic earnings per share excluding extraordinary items for financial performance, the price to earnings for relative valuation, quick ratio for liquidity and finally the total shareholder's equity for overall financial health.

Having gathered and proxied our study dimensions, we ended up with an unbalanced panel dataset which would allow to characterize firms according to their market timing abilities.

Relative transaction price and frequency status

The Relative Transaction Prices (or RTP) approach, as in Santos and Gama (2017), focus on comparing the average repurchase prices (average resale price) paid (received) by a firm in the course of a specific period, the trade price (TP), and a pre-defined benchmark, the benchmark price (BP).

Following the methodology used in the calculation of the average daily trade price, we use daily frequency data to compute trade prices for 5-day, 22-day and 66-day length time windows (both centered and forward looking) in order to compute the benchmark prices.

This, because the RTP always compares the own stock trading price to a benchmark. This ratio signal allows to assess the performance of firms when trading own stock.

Here, when the trade price is insignificantly different from the benchmark price, the firm shows neutral performance. Furthermore, if there are statistically significant differences between the average trade price and the benchmark price, which may be negative or positive, there exists evidence that firms perform better (worse) than other traders, making them able (unable) to time the market. For a more specific methodology on the calculation of the Relative Transaction Prices please see annex I-B.

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[5] PHP programing (Hypertext Preprocessor) was used to process the aggregation tasks more efficiently.
[6] Capital change data was retrieved from Thompson Reuters Eikon
[7] Data was retrieved from Thompson Reuters.

Regarding the frequency on which firms trade own stock, we may say that the trading activity among the firms within the sample is not homogeneous. This is expected to influence the traders timing skills and consequently the results of firms while trading own stock.

There are two distinct points of view when looking at this issue. Firstly, there is the perspective were a lower own stock trading frequency may be associated with lack of experience, therefore linked to a lower capacity of market timing. Secondly, there is the perspective where a higher trading frequency can lead the market to learn the patterns of a firm trading own stock at a high frequency rate. Thus, reducing the market timing capabilities. Even further, we can also derive that the higher the trading frequency the smaller the time windows to obtain good results.

So, using the same approach as in Santos and Gama (2017), we use a three-layer scale to classify each firm according to its trading frequency. We classify firms as frequent, moderate or infrequent traders. For this, we took a specific approach looking at the typical trading days per year (255 days) in the Portuguese market (Euronext Lisbon).

So, for each year in the sample individually, we consider a frequent trader a firm that trades in more than 15% of the typical year trading days, a moderate trader as a firm that trades in more than 5% of the typical year trading days but in less than 15% of the typical year trading days, and finally, we consider an infrequent trader a firm trading in less than 5% of the typical years trading days.[8]

Relative Transaction Price sample description

Regarding the relative transaction prices, table 1 presents a brief description of our sample. Totalling 3740 aggregated daily observations, we account from four distinct types of transactions.
Overall, we present data on 2839 repurchase transactions. Where 2730 took place on the open market and 109 over the counter. Focusing on resales transactions, we present data on 899 transactions from which 591 were made on the open market and 308 over the counter.

Regarding the frequency status of the firms, the frequency distribution as a percentage of the total firms that traded in each year of the sample shows that we have a larger group of infrequent traders. The second largest group are the moderate and at last the frequent traders group.
Noticeably, in 2012 we did not have a larger group of infrequent traders but moderate ones. They accounted for more than 54% of the total trading firms.

Modelling

When testing the RTP's distribution for normality to be used as dependent variable, we found that the sample did not follow a normal distribution[9] (see table 3 which presents the mean and median RTP results). Therefore, this supported our decision to the median value as a measure for comparing performance throughout the remaining of this work.
To identify relationships linking firms' specific characteristics and the ability to time the market, we estimated a set of pooled regressions on the medians using the RTP's as dependent variables and the firm characteristics as regressors.

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[8] In our system the frequency status is calculated in a yearly basis. Thus, one firm may have different frequency status in different years within the sample.
[9] We use the Shapiro –Wilk W test for normality to the different RTP's samples. This is done since, a priori, we do not know the distribution pattern of the relative transaction prices. The Shapiro–Wilk test is a test of normality in frequentist statistics. Published in 1965 by Samuel Sanford Shapiro and Martin Wilk it is commonly used to test series follows or not a normal distribution.

Overall, and covering the full sample, we applied the natural logarithm to all data that was not being presented in percentage or ratio form. This was made for scaling and interpretation purposes.

Accordingly, we also introduced set of dummy variables to account for the bailout period, the frequency status of the firm and to account for transactions made over the counter. This was made separately for repurchase and resell operations. Thus, the complete model is computed as follows:

$$RTP_{it} = \alpha + \beta_1 basicEPS_{it} + \beta_2 PE_{it} + \beta_3 ROA_{it} + \beta_4 LnEBITDA_{it} + \beta_5 quickratio_{it} + \beta_6 Lntotalequity_{it} + \beta_7 Lnmarketcap_{it} + \beta_8 Afterbailout_{it} + \beta_9 Frequent_{it} + \beta_{10} Infrequent_{it} + \beta_{11} OTC_{it} + \mu_{it}$$

(1)

Where, RTP_{it} – Stands for the Relative Transaction Price for each benchmark; α – is the model constant; β_n – is the coefficient coming from the respective regressor; the specific regressors; Afterbailout is a dummy variable turning 1 if the transaction is made after the bailout; Frequent is a dummy variable turning 1 if the transaction is made by firms which are classified as frequent traders and 0 otherwise; Infrequent is a dummy variable turning 1 if the transaction is made by firms which are classified as infrequent and 0 otherwise and; OTC is a dummy variable turning 1 if the transaction is made over the counter and μ_{it} is the error term.

In this model, increases in the market timing capabilities are, measured in negative (positive) impacts on the repurchase (resell) related RTP's.

Empirical results and discussion

In this section, we present the results of the computed regressions for both operation types (repurchase and resell) disaggregating by full sample and financial sector only, due to its large weight in our dataset, as well as making a distinction between centered RTP (-5 to 5, -22 to 22, -66 to 66) or forward looking RTP (0 to 5, 0 to 22, 0 to 66).

Full sample centered RTP's

Regarding the general sample repurchases and resells centered benchmarks, table 3 shows the results of the estimations. Here, we noticed that some firm specific characteristics do seem to influence the market timing capabilities of firms by impacting on the specific RTP's.

Focusing first on the Basic EPS excluding extraordinary items, the regression shows a positive impact on repurchase related RTP's, thus firms with a higher EPS ratio repurchase at a relatively higher price, and a negative impact on the resales related RTP's, where firms with higher EPS ratios reselling own stock sell at a relatively lower price. Thus, suggesting that the higher the relative performance of a firm when compared to its share value, the lower the capabilities of a firm to time the market. This is true for both repurchasing and reselling.

The same type of impact comes from the EBITDA and the Market capitalization which proxy performance and firm size. However, both these indicators only show statistical significant results when analysing repurchasing operations.

Contrarily to the latter, the ROA coefficients show evidence that firms with a higher ROA, thus higher efficiency, seem to have better timing market capabilities both when repurchasing and when reselling own stock. This is more evident when the analysis interval is bigger.

Both the quick ratio and the total shareholders' equity, proxies for liquidity and overall financial health, show mixed results. In the case or repurchase operations firms with higher values in these variables showed higher

capabilities of market timing through trading own stock. On the contrary, these capabilities are inferior when reselling.

The price-to-earnings ratio related coefficients, proxy for relative valuation, were the ones showing a lower degree of statistical significance across the board. Overall, they show a very small effect on the capabilities to time the market measured by the RTP's. This effect is positive when reselling (positive signal) and negative when repurchasing (positive signal)

Regarding our dummy variables, operations made after the bailout proved to be more likely to show a higher performance when repurchasing own stock and infrequent traders where the ones achieving better results both when repurchasing and when reselling.

Over the counter transactions proved to provide inferior results when repurchasing own stock and mixed results depending on the analysis timeframe when reselling.

Financial sector centered RTP's

When addressing the repurchases centered benchmarks regarding the financial sector only (no significant data available for resell operations), shown on table 4, interestingly we see non-similar results coming from the same indicators.

Here, the Basic EPS excluding extraordinary items, has a high negative impact on the repurchase related RTP's, thus firms with a higher EPS ratio repurchase at a relatively lower price. This, suggests that the higher the relative performance of a firm when compared to its share value, the higher the capabilities of a firm from the financial sector to time the market through repurchases. In this case, because the Portuguese stock exchange related data is mainly comprised of transactions from banks, we see that banks EPS have a high correlation with their market timing capabilities.

Also, the market capitalization, which proxy firm size, shows again a contrary signal. Suggesting that bigger banks have more trouble on timing the market while repurchasing.

The remaining variables showed mixed results depending on the timeframe of the analysis.
Regarding our dummy variables, infrequent traders where the ones achieving better results, again, except when analysing the monthly RTP's regression.

Forward looking RTP's

Focusing on the full sample RTP's first (see table 5), the results show a considerable similarity with the centered RTP's analysis, although the levels of statistical significance slightly differ.

The signals from the regression coefficients for the fundamental characteristics of firms coincide across the board with a few exceptions as is the case of the market capitalization which now shows statistical significant results for reselling operations. These results are mixed and show that there is a growing impact on the market timing capabilities of firms when we increase the interval time frame from weekly to monthly and then to quarterly.

Also, our proxy for relative valuation (Price-to-earnings) now shows inverse results. Again, very small impact, but nonetheless a positive impact on the market timing capabilities when repurchasing own stock and a negative impact when reselling.

Regarding our dummy variables, and addressing forward looking RTP's, it is even clearer that OTC operations reduce the market timing capabilities of firms both when repurchasing and reselling. This is given by positive (negative) coefficients in the repurchase (resell) related regressions.

Repurchasing after the bailout also proved to be more advantageous for firms, and finally, according to the forward looking RTP's regressions, infrequent traders are the ones obtaining the best results when repurchasing, but, now, frequent traders obtain higher results when reselling (this can be interpreted by the positive, and higher, coefficients of the frequent dummy in our reselling related regressions). This result can be related to a learning process of trading own stock and managing future expectations. More experienced firms may indeed be better are forecasting.

Regarding our financial sector specific results accounting only for forward looking RTP's (see table 6), results proved the same as in the centered RTP's regressions but stronger.

However, there is one specific improvement. In this model the relative valuation of firms (proxied by the price-to-earnings ratio) proves to be statistically significant for all timeframes when repurchasing and shows mixed results. For the quarterly RTP's related regression it shoes a negative impact on the capabilities of banks to time the market. However, when reducing the time interval to monthly or weekly, this effect shifts to positive. It is a very small impact after all.

Conclusions

This paper uses firm fundamental characteristics to explain market timing performance inferred using a relative transaction price approach.

For this, we used a broad sample comprising both repurchase and reselling operations, and, transactions made on both, open market as well as over the counter. Here, we focus on 37997 individual own stock transactions from the Portuguese Stock Exchange ranging, between 2005 and 2015.

We find that when focusing in the full data sample, smaller firms with lower relative performance when compared to its share value and also lower overall results tend to have better market timing capabilities.
However, better market timing capabilities are also linked with a better overall efficiency measured by the return-on-assets. This is true for both repurchase and reselling operations. Other firm specific characteristics proved uncertain or non-significant at this stage.

At this stage, we also found that for the global sample, transactions made after the bailout showed better results when compared and infrequent traders were the ones with higher potential of timing the market. At last, trading over the counter reduced the market timing ability of firms.

Moreover, due to the considerable weight of the financial sector within our full sample, we estimated results isolating this sector only. Here, we found some differences from the general results. Specifically, within the financial sector, the higher the relative performance of a firm when compared to its share value, the higher the capabilities of a firm from the financial sector to time the market through repurchases.

Finally, we also focused on the power or firms to measure future expectations by estimating results using only forward looking RTP's as dependent variables. We found a high degree of similarity on the results for both the general and the financial data samples. A slight difference is that our proxy for relative valuation now shows inverse results, although a very small impact. Nonetheless a positive impact on the market timing capabilities when repurchasing own stock and a negative impact when reselling.

The dummy variables results for bailout, market and frequency show the usual result as in the catered benchmark analysis. Curiously and overall, the forward looking based regression results proved stronger in most of the cases.

In the future, we aim to focus on the market impact of own stock transactions on the price efficiency and the information content within the prices of stocks.

References

Asness, C., Hazelkorn, T., & Richardson, S. (2018). Buyback Derangement Syndrome. The Journal of Portfolio Management, 44(5).

Bendig, D., Willmann, D., Strese, S., & Brettel, M. (2018). Share Repurchases and Myopia: Implications on the Stock and Consumer Markets. Journal of Marketing, 82(2), 19–41. https://doi.org/10.1509/jm.16.0200

Buffet, W. E. (1984). The Superinvestors of Gram.-and-Doddsville. Hermes.

Dittmar, A. K. (2000). Why Do Firms Repurchase Stock? The Journal of Business, 73(3), 331–355. https://doi.org/10.1086/209646

Dittmar, A. K., & Field, L. C. (2015). Can managers time the market? Evidence using repurchase price data. Journal of Financial Economics, 115(2), 261–282.

Drousia, A., Episcopos, A., & Leledakis, G. N. (2016). Market Reaction to Stock Repurchases in Greece. Munich Personal RePEc Archive.

Fenn, G. W., & Liang, N. (1997). Good News and Bad News About Share Repurchases *. Working paper. Washington, D.C.: Board of Governors of the Federal Re- serve.

Fernandes, C., M.Gama, P., & Vieira, E. (2015). Does local and euro area sentiment matter for sovereign debt markets? Evidence from a bailout country. Journal of Applied Economics, 6846(September), 0–19. http://doi.org/10.1080/00036846.2015.1088142

Fu, F., & Cheng, H. (2015). The Persistence of Long-Run Abnormal Returns Following Stock Repurchases and Offerings. Management Science, 62(4), 964–984.

Jensen, Michael C. "Agency costs of free cash flow, corporate finance, and takeovers." The American economic review 76.2 (1986): 323-329.

Jolls, Christine. (1996). The role of compensation in explaining the stock-repurchase puzzle. Working paper. Cambridge, Mass.: Harvard Law School.

Kumar, P., Langberg, N., Oded, J., & Sivaramakrishnan, K. (2017). Voluntary disclosure and strategic stock repurchases. Journal of Accounting and Economics, 63(2–3), 207–230. https://doi.org/10.1016/j.jacceco.2017.02.001

Mintz, J. (2007, July 23). Expedia slashes stock buyback plans. Associated Press, Reprinted in USA Today.

Opler, Tim C., and Titman, Sheridan D. (1996). Financial distress and capital structure choice. Research in Finance 14, 1-12.

Regulamento da CMVM n . o 5 / 2008 Deveres de Informação (2008). Portugal: CMVM.

Russolillo, S. (2014). The Great Buyback Binge of 2013 Will Continue: S&P. Wall Street Journal: Markets & Finance, Money Beat, Markets, (Mar 26).

Santos, D., M.Gama, P. (2017). Can firms time the market? Evidence using own stock transactions. 27 June 2017, 6th Business & Management Conference, Geneva

Schneider, D. K., & Kohlmeyer, J. M. I. (2015). Stock Byubacks: Is Practice Explained by Management Theory? Journal of Business and Accounting, 8(1), 64–75.

Vermaelen, T. (1981). Common stock repurchases and market signalling: An empirical study. Journal of Financial Economics, 9, 139–183.

Vermaelen, T., & Ikenberry, D. L. (1996). The Option to Repurchase Stock. Financial Management, 25(4), 9–24.

Voss, J. (2012). Why do Firm Repurchase Stock? Major Themes in Economics, 14, 55–75

Annex I

Average daily transaction price calculation procedure:

$$Average\ Daily\ Transaction\ Price_i = \sum_{j=0}^{n} \frac{Operation\ Volume_{i,j} \times Operation\ Price_{i,j}}{Total\ Daily\ Volume\ Transacted} \qquad (2)$$

Where:

- i corresponds to each firm, j identifies a specific trade, repurchase or resell, within each day and each market, both open or over-the-counter.

Annex II

The Relative Transaction Prices (RTP) acts as a comparing mechanism between the average transaction prices (average resale or repurchase price) received or paid by a firm during a particular period, and a chosen benchmark.

The benchmark price (BP) accounts for daily frequency and is computed considering 5-day, 22-day and 66-day length windows:

$$benchmark_{a-b} = \sum_{i=a}^{b} \frac{Daily\ Volume_i \times Daily\ Price\ Close_i}{Total\ Volume_{a-b}} \qquad (3)$$

Where a,b = ±5, ±22, or ±66 and corresponds to the timeframe (in days) of the estimation window.
To calculate the Benchmark Price we use three distinct windows: centered weekly window, a = -5 to b = +5; centered monthly window, a = -22 to b = +22; and, centered quarterly window, a = -66 to b = +66.[10]
The use of event centered estimation windows helps to account for historical performance of prices and future expectations. Thus, we compute the relative transaction prices as such:

$$Relative\ Transaction\ Price_{i,a-b} = \frac{Average\ Daily\ Operation\ Price_i}{benchmark_{a-b}} - 1 \qquad (4)$$

Where the $Average\ Daily\ Operation\ Price_i$, stands for the specific transaction day average price (see equation II) and the $Benchmark_{a-b}$ stands for the average close price in one of the earlier computed benchmarks (see equation 3).
We also compute forward looking RTP's by removing the past section of the benchmark windows. This is done as follows:

$$Relative\ Transaction\ Price\ (fwd)_{i,0-b} = \frac{Average\ Daily\ Operation\ Price_i}{benchmark_{0-b}} - 1 \qquad (5)$$

Where, once again the $Average\ Daily\ Operation\ Price\ (fwd)_i$, stands for the specific transaction day average price (see equation 2) and the $Benchmark_{0-b}$ now stands for the average close price in one of the "future" benchmarks: weekly, 0 to +5, monthly, 0 to +22, and quarterly, 0 to +66.

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[10] Typical number of trading days per week (5-day window), month (22-day window) and quarter (66-day window) accordingly.

Table 1: Sample description

Year	Transactions (daily)		Market		Firms trading own stock			
	Repurchase	Resales	Open Market	OTC	N	Frequent %	Moderate %	Infrequent %
2005	282	139	289	132	26	25.00%	8.33%	66.67%
2006	185	209	304	90	26	25.00%	16.67%	58.33%
2007	218	193	312	99	29	21.43%	14.29%	64.29%
2008	421	93	456	58	28	33.33%	26.67%	40.00%
2009	268	33	290	11	28	21.43%	21.43%	57.14%
2010	215	41	253	3	28	18.18%	36.36%	45.45%
2011	646	122	766	2	27	38.46%	7.69%	53.85%
2012	256	9	257	8	27	18.18%	54.55%	27.27%
2013	47	6	52	1	29	0.00%	14.29%	85.71%
2014	183	52	225	10	29	9.09%	36.36%	54.55%
2015	118	2	117	3	29	25.00%	0.00%	75.00%
Total	2839	899	3321	417				

This table presents the number of observations after daily aggregation available for each year between 2005 and 2015, regarding all the distinct types of transactions; Repurchases, and Resales, as well as segmentation by market type (Open Market vs Over the Counter).

It also presents the number of firms that traded in each year and the % distribution of firms classified as Infrequent, moderate and frequent by each year. This classification is based on the daily transaction count over the total transaction days available in each year. Firms that transacted in less than 5 % of all available transaction days are considered infrequent traders, the ones that transacted in between 5% and 15% of the total available transition days are considered moderate traders, and finally the ones that transacted in more than 15% of all the transaction days are considered frequent traders.

Table 3: General Repurchase vs. Resell centered benchmarks

	Panel A: Repurchase Activity			Panel B: Resell Activity		
	RTP -66 to 66	**RTP -22 to 22**	**RTP -5 to 5**	**RTP -66 to 66**	**RTP -22 to 22**	**RTP -5 to 5**
Basic EPS excluding extraordinary items	0.2045196 (0.000***)	0.0727874 (0.007***)	0.0102901 (0.240)	-0.6227766 (0.000***)	-0.8505015 (0.000***)	-0.2197113 (0.003***)
Price-to-Earnings	2.16e-07 (0.966)	7.03e-06 (0.060*)	1.77e-06 (0.171)	0.000018 (0.062*)	6.20e-06 (0.314)	-3.35e-06 (0.465)
Return-on-Assets	-0.027164 (0.000***)	-0.0090026 (0.001***)	-0.002288 (0.014**)	0.0288902 (0.028**)	0.0568157 (0.000***)	0.0222056 (0.001***)
EBITDA	0.0003531 (0.002***)	0.0001396 (0.104)	0.0001378 (0.000***)	0.0001741 (0.563)	-0.0000186 (0.922)	0.0001079 (0.480)
Quick Ratio	-0.0003118 (0.013**)	-0.0011065 (0.000***)	-0.0001098 (0.000***)	-0.0005093 (0.000***)	-0.0003412 (0.000***)	-0.0003419 (0.000***)
Total Shareholders' Equity	-0.0179541 (0.000***)	-0.0071733 (0.000***)	-0.001676 (0.006***)	-0.0121052 (0.063*)	-0.0034414 (0.411)	0.0008998 (0.766)
Market Capitalization	0.0194132 (0.000***)	0.0065934 (0.001***)	0.0002562 (0.700)	-0.0066656 (0.391)	-0.0045829 (0.356)	-0.0052238 (0.166)
Over the Counter	0.0243548 (0.041)	0.0196624 (0.025**)	0.0019859 (0.493)	0.1062473 (0.000***)	0.0002057 (0.977)	-0.0245881 (0.000***)
After Bailout	-0.0277898 (0.000***)	-0.0059132 (0.013*)	0.0001026 (0.895)	0.0012655 (0.866)	0.001682 (0.720)	0.0039291 (0.266)
Frequent	0.0061672 (0.099*)	-0.0025748 (0.347)	-0.0021195 (0.018**)	-0.0410285 (0.002***)	-0.0360706 (0.000***)	-0.0041284 (0.524)
Infrequent	-0.0067552 (0.277)	-0.017565 (0.000***)	-0.00376 (0.012**)	0.0300854 (0.014**)	-0.0487748 (0.000***)	-0.0074268 (0.222)
Const	-0.034314 (0.246)	0.0095022 (0.661)	0.0238453 (0.001***)	0.3699394 (0.000***)	0.1698939 (0.001***)	0.0739865 (0.061*)
Pseudo R^2	0.0444	-0.0046	0.0060	0.0117	0.0693	(0.0547

This table presents in Panel A (Panel B) the median regressions for the repurchase (resell) operations over the chosen characteristics within the sample. The aim of the estimation is to define evidence of specific fundamental characteristics linked to own stock transaction performance. RTP stands for Relative Transaction Price and -5 to 5, -22 to 22, -66 to 66, stands for the time interval of the benchmark used in the calculation giving us forward looking relative transaction prices. Heteroskedasticity and autocorrelation robust standard errors are used. ***,** and * show statistical significance at a level of 1, 5 and 10% respectively.

Table 4: Financial sector Repurchase

	Panel A: Repurchase Activity		
	RTP -66 to 66	**RTP -22 to 22**	**RTP -5 to 5**
Basic EPS excluding extraordinary items	-21.28488 (0.000***)	-18.72814 (0.000***)	-21.94958 (0.000***)
Price-to-Earnings	0.0000344 (0.160)	-0.000022 (0.907)	-0.0000853 (0.162)
Return-on-Assets	1.557995 (0.000***)	1.292925 (0.000***)	1.427235 (0.000***)
EBITDA	-0.0443557 (0.000***)	0.0328232 (0.002***)	0.0045493 (0.131)
Quick Ratio	2.862935 (0.000***)	-1.980076 (0.002***)	-0.3456805 (0.060**)
Total Shareholders' Equity	-2.990231 (0.000***)	1.659043 (0.009***)	0.1223821 (0.499)
Market Capitalization	1.025893 (0.000***)	-0.0912211 (0.375)	0.0847377 (0.012**)
Over the Counter	-0.074727 (0.000***)	-0.0031153 (0.861)	0.0253408 (0.000***)
After Bailout	N/A	N/A	N/A
Frequent	N/A	N/A	N/A
Infrequent	-0.3881409 (0.000***)	0.1619659 (0.016**)	-0.0884894 (0.000***)
Const	30.24068 (0.000***)	-24.49031 (0.003***)	-3.100042 (0.194)
Pseudo R^2	0.5367	0.4538	0.4184

This table presents in Panel A (Panel B) the median regressions for the repurchase (resell) operations of financial firms over the chosen characteristics within the sample. The aim of the estimation is to define evidence of specific fundamental characteristics linked to own stock transaction performance. RTP stands for Relative Transaction Price and 0 to 5, 0 to 22, 0 to 66, stands for the time interval of the benchmark used in the calculation giving us forward looking relative transaction prices. Heteroskedasticity and autocorrelation robust standard errors are used. ***,** and * show statistical significance at a level of 1, 5 and 10% respectively.

Table 5: General Repurchase vs. Resell Forward looking benchmarks

	Panel A: Repurchase Activity			Panel B: Resell Activity		
	RTP 0 to 66	**RTP 0 to 22**	**RTP 0 to 5**	**RTP 0 to 66**	**RTP 0 to 22**	**RTP 0 to 5**
Basic EPS excluding extraordinary items	0.3583774 (0.000***)	0.0700066 (0.008***)	-0.0129982 (0.234)	-0.2742167 (0.358)	-0.891795 (0.000***)	0.012728 (0.904)
Price-to-Earnings	1.21e-06 (0.835)	-4.85e-07 (0.901)	-2.90e-06 (0.060*)	-0.0000241 (0.199)	-1.85e-06 (0.823)	3.37e-06 (0.609)
Return-on-Assets	-0.0494993 (0.000***)	-0.010928 (0.000***)	-0.0006465 (0.576)	.0159482 (0.560)	0.1683041 (0.000***)	-0.0078732 (0.414)
EBITDA	-0.0002068 (0.103)	0.0003456 (0.000***)	0.0001732 (0.000***)	-0.0012011 (0.048**)	-0.0015743 (0.000***)	-.0003096 (0.132)
Quick Ratio	-0.000552 (0.000***)	-0.0001215 (0.184)	-0.0000661 (0.081*)	-0.0004487 (0.000***)	-0.0004095 (0.000***)	-0.0003088 (0.000***)
Total Shareholders' Equity	-0.0211213 (0.000***)	-0.0039406 (0.034**)	-0.0031846 (0.000***)	-0.0172275 (0.176)	-0.0485241 (0.000***)	0.0093224 (0.035**)
Market Capitalization	0.0363823 (0.000***)	0.0031012 (0.124)	0.0015619 (0.061*)	0.0434764 (0.005***)	0.0447171 (0.000***)	-0.0100263 (0.061*)
Over the Counter	0.0252633 (0.050*)	0.0258344 (0.003***)	0.0151061 (0.000***)	-0.0069723 (0.743)	-0.0126947 (0.192)	-0.0491742 (0.000***)
After Bailout	-0.0211965 (0.000***)	-0.005664 (0.017**)	-0.0028356 (0.004***)	0.0051432 (0.721)	-0.0198869 (0.002***)	-0.0005703 (0.910)
Frequent	0.0190268 (0.000***)	0.0022569 (0.407)	0.0017401 (0.123)	0.0894796 (0.001***)	0.0929754 (0.000***)	-0.0259096 (0.006***)
Infrequent	0.0190268 (0.000***)	-0.0093941 (0.039**)	-0.0098817 (0.000***)	.0582623 (0.017***)	-0.0892603 (0.000***)	0.007658 (0.377)
Const	-0.278015 (0.000***)	0.0125753 (0.559)	0.0278181 (0.002***)	-0.5496243 (0.001***)	0.031079 (0.641)	0.0353218 (0.515)
Pseudo R^2	0.0635	0.0181	0.0007	0.0370	0.0182	0.0404

This table presents in Panel A (Panel B) the median regressions for the repurchase (resell) operations over the chosen characteristics within the sample. The aim of the estimation is to define evidence of specific fundamental characteristics linked to own stock transaction performance. RTP stands for Relative Transaction Price and -5 to 5, -22 to 22, -66 to 66, stands for the time interval of the benchmark used in the calculation giving us forward looking relative transaction prices. Heteroskedasticity and autocorrelation robust standard errors are used. ***,** and * show statistical significance at a level of 1, 5 and 10% respectively.

Table 6: Financial sector Repurchase

	Panel A: Repurchase Activity		
	RTP 0 to 66	RTP 0 to 22	RTP 0 to 5
Basic EPS excluding extraordinary items	-40.58886 (0.000***)	-18.62346 (0.000***)	-19.73738 (0.000***)
Price-to-Earnings	0.0000773 (0.002***)	-0.0000788 (0.056*)	-0.0001154 (0.000***)
Return-on-Assets	3.007355 (0.000***)	1.287641 (0.000***)	1.24472 (0.000***)
EBITDA	-0.0587658 (0.000***)	0.0388449 (0.000***)	0.0174387 (0.000***)
Quick Ratio	1.947931 (0.000***)	-2.125278 (0.000***)	-0.4832823 (0.000***)
Total Shareholders' Equity	-2.376356 (0.000***)	1.638083 (0.000***)	.2242212 (0.000***)
Market Capitalization	1.053622 (0.000***)	-0.090908 (0.000***)	0.0853367 (0.000***)
Over the Counter	-0.0921073 (0.000***)	0.0500456 (0.000***)	0.0542694 (0.000***)
After Bailout	N/A	N/A	N/A
Frequent	N/A	N/A	N/A
Infrequent	-0.3451402 (0.000***)	.1636163 (0.000***)	-0.0636704 (0.000***)
Const	20.43977 (0.000***)	-24.01804 (0.000***)	-4.749134 (0.000***)
Pseudo R^2	0.5751	0.5338	0.5026

This table presents in Panel A (Panel B) the median regressions for the repurchase (resell) operations of financial firms over the chosen characteristics within the sample. The aim of the estimation is to define evidence of specific fundamental characteristics linked to own stock transaction performance. RTP stands for Relative Transaction Price and 0 to 5, 0 to 22, 0 to 66, stands for the time interval of the benchmark used in the calculation giving us forward looking relative transaction prices. Heteroskedasticity and autocorrelation robust standard errors are used. ***,** and * show statistical significance at a level of 1, 5 and 10% respectively.