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PRESENTING VALID AND RELIABLE TOOLS TO MEASURE THE EFFECTIVENESS OF A FRONT LINE MANAGEMENT TRAINING PROGRAMME

Kavita Beemsen*, Sanjana Brijball Parumasur**

Abstract

In order to demonstrate the effectiveness of planned learning from a training intervention, in terms of organizational performance, the systematic evaluation of the transfer of training is critical. The study followed a retrospective, longitudinal trend design with two groups of respondents and utilized the training evaluation measurement tools that the researchers developed. The key results of the study indicated the research's value to the human resource development paradigm as research-based measurement tools, with known psychometric properties, were developed. These measurement tools could be used by training and development practitioners to effectively evaluate the impact made by a front line management training programme on the effectiveness of the organization.

Keywords: Transfer of Training, Measurement Tools, Training Evaluation

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In 1985 Porter identified human resource management as a key element in an organization's value chain that will play a pivotal role in assisting an organization to gain competitive advantage. Khandekar and Sharma (2005) found that human resource capabilities are positively correlated to organizational performance and is a significant predictor of sustainable competitive advantage (Gourlay, 2001; Salas & Cannon-Bowers, 2001). Training has been identified as one of the methods to develop human resources to leverage business performance towards organizational effectiveness (Gilley & Maycunich, 2000; Gilley, Eggland & Gilley, 2002; Noe, 2007) as it has the potential to increase sales and productivity (Birdi, 2005; Brooks & Nafukho, 2006; Desimone, Werner & Harris, 2002; Rowold, 2008) enhance quality and market share (Verdonschot, 2006; Yadapadithaya & Stewart, 2003) and reduce turnover, absence and conflict (Daft, 2008; Lepine, Piccolo, Jackson, Mathieu & Saul, 2008; Salas & Cannon-Bowers, 2000). However, training has been criticized as being a fad or too expensive (Salas & Cannon-Bowers, 2000; Kraiger, McLinden & Casper, 2004), and there is growing skepticism about the practice and theoretical framework of linking training to organizational performance (Nguyen, Truong & Buyens, 2010; Wright & Geroy, 2001). Hence, as organizations find themselves under increasing pressure to perform, human resource development practitioners are faced with the challenge of making the linkages between learning and organizational performance explicit in the minds of the organization's members by showing which human resource development interventions provide real value for the strategic direction of the organization (Yorks, 2005) as research indicates that not all human resource development programmes are strategically planned and aligned with organizational goals and objectives (Abdullah, 2009; Rothwell & Sullivan, 2005).

Kirkpatrick, cited in Yamnill and McLean (2005), noted that the fundamental criterion for evaluating training effectiveness is the transfer of training. Transfer of training, according to Holton, Bates, Seyler and Cavalho, cited in Kim (2004), is the extent to which trainees apply the knowledge, skills, behaviours and attitudes they gained in training to their jobs.

Thus, in order to demonstrate the effectiveness of planned learning from a training intervention, in terms of organizational performance, the systematic evaluation of transfer of training (that is, proving with data that training is adding value) is critical (Jamrog & Overholt, 2004; Wang & Wang, 2005). Furthermore, Swanson and Holton, cited in Kim (2004), postulated that the transfer of training is a

corporate process in which various stakeholders involved in training programmes, ranging from senior management to the trainees' peers, participate. Additionally, whilst it has been documented that training evaluation in general is difficult (McLean, 2005) and that management training is more difficult to assess (Galvin, 1983), training evaluation continues to be vital in demonstrating the value of human resource development interventions in ensuring organizational effectiveness (Wang & Wang, 2005). The success of such an evaluation process hinges on the level of sophistication of the data collection instruments as well as the psychometric properties of these tools.

The current research, thus, focuses on the development of training evaluation tools to effectively (by developing an inclusive 360 degree stakeholder-based research design) evaluate the extent to which front line managers utilise the enhanced self-awareness and knowledge of managerial competencies learned, in the training phase of a management development intervention, in their current supervisory or front line management jobs.

Evaluation

According to Scriven (1967), cited in Yorks (2005, p. 194), evaluation is "the process of determining the merit, worth or value of something….the valuation process normally involves some identification of relevant standards….[and]…some investigation of the performance…..on these standards." Additionally, literature on training and evaluation has identified Kirkpatrick's (1959) four-level evaluation model (reaction, learning, behaviour, results) as the most pervasive training evaluation model (Richmond, 2008; Kirkpatrick, 2007; Bates & Coyne, 2005). Kirkpatrick's (1959) model follows an outcomes based evaluation approach (Newstrom, cited in Bates and Coyne, 2005) and provides a comprehensive framework to determine multiple measures of training effectiveness by conducting evaluation at the reaction, learning, behaviour and results level in the organization. However, it is by Kirkpatrick's (1994) own admission that the true mark of training effectiveness is determined by the degree of behaviour change on the job (transfer of training) and by Phillips (1991) assertion that goal-based and systems-based approaches are predominantly used in the evaluation of training effectiveness, that this study benchmarked the determination of training effectiveness at the third level of his (1959) model by using a stakeholder based design approach.

Not-with-standing the model or paradigm it subscribes to, a successful evaluation process also hinges on the level of sophistication of the data collection tools used in the evaluation process as well as its psychometric properties.

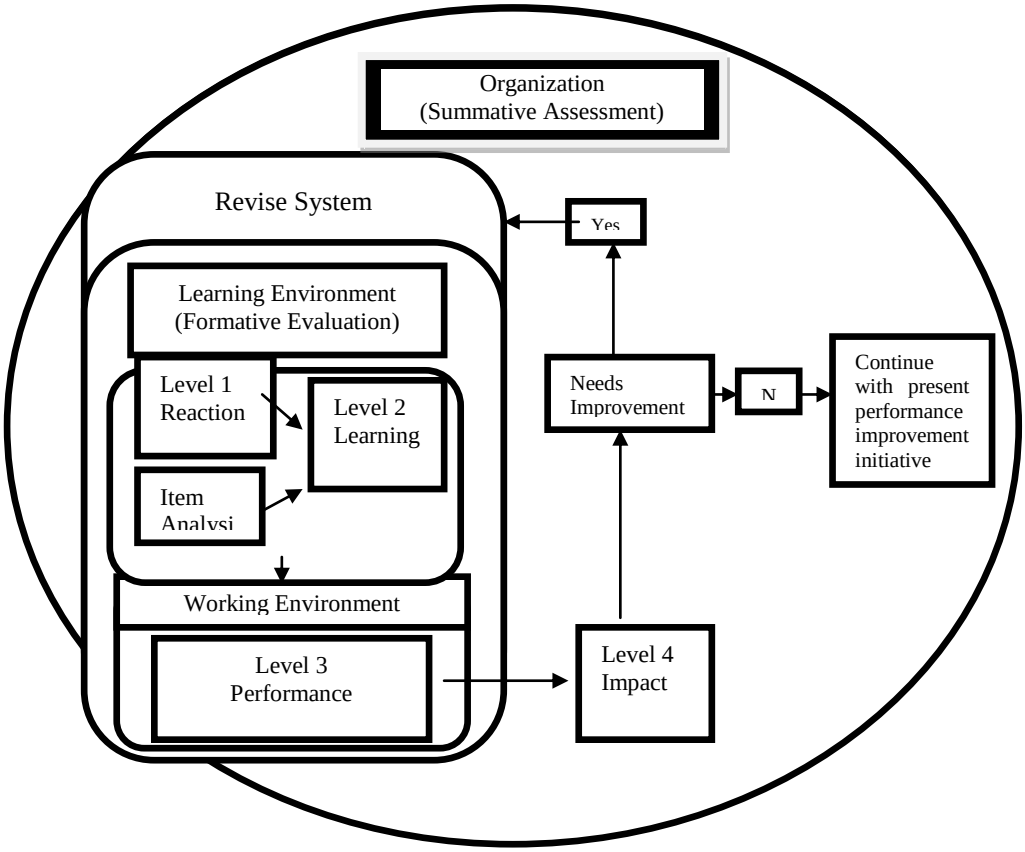
Psychometrics: measurement, instrument construction and validation

Psychometrics is the discipline of measurement, instrument construction and validation. Moss, Pullin, Gee and Haertel (2005, p. 68) noted the goal of psychometrics to be that of developing "interpretations that are generalizable across individuals and contexts and to understand the limits of those generalizations".

Measurement theory, as a branch of applied statistics, thus attempts to describe, categorise and evaluate the quality of measurements, improve the usefulness, accuracy and meaningfulness of measurements and proposes methods for developing new and better measurement tools (Chadha, 1996). *Instrument construction* or *measurement tool development* requires a systematic protocol to be followed and De Vellis, cited in Internet 1 (2006), advocates an eight-step methodology for the development and validation of measurement tools, which the researchers in this study subscribed to:

- Step 1 – determine clearly what is being measured.
- Step 2 – generate a range of items from the statement of what the tool intends to measure for inclusion in the measurement tool.
- Step 3 – determine scale format (rating technique or response categories) to be used in the measurement tool.
- Step 4 – have the initial item pool reviewed by subject matter experts.
- Step 5 – consider the inclusion of validation items (if these exist) to serve as a baseline standard measure of the attributes under study.
- Step 6 – administer the tool to a pilot sample of respondents representative of the target population to eradicate issues that could not have been predicted in the design phase.
- Step 7 – evaluate the items and the overall tool using various statistical techniques to assess their psychometric properties.
- Step 8 – optimise the scale length by deleting redundant and poorly performing items using the results from the psychometric testing process.

Figure 1. Kirkpatrick's four levels of training evaluation



*Electronic format: http://www.nwlink.com/~donclark/hrd/ahold/evaluateconcept.jpg

In terms of validation, the measurement characteristics of a measurement tool were assessed in terms of the two psychometric properties that attest to the trustworthiness of the tool, namely, validity and reliability. The validity of any measuring instrument depends on the accuracy with which it measures what it intends to measure. Three conceptually different aspects of validity can be distinguished (content, criterion-related and construct validity) corresponding to the three basic objectives of validity measurement (Internet 2, 2008).

Reliability measures indicate whether, with all things being equal, repeated measurements for a test or a measure, give the same result consistently (Internet 1, 2006). The higher the reliability of the measurement tool, the greater the extent to which it is free of measurement error (Internet 2, 2008). As such, the estimation of error variance in a measurement tool refers to two equivalent definitions of reliability (Chadha, 1996, p. 92): firstly, "reliability is the proportion of the 'true' variance to the total obtained variance of the data yielded by the measuring instrument" and secondly, "It is the proportion of error variance to the total obtained variance of the data yielded by the measuring instrument subtracted from 1.00. The index of 1.00 indicates perfect reliability." Cooper and Schindler (2001, p. 215) note that "reliable instruments are robust; they work well at different times under different conditions. This distinction of time and condition is the basis for frequently used perspectives on reliability." Test-retest coefficient, parallel forms coefficient and split half reliability are methods that can be utilised to measure the reliability of a measurement tool (Internet 2, 2008):

Hence, the goals of this research are:

- to derive training evaluation tools which purport to effectively validate and evaluate front line management training, and
- to assess the effectiveness of the new training evaluation tools.

RESEARCH DESIGN

Research approach

Data for the study was collected using a two-pronged approach:

- Literature review: A literature review was undertaken to understand the concepts of strategic human resource development and how to evaluate its contribution to organizational

effectiveness. This review provided insight into models and instruments that can be used to evaluate the effectiveness and transfer of training and, informed the modification of the measurement tool utilised in this study, and

- Empirical analysis: An empirical analysis was undertaken on the data collected, using a retrospective, longitudinal trend design using two groups of respondents, by utilising the evaluation measurement tool that the researchers developed.

Participants

A sample of 55 (N = 88) front line management programme graduates and their respective stakeholders from Group 1 and sample of 40 (N = 77) front line management programme graduates and their respective stakeholders from Group 2 were drawn using a consensus sampling technique. For the purpose of Factor Analysis, the Kaizer-Meyer-Olkin Measure was used to determine the adequacy of the sample in each Group (0.949, p = 0.000 and 0.958, p = 0.000) respectively and showed suitability and adequacy. The results indicate that the normality and homoscedasticity preconditions are satisfied.

Measuring Instruments

The research instrument derived for use in the study was a self administered questionnaire which was couched in the third level of the four levels of the evaluation framework of choice, the Kirkpatrick Four-level Evaluation Model. The research instruments used in the study were an amended version of the Jack Phillip's 'Leadership Development Program Impact Questionnaire' which, from this point forward, will be labeled as the Level 3 Student Form and a self-developed stakeholder form which, from this point forward will be labeled, as the Level 3 Stakeholders' Form.

- Level 3 Student Form

The Level 3 Student Form comprised of 10 questions in total, with some questions having sub-questions. The questions in the Level 3 Student Form were framed to provide feedback on the dimensions (namely, progress with objectives, personal change, programme relevance, knowledge and skills enhancement, barriers to implementation, programme skills use, enablers, investment perception, management support and appropriateness of intervention) towards determining the level of transfer of knowledge, skills and attitudes gained by programme graduates from the front line management development training programme back to the workplace within the client organization.

- Level 3 Stakeholders' Form

The Level 3 Stakeholders' Form comprised of three sections. The questions in the Level 3 Stakeholder Form were framed to provide feedback on the dimensions (biographical data, result areas and open-ended questions for completion by the graduate's promoter) towards validating by triangulation, the claim by programme graduates of the level of transfer of knowledge, skills and attitudes from the front line management development training programme back to the workplace within the client organization:

These two questionnaires were constructed to be a summative evaluation of the front line management development intervention by efficiently collecting data to determine the extent to which the programme had achieved its objectives and the extent to which these objectives were attributable to the programme. This was imperative as research indicates the importance of integrating summative evaluation into the learning process (Ridde, Fournier, Banza, Tourigny & Ouédraogo, 2009). Subjects (students and their respective stakeholders) were required to indicate their responses to dichotomous scale items, open-ended questions as well as a 5 point Likert scale (where the greater the score, the greater the extent to which subjects reflected the effectiveness or on-the-job utility of the front line management development training programme).

Procedure

Both the Level 3 Student Form and the Level 3 Stakeholder Form were subject to a pre-test to identify issues of coding and cognitive problems of comprehension and response generation. For both Groups, due to the geographical dispersion of respondents on the national grid, the questionnaires were self-administered via e-mail. Return of the completed questionnaires was also via e-mail and this served to facilitate the tracking of responses and hence, the follow up of non-responses. Non-respondents (students and/or stakeholders) were subsequently contacted to ensure a suitable response rate.

Statistical Analysis

Statistical analyses pertained to the psychometric soundness (validity and reliability) of the measuring instruments. The validity of the questionnaires were determined using factor analysis. Principal component extraction method for factor analysis was performed using the SPSS statistical packaged with a Varimax with Kaiser normalization rotation method for each Group respectively. When analysing the factor matrix, only items with loadings >0.5 were regarded as being significant and when items were significantly loaded on more than one factor, only the factor with the highest loading was acknowledged. The factors were labeled in terms of the loadings of the items.

Cronbach's Coefficient of Alpha was computed for the questionnaires to determine the degree to which each measurement tool is reliable and provides

consistent results. The choice of Alpha as a reliability coefficient is based on its utility for multi-item scales at the interval level of measurement (Cooper & Schindler, 2001).

RESULTS

Construction of the training evaluation measurement tools

The impetus for the output of the current study (that is, the training evaluation measurement tools) was in response to Chen, Holton and Bates (2005) call for (in light of the paucity of research-based transfer of training instruments) the development of research-based tools which could be used to effectively evaluate transfer of (management) training and this was achieved against Swanson and Holton's (2001) view that management development involves purposive activities designed to transform managerial functions in the following way:

A key-word search on training evaluations turned up amongst the various models of training evaluation, Kirkpatrick's four levels of training evaluation which revealed that at the third level, behavioural change is key to determining the effectiveness of training. However, this search revealed the Learning Transfer System Inventory as the only research-based instrument for assessing transfer of training (Holton, Bates & Ruona, 2000). The search however, also revealed the Jack Phillips 'Impact Questionnaire for Leadership Development Program', which however, carried a caution that the questions included were but only a 'sampling' and that it did not 'represent a document that is ready for implementation'. Using Phillip's Impact Questionnaire for Leadership Development Program as a benchmark tool, identifying the main roles for a front line manager to be that of leading and controlling and through close reading of texts on training evaluation, the self-constructed Student Form and concomitant Stakeholders' Form evolved.

Table 1. Extracts from the student level 3 form

In the following results areas please indicate the degree to which your knowledge of or skills with the following items have improved during the last few months as influenced by your participation in the front line management development programme. Tick the appropriate response beside each item. If ticking 1 or 2, please indicate why, i.e. the barriers you encountered that prevented you from using the knowledge or skills gained from the training programme. (Please note that the numbering utilised in the "Barriers to Implementation" section is not a rating scale, but for codification purpose)

	Degree of Improvement					Barriers to Implementation				
Result Area	No Improvement 1	Some Improvement 2	Moderate Improvement 3	Definite Improvement 4	Significant Improvement 5	1 the opportunity to use the skills.	2 does not support these skills.	3 not support this type of course.	4 not apply to my job.	5 Other (please specify)
Leading										
4. Lead by example.										
5. Apply techniques that influence better teamwork.										
Controlling										
1. Clarify roles/responsibilities of all team members.										
2. Implement performance measures for team members.										
3. Monitor a business project team.										
Personal Outcomes										
1. Takes responsibility for own behaviour.										
6. Inspire trust in others.										

Table 2. Extracts from the stakeholder level 3 form

Section B

In the following result areas, please indicate the degree to which the learner has demonstrated a change in knowledge of, or skills with each of the following items as influenced by his/her participation in the management development programme (which was scheduled between August 2006 and June 2007)

	Degree of Improvement				
Result Area	No Improvement 1	Some Improvement 2	Moderate Improvement 3	Definite Improvement 4	Significant Improvement 5
Leading					
2. Encourages calculated risk taking.					
4. Lead by example.					
5. Apply techniques that influence better teamwork.					
9. Applies problem-solving processes to solve conflict situations.					
Controlling					
1. Clarify roles/responsibilities of all team members.					
2. Implement performance measures for team members.					
3. Monitor a business project team.					
Personal Outcomes					
1. Takes responsibility for own behaviour.					
6. Inspire trust in others.					

Psychometric Analyses of the Questionnaires

Psychometric analyses of the Level 3 Stakeholder and Student Forms included testing its validity and reliability. This was achieved by conducting factor analysis and computing the Cronbach Coefficient Alpha statistic, for each stakeholder form in Group 1 and Group 2 respectively.

Validity

In this study, content validity (logical and face validity) and construct validity (via Factor Analysis) were determined.

The logical validity (Cooper & Schindler, 2001) of the measurement tools were ensured by the researcher who intuitively, yet carefully, defined the topic, the items to be scaled and the scales used in the study to ensure that the items in the self-constructed measurement tools portrayed face validity (Kaplan & Saccuzzo, 1993) by purporting to measure the effectiveness of the training intervention. The questionnaires' validity with respect to face validity were upheld in the in-house pretesting face validity review that was conducted by subject matter experts in the field as well as the pilot testing.

Construct validity of the self-constructed questionnaires was derived using Factor Analysis. The factors measured in each Group were compared using two methods (namely, Coefficient of Congruence and comparison of Eigenvalues and percentage variances between the Groups), with the results of this comparative process as depicted in Table 3 and Table 4 respectively.

Table 3. Coefficient of congruence comparison of factor analysis for corresponding stakeholder groups from group 1 and group 2

Compared Factors		Coefficient of Congruence	
PROMOTER			
Group 1	**Group 2**	**Value (rc)**	**p**
Factor 1	Factor 1	0.978	< 0.001
Factor 2	Factor 2	0.928	< 0.001
Factor 3	Factor 3	0.970	< 0.001
PEER			
Group 1	**Group 2**	**Value (rc)**	**p**
Factor 1	Factor 1	0.965	< 0.001
Factor 2	Factor 2	0.911	< 0.001
Factor 2	Factor 3	0.905	< 0.001
SUBORDINATE			
Group 1	**Group 2**	**Value (rc)**	**p**
Factor 1	Factor 1	0.936	< 0.001
Factor 2	Factor 2	0.881	< 0.001
Factor 2	Factor 3	0.886	< 0.001
INTERNAL CUSTOMER			
Group 1	**Group 2**	**Value (rc)**	**p**
Factor 1	Factor 1	0.989	< 0.001
Factor 2	Factor 3	0.994	< 0.001
Factor 3	Factor 2	0.962	< 0.001
STUDENT			
Group 1	**Group 2**	**Value (rc)**	**p**
Factor 1	Factor 2	0.974	< 0.001
Factor 2	Factor 1	0.976	< 0.001
Factor 3	Factor 3	0.966	< 0.001

Table 4. Between group differences in eigenvalues and percentages of variance accounted for by the 3 factors for all corresponding stakeholder groups in both group 1 and group 2 respectively

Stakeholder Group	Between Group Difference in Eigenvalues	Between Group Difference in % Variance
Promoter	0.05	0.22
Peer	0.08	0.35
Subordinate	0.03	0.13
Internal Customer	0.13	0.57
Student	0.36	1.57

Factor analysis as a statistical tool was used to reveal the patterns via which items combine as a factor towards summarising the original set of items under study, in both Group 1 and Group 2, for each stakeholder category respectively. Factor loadings thus, become an important output that is used to determine differences in factor loadings between two samples. However, due to the ambiguities in identifying the factors, it is not always easy in deciding which pairs of factors to compare, as an eyeball test of the Factor Analysis data reported in this study shows that Factor 1 in Group 1 looks more like Factor 2 in Group 2 (by way of example see the Student Form Factor Analysis statistic, reflected in Table 3, where Factor 1 from Group 1 looks more like Factor 2 from Group 2). This premise is supported by Darlington (Internet 3, 2007, p. 14) in his exposition on "Comparing Factor Analyses in Two Groups" when he noted that "it is never completely meaningful to say one particular factor in one factor analysis 'corresponds' to one factor in another factor analysis" and moreover, Wuensch (2007, p. 10) noted that "it is not always easy to decide which pairs of factors to compare." To this end, Brauchle & Azam (2004) suggested using preliminary matching of factors by using marker variables (with marker variables being those variables that had the highest loadings [greater than 0.5] in the pairs of factors being compared). This method was utilised in the present study and thereby, "reduced the chance of obtaining spuriously significant results that capitalized on chance relationships" (Brauchle et al., 2004, p. 3). Pattern magnitude similarities of the factor loadings were then compared using the coefficient of congruence (Brauchle et al., 2004). The use of the coefficient of congruence test is quite common in literature

(Cordano Scherer & Owen; Ommundsen, Hak, Morch, Larsen & Veer and Carroll, Houghton & Baglioni, cited in Brauchle et al., 2004). Coefficient of congruence ranges from -1.00 (for perfect negative similarity) through zero (for complete dissimilarity) to 1.00 (for perfect positive similarity) and Broadbooks and Elmore, cited in Brauchle et al., (2004, p. 7), claimed that "an obtained sample congruence coefficient greater than 0.50 will usually be an underestimate of the actual population value. Therefore, the actual population coefficients of congruence may be even higher than the values obtained here". The computations, in line with the coefficient of congruence measure for comparing factor analyses in the two groups, for each corresponding stakeholder category from Group 1 and Group 2 are reflected in Table 3. These findings from the coefficient of congruence comparison between the groups for each stakeholder category (the promoter, peer, subordinate, internal customer and student stakeholder categories, respectively) suggests a very strong match between the factors. However, Cattell, cited in Brauchle etal. (2004), advised the use of at least two methods of factor comparison when matching factors. For this reason, in addition to the coefficient of congruence measures, comparisons were also made using the mean eigenvalues and percentage variances method, as advocated in research conducted by Juan-Espinosa, Cuevas, Escorial and García (2006) and the outcome of this set of comparisons is reflected in Table 4 for the promoter, peer, subordinate, internal customer and student stakeholder categories, respectively.

In reviewing both methods of factor comparisons, the coefficient of congruence comparison across the possible pairs showed substantial similarity across both Groups. This additional similarity of eigenvalues and percent variance attributable to each factor across both groups indicates that the magnitudes of the factor loadings are also quite similar. According to Brauchle et al. (2004), this does not imply that the factors of the two Groups are identical. However, Allen & Thorndike, cited in Kush, Watkins, Ward, Ward, Canivez & Worrel (2001, p. 73) noted that, regardless of whether factors arising out of the factor analytical process being true representations of the tools' underlying dimensions, "the psychometric utility of the instruments is derived directly from their ability to measure the composition of these factors" across groups. However, in this study, the findings were for similar factors thereby adding to the robustness of the tools.

The second criterion against which the psychometric soundness of the self-constructed measurement tools were assessed, was reliability.

Reliability

The results for the Alpha calculations for the subscales and full scale of the results areas (leading, controlling, personal outcomes) on the questionnaires, for both Group 1 and Group 2, are depicted in Table 5.

Table 5. Summary of Cronbach's coefficient alpha for the sub-scales and full scales of the result areas per stakeholder grouping

Stakeholder Group	Result Areas Subscales						Result Areas Full Scale	
	Leading		Controlling		Personal Outcomes			
	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2
Promoter	0.994	0.995	0.977	0.959	0.990	0.993	0.995	0.995
Peer	0.995	0.994	0.974	0.988	0.994	0.995	0.989	0.997
Subordinate	0.997	0.996	0.988	0.983	0.996	0.996	0.992	0.998
Internal Customer	0.997	0.995	0.933	0.992	0.995	0.991	0.998	0.996
Student	0.974	0.987	0.907	0.939	0.979	0.979	0.984	0.987

Cronbach's Coefficient Alpha as a test of reliability indicates that the closer the value of the Coefficient Alpha to 1, the greater the reliability of the questionnaires. From Table 5 it is concluded that Cronbach Alpha figures from the result areas of the self-constructed tools were only marginally different between the two administrations of the questionnaires. It is thus, contended that this part of the measuring tool measures consistently from one time to another and thereby verifies that the tool withstands the vicissitudes of situational and personal factors that could have impinged on the results.

Cronbach's Coefficient Alpha for the other Likert (which assessed the attainment of programme objectives and relevance of programme elements to the job) and dichotomous items (namely, personal change, knowledge and skills enhancement, investment perception and appropriateness of intervention) in the student form was computed as 0.864 for Group 1 and 0.978 for Group 2. Both these scores represent strong reliability. The item-total statistics for each of the 15 items, for both Group 1 and Group 2, is shown in Table 6.

From Table 6 it is noted that if question 2 ("Do you feel that you are better able to do your job after attending the training programme?" was deleted from the Student Form for Group 1, Cronbach's Coefficient Alpha will increase from 0.864 to 0.963. This is a rather curious finding in that this question, by tapping the ability to do the job better after the training intervention, is high in face validity and supports the aim of the questionnaire. However, this result can be explained by the descriptive statistics for the result areas where Group 1 respondents were their own worst critics in terms of their self-report on the level of development that they achieved in each of the result areas. With respect to Group 2, Cronbach's Coefficient Alpha would have been marginally increased from 0.978 to 0.980 on the Student Form if question 8 ("Do you think the management development programme represented a good investment for the company?") was removed. Deletion of this item would not have resulted in a significant change in Alpha and it is for this reason that the item was retained in the questionnaire.

Furthermore, corrected item scale correlations were computed to assess the relationship between each item and its sub-scale score and the item and its full scale score towards providing information for further instrument refinement and the results of this computational process is reflected in Table 7 and Table 8 for Group 1 and Table 9 and Table 10 for Group 2.

Table 6. Item-total statistics for the other likert and dichomotous items on the student form

Item	Group 1		Group 2	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Achievement of objective: 1.1	0.818	0.846	0.934	0.975
Achievement of objective: 1.2	0.841	0.845	0.939	0.975
Achievement of objective: 1.3	0.784	0.847	0.876	0.976
Achievement of objective: 1.4	0.794	0.846	0.858	0.976
Achievement of objective: 1.5	0.794	0.846	0.940	0.975
2. Do you feel better able to do your job after attending the programme?	0.175	0.963	0.938	0.976
Relevance of programme element: 3.1	0.793	0.846	0.902	0.975
Relevance of programme element: 3.2	0.767	0.846	0.913	0.975
Relevance of programme element: 3.3	0.735	0.847	0.928	0.975
Relevance of programme element: 3.4	0.666	0.849	0.842	0.976
Relevance of programme element: 3.5	0.798	0.845	0.895	0.975
Relevance of programme element: 3.6	0.766	0.845	0.862	0.976
4. Have you used the written materials since you participated in the programme?	0.791	0.856	0.772	0.978
8. Do you think the ASDP represented a good investment for your organization?	0.755	0.857	0.584	0.980
10. Looking at the business need that you had, was this an appropriate programme? If no what other alternative could have been effective.	0.720	0.857	0.903	0.977

Table 7. Item-total statistics for the sub-scales per stakeholder category for group 1

	Corrected Item-Total Correlation					Alpha if Item Deleted				
	Promoter	Peer	Subordinate	Internal Customer	Student	Promoter	Peer	Subordinate	Internal Customer	Student
Leading	0.981	0.978	0.981	0.984	0.825	0.993	0.995	0.996	0.997	0.972
	0.958	0.947	0.953	0.978	0.786	0.994	0.995	0.997	0.997	0.973
	0.954	0.988	0.980	0.993	0.906	0.994	0.995	0.996	0.997	0.970
	0.959	0.983	0.976	0.988	0.882	0.994	0.995	0.996	0.997	0.971
	0.968	0.947	0.985	0.990	0.919	0.994	0.995	0.996	0.997	0.970
	0.970	0.979	0.977	0.987	0.909	0.994	0.995	0.996	0.997	0.970
	0.961	0.970	0.981	0.982	0.846	0.994	0.995	0.996	0.997	0.972
	0.964	0.984	0.988	0.983	0.842	0.994	0.995	0.996	0.997	0.972
	0.967	0.971	0.971	0.988	0.917	0.994	0.995	0.996	0.997	0.970
	0.968	0.983	0.987	0.991	0.806	0.994	0.995	0.996	0.997	0.973
	0.965	0.950	0.980	0.988	0.822	0.994	0.995	0.996	0.997	0.972
	0.958	0.982	0.984	0.941	0.828	0.994	0.995	0.996	0.998	0.972
Controlling	0.939	0.949	0.976	0.984	0.852	0.971	0.963	0.984	0.991	0.868
	0.961	0.954	0.982	0.983	0.846	0.968	0.963	0.983	0.991	0.868
	0.934	0.935	0.975	0.983	0.663	0.972	0.966	0.984	0.991	0.907
	0.930	0.900	0.954	0.972	0.760	0.973	0.971	0.987	0.993	0.888
	0.905	0.883	0.940	0.976	0.718	0.976	0.974	0.989	0.992	0.897
Personal Outcomes	0.968	0.940	0.986	0.962	0.934	0.988	0.995	0.996	0.995	0.974
	0.966	0.983	0.987	0.978	0.946	0.989	0.992	0.996	0.994	0.973
	0.955	0.992	0.990	0.986	0.938	0.990	0.991	0.996	0.993	0.974
	0.962	0.984	0.989	0.987	0.934	0.989	0.992	0.996	0.993	0.974
	0.972	0.990	0.989	0.988	0.948	0.988	0.991	0.996	0.993	0.973
	0.981	0.978	0.988	0.988	0.876	0.987	0.992	0.996	0.993	0.980

Table 8. Item-total statistics for the full-scale per stakeholder category for group 1

	Corrected Item-Total Correlation					Alpha if Item Deleted				
	Promoter	Peer	Subordinate	Internal Customer	Student	Promoter	Peer	Subordinate	Internal Customer	Student
Leading	0.974	0.955	0.960	0.983	0.844	0.994	0.989	0.991	0.997	0.983
	0.952	0.921	0.936	0.982	0.759	0.995	0.989	0.991	0.997	0.984
	0.952	0.966	0.955	0.991	0.904	0.995	0.989	0.991	0.997	0.983
	0.952	0.951	0.964	0.983	0.891	0.995	0.989	0.991	0.997	0.983
	0.964	0.944	0.962	0.987	0.931	0.995	0.989	0.991	0.997	0.982
	0.965	0.951	0.946	0.983	0.886	0.995	0.989	0.991	0.997	0.983
	0.957	0.944	0.959	0.984	0.835	0.995	0.989	0.991	0.997	0.983
	0.960	0.948	0.961	0.986	0.858	0.995	0.989	0.991	0.997	0.983
	0.960	0.953	0.947	0.979	0.890	0.995	0.989	0.991	0.997	0.983
	0.962	0.951	0.974	0.983	0.788	0.995	0.989	0.991	0.997	0.983
	0.961	0.930	0.963	0.985	0.811	0.995	0.989	0.991	0.997	0.983
	0.960	0.963	0.961	0.932	0.859	0.995	0.989	0.991	0.998	0.983
Controlling	0.921	0.881	0.968	0.963	0.865	0.995	0.989	0.991	0.998	0.983
	0.915	0.892	0.963	0.961	0.808	0.995	0.989	0.991	0.998	0.983
	0.887	0.881	0.963	0.964	0.640	0.995	0.989	0.991	0.998	0.984
	0.966	0.910	0.930	0.987	0.863	0.995	0.989	0.991	0.997	0.983
	0.921	0.842	0.929	0.979	0.683	0.995	0.989	0.991	0.997	0.984
Personal Outcomes	0.941	0.809	0.789	0.960	0.892	0.995	0.989	0.992	0.998	0.983
	0.951	0.790	0.791	0.960	0.911	0.995	0.990	0.992	0.998	0.983
	0.936	0.794	0.790	0.958	0.885	0.995	0.990	0.992	0.998	0.983
	0.937	0.784	0.785	0.962	0.865	0.995	0.990	0.992	0.998	0.983
	0.952	0.794	0.789	0.962	0.896	0.995	0.990	0.992	0.998	0.983
	0.959	0.796	0.789	0.961	0.902	0.995	0.990	0.992	0.998	0.983

Table 9. Item-total statistics for the sub-scales per stakeholder category for group 2

	Corrected Item-Total Correlation					Alpha if Item Deleted				
	Promoter	Peer	Subordinate	Internal Customer	Student	Promoter	Peer	Subordinate	Internal Customer	Student
Leading	0.983	0.978	0.971	0.942	0.933	0.994	0.994	0.995	0.995	0.986
	0.964	0.968	0.935	0.966	0.929	0.994	0.994	0.996	0.994	0.986
	0.970	0.946	0.981	0.980	0.966	0.994	0.994	0.995	0.994	0.985
	0.974	0.976	0.986	0.977	0.969	0.994	0.994	0.995	0.994	0.985
	0.969	0.979	0.980	0.957	0.944	0.994	0.994	0.995	0.994	0.985
	0.973	0.974	0.975	0.974	0.959	0.994	0.994	0.995	0.994	0.985
	0.967	0.941	0.971	0.977	0.916	0.994	0.994	0.995	0.994	0.986
	0.950	0.976	0.981	0.982	0.919	0.995	0.994	0.995	0.994	0.986
	0.971	0.948	0.946	0.979	0.827	0.994	0.994	0.996	0.994	0.988
	0.977	0.974	0.980	0.937	0.904	0.994	0.994	0.995	0.995	0.986
	0.950	0.966	0.986	0.977	0.957	0.995	0.994	0.995	0.994	0.985
	0.960	0.956	0.974	0.958	0.872	0.994	0.994	0.995	0.994	0.987
Controlling	0.924	0.972	0.982	0.982	0.860	0.943	0.983	0.975	0.990	0.921
	0.944	0.975	0.942	0.982	0.910	0.940	0.983	0.980	0.990	0.912
	0.833	0.939	0.932	0.983	0.808	0.958	0.988	0.982	0.989	0.930
	0.914	0.971	0.968	0.959	0.839	0.944	0.983	0.977	0.993	0.925
	0.813	0.959	0.929	0.978	0.768	0.961	0.985	0.982	0.990	0.938
Personal Outcomes	0.957	0.964	0.982	0.963	0.917	0.993	0.995	0.996	0.990	0.976
	0.984	0.988	0.989	0.969	0.947	0.991	0.993	0.995	0.989	0.973
	0.980	0.984	0.989	0.979	0.935	0.991	0.993	0.995	0.988	0.974
	0.979	0.983	0.992	0.986	0.950	0.992	0.993	0.995	0.988	0.973
	0.986	0.982	0.986	0.933	0.942	0.991	0.993	0.995	0.993	0.973
	0.969	0.985	0.978	0.987	0.884	0.992	0.993	0.996	0.988	0.979

Table 10. Item-total statistics for the full-scale per stakeholder category for group 2

	Corrected Item-Total Correlation					Alpha if Item Deleted				
	Promoter	Peer	Subordinate	Internal Customer	Student	Promoter	Peer	Subordinate	Internal Customer	Student
Leading	0.981	0.978	0.972	0.935	0.909	0.995	0.997	0.997	0.996	0.986
	0.953	0.964	0.941	0.948	0.920	0.995	0.998	0.997	0.996	0.986
	0.973	0.950	0.983	0.972	0.935	0.995	0.997	0.997	0.996	0.986
	0.976	0.978	0.989	0.966	0.950	0.995	0.997	0.997	0.996	0.986
	0.969	0.978	0.980	0.955	0.916	0.995	0.997	0.997	0.996	0.986
	0.974	0.974	0.972	0.965	0.924	0.995	0.997	0.997	0.996	0.986
	0.969	0.942	0.975	0.968	0.875	0.995	0.997	0.997	0.996	0.987
	0.947	0.977	0.979	0.977	0.892	0.995	0.997	0.997	0.996	0.986
	0.971	0.951	0.945	0.980	0.833	0.995	0.998	0.997	0.996	0.987
	0.975	0.974	0.980	0.927	0.873	0.995	0.997	0.997	0.996	0.987
	0.949	0.970	0.986	0.976	0.937	0.995	0.997	0.997	0.996	0.986
	0.957	0.957	0.976	0.974	0.876	0.995	0.997	0.997	0.996	0.986
Controlling	0.969	0.978	0.977	0.975	0.832	0.995	0.997	0.997	0.996	0.987
	0.913	0.974	0.949	0.974	0.797	0.995	0.997	0.998	0.996	0.987
	0.815	0.945	0.928	0.962	0.710	0.995	0.997	0.998	0.996	0.987
	0.980	0.971	0.984	0.956	0.840	0.995	0.997	0.997	0.996	0.987
	0.799	0.973	0.952	0.958	0.705	0.995	0.997	0.998	0.996	0.987
Personal Outcomes	0.953	0.967	0.979	0.954	0.876	0.995	0.997	0.997	0.996	0.986
	0.984	0.983	0.988	0.971	0.882	0.995	0.997	0.997	0.996	0.986
	0.975	0.977	0.985	0.963	0.915	0.995	0.997	0.997	0.996	0.986
	0.971	0.980	0.986	0.966	0.912	0.995	0.997	0.997	0.996	0.986
	0.978	0.984	0.980	0.905	0.893	0.995	0.997	0.997	0.997	0.986
	0.966	0,985	0.979	0.954	0.838	0.995	0.997	0.997	0.996	0.987

The high item scale correlation suggests that each item forms a cohesive construct with other items in the sub-scale. This is evidenced in Group 1 by the fact that if any one item is deleted, this will result in an overall lower Cronbach's Coefficient Alpha statistic for the full scale than if all items were maintained on the scale. In Group 2, the scenario is much the same for all the forms except for the peer form where if two items ("Encourage calculated risk taking" and "Applies problem-solving processes to solve conflict situations) are removed, Cronbach's Coefficient Alpha will increase marginally from 0.997 to 0.998; the increase is so negligible that it is not advisable to eliminate these two items as it influences only one stakeholder (Peer) form and not the others

and its exclusion would offset other principles of questionnaire design that were adhered to.

Notwithstanding these findings in each of Group 1 and Group 2 respectively, Cronbach's Coefficient Alpha figures were high in both Group 1 and Group 2 per stakeholder grouping for the different forms. Furthermore, Kaplan and Saccuzzo (1993) noted that Cronbach's Coefficient Alpha represents a general reliability estimate and provides the lowest estimate of reliability that can be expected and if Cronbach's Coefficient Alpha is high, it can be assumed that the reliability of the tool is acceptable. The high Cronbach's Coefficient Alpha figures reported for the study therefore, in line with Kaplan and Saccuzzo's (1993) argument, substantiates that the measurement tools have acceptable reliability by attesting firstly, to the robustness (Cooper & Schindler, 2001) of the self-constructed measurement tools and secondly, to the degree to which the self-constructed measurement tools, are free of measurement error (Chadha, 1996).

DISCUSSION

Interpretation

In order to demonstrate that targeted learning resulted in critical on-the-job behaviours which subsequently enhanced organizational performance and hence organizational effectiveness, deliberate and purposeful evaluation of the transfer of training is crucial.

The need for researchers to make available psychometrically sound, research-based, theoretically derived assessment tools is also exemplified. It is for this reason that an inductive approach to understand how to evaluate learning as an outcome by triangulating data from organizational stakeholders resulted in the two transfer of training evaluation tools. Each of these tools was subject to psychometric analyses including face validity, content validity, construct validity and reliability. The results as presented provide support for these tools to provide valid and reliable evaluation of transfer of training.

Implications for practitioners

For human resource development practitioners, this research is valuable because it demonstrates how learning transfer can be evaluated using a retrospective training evaluation tool.

Limitations

- In this study data were gathered from a single source, making the results not readily generalisable.
- The study lacks an international perspective in that the sample was drawn from the client organization's national footprint only.
- A stakeholder approach to evaluating training was adopted in this study. However, not all stakeholder categories were used in the study, for example, the external customer stakeholder category was omitted from the research design.

Suggestions for further research

The measurement tools were validated in one institution only and in order to verify the external validity of the measurement tools, it is recommended that these tools be tested by applying them to multiple sample sources from different industries. Additionally, the study should be replicated using, the measurement tools, with stakeholder categories that were omitted (for example, the external customer stakeholder category).

Conclusion

This exploratory study provided an initial attempt to develop measurement tools towards effectively (by means of a 360 degree stakeholder research design) evaluating a front line management training intervention and furthermore, by following a trend longitudinal design, also attempted to validate the psychometric integrity of the tools. This study has added to the fund of knowledge; in that psychometrically sound training effectiveness measurement tools can assist the human resource discipline defend its place as a strategic contributor to organizational effectiveness by providing definitive answers to questions pertaining to training effectiveness (or the transfer of training).

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FRAMEWORK FOR THE ANALYSIS OF CORPORATE POLITICAL STRATEGIES PERTINENT TO REGULATION: A RELATIONAL PERSPECTIVE

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Abstract

As energy sector firms belong to a regulated industry, their management faces significant challenges. In this kind of business environment it is very important to develop political strategies. Defining political strategy as the set of actions that firms plan and undertake in order to maximize economic returns from the political environment (Bonardi & Keim, 2005; Oliver & Holzinger, 2000; Schuler, 1996), and focusing specifically on actions whose aim is to influence the regulatory environment, the purpose of the broader research at issue in this article is to contribute to studies of the strategic managment of firms that engage in alliances and networks in regulated industries. Its objective is to develop and apply an analytical framework with a relational perspective, involving a methodology, constructs and model, in the context of a multiple case study, whose results can be used to support the strategic management of firms with the characteristics cited. The aim of this article is to propose a preliminary framework based on a thorough bibilographical review, participant observation in a leading Brazilian electricity distributor, and validating interviews with experts and executives from the sector.

Keywords: Political Strategy, Regulation, Regulated Industries, Relational Perspective

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INTRODUCTION

The energy sector currently holds a special place in the preoccupations of governments, investors, professionals of the most diverse areas and the population at large. This sector's firms are at a crucial moment in which patterns of supply and consumption are patently unsustainable (International Energy Agency, 2008). Because of uncertainties regarding production and consumption, governments and their actions that aim at mitigating climate change impacts will play a fundamental role in modelling the future of the energy sector (International Energy Agency, 2010). Despite the complicated worldwide economic scenario since 2008 that sector has continuously being pressured.

In this context, and taking into account the high degree of regulation embedded in it, there are significant implications for the firm´s strategy management. The regulatory environment is understood to be a set of institutional actors - whose central body is the regulatory agency - deploying legal and regulatory instruments (formal acts of the regulator) and interacting with public and private agents.

The legal and regulatory framework exercises a strong influence on the management, and consequently the performance, of firms under its jurisdiction. Regulation affects all economic sectors to a greater or lesser extent, but the so-called regulated industries (telecommunications, electricity, water, oil and gas and banking) are subject to significant degrees of political intervention and risk (García-Canal & Guillén, 2008). Thus, the need arises for firms in the latter type of industry to engage in political action, that is, to elaborate and implement political strategies. For the purposes of this study, political strategy is defined as the set of actions that firms plan and execute in order to maximize economic returns from the political environment (Oliver & Holzinger, 2008).

In the case of the Brazilian electricity sector, which is the focus of the study at issue in this article, the control of some public utilities was transferred to

the private sector before fully establishing a regulatory system – a deficiency that, as yet, has not been completely addressed. If ever will be, considering that a regulatory environment is to be continuously improving.

Faced with this environment, firms seek to establish alliances with firms in their network of relationships to contribute to their political strategies. The strategic orchestration of these movements is no easy task and indubitably needs models that privilege a relational view. Traditional management models, in other words, that do not consider the relational characteristics of the linkages between actors in firms' value nets have severe limitations. In sum, the problem posed by the broader research is how to formulate and carry out political strategies regarding Brazilian electricity distribution sector regulation, considering the strategic implications of the linkages established by firms in this sector, that can contribute to bettter firm performance.

The wider research´s main aim is to propose an analytical framework with a relational perspective that can support the management of political strategies designed to influence the regulatory environment. The specific objective of this article is to present a first version of this framework that includes a methodology (step by step), lists of variables and a model, in the sense of a map. The framework seeks to help managers analyze the strategic implications of factors pertinent to political strategies aimed at influencing the regulatory environment of firms that engage in alliance/linkage networks. Considering the latter, these implications could not be identified by means of traditional (non-relational) analyses.

METHODOLOGY

The review of the literature was undertaken in accordance with the methodology proposed by Villas, Macedo-Soares and Russo (2008), and covered the following: institutional theory, agency theory, stakeholder theory, network theory, the theory of collective action and positive political theory. As a "backdrop", the research also reviewed the strategic management literature from its beginnings - in order to understand the evolution of knowledge in this field - until the appearance of the relational perspective, and the literature pertaining to strategic alliances and networks. The research reviewed models of relational strategic analysis with a view to identifying variables, constructs and indicators pertinent to the political and regulatory dimensions.

The literature review also included analyses of investigations into the strategic management of firms in the public utility sector, in general, and the electricity sector, in particular, focused on political strategies pertinent to regulatory environments. In sum, the review was conducted along the following axes: i) theoretical bases; ii) political strategies; iii) non-relational ("traditional") and relational models of strategic analysis; and iv) strategic management in regulated industries, especially in the electricity sector. Besides, in order to enriching the results of the literature review and to contributing to the preliminary framework proposed here, the study incorporated also the results of participant observation undertaken by one of the authors during a year's consulting work in the regulatory area of a large electricity distributor in Brazil.

At last, previous to the development of a multiple case study which is going to be developed in the next steps of the study, a preliminary validation of the proposed framework took place. To do so, a total of eight interviews were accomplished with the sector´s experts and executives. By means of a semi-structured questionnaire, the data collected contributed to refine the previous proposed framework.

THEORETICAL REFERENCES

The political strategy literature is rich in terms of theory but contains few empirical studies, showing that there is still a vast field to be researched. Two theories constitute a point of departure for the study of political strategies: the Theory of Collective Action (TCA) and the Positive Political Theory (PPT). Olson (1971) established the bases of the TCA, which deals with the identification and assessment of solutions to the problem of collective versus individual action (free rider). As to PPT, it developed out of Rilker's (1962) seminal study and was consolidated by Rilker & Ordeshock (1973). This theory recognizes the interdependencies between institutional actors in the development of public policies and is an offshoot of political science. It provides a conceptual approach for the identification of environments in which the regulator is hostile from the firm's point of view and defends the preferences of some political institutions in its determinations (Holburn & Vanden Bergh, 2008).

Although the use of strategies to deal with political environments had been studied directly or indirectly since the 1960's, it was only in the mid-1980's that it became a really significant issue. This can be attributed to the growing influence of the political environment on business, with firms' loss of legitimacy as social institutions and the resurgence of government regulation of some segments of industry (Ullmann, 1985; Yoffie & Bergenstein, 1985). Also during the mid 1980's, the strategic management literature began, albeit timidly, to reflect the need for firms to move from ad hoc political actions to a more structured – strategic - political approach, although the great majority, in practice, continued to act in a reactive fashion (Yoffie & Bergenstein, 1985).

The political and regulatory environment is a source of uncertainty and risk for many organizations, which respond with specific - so-called political - strategies (Baysinger, Keim & Zeithaml, 1985; Baron,

1995; García-Canal & Guillen, 2008; Keim & Hillman, 2008). In other words, firms attempt to influence public policy decisions (Hillman & Hitt, 1999; Bonardi, Holburn & Vanden Bergh, 2006). So political strategy is the set of actions that firms plan and execute in order to maximize economic returns from the political environment (Bonardi & Keim, 2005; Oliver & Holzinger, 2008;Suler, 1996) and co-exists with market strategies in organizations (Baron, 1995; Holburn & Vanden Bergh, 2002). One of the first attempts to consolidate a political strategy model was undertaken by Yoffie (1985) apud Yoffie & Bersgstein (1985) who, drawing on the TCA and TPP literatures, indicated five possible strategies: free riding, following, leadership, pusuing private goods and entrepreneurship. The latter strategy is particularly interesting because it involves at once market competence and political action.

The literature presents countless possible forms of materialization of political strategies, by means of diverse activities or tactics, including, for example, divulging and disseminating information on specific themes, developing corporate programs to influence the electorate, direct lobbying, direct financial contributions for political campaigns, formation of political action committees/interest group associations, petitioning regulatory bodies, testifying before legislative and regulatory commissions, action on high visibility matters involving the interests of important stakeholders, action against rivals' appeals and coalition building (Baysinger, Keim & Zeithaml, 1986; Bonardi & Keim, 2005; Capron & Chatan, 2008; Hillman & Hitt, 1999; Keim & Zeithaml, 1986; Lenway & Rehbein, 1991; Shuler, 1996).

Political strategies constitute a set of actions to explore opportunities and not a set of restrictions or ways of mitigating charges and threats, although they may indeed have this effect (Oliver & Holzinger, 2008), and may be addressed to a firm's various stakeholders (shareholders, employees, customers, suppliers, trade associations etc.) in order to influence legislative and regulatory bodies (Baysinger, Keim & Zeithaml, 1985).

Macro-environmental factors, particularly those related to public sector policies, may create or erode competitive advantages. Bailey (1997) points to "political windows" in which firms may take advantage of political changes to create competitve advantages. In internationalization processes, firms are concerned with the local political environment and develop specific political and operational strategies based on their assesment of political risk (Feinberg & Gupta, 2009; Hillman & Wan, 2005).

Government regulation and public policies have emerged as important constructs in strategy (Shaffer & Hillman, 2000). Bailey (1997) affirms that, in the case of industries such as air transportation, telecomunications and utilities, the competitive arena is defined by public policies. Although public policies can influence practically all aspects of a business, firms are not affected in a similar fashion (Keim & Hillman, 2008). Those with some degree of regulation suffer a greater impact. Thus, firms try to influence the regulatory agency's decisions by interacting with the legislative, judicial and executive branches, as well as the agency itself, and also attempt to influence the relations between these actors (Holburn & Vanden Bergh, 2002).

Holburn & Vanden Bergh (2004) use the positive political theory and the campaign finance literature to build a model in which interest groups seek to obtain advantages from the regulatory agency by following a path that is sometimes more profitable than a direct firm-agency relationship. Through activities ranging from lobbying to campaign contributions, these groups seek to influence legislative and executive political institutions that may or may not be pivotal in the legal and administrative decisions of regulatory agencies. Due to their condition of public services concessions, electric energy distributors in Brazil are not permitted by law to perform all the set of political actions found in literature, like campaign donations. Besides, for any economic sector lobbying is not a legalized activity in Brazil.

The political market concept (Bonardi, Holburn & Vanden Bergh, 2006) constitutes an evolution from the simple model of the exchange of information and support between the electorate (and its lower number of effective voters) and legislators. Vanden Bergh & Holburn (2007) thus develop a model of corporate political strategy that seeks to help firms allocate resources to the most appropriate institutions in a direct fashion - in the case of agencies – or indirectly - in the case of bodies belonging to the executive, legislative and judicial brances of government.

The political strategy formation process should be considered in its particularities such as, for example, the approaches proposed by Hillman & Hitt (1999) - transactional (subject by subject) and relational – and the level of participation (individual and colective). Dahan (2005) expresses a similar view when he proposes two generic strategies – iterative and pressure – according to the use of what he calls political resources, and the roles played by each of these resources in the execution of these strategies, whether of a primary, support or complementary nature.

Conflicts between interests or agency problems are predominantly seen as involving the possibility of opportunistic behavior by executives – agents – who act against the interests and welfare of the owner (principal), but there are important conflicting interests that divide agents and principals in the case of the regulated firms. The understanding of the complex and unstable regulatory environment is often a challenge to the principal, especially in the case of international investors. In this context, agents tend to have a better comprehension of regulatory variables, in a situation characterized by a high degree of

asymmetrical information that may lead to conflicts with investors.

The ability to address the different interests of multiple stakeholders and their result in a firm's performance constitutes one of the challenges posed by stakeholder theory (Greenley & Foxall, 1997), and stakeholder management is one of the themes of strategic management (Freeman, Wicks & Parmar, 2004). The stakeholder management is part of an explicit agreement between the principal and the agent, and it is the latter who in fact conducts the relationship with stakeholders. Agency theory and stakeholder theory are directly linked in what many authors call Stakeholder-Agency Theory (Hill & Jones, 1992).

By focusing on the analysis of the elements of relational networks and cultural systems that influence the structure and actions of organizations, the institutional approach constitutes a counterpoint to the technical requirements of management and production processes. According to Théret (2003), institutionalism distinguishs itself from other intellectual paradigms by pointing to the need to take into account the mediations between social structures and individual behavior, in order to understand the action of individuals and their collective behavior that take place through institutions.

For the purposes of the study, institutions are viewed as components of the rules of the game in a society that constitute restrictions on human action (North, 1990). Institutions, such as organizations, affect the economy's performance through their effect on exchange/transaction costs and production. Although supposedly contributing to the reduction of uncertainty, institutions also undergo change, typically in an incremental, but also in a discontinuous fashion.

Organizations can and should consider the competitive advantages that derive from institutions and their changes and evolutions. This constitutes an important dimension in organizations' strategic formulations, particularly in public services concession sectors with a high degree of regulation. As highlighted by Keim & Hillman (2008), North recognized that business is embedded in an institutional context and that this context varies from place to place and changes over time as a result of the interaction between organizations and institutions. Institutional Theory (IT) seeks to achieve a more profound understanding of the diverse aspects of the social structure, considering the process through which structures are established as drivers of social behavior, and this kind of analysis can be extended to organizations in general and firms. Note that the institutional approach developed along three distinct lines: economic, political and sociological. The economic and political approaches are relevant to the research at issue here. IT approach is appropriate for the study of political strategies, as defended by Hillman & Wan (2005) when suggesting two categories of institutional duality for multinational firms: internal and external legitimacy.

It should be highlighted that the alliance literature hardly considers relations between private sector firms and public bodies, especially regarding their role in the former's value net. One exception is the proposal put forward by Ragan, Sami Wassenhove (2006), anchored in Transaction Cost Theory and Externality Theory, regarding the feasibility of public-private partnerships.

Powerful forces are driving the formation of strategic alliances in an intensely competitive global arena (Doz e Hamel, 1998), configurating phenomena that are increasingly ubiquitous (Gulati, 1998). Countless researchers such as Gomes-Casseres (1994, 1996), Gulati (1998, 1999), Galaskiewicz and Zaheer (1999), Gulati, Nohria and Zaheer (2000), Kale, Singh and Perlmutter (2000) and Knoke (2001), have contributed to the identification of relational attributes and indicators that are important for the analysis of the strategic implications of alliances and other linkages from a network perspective.

Madhavan, Koka & Prescott's (1998) framework attemps to explain how networks evolve over time in response to specific events that occur in a specific industry, by characterizing the network´s evolutionary process in response to specific events that may reinforce or weaken its structure. McEvily & Zaheer's model (1999), on the other hand, emphasizes the importance of understanding the relation between firms' embeddedness in networks and their skill in acquring resources and competitive capacity by exploiting the opportunities provided by networks in terms of access to information and other valuable resoures that the firm may need. Gnyawali & Madhavan (2001) develop a multi-level conceptual model relating key network properties to actions and responses related to the competitive environment. Contractor, Wasserman & Faust (2006) propose an analytical model to specify and statistically test multi-level and multi-theoretical hypotheses regarding the structure of organizational networks in which independent endogenous (network level) and exogenous (sharing of actor attributes and other relationships) variables are assessed at four levels: actor, binary relations, three-fold relations and global relations. Drawing on the preceding literature devoted to repairing trust, restoring positive exchange and reducing the negative effect of problems in relationships, Dirks, Lewicki & Zaheer (2009) develop a model to help repair relations after they have been damaged. Farjoun (2002) adopts an organic view, which understands that strategy aims at aligning the firm with the macro-environment, by constructing and modifying internal attributes and forcing a response to external conditions. Based on this view, he proposes the OESP (Organization – Environment – Strategy – Performance) model. Although it has a so-called organic approach, this model does not in fact

adopt a relational perspective but rather an extreme integrative one.

In the case of the Strategic Network Analysis (SNA) framework developed by Macedo-Soares (2002), on the other hand, the purpose is to help identify and assess the strategic implications – strengths and weaknesses and opportunities and threats – of alliances and other linkages, from a network perspective, with a view to taking them into account in the strategic planning and decision-making processes of firms that engage in alliances and networks. Its application in different sectors evidences that it enables capturing important "insights" that could not be found by way of a non-relational perspective, whether of the positioning school or resource-based view (Macedo-Soares & Tauhata, 2002; Leite & Macedo-Soares, 2005; Macedo-Soares, Tauhata & Freitas, 2004; Macedo-Soares, Tauhata & Lima, 2005; Macedo-Soares & Figueira; Macedo-Soares & Schubsky, 2010; Macedo-Soares & Mendonça, 2010).

Van der Heijden (1996) sustains that strategic analysis is based on the assumption that assessments should be performed according to the classic principle of strategic fit: the importance for strategy's effectiveness of guaranteeing consistency between all strategically significant factors (Hofer & Schendel, 1978). In the case of firms in alliances and networks these factors, according to Macedo-Soares (2002), should include relational variables. The business environment studied in this article has the following main characteristics that sustain a relational approach to firm´s political strategy management: multiple stakeholders with diverse interests; actors with both collaborative and antagonistic characteristics; a complex political and institutional environment; and lack of an explicit competitive arena - as defined by Porter (1980) - although there are cases of direct competition between the sector's actors.

Although the authors referred to in this section have investigated some relevant issues pertinent to political strategies, by and large, as Pearce, Castro & Guillén (2008) noted researchers are only just beginning to perform studies of the formulation of corporate strategies that influence government policies. Returning to the theme addressed earlier, constructive linkages between the private and public sectors are essential for the success of firms in regulated industries. This occurs when, as is the case in Brazil, the private sector is able to take full advantage of prevailing economic conditions, circumstances are favorable and the public sector is highly involved in operational terms (Ragan, Sami & Wassenhove, 2006).

PROPOSED FRAMEWORK

Having completed the review of the literature, it is now possible to present a preliminary framework – methodology, model and constructs – to support the management of political strategies pertinent to regulatory environments.

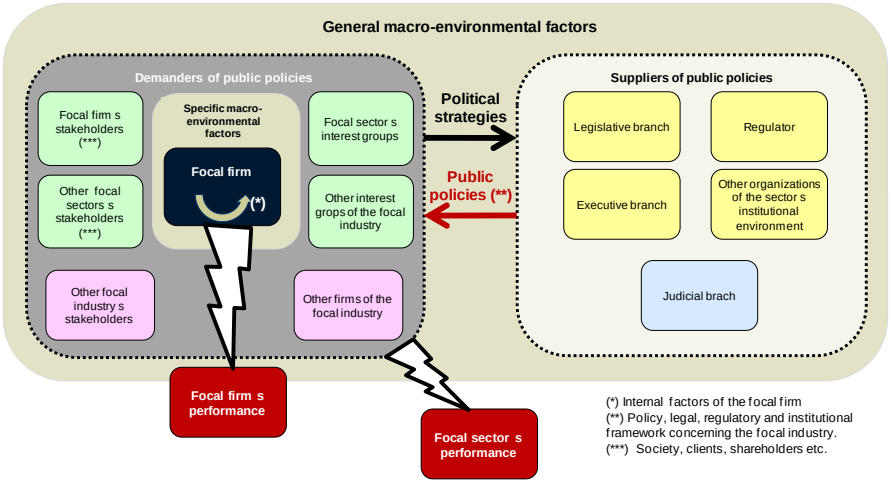
The methodology, which constitutes a further development of Macedo-Soares' (2002) proposal involves 12 steps. The Step 1 is to characterize the strategy. This is based on the usual strategic constructs – vision, mission, values and objectives – as well as Fahey & Randall's (1998) categories of analysis: strategic scope (product/service, customer, geography, degree of verticalization and stakeholders); competitive differentiation or stance. In addition to stategy's content, these authors also include the strategic process itself. In order to identify the stance of political strategies regarding regulation, the framework also uses the previously cited typologies developed by Bailey (1997), Dahan (2005), Hillman & Hitt (1999), Holburn & Van den Bergh (2006), Oliver & Holzinger (2008) and Yoffie (1985). Thus, eight dimensions are adopted to characterize a firm's strategy: vision, mission, values, targets, scope, type of strategy and formulation and implementation processes. Step 2 assesses the strategic implications of organizational factors, that is, the firm's resources, including those based on knowledge, notably skills and competencies, and the conditions required to lever and manage these resources - in terms of constituting real and potential strengths and weaknesses – that will be used to obtain gains in the political market. Step 3 assesses the strategic implications of those focal firm strategic actors that demand public policy, such as the focal firm's stakeholders, focal sector stakeholders and the focal sector's organized interest groups in the performance of their respective roles. Step 4 assesses the strategic implications of the strategic actors that supply public policies to the focal sector, such as the legisative and executive branches, the regulators and other organizations that belong to the focal sector's institutional environment. As in the case of steps 2 and 3, this stage also does not take into account the firm's alliance/linkage-type relationships. Step 5 assesses the strategic implications of inter-agent macro-environmental factors, in terms of constituting real and potential opportunities and threats. Continuing the analysis of various actors, Step 6 identifies and assesses the strategic implications of the actors in the focal firm's value net in order to be able to identify and classify the alliances and other significant ties that configure the focal firm's ego net in step 7. Step 8 assesses and characterizes the strategic political network. In Steps 2 to 8 the framework uses reference lists of variables, constructs and indicators. In the case of relational analysis, the indicators seek to determine the characteristics of the strategic network and support the analysis of their implications at firm and industry levels, in terms of constituting relational strengths and weaknesses and relational opportunities or threats. Step 9 seeks to characterize the performance of the focal firm affected by the strategic political decisions. Step 10

assesses the consistency of the implications identified during the previous step with the firm's strategy, according to the concept of strategic fit. Considering networks' dynamic nature the analysis emphasizes the importance of assuring a dynamic fit (Zajac, Kraatz & Bresser, 2000). According to Macedo-Soares (2002), the latter implies imperfect consistency and fit and thus potential strategic implications should also be considered. The analysis may require inferences of the implications resulting from the strengths and weaknesses and threats and oportunities constituted by relationships, in the light of the organizational, macro-environmental and actor/role implications that do not take relationships into account (traditional analysis), and which are the object of Steps 2 and 3. Step 11 defines the changes in organizational or relational factors required to improve or create the conditions necessary to achieve dynamic strategic fit, on the basis of the results of the assessment performed in Step 10 and the type of incongruences identified. Step 12 refers to strategic decision-making – adjusting strategy or adopting a new one, considering all stakeholders and the importance of sustaining a superior performance.

The use of the SNA relational strategic analysis model (Macedo-Soares, 2002) was considered to be pertinent as a point of departure and adaptations were made for the electricity sector under study. During this process, the research sought to enrich it by drawing on elements from other models identified in the literature, such as those developed by Bailey (1997), Vanden Bergh & Holburn (2007), and Oliver & Holzinger (2008). In this sense, it can be affirmed that the model proposed constitutes a variation of the SNA model.

The model is shown in Figures 1 and 2. Figure 1 gives an overall view and represents a further development of the Bonardi, Holburn & Vanden Bergh (2006) model, incorporating the integrative view and a concern with explicitating the focal firm and industry's performance. It also adopts a broader view of public policy, encompassing government policies and the focal industry's entire legal, institutional and regulatory framework.

Figure 1. Preliminary model proposed for the analysis of political strategies: general view

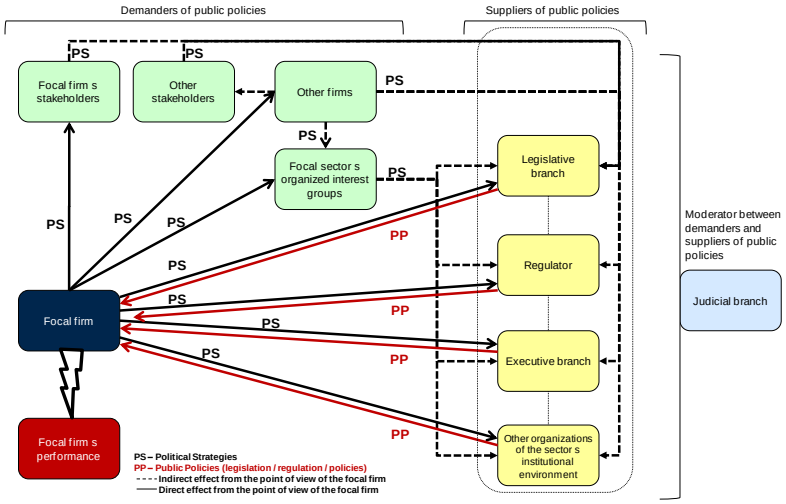


Stakeholders are highlighted in recognition of their influence on both the decisions of the demanders of public policies and their suppliers. Evidently, the focal firm should use its various organizational factors strategically (strengths or weaknesses), in order to position itself and take advantage of opportunities or mitigate the threats derived from suppliers of public policies and inter-agent macro-environmental factors. Albeit in a simplified fashion, it also zooms in on the focal firm's strategic network, highlighting the main groups of actors it establishes relations with, and its interaction with general and specific macro-environmental factors. Figure 2 details the political market of a focal firm, seeking to highlight the direction of political strategies – direct or indirect – and public policies.

Arguing that the lack of studies of the theme perpetuates a conceptual confusion, Dahan (2005) attempts to define the exact nature of political resources/competencies by proposing the following typology: expertise, financial resources, organizational resources, reputation with stakeholders that are not directly market- oriented, public image and stakeholder support. As the latter is not self-explanatory, some further comments are warranted. It refers to all kinds of service or "perks" offered to opinion formers (including journalists) and public policy deciders, in order to obtain more informal, personal and perhaps more favorable contact. The benefits include restaurants, hotels, and trips, and depending on the situation, their use may be controversial. Dahan also broadens their definition, classifying these resources as: i) internal or external; ii) at the level of the firm or at the collective level; and iii) one-off or semi-permanent. Finally, he highlights the ability to mobilize political resources, in an alignment with the "O" (organizational conditions) of Barney's (1996) VRIO model. Dohan's (2005) typology and that proposed by Macedo-Soares (2000) in her GI – Generic Integrative model,

associated with the SNA model (Macedo-Soares, 2002; Macedo-Soares, Pacheco, Esteves, Gewandsznajder & Lorenzon, 2005) were also used as a reference for classifying the firm[s internal factors.

Figure 2. Preliminary model proposed for the analysis of political strategies: zoom of the political market of a focal firm



Tables 1, 2 and 3 contain the factors, constructs and indicators proposed for the integrative strategic analysis: constructs for internal (independent variables) and macro-environmental factors (secondary variables) and constructs for the assessment of the performance of political strategies pertinent to regulation (dependent variables). They were based on Austin (1990), Bastos & Macedo-Soares (2006), Bonardi & Keim (2005), Bonardi, Holburn & Vanden Bergh (2006), Dohan (2005), Feinberg & Gupta (2009), Shuler (1996), García-Canal & Guillen (2008), Hillman & Wan (2005), Macedo-Soares (2002), Ullmann (1985) and Yoffie & Bergenstein (1985).

Taking the SNA model's (Macedo-Soares, 2002) constructs as a point of departure, Tables 4 and 5 indicate the constucts and indicators pertinent to the relational analysis of electricity distributors. Alterations were made partially inspired by Bastos & Macedo-Soares (2006) and Macedo-Soares & Mendonça (2010) that investigated regulated industries, respectively gaz distribution and telecom, for use in the case of political strategies pertinent to regulation for electricity distribution firms.

Note the incorporation of the compulsory and voluntary nature of some types of linkages. Linkages can be classified in many ways and for the purpose of the study at issue here, it was decided to adopt Macedo-Soares & Tauhata's (2002) classification, based on Contractor & Lorange (1988), Parise (2000) and Nohria & Garcia-Pont (1991). Thus, the research considered the following sequence of types of linkages – from more intense to less intense – in the case of electricity distribution firms: merger & acquisition – M&A, joint venture, cross-shareholdings, minority stakes, concession contract, electricity purchase contract in a regulated environment, electricity supply contract, electricity spot/unregulated market purchase contract, joint R&D, patent or know-how licensing, technology transfer, R&D agreement/contract, raw material/input supply agreement/contract and agreement/contract for the provision of various services. Note that except for M&A, all other linkanges can be considered alliances when attending to the definition of alliances as voluntary arrangements between firms involving exchange, sharing or co-development of products, technologies and services (Gulati, 1998).

Table 1. Internal factors and indicators for strategic analysis in the case of political strategies regarding regulation, focusing specifically on electricity distributors

Factors	Constructs	Indicators
People	Team motivation	Degree of motivation of the team as a whole and of the regulatory area in particular. / Balanced performance measurement systems encompassing the regulatory dimension.
	Educational systems	Continuous education systems aimed at developing the competencies necessary for regulatory management.
	Competencies	Regulatory competencies mapped and present in the team as a whole and the regulatory area in particular. / Dynamic regulatory competencies in tearms of internalizing all the changes and demands of the legal and regulatory environment.
Culture	Organizational culture	Organizational culture focused on the continuous fulfillment of regulatory obligations.
	Leadership style	Top management delivering the firm´s political strategy. / Top management committment to customer orientation and the fulfillment of regulatory obligations. / Management-level committment to the firm's political strategy.
	Informal communication	Broad, interfunctional, privileging the dissemination of regulatory knowledge.
Organizational Structure	Management style	Multifunctional, with a high degree of empowerment and oriented towards regulatory issues.
	Formal organizational structure	Specific structure for the management of institutional and regulatory matters.
Processes	Business processes	Processes mapped, formalized and disseminated throughout the organization in compliance with regulatory obligations.
	Regulatory processes	Regulatory processes mapped and formalized, such as: management of regulatory documentation, management of participations in business interest organizations, management of stakeholders and management of regulatory events and milestones.
	Formal communication	Formal information channels, especially for the dissemination of knowledge and processes in general and regulatory ones in particular, and processing the flow of information related to regulatory obligations.
Information technology	Transactional systems	Broad and integrated transactional systems.
	Regulatory systems	Support systems for regulatory processes encompassing collaboration, workflow and document management.
	Management systems	Broad and integrated management support systems delivering regulatory data.
Infrastructure	Distribuition	Facilities, equipment and control systems that assure distribution according to the standards of safety and reliability established by the supervisory agencies.
	Customer service	Customer service processes and systems encompassing: technical and commercial complaints; conversion process and emergencies.
Reputation	Individual reputation	Recognition by sector agents and the political environment of the regulatory knowledge and management capacity of one or more individuals of the organization (regulatory and institutional leadership).
	Organizational reputation	Recognition by sector agents and the political environment of the organization's regulatory knowledge and management capacity (regulatory leadership).
Financial	Cash generation	Cashflow generated by operations (tariffs) and capital from third parties sufficient to assure liquidity for shareholders and internal funds to finance activities and sustained growth (investment plans related to the expansion of the distribution network and the quality of the services).
	Profitability	Adequate return on assets, capital employed and capital invested by shareholders, in order to maintain the attractiveness of long-term investments.
	Capital structure	Capital structure that assures an optimal level of leverage for obtaining low cost long-term funds, in order to finance capacity expansions to meet demand and support the quality of services. / State equity stake.

Table 2. Macro-environmental factors and indicators for strategic analysis in the case of political strategies regarding regulation, focusing specifically on electricity distributors

Factors	Constructs	Indicators
Economic	Demand for energy	Growth in demand for energy.
	Consumer bargaining power	Consumer mobilization capacity.
	Macro-economic scenario	GDP growth. / Indicator of unexpected changes in the economy's growth rate.
Socio-cultural	Oriented towards consumer rights	Sector agents' perception regarding the fulfillment of consumer rights.
	Oriented towards observance of laws and regulation	Sector agents' perception regarding the observance of laws and regulatory acts that affect the sector.
Political	Stability of the regulatory framework	Number of alterations in legal and regulatory instruments. / Regulator's budget compared to sector revenues. / Regulatory agency directors' average period in office. / Average time spent on regulatory decisions (from the beginning of discussions to the publication of resolutions).
	Ideology embedded in regulation	Sector agents' perception regarding regulation's ideological bias. / Rivalry between interest groups. / Country's índex of pluralism.
	Insitutional solidity	Sector agents' perception regarding the solidity of institutions with which interaction occurs.
	Political stability	Index of political restrictions.
Demographic	Population growth	Population's growth rate in the concession area.
	Urban organization	Degree of urbanization in the concession area. / Degree of urban disorganization in the concession area.
	Population dispersion	Degree of population dispersion in the concession area.

Table 3. Performance indicators for strategic analysis in the case of political strategies regarding regulation, with a specific focus on electricity distributors

Factors	Constructs	Indicators
General	Financial indicators	Cash generation / Liquidity / Shareholder returns / Profitability in relation to the sector average.
	Operational indicators	Real distribution losses in relation to the losses admitted/permitted by the regulator / Consumption per customer and by area / Consumer satisfaction / EID – equivalent interruption duration per consumer / EIF – equivalent interruption frequency per consumer / Stakeholder satisfaction / Fulfillment of ethical conduct standards regarding safety, respect for the environment and observance of regulatory obligations.
Regulatory	Financial indicators	Tariff increase obtained in relation to requested our anticipated increase.
	Operational indicators	Degree of influence in business interest organizations / Number of participations in business interest organizations / Number of contributions in public hearings and consultations / Number of appeals to the regulatory body.

Table 4. Constructs and indicators for relational analysis - at industry level – in the case of political strategies pertinent to regulation, focusing specifically on electricity distributors

Obs.: Constructs that constitute opportunities are in bold type

Categories	Constructs	Indicators
Network Structure	Density	**High** / Low
	Position and centrality	**Central** / Intermediate / Peripheral
Network Composition	Identity of focal firm partners	**Strong** / weak
	Status of focal industry partners	**Success** / Failure
	Access to focal industry resources	**Easy** / Difficult
Linkage Modality	Strength of connections	**Strong**/ Weak
	Nature of linkage	**Collaborative** / Opportunistic; Compulsory/ **Voluntary**

Table 5. Constructs and indicators for relational analysis – at the level of the focal firm – in the case of political strategies regarding regulation in electricity distributors

Obs.: Constructs that constitute strengths are in bold type

Categories	Constructs	Indicators
Network Structure	Density	**High** / Low
	Escope	Concession Area/ Multi-Regional / Country / **Global**
	Position and centrality in the network	**Central** / Intermediate / Peripheral
	Type of linkage	Invisible (private) / Visible
	Pattern of linkage	**Direct** / Indirect
Network Composition	Identity of the focal firm	**Strong** / Weak; **Favorable** / Unfavorable
	Status of the focal firm	**Strong** / Weak; **Favorable**/ Unfavorable
Linkage Modality	Strength of connections	**Strong** / Weak
	Nature of linkages	**Collaborative** / Opportunistic; Compulsory / **Voluntary**
Network Management	Use of governance mechanisms	**Appropriate** / Inappropriate
	Development of inter-firm information-sharing routines	**High stage of development** / Low stage of development
	Experience of multiple alliances	**Extensive** / Non extensive
	Alignment of interests between partners	**Adequate level** / Inadequate level
	Network performance measurement systems	**Appropriate** / Inappropriate

FINAL CONSIDERATIONS

The proposed framework obviously needs consolidation which will only be possible after it has been applied to cases of firms that establish alliances or other types of strategic linkages in regulated industries, beginning with the industry focused on in this study (electricity distribution). The aim of applying it - following the steps of the methodology described above - is to evidence how the framework may help capture relational information that is important for regulated industries that could not be revealed if the analysis were limited to a traditional (non relational) perspective and did not consider variables pertinent to regulation.

As was done in the case of the SNA framework and its other variations, we recommend applying the proposed framework in the context of a case study in which data collection is performed according to the principle of source and method triangulation (Yin, 1994). By applying the framework it will be possible to refine it and illustrate how it adds value to non-relational models in the case of firms with similar characteristics to those studied in this article. Thus, it is possible to contribute to theory building through multiple case studies (Eisenhardt & Graebner, 2007).

In spite of the fact that the present proposal needs consolidation and probably further refinement, already in its preliminary form it provides tools that can be used by managers of firms that engage in alliances and other linkages in regulated industries for their corporate political strategic planning processes. Indeed the preliminary model and tables presented in this article can be considered useful check lists for managers in such industries in the scope of their planning processes.

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USING THE COMPETING VALUES FRAMEWORK TO ASSESS MANAGERIAL ALIGNMENT TOWARDS THE ORGANIZATION'S VISION, FOCUS AND PREFERENCE FOR STRUCTURE

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Abstract

This study determines the extent to which middle, senior and top managers fulfill their managerial roles (mentor, facilitator, monitor, coordinator, director, producer, broker, innovator). It also evaluates their focus (internal versus external) and preference for structure (stability and control versus flexibility and change) as well as whether their orientations are aligned towards the same vision/goal. A sample of 202 managers (middle, senior, top) was drawn using a stratified random sampling technique. Data was collected using a questionnaire and analyzed using descriptive and inferential statistics. The results of the study emphasize the importance of aligning the organizational focus and preference for structure with the organizational vision/goal and ensuring that the managerial cadre is appropriately developed in the competencies needed to attain the vision/goal.

Keywords: Organizational Focus, Organizational Preference for Structure, Competing Values Framework, Managerial Roles, Vision and Mission

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Of recent, the transformation of organizational life is attributed mostly to the ubiquitous presence of the capricious factors of globalization, changing technology and emerging economies. With this moderating effect, performance, productivity and flexibility as growth objectives lean toward a long-term advantage in a changing environment. Companies are precipitating their efforts to augment quality, sustain excellence and hone competitive strategies. The competitive pricing of products, including services, are seen in the light of survival tools as the future may be less predictable in demanding markets. The goal is to uphold a 'competitive edge' over their competitors (Dale, 2003). The effect of aligning internal organizational changes with the external environment is prosperity and survival (Daft, 2005) thereby, requiring synchronisation. The availability of knowledge to the 'right people' and at the 'right time' is flagrantly for the sustenance of organizational competencies (Alazmi & Zairi, 2003).

The process of organizational effectiveness which entails research, knowledge, creativity, innovation and development (Christopher & Paul, 2010) are ingrained in organizational life. Christopher & Paul (2010) emphasize the need for contemporary organizations to keep up with environmental trends, changes and emerging setbacks and threats as they are the only permanent characteristics of organizations. Of importance, the effectiveness of an organization is decided by the degree to which its goals are realized (Cetin & Cerit, 2010), and the imperatives of organizational development (OD) founded upon humanistic-democratic values to improve the performance and effectiveness of organizations whilst taking cognisance of collaborative organizational processes (Robbins, 2003; Cummings & Worley, 2001; Mullins, 2002), without incapacitating its resources. However, goals can only be realized if they are clear and well communicated. In other words, a company's survival depends on a defined inspirational vision. Berson, Shamir, Avolio and Popper (2001:54) assert that a vision's content is critical to ascertain whether a leader succeeds when emerging in new directions or in continuously sustaining high levels of success. Quality leaders need to create a vision, and corporate success stories have been created by visions that are quality-oriented

(Evans, 2005). Those formulating a mission need to understand the organization, ensure that the vision 'fits the times' and reflect the 'uniqueness of the organisation' (Robbins, Judge, Odendaal & Roodt, 2009). A vision must contribute toward long-term customer loyalty or else the organization will not survive. Presenting the vision in an intriguing way grasps people's imagination in the organization (Evans, 2005) which outlines the vital role that leaders need to play not only in crafting the vision but also in realizing it.

The core purpose of this study is to use the Competing Values Framework (CVF) to assess managerial alignment towards the organization's vision, focus and preference for structure. A brief outline of the CVF cascades to the main focus of this study. Quinn has called the CVF framework a 'theory of theories' as it seeks to differentiate and immerse previous models of both organizations and their effectiveness (Faerman & Quinn, 1985 cited in Smart, 2003). The study utilizes the CVF consisting of four opposing models, that is, human relations model, open systems model, internal process model and rational goal model that can increase effectiveness (Quinn, Faerman, Thompson & McGrath, 2003). The CVF which is extensively used, is influential and robust. Its usefulness is for organizing and understanding the individual and the organizational strategies for growth, organizational effectiveness, organizational culture and design, stages of life-cycle development, leadership roles and profitability (Thakor, 2010). Hence, it was extensively used in various areas ranging from leadership development to organizational change (Al-Khalifa & Aspinwall, 2001).

Furthermore, the CVF highlights the paradoxical roles of organizational leaders (Quinn et al., 2003) because, for competing expectations, effective leaders need to perform roles of a contradictory nature (Yang & Shao, 1996) in response to the fact that organizations must be adaptable and flexible yet simultaneously stable and controlled. This paradox is depicted by two axes in the Framework which range from flexibility to control (vertical) and from an internal focus to an external focus (horizontal). Hence, this framework analyses an array of effectiveness indicators based on two major aspects that pave the foundation of effectiveness:

- *Organizational focus* having an internal and external emphasis, whereby the former dwells on the well-being and development of people in the organization and the latter pronounces the well-being and development of the organization itself (Yu & Wu, 2009).
- *Organizational preference* for structure, which depicts the contrast between stability and control and, flexibility and change (12Manage, 2008).

These effectiveness indicators place the CVF into four quadrants which represent different models:

- The human relations model emphasizes flexibility, internal focus, commitment and morale. An organization displaying this model has a 'team-oriented climate' (Blair, 2004).
- The open systems model places emphasis on survival in a competitive environment through 'adaptability, flexibility and responsiveness' (Blair, 2004).
- The rational goal model emphasizes control and productivity with an external focus.
- The internal process model culminated with the contributions of Max Weber and Henri Fayol (Quinn et al., 1996 cited in Blair, 2004). The 'organizational climate is hierarchical' and decisions are "colored by existing rules, structures and traditions" (Blair, 2004:2).

Each model has insightful segments. Of importance, one model may dominate within an organization, but the various models do co-exist. Each model assumes different criteria of effectiveness known as the Competing Values Framework (Quinn et al., 2003), indicating the complexity of managerial work. A feature of the framework is that each model has a perceptual opposite. The human relations quadrant in the CVF entails the facilitator and mentor roles. The facilitator role is linked to cohesion, teamwork and problem solving in groups while the mentor engages in training, building skills and in employee development. Hence, managers in the human relations quadrant perform the people leadership function (Business Network, 2001). The open systems quadrant indicates the innovator and broker roles. The innovator observes and manages changes whilst tolerating uncertainty and risk and the broker builds and maintains a power base, negotiates agreement and commitment and, presents ideas. Managers in the open systems quadrant, therefore, perform the adaptive leadership function (Business Network, 2001). The rational goal quadrant reflects the producer and director roles. The producer's concerns are task and work, including motivation. The director is competitive and engages in planning and setting goals. Therefore, in the rational goal quadrant leaders undertake the task leadership function (Business Network, 2001). Lastly, the internal process quadrant details the coordinator and monitor roles. The coordinator manages projects, designs work, manages across functions and handles crises whilst the monitor is analytical and engages in inspections. Leaders in the internal process quadrant display the stability leadership function (Business Network, 2001).

The CVF suggests challenges to use 'multiple mindsets' in observing the organizational world; to learn to use competencies linked with the four models; and to integrate competencies of a diverse nature in facing the 'world of action' (Quinn et al., 2003). Managers using these challenges are behaviourally complex, are capable of integrating opposite roles (Quinn et al., 2003) and are hence,

most effective. Today's business environment requires managers with skills, abilities and new competencies.

Of utmost focus, the effectiveness of managers are important to the continuing self-renewal and eventual organizational survival (Bowin & Harvey, 2001), hence determining short and long term success, and viability and profitability. Effective managers encourage subordinates, prevent elements that enervate the workplace and emphasize the importance of widening the information flow to ensure professional vitality. By 'transforming knowledge' into action, special skills are needed, but effective managers learn to achieve this by combining experience with critical thinking (Clampitt, 2002). They also need to redefine vision and mission and, have recent information and effective personnel to respond to global changes. Effectiveness must be linked to the achievement of some 'purpose, objective or task', and the criteria for assessing a manager's effectiveness should be viewed in terms of measuring the results or outcomes that a manager is to achieve (Mullins, 2002:233). 'Apparent effectiveness' is the extent to which the manager's behaviour is in giving immediate answers, making nimble decisions and good public relations provides the 'appearance of effectiveness'; whereas 'personal effectiveness' is the extent to which one achieves personal objectives, such as, power and prestige, instead of organizational objectives (Reddin, 1970 cited in Mullins, 2002). The search for universal theories of effectiveness seems dismal with major complexities and organizational changes, but management leadership theory stresses competing values. This approach highlights different competing effectiveness criteria and indicates effective managerial roles (Quinn et al., 2003).

According to Quinn et al. (2003), the eight roles of mentor, facilitator, monitor, coordinator, director, producer, broker and innovator put into perspective the expectations of a person in a leadership position and, the fusion of these competencies fosters effective functioning. The eight roles address specific demands in the organizational spectrum (Hooijberg & Choi, 2000). This article embarks on determining what critical managerial roles are needed. For example, a manager may motivate employees to accomplish goals and yet pay attention to environmental changes. Furthermore, managerial responsibilities vary at the levels of the organizational hierarchy, for example, the tasks and responsibilities of a first-level manager and an upper-level manager differ, but similarities will emerge in the competencies as all managers need interpersonal skills and self awareness (Kiechel, 1994 cited in Quinn et al., 2003).

This study determines the extent to which middle, senior and top managers fulfill their managerial roles (mentor, facilitator, monitor, coordinator, director, producer, broker, innovator) and whether they differ in this regard. Hence, it is hypothesized that there is a significant difference in the extent to which managers in the various levels (middle, senior, top) fulfill the managerial roles (mentor, facilitator, monitor, coordinator, director, producer, broker, innovator) respectively. The study also evaluates the organizational focus (internal versus external) and preference for structure (stability/control versus flexibility/change) of middle, senior and top managers and whether their orientations are aligned towards the same vision/goal.

RESEARCH DESIGN

Respondents

The population comprised of middle, senior and top management in a large public sector department in eThekweni (Durban) in South Africa. The population comprised of approximately 400 managers. The sample of 202 subjects was drawn using a stratified random sampling technique to ensure proportionate representation from the strata of the designated groups of interest, that is, managers. According to the population-to-sample size table by Sekaran (2003), the corresponding minimum sample size for a population of 400 is 196, thereby confirming the adequacy of the sample size for this study whilst securing a 51% response rate. In terms of the composition, 12.9% of the sample consisted of top managers (N = 26), 32.7% were senior managers (N = 66) and 54.4% were middle managers (N = 110). The adequacy of the sample was further determined using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (0.768) and the Barlet's Test of Spherecity (2975.330, p = 0.000) for the eight managerial roles, which respectively indicated suitability and significance. The results indicate that the normality and homoscedasticity preconditions are satisfied.

Measuring Instrument

Data was collected using a self-developed questionnaire consisting of two sections. The first section related to biographical information and the second section comprised of 40 items pertaining to the eight Managerial Roles needed to Create Master Managers as outlined in the Competing Values Framework. The biographical data relating to level of management was collected using a nominal scale with pre-coded option categories and the items relating to the managerial roles were measured using a 5-point Likert scale ranging from strongly disagree (1), disagree (2), neither agree/not disagree (3), agree (4) to strongly agree (5). The questionnaire was formulated on the basis of identifying recurring themes that surfaced during the literature review as well as the competencies outlined in the Competing Values Framework and, items included in the questionnaire related directly to the constructs being measured. This ensured face, content and construct validity. Furthermore, in-house pretesting was

adopted to assess the suitability of the instrument. Pilot testing was also carried out using 12 subjects, selected using the same procedures and protocols adopted for the larger sample. The feedback from the pilot testing confirmed that the questionnaire was appropriate in terms of relevance and construction.

Research procedure

The research was only conducted after ethical clearance was obtained for the study and upon completion of a pilot study.

Measures/statistical analysis of the questionnaire

The validity of the questionnaire was assessed using Factor Analysis. A principal component analysis was used to extract initial factors and an iterated principal factor analysis was performed using SPSS with an Orthogonal Varimax Rotation. In terms of the validity of the section relating to the managerial roles and competencies, the eight roles as outlined in the Competing Values Framework were generated (Table 2).

The items assessing the managerial roles were also reflected as having a very high level of internal consistency and reliability, with the Cronbach's Coefficient Alpha being 0.893.

Administration of the measuring instrument

The questionnaires were administered over a three month period and subjects were expected to respond to the self-report measure using the scale provided. Completed questionnaires could either be posted in the attached self-addressed envelope or sent electronically to the researchers.

Statistical analysis of the data

Descriptive statistics (means, standard deviations) and an inferential statistic (Analysis of Variance) will be used to evaluate objectives and hypothesis of the study.

RESULTS

A: Extent to which Managerial Roles are being fulfilled by Middle, Senior and Top Managers

In order to determine the extent to which middle, senior and top managers fulfill their managerial roles, the eight roles as identified in the Competing Values Framework were assessed (Table 1).

Table 1. Descriptive Statistics: Extent to which Managerial Roles are being fulfilled by Middle, Senior and Top Managers

Managerial Roles	Middle Managers		Senior Managers		Top Managers	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mentor	3.788	0.4132	3.736	0.4821	3.831	0.5357
Facilitator	3.449	0.5497	3.348	0.6993	3.427	0.7404
Monitor	3.940	0.4840	3.840	0.5436	4.031	0.5050
Coordinator	3.715	0.5169	3.669	0.5060	3.873	0.4292
Director	3.462	0.5395	3.369	0.6401	3.738	0.5861
Producer	3.548	0.5148	3.419	0.7132	3.523	0.6301
Broker	3.722	0.4424	3.673	0.4692	3.762	0.5933
Innovator	3.775	0.3931	3.756	0.4421	3.710	0.4556

Table 1 indicates that middle and senior managers are fulfilling their managerial roles in a very similar manner or order, which differs from the manner in which top managers are fulfilling their roles (Table 2).

Table 2. Order in which Middle, Senior and Top managers are fulfilling their roles

Middle Managers	Senior Managers	Top managers
Monitor	**Monitor**	**Monitor**
Mentor	**Innovator**	**Coordinator**
Innovator	**Mentor**	**Mentor**
Broker	**Broker**	**Broker**
Coordinator	**Coordinator**	**Director**
Producer	**Producer**	**Innovator**
Director	**Director**	**Producer**
Facilitator	**Facilitator**	**Facilitator**

Table 1 and Table 2 also indicate that managers at all levels fulfill the facilitator role to the least extent and that top managers are fulfilling the coordinator role to a greater extent than the midlle and senior managers. Furthermore, as expected, top managers are fulfilling the director role to a greater extent than middle and senior managers.

Analysis of Variance was also used to assess whether managers differ in the extent to which they fulfill the various managerial roles.

Hypothesis 1:
There is a significant difference in the extent to which managers in the various levels (middle, senior, top) fulfill the managerial roles (mentor, facilitator, monitor, coordinator, director, producer, broker, innovator) respectively (Table 3).

Table 3. Analysis of Variance: Extent to which middle, senior and top managers fulfill managerial roles

Managerial Role	F	p
Mentor role	0.486	0.616
Facilitator role	0.545	0.581
Monitor role	1.533	0.218
Coordinator role	1.542	0.216
Director role	3.795	0.024*
Producer role	0.971	0.381
Broker role	0.394	0.675
Innovator role	0.266	0.767

* $p < 0.05$

Table 3 indicates that managers in the various managerial levels (middle, senior, top) differ significantly in the extent to which they fulfill the director role only. Hence, hypothesis 1 may only be accepted in terms of the director role, at the 5% level of significance. These findings support the results of the descriptive statistics which indicate that top managers are fulfilling the director role to a greater extent than middle and senior managers.

B: Organizational focus

The organizational focus (Internal versus External) of the middle, senior and top managers were also assessed. The extent to which they fulfill the mentor, facilitator, monitor and coordinator roles determine their internal focus (Table 4). The degree to which they fulfill the innovator, broker, producer and director roles determine their external focus (Table 4). A comparison of these will determine where their organizational focus lies (Table 4).

Table 4. Organizational focus of middle, senior and top managers

Level of Management	Internal Focus (Mentor + Facilitator + Monitor + Coordinator)	External Focus (Innovator + Broker + Producer + Director)	Orientation
Middle managers	3.723	3.627	Internal
Senior managers	3.648	3.554	Internal
Top managers	3.791	3.683	Internal

Table 4 indicates that all levels of management (middle, senior, top) have a greater internal than external focus. Their orientation in day-to-day operations is therefore, more internal.

C: Preference for structure (stability and control versus flexibility and change)

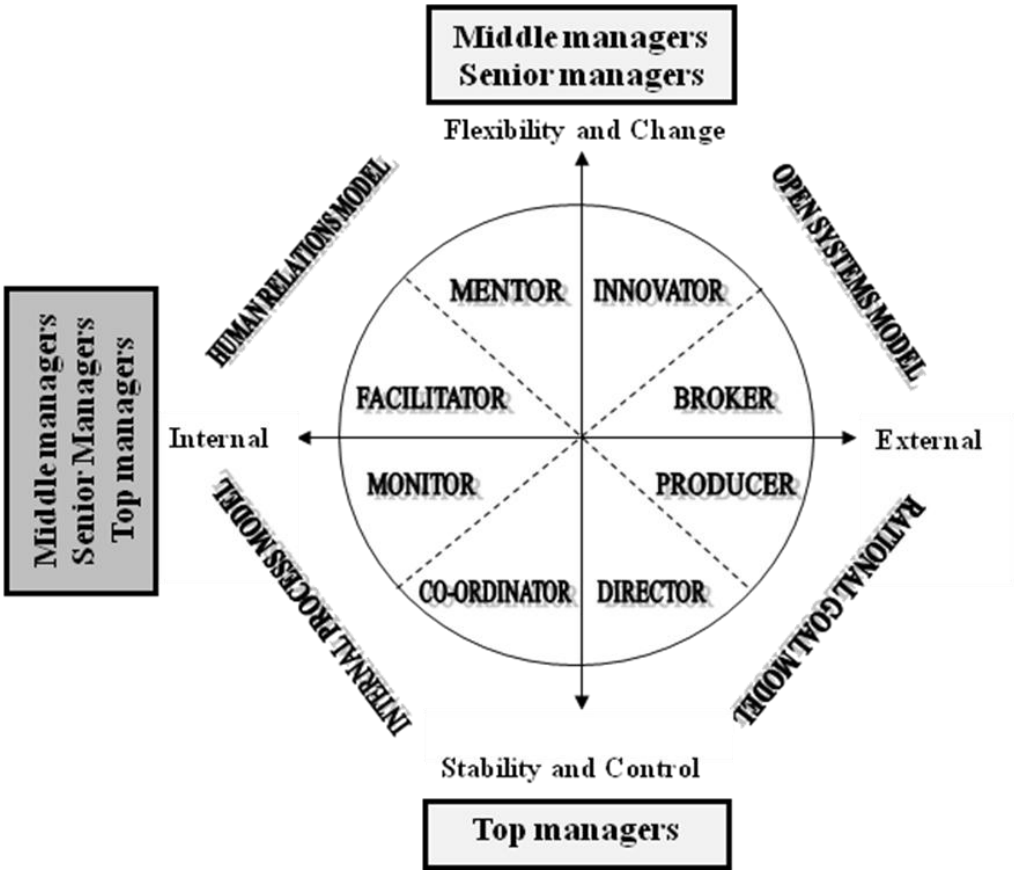
The preference for structure (stability and control versus flexibility and change) of the middle, senior and top managers were also assessed. The extent to which they fulfill the monitor, coordinator, director and producer roles determine their orientation for stability and control (Table 5). The degree to which they fulfill the facilitator, mentor, innovator and broker roles determine their orientation for flexibility and change (Table 5). A comparison of these will determine where their orientation or preference for structure lie (Table 5).

Table 5. Preference for structure of middle, senior and top managers

Level of Management	Stability and Control Orientation (Monitor + Coordinator + Director + Producer)	Flexibility and Change Orientation (Facilitator + Mentor + Innovator + Broker)	Orientation
Middle managers	3.666	3.684	Flexibility and Change
Senior managers	3.574	3.628	Flexibility and Change
Top managers	3.791	3.683	Stability and Control

The results indicate that whilst middle, senior and top managers share a more internal than external stance, middle and senior managers differ from top managers in their preference for structure (Figure 1). Whilst middle and senior managers have a flexibility and change orientation, top managers have a stability and control orientation, which is evidently influenced by their greater fulfillment of the coordinator role (Figure 1).

Figure 1. Preference of middle, senior and top managers for structure



D: Vision/goal alignment of middle, senior and top managers

The management cadre is fulfilling their roles more or less in tandem, except for the director role. The implication is that they are working towards the same vision or goal. However, the mean score values in each of the roles in all managerial levels, against a maximum attainable score of 5, indicates room for improvement in fulfilling their roles and hence, in accomplishing the vision or mission. Furthermore, whilst all managers share the same organizational focus, they do differ in preference for structure with middle and senior managers having a flexibility and change orientation and top managers displaying a stability and control stance. This may imply a deviation or detour in the action planned for goal accomplishment.

DISCUSSION OF RESULTS

In terms of the extent to which middle, senior and top managers are fulfilling the various managerial roles, it is evident that top managers are fulfilling the coordinator role to a greater extent than middle and senior managers. Furthermore, the descriptive and inferential statistics indicate that top managers are fulfilling the director role to a significantly greater extent than middle and senior managers. Whilst it is not clear from literature which level of management should be more involved in fulfilling these various roles, it is evident from the results (ANOVA) of this study that the managers in the various managerial levels are fulfilling these roles in a similar manner and extent and are, therefore, working towards the vision/goal more or less in tandem. However, all managers are not fulfilling their various roles optimally (evident in the deviation of the mean scores from the maximum attainable score of 5), thereby indicating that they lack behavioural complexity or the ability to effectively respond to competing demands. Hence, this demonstrates that the management cadre is not in a position to fully realize their vision or goals.

Furthermore, in terms of the organizational focus, all the managers (middle, senior and top) have an internal focus. This means that they tend to dwell more on the well-being and development of people in the organization rather than the well-being and development of the organization itself.

In addition, in terms of the preference for structure and alignment to the vision/goal, whilst middle and senior managers display a preference for flexibility and change, top managers reflect a preference for stability and control. This implies that the three levels of management do not display the same preference for structure and may be misaligned in terms of the vision/goal of the organization (Figure 2). Undoubtedly, the greater fulfillment of the coordinator role by top managers would have resulted in their dominance for stability and control.

Figure 2. Managerial roles, focus and orientation: Implications for vision/goal

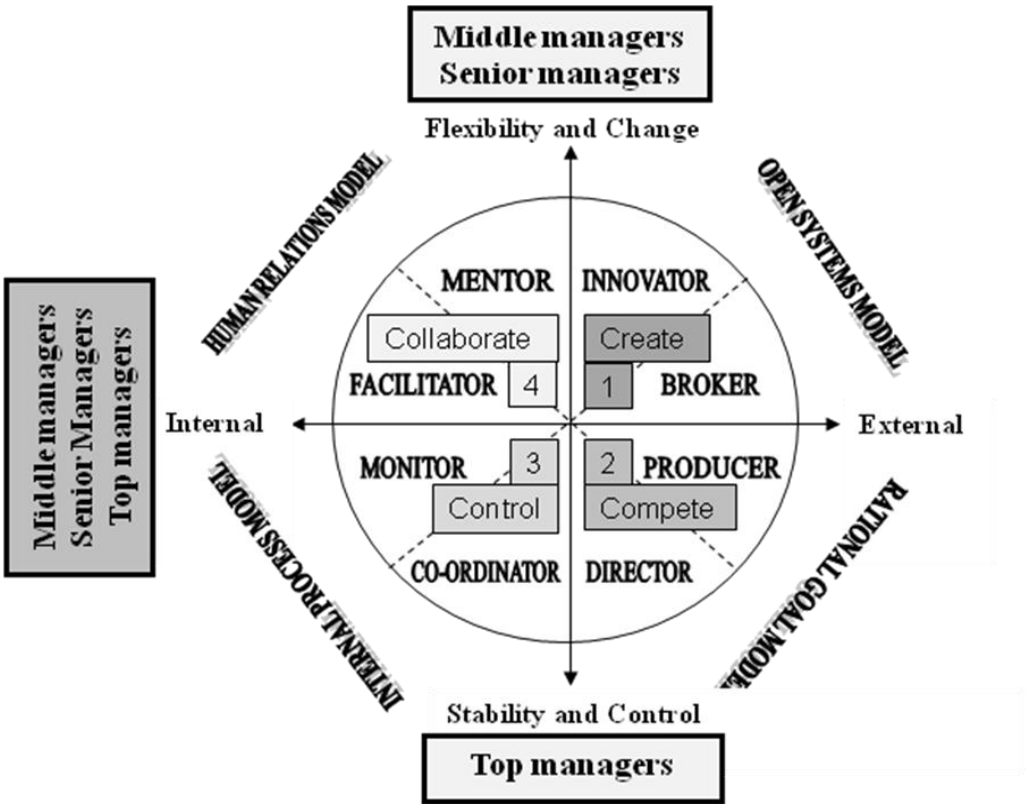


Figure 2 indicates that middle and senior managers display an internal and flexibility and change orientation and will, therefore, locate in the fourth quadrant of the Competing Values Framework (Figure 2). The fourth quadrant is the Human Relations Model which relates to people and emphasizes flexibility, internal focus, commitment and morale and a 'team-oriented climate', where the focus is to collaborate. On the other hand, top managers display an internal and stability and control orientation and will, therefore, locate in the third quadrant of the Competing Values Framework (Figure 2). The third quadrant is the Internal Process Model which relates to managing processes and characterizes a hierarchical organizational climate that is defined rules, structures and established ways of

doing things and the focus is to control. With dominance being shown in different quadrants in terms of preference for structure, the implication may be that managers in the various levels are not operating completely in tandem in fulfilling the vision/goal. It must, however, be noted that they fulfill the managerial roles to a similar extent (except for the director role) and display an internal stance. Evidently, none of the managerial levels display an external stance or locate in the first and second quadrants that represent creativity and competition respectively. This may imply that the organization is inadequately responding to the environment and its changes, and may not be orientated towards producing results and leading change.

RECOMMENDATIONS

It is imperative for an organization to first determine the climate (create, compete, control, collaborate) that it would like to shape and nurture in order to achieve its vision/goal. This would imply determining the organizational focus (Internal versus External) and the organizational preference for structure (Flexibility and Change versus Stability and Control) that will best support the determined vision/goal. Thereafter, the organization needs to inculcate, in their managerial cadre, the managerial roles and competencies that are needed to accomplish this. This will be best achieved by creating the right climate and through management development of the competencies needed. This approach will optimize the accomplishment of the vision/goal.

CONCLUSION

Appropriately aligning the organizational focus (Internal versus External) and preference for structure (Flexibility and Change versus Stability and Control) to the vision/goal plays a critical role in its accomplishment. It also ensures that the right managerial roles are sufficiently developed in order to support the desired organizational outcomes.

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

In this study, data was collected from middle, senior and top managers using a cross-sectional analysis. It would be advisable to undertake a longitudinal study to assess whether dominant managerial roles, organizational focus and preference for structure change in response to the dynamic and ever-changing environment.

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POTENTIAL IMPACT OF TRAFFIC DENSIFICATION ON RAIL FREIGHT TRANSPORT COST IN SUB-SAHARAN AFRICA

A. de Bod, J.H. Havenga* and W.J. Pienaar**

Abstract

This article highlights the significant cost-reduction opportunities possible through the densification of rail freight traffic, especially over longer distances, and the concomitant implications for increased profitability for railway organisations in sub-Saharan Africa (SSA). Densification opportunities should also focus on the development of transport corridors throughout the region. SSA countries themselves can play a critical role in unlocking this potential by, inter alia, simplifying regional economic agreements. As with most other initiatives in SSA, unlocking this potential will require efficient cross-country collaboration.

Keywords: Economies of Density, Rail Freight Transport, Sub-Saharan Africa, Transport Cost

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INTRODUCTION

Sub-Saharan Africa faces numerous economic challenges – from basic human needs to capacity for innovation (Madavo, 2005; Taylor, 2006; Moyo, 2009). The key challenges of relevance to this article are discussed below.

Firstly, heavy dependence on primary commodity exports remains a common feature of most countries in SSA. This exposes the region to external cyclical economic shocks. Therefore, economic diversification is a top priority for growth policies on the continent (UNECA, 2007).

Secondly, the poor world ranking of most SSA countries in terms of property rights and freedom from corruption is indicative of the remaining governance challenges. Addressing these challenges is one of the keys to unlocking an environment that would allow an ethical cycle of entrepreneurship, innovation, investment, and sustained economic growth and development to flourish under the principles of good governance (Holmes, Feulner & O'Grady, 2008).

Thirdly, transport infrastructure in SSA is limited, generally in a poor condition and operates well below design capacity, which impedes economic development. Cross-border corridor transport in most of SSA is costly, slow and unreliable. This exacerbates transport challenges for landlocked countries in SSA with export potential (De Bod, 2008).

Fourthly, although all the regional economic communities recognise the importance of improving trade facilitation to foster economic growth and eradicate poverty, the complex web of regional integration agreements in Africa leads to inefficiency (Ndulu, Kritzinger-van Niekerk & Reinikka, 2005).

There is increasing debate over the effectiveness of foreign aid to countries in SSA (see, for example, Chowdhury & Garonna, 2007; Easterly, 2008; Moyo, 2009). Alternative approaches are frequently proposed. Moyo (2009) is in favour of an approach whereby African nations take charge of their own growth by learning to tap into international financial markets by encouraging foreign investment; China is granting resource-backed loans which seem to result in the building of much needed infrastructure (Brautigam, 2010). Easterly (2008) warns against continuous fallback on 'big-push' transformational aid programmes, and suggests that there is more evidence of the success of small, targeted interventions in Africa. Chowdhury and Garonna (2007) reiterate the importance of 'political thrust, strategic purpose, institutional support, bold reform initiatives' and successful integration into the global economic system.

While the debate continues on the many approaches to addressing SSA's development challenges, the fact remains that for SSA to achieve the estimated minimum 7% gross domestic product (GDP) growth rate needed to reduce poverty, infrastructure investment requirements amount to around US$20 billion per year. This is twice as much as the region invested historically (World Bank, 2005). Providing efficient, effective and reliable freight transport infrastructure is a key component of this investment (Njini, 2010).

Research prepared by the Organization for Economic Cooperation and Development (OECD) confirms the need for this focused investment, as

transport cost in SSA is considerably higher than elsewhere in the world, severely hampering the region's competitiveness (Santiso, 2006).

Research results of the World Bank (2006) on SSA railway concessions indicated that rail transport is still the most cost-effective method for carrying non-time-sensitive bulk freight on distances longer than 500 km. Drew (2006), Havenga (2007) and Pittman (2007), among others, highlight the importance of traffic density in leveraging rail's cost-effectiveness over longer distances due to rail's high fixed infrastructure component. However, the density of railway transport in Africa has decreased since the 1970s as a result of the increasing shift of freight traffic from rail to road (Simuyemba, 2007).

The objective of this article is to illustrate the need to reverse this trend of traffic volume erosion in order to gain from the considerable economies of density attainable in rail freight transport in SSA. This could form the backbone of more targeted investment planning in the region. In the following section the impact of density economies on rail freight transport is discussed. This is followed by a summary of the research methodology, a discussion of the research results and, finally, conclusions.

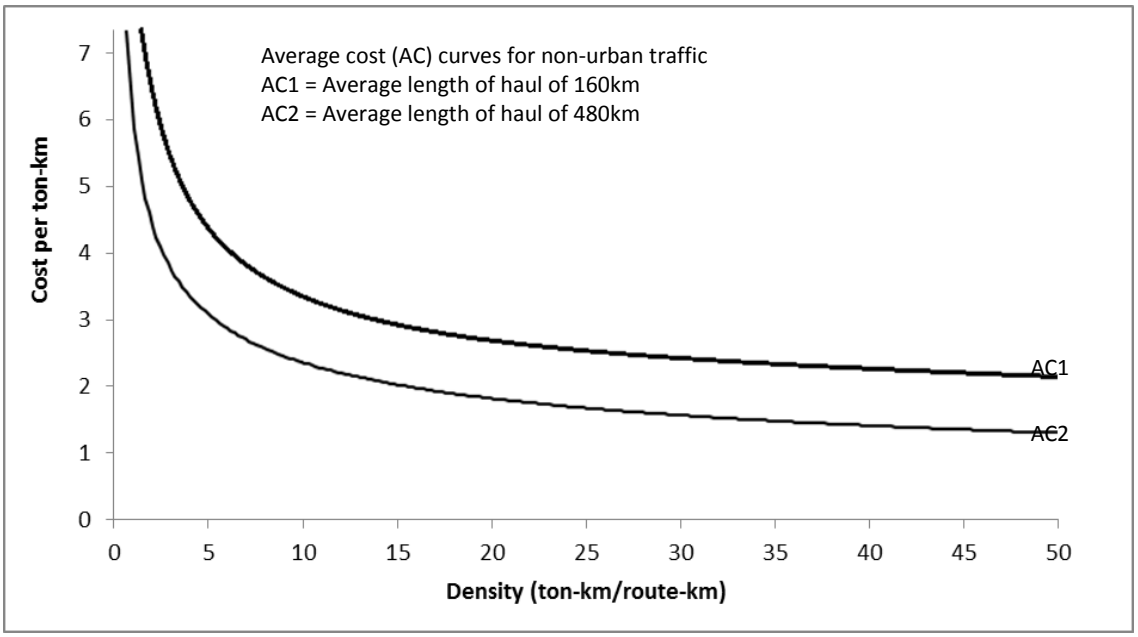
IMPACT OF ECONOMIES OF DENSITY ON RAIL FREIGHT TRANSPORT

In the context of rail freight transport, economies of density describe the relationship between inputs and outputs with a fixed rail network (Graham et al., 2003), or the phenomenon that an 'increase in traffic over a given infrastructure will be met by a less than proportionate increase in costs' (Joy, 1989).

Harris (1977) stated that "(T)he extent of economies of traffic density in the rail freight industry is a matter of critical importance with respect to public investment in and the financial viability of the USA rail system. The evidence strongly supports the hypothesis that significant economies of density exist, and that many of the light-density lines, which comprise 40% of the rail system, should be eliminated".

The service lives of rail transport infrastructure and equipment last several decades. Therefore, asset-driven fixed costs (a significant proportion of total costs) cannot be reduced rapidly in the event of traffic loss. Given this high level of fixed costs, the average cost per ton-kilometre and profitability are directly related to the degree of traffic density, i.e. the volume of traffic per kilometre of rail, expressed as ton-kilometre per route-kilometre (ton-km/route-km). This means that the cost per ton-km of a railway will decrease with each additional ton-km of activity over the same track length. This decreasing cost function is hyperbolic, as illustrated in Figure 1.

Figure 1. Impact of traffic density and length of haul on rail costs



Source: De Bod, 2008

A study conducted by Mercer Management Consulting (2002) on Class I and regional railways in the US confirmed this decreasing cost function. The study also emphasised that adequate traffic density is essential to meet the efficiency levels required to be competitive and to provide the economic returns

necessary to justify investment. Pittman (2007) shows that econometric studies indicate that existing freight railways are operating at levels where there are still economies of density to be achieved.

RESEARCH METHODOLOGY

A freight demand model for South Africa was developed in 2006 (and is updated annually) to establish a database for all South African freight flows as input for long-term infrastructure planning (Havenga, 2007). The modelling of total freight flows is based on gravity modelling of the supply and demand for 354 magisterial districts and 64 commodity groups.

For the research presented in this article, actual freight flows for Botswana and Zambia were recorded in the two countries, and gaps were modelled on similar principles as the South African freight demand model (although at a more consolidated level due to the lack of detailed data). Owing to monetary constraints, this approach was not possible for all SSA countries in. Due to the onerous task of gathering the detailed information discussed below, the sample was limited to Southern African Development Community (SADC) countries. The extension of the model to other countries further north into SSA is important in the light of the economic interrelationship of the region and the SADC focus on development funding. By using indicators such as population, GDP and trade, an estimate of freight flows in the other countries is possible. Network length is also available, which enables the estimation of potential rail freight traffic density.

To enable freight-flow analysis for the SADC countries, the following economic factors were researched:

- GDP and population statistics
- Industry sector distribution patterns per country
- Preferred modes of transport used
- Installed and usable infrastructure for different modes – route-km and road quality index
- Spatial indices per country (size of country, coastal development and metropolitan placement)
- Company sizes per industry

Using the known freight flow volumes for South Africa, Botswana and Zambia, and the six factors given above, the freight flows for the remaining SADC countries were modelled. The modelled results were then compared to established international research results (Harris, 1977; Ordover & Pittman, 1994; Mercer Management Consulting, 2002; Pietrantonio & Pelkmans, 2004). In these studies, figures for ton-km achieved were compared to available route-km in order to illustrate the impact of the potential density on rail costs in the various countries. The magnitude of this relation is deemed to be a reliable indicator of the profitability of both the railway organisations and the freight transported. The significance of the potential density in terms of the focus on corridor development is subsequently illustrated.

DISCUSSION OF RESULTS

The road and rail ton-km estimate and the network length required to deliver this transport output are summarised in Table 1.

Table 1. SADC rail and road ton-km and network length in km (2006)

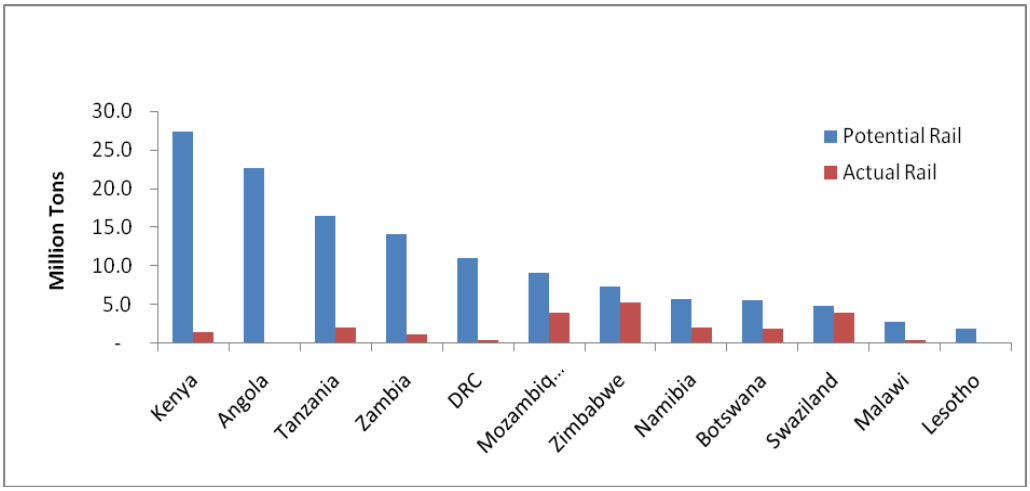
Country	Length of (km)			Tons (million)			Ton-km (millions)	
	Rail	Road	Paved Roads	Rail	Road	Total	Rail	Road
RSA	20 070	358 596	59 753	178.00	553.0	731.0	108 000	170 000
Kenya	2 100	63 265	8 933	1.48	59.3	60.8	1 200	4 332
Angola	2 515	51 429	5 348	0.04	50.4	50.5	21	7 912
Tanzania	4 460	88 200	3 704	2.01	34.7	36.7	2 562	4 126
Zambia	916	91 440	6 779	1.15	30.1	31.2	625	2 851
DRC	3 256	17 250	2 250	0.5	14.1	24.4	465	2 084
Botswana	888	10 217	5 620	1.85	18.8	20.7	647	1 378
Mozambique	2 593	30 400	5 685	4.00	13.4	17.4	500	1 351
Zimbabwe	2 583	18 338	8 692	5.30	9.0	14.3	2 400	444
Namibia	2 382	64 808	5 378	2.07	10.8	12.8	1 262	1 119
Swaziland	301	14 597	1 064	3.90	3.6	7.5	710	8
Malawi	789	14 597	2 773	0.40	5.9	6.3	75	88
Lesotho	3	4 955	887	0.00	4.3	4.3	0	16

Source: De Bod, 2008

Applying the methodology described above provides the first estimate of rail market share in SADC countries other than South Africa. The major objective for developing this information was to guide further research. The research conducted on SADC countries indicates that there is significant potential

available for rail systems in this region. The results per country are summarised in Figure 2.

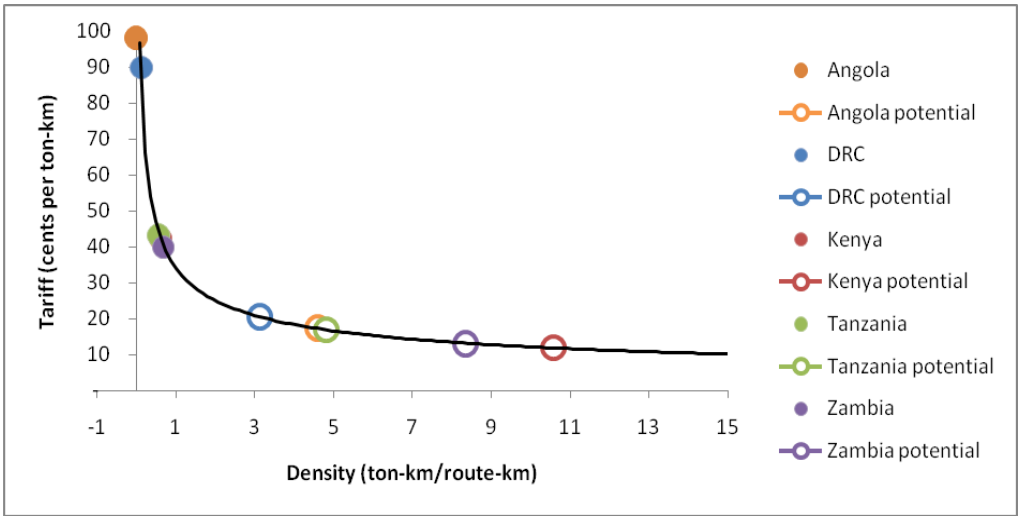
Figure 2. Actual and potential rail volumes



Source: De Bod, 2008

Actual and potential rail volumes can now be plotted on the density curve to determine the shift on the curve if the volumes, as indicated, were to shift. According to the principles of the density curve, the possible or potential savings in costs can therefore be modelled. This modelling indicates that significant potential for cost reduction exists. Tons were converted into ton-km given the network length required for each flow in order to apply the density principle, as estimated by De Bod (2008) and displayed in Figure 3.

Figure 3. Potential density cost curve for SADC countries

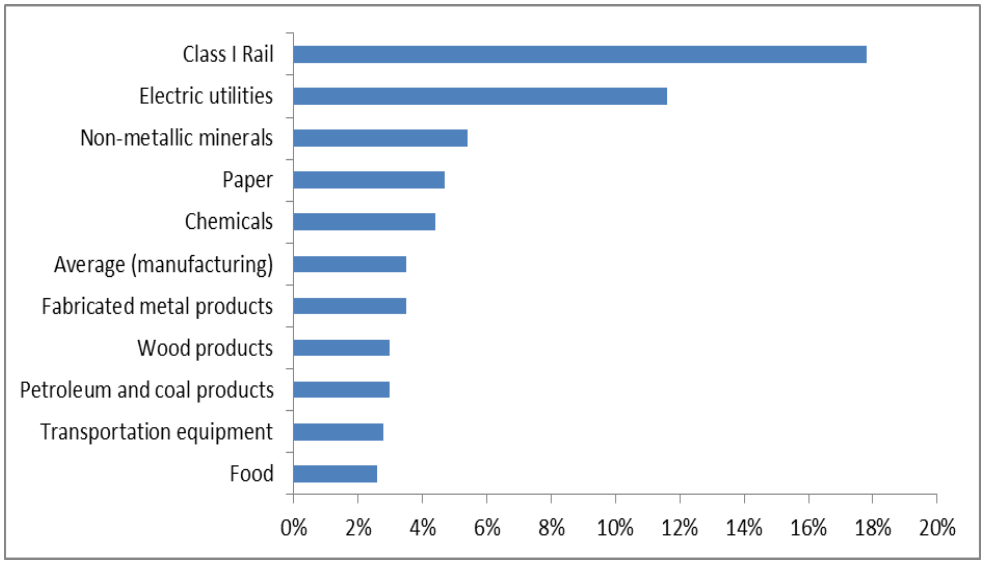


Source: De Bod, 2008

Increases in density go hand-in-hand with upgrading rail infrastructure, and the potential for density should improve the business case for private investment in rail infrastructure. This is achievable because a reduction in the cost of transport (as indicated by the downward slope of the density cost curve) serves three major SSA economic growth objectives: firstly, businesses should become more competitive and increase the scale of their business. Secondly, railway organisations should be able, through the resulting density gains, to negotiate more profitable rates. For example, if transport costs can be reduced by 30%, railway organisations could charge, say, 15% less and business shippers would save 15% on their transport bill, while the railway organisations would also be 15% better off. Thirdly, the investment

in infrastructure could, by itself, induce economic growth. Density cost savings are possible by decreasing fixed infrastructure cost per ton-km. As indicated in Figure 4, the fixed cost component tied in rail transport is high, hence, cost savings gained from density advantages are high too.

Figure 4. Capital expenditure as a percentage of revenue



Source: Rodrigue, 2009

Expenditure on railways has historically represented a drain on national budgets in SSA countries. An intention of the New Partnership for Africa's Development (NEPAD) is for the private sector to contribute towards building infrastructure, plug the funding gap and reverse the flow of public money towards railway operations. Furthermore, NEPAD has prioritised providing 'institutional support' for the concessioning of railways. Due to the quantum of finance required to finance railway infrastructure, government policy support is necessary (De Bod, 2008).

The corridor concept, already the focus of regional development initiatives (SADC, 2006), is ideally suited to taking advantage of this potential density. Initially based on making existing transport routes more efficient, corridors are critical to achieving the region's economic and political objectives. This becomes even more important when considering that 16 of the continent's 54 states are landlocked and require efficient regional transport links for access to ports. Furthermore, the transport distances for all these countries are long, over routes that can be densified, and, therefore, provide ideal opportunities for rail transport organisations to improve their efficiency.

CONCLUSION

Local specialisation, surplus production, and regional and international trade is central to economic growth, and efficient transport is at the heart of competitive trade. Most SSA countries are too small individually to generate the economies of scale required for international competitiveness. The international trade routes for these countries, especially the landlocked ones, are long. Over longer distances and with adequate density, rail transport is considerably more efficient than road transport. The research presented here confirms that the potential for densified rail transport in sub-Saharan Africa is available for rail transport organisations to improve their efficiency. The corridor concept, already the focus of regional development initiatives, is ideally suited to taking advantage of this potential density. Unlocking this potential will require efficient trans-national collaboration.

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RISK REGULATIONS AND DISCLOSURE IN THE UNITED ARAB EMIRATES: AN INSTITUTIONAL THEORY ANALYSIS

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Abstract

The paper aims at exploring the social, political and economic forces underlying the development and the deployment of risk disclosure regulations in the United Arab Emirates (UAE). It synthesizes an institutional theory framework in order to link the UAE institutional environment to the UAE corporations' practices associated with risk disclosure. Drawing on DiMaggio and Powell's (1983) notions of "isomorphic mechanisms", Meyer and Rowan's (1977) notions of "sagacious conformity" and Oliver's (1991) notion of "strategic choice", the paper explores the legitimation processes behind risk disclosure regulations in the UAE and, at the same time, reveals how managers put into effect and deploy these regulations. The paper relies, primarily, on the discourse analysis of textual data published in legislations, newspapers articles and annual reports published by some of the UAE corporations listed in Abu Dhabi and Dubai financial markets. The paper finds that the UAE institutional context - mainly the country's aspiration to join global security markets, regulatory framework and accountancy profession activities - excretes pressures on individual corporations to put into effect risk disclosure regulations. In response, the UAE corporations adopt risk regulations as a "strategic disclosure", or as Oliver (1991) calls a "strategic choice", that enables those corporations to communicate a positive image to wider stakeholders. The paper adds to the literature relating to the institutional development behind risk disclosure and the disclosure management literature in emerging economies countries.

Keywords: Risk Reporting, Risk Disclosure Management, Institutional Theory, UAE

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1. Introduction

The last few years have witnessed an ever increasing number of studies that investigate risk regulations and disclosure (e.g. Jenkins Committee Report, 1994; Solomon et al., 2000; ICAEW, 1997, 2000; Schrand and Elliot, 1998; Spira and Page, 2003; Beretta and Bozzolan, 2004; Abraham and Cox, 2007; Linsley and Actrence, 2007; Lajili and Zéghal, 2005; Linsley and Shrives, 2006; Amran et al., 2009; Hassan, 2009). These studies found variations in the content and format of the risk information disclosed in the annual reports. One of the key aspects of these studies is that they utilize statistical methods to empirically test the positive accounting theory-based explanations for these variations. This paper extends on the previous studies and aims at exploring the institutional development behind risk regulations in an emerging capital market located in the Western region of Asia - the UAE.

The paper also contributes to research pertaining to disclosure management literature. Several scholars argue that financial disclosure - defined as the deliberate release of financial information whether numerical or qualitative, required or voluntary - is the end result of *management processes* that encompass: first, the regulatory and professional activities at the macro level and, second, the discretionary activities of corporations' management at micro organizational level (Gibbins et a., 1990; Waterhouse et al., 1993; Elias, 1993; Adam, 1997; Neu, et al., 199; Trabelsi et al., 2004; Magness, 2006). The paper argues that the macro-micro activities associated with the risk disclosure regulations are a part of, what Waterhouse et al., 1993 and Magness, 2006 call, "strategic disclosure" through which UAE corporations manage stakeholders' impressions as will be explained later in the paper.

There are several reasons to choose the UAE for this study. First, the use of institutional theory in the UAE is rare except for Irvine (2008) study that explains how the UAE has responded to powerful global pressures, excreted from International Monetary Fund, to develop economic and political systems that legitimate the adoption of International Financial Reporting Standards (IFRS). In contrast to

Irvine (2008) study, this paper investigates how the UAE local institutions and corporations interact together to manage risk disclosure policies.

Another key reason to choose the UAE is the existence of different legislations and professional requirements that legitimate the disclosure of risk information. On the one hand, the Corporations Act No. 8 of 1984, the Central Bank and the Emirates Securities and Commodities Market Authority (ES&CMA) directly and indirectly set some risk regulations. On the other hand, there are some professional activities that enable the dissemination of risk disclosure practices across the UAE corporations. These regulatory and professional requirements make risk disclosure an important issue in the UAE.

The paper is organized in eight sections. After this introduction, section two defines risk regulations and disclosure as used in this study. Section three discusses the study theoretical framework. Section four presents the study methodology and methods. Section five explores the institutional developments that lie behind risk regulations in the UAE. Section six explains how corporations' managers put into effect risk regulations. Section seven discusses the empirical findings before the conclusion section.

2. Risk regulations and disclosure

Several studies discuss the meaning of risk for financial reporting purposes (ICAEW (1997, 2000; Eccles et al., 2001; Schrand and Elliott, 1998; Collier and Berry, 2002; Spira and Page, 2003; Cabedo and Tirado, 2004; Linsley and Shrives, 2006; Amran et al., 2009; Hassan, 2009). These studies broadly define risk reporting as the disclosure of events, factors, opportunities, hazards, dangers, harms, threats or exposures that positively or negatively influence the company operations and consequently the company wealth.

This paper defines risk in a different way. It defines risk as interrelated macro-micro activities. The macro level activities include risk regulations that encompass the activities of government, regulatory agencies such as capital markets and professional or trade associations (Taylor and Turley, 1986). These macro level activities refer to legislative, administrative and professional controls over various aspects of risk disclosure and practices. They refer to the imposition of constraints on the preparation, content and form of financial reports made by bodies other than the preparers of those reports at the micro organizational level (Hassan, 2008 a).

The micro level activities refer to how organizations interpret and put into effect risk regulations. These micro level activities include organizations managerial actions to disclose risk related information in their annual reports. These actions, whether voluntary or non-voluntary, incorporate the creation of law-based reserves in accordance with the UAE Federal Commercial Corporations Act of 1984, the creation of voluntary reserves, the use of financial instruments and other actions under the corporations' management discretion.

3. Theoretical framework

The paper draws on the institutional theory to explore activities associated with risk regulations and disclosure in the UAE. Since risk regulations and disclosure is defined as interrelated macro-micro activities, the paper synthesizes an institutional theory framework that enables exploring macro level activities behind risk regulations in the UAE and, at the same time, revealing how these regulations are put into effect and deployed at micro organizational level. The following subsections discuss the institutional theory framework utilized in this study.

3.1 Legitimating activities: risk regulations

Institutional theorists argue that the processes of isomorphism and/or legitimacy represent the central forces explaining why and how several rules (like risk regulations) emerge (DiMaggio and Powell, 1983; Meyer and Rowan, 1977). One of the underlying themes of the intuitional theory is that organizations are pressured to conform with constituents demands (Scott, 1995; Lounsbury, 2008). Constituents' demands are presented through what institutional theorists call *isomorphic mechanisms* (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). One can argue that isomorphic mechanisms are regulatory and professional activities that legitimate individual organizations towards the compliance with constituents' demands. These isomorphic mechanisms, or regulatory/professional legitimating activities, explain why organizations put into effect certain rules (like risk regulations).

The UAE institutional context can be envisaged as a field in which multiple constituents exert pressures on the UAE organizations. These constituents are the Minister of Economic and Planning, the ES&CMA, international audit firms operating in the UAE, the professional bodies such as the UAE Accounting and Auditors Association (AAA), the UAE Institute of Internal Auditors (IIA-UAE chapter), consultancy firms and partnerships with multinational corporations.

Organizational constituents operate around individual organizations and create pressures that lead individual organizations to adopt specific rules (like risk regulations) (Ribeiro and Scapens, 2006; Hassan, 2008b). The constituents' activities legitimate organizational micro practices through, what DiMaggio and Powell (1983) call, isomorphic pressures. For instance, the governmental agencies can be a source of *coercive* pressures, professional bodies can contribute to the creation of *normative*

pressures and consultants and partnerships may facilitate the emergence of *mimetic* pressures.

Coercive pressure is illustrated by the influence of the state or government agencies on other organizations through the enactment of legislations (DiMaggio and Powell, 1983, p.150). The UAE has various legislations regulating the risk disclosure. These legislations include the Commercial Companies Act of 1984, the ES&CMA listing conditions and the Central Bank requirements. *Normative pressure* stems primarily from the professions. Professional activities exert institutional pressure through disseminating knowledge, about risk regulations and disclosure, among different organizations operating in the same field. The UAE accountancy profession activities disseminate knowledge about risk disclosure and risk management. Finally, *mimetic pressure* reflects the desire to mirror others' practices that are recognized as both successful and worthy adopting (Scott, 1995, p.43). The UAE desire to join global security market through partnership with multinational corporations can lead to mimic practices such as risk disclosure.

3.2 Social legitimacy: risk practices and organizations strategic disclosure

Institutional theorists argue that organizations respond to pressures resulting from their constituents by adopting rules (like risk disclosure rules) that are accepted as being the most appropriate rules. Meyer and Rowan (1977) add that the adoption of these institutional rules maybe a sign of wise action or, as they describe, 'sagacious conformity' through which organizations convey a positive *image* about themselves to outside audiences (Hassan, 2008 b). Financial disclosure practices, defined as the deliberate release of quantitative or qualitative information, are means through which corporate managers communicate with different stakeholders (Waterhouse et al., 1993). Mangness (2006, p. 542) adds that managers use the financial disclosure to: correct public misunderstanding, alter stakeholders' expectations, show how their corporations have improved and deflect the public attention away from negative aspects such as pollution problems.

Stanton at al., (2004, p.57) argue that financial and narrative disclosures provide the means by which management can mould annual reports readers' expectations about the reporting corporation. For example, pictures and financial graphs, sometimes, are used to add creditability and enhance stakeholders' perception of corporation performance (Grave et al., 1996; Beattie and Jones, 1999). Managers' strategic purpose, Stanton at al., (2004, p.57) argue, is to build an image of a corporation that complies with external constituents' demands (Ibid., p.58).

Financial disclosure is said to have a strategic element or, as Magness (2006, p. 543) states, "strategic posture" (See also Elias; 1993; Adam, 1997; Neu, et al., 1998; Trabelsi et al., 2004). Strategic posture refers to the way in which organizations' managers respond to external dements. Magness (2006, p. 543) adds that "strategic posture" is the way in which managers manage stakeholders' perception. Managers use financial disclosure to shape stakeholders' impression about their corporations' responsibilities and the degree to which their corporations are satisfying those responsibilities.

The adoption of risk regulations maybe, as Oliver (1991) states, a "strategic choice" in which organizations' managers put into effect these regulations to convey a positive image of full transparency, better disclosure and consequently alter public expectation about risk management. The paper examines the UAE corporations' annual reports in the light of the UAE institutional context. It goes on to explore the misalignment between institutional requirements and organizational risk disclosure practices. Accordingly, the paper reveals whether the UAE corporations' managers manage stakeholders' perceptions or otherwise. These issues will be discussed in section six.

4. Methodology and methods

The paper aims at understanding of the macro institutional activities associated with the development of risk disclosure regulations and, at the same time, how these regulations are put into effect and deployed at micro organizational level. The main research questions can be summarized as follows: "How the risk disclosure rules have emerged and developed in the UAE? Are the UAE listed corporations adopting these regulations? And "How UAE corporations put into effect and deploy these risk disclosure regulations?" These enquiries are contextually oriented and seek interpretation and explanation which suggests the use of the interpretive methodology (Yin 1994).

Owing to access constraints, the study relies on discourse analysis to interpret and explain the empirical findings. Hoque (2008), following Philips and Hardy (2002), argues that discourse refers to actual practices of talking and writing. He highlights Philips and Hardy's (2002) main perspectives in discourse analysis: social linguistic analysis; interpretive analysis and critical discourse analysis. Social linguistic analysis, Hoque (2008) argues, examines specific examples of texts and conversations, participant observation and stories. Interpretive analysis pays more attention to the analysis of the broader social context and the discourse that supports it. Critical discourse analysis, Hoque (2008) adds, focuses on how the power associated with the discourse creates social change.

This paper uses interpretive discourse analytical approach to explore various activities – institutional activities and corporations' activities – that shape risk disclosure policies in the UAE. The author relies on

this approach since other forms of data collection such as interviews and participant observation were not possible. The paper uses texts from archival materials such as annual reports and financial regulations. These materials provided adequate description of the subject phenomena.

The description of such discourses is restricted to the analysis of legislation, research reports and the examination of newspaper reports and UAE corporations' annual reports. The study examines the financial reports of some UAE corporations listed in Dubai and Abu Dhabi financial markets (see appendix 1). The examined reports were published by December 31 2005. The reports were obtained through accessing corporations' web sites. 41 reports were obtained. These reports span over financial (24) and non-financial (17) corporations. Examining the annual reports reveals two interesting facts. First, these reports have been audited by one of the big international audit firms. Second, the reports mention that they were prepared in accordance with IFRS and requirements of the UAE Company Act of 1984.

5. The UAE constituents' activities and risk regulations.

This section explores various institutional pressures or, as institutional theorists state, organizational field players' activities associated with the development of risk disclosure regulations in the UAE. It clarifies how the UAE regulatory framework, professional activities and aspiration to join international security markets have contributed to the development of risk disclosure regulations.

Coercive isomorphism: legislations

There are different legislations that coercively regulate risk disclosure in the UAE. These legislations include the commercial corporation law no.8 of 1984, the ES&CMA listing conditions, the central bank requirements and Dubai Financial Service Authority (DFSA) requirements. First, both DFSA and the UAE central bank compulsory require all banks and financial institutions to prepare their annual reports in accordance with IFRS (Islam, 2003; Al-Qahtani, 2005; Hussain et al., 2002). The consequence of harmonizing the UAE accounting practices with the IFRS is that the UAE corporations are required to disclose risk related information presented under financial instruments, contingencies and concentration of business operations (i.e. segment reporting) standards.

Second, the federal commercial corporation law No. 8 of 1984 requires the UAE corporations to have different "reserves" in order to manage future unforeseen circumstances. The law includes two articles, known as Article 192 and 193, that are concerned with risk management. Article 192 states that that a 10% of the net profit for the year has to be transferred to the statutory reserve. The statutory reserve is meant to protect investors' investment and therefore it is not available for distribution. Nevertheless, corporations may discontinue such annual transfers when the statutory reserve equals 50% of the nominal value of the paid up share capital. Article 193 states that upon the approval of Articles of Association of the Corporation, a certain percentage of the net profit for the year is transferred to a legal reserve. Legal reserve is not available for use except in matters specified in the corporation's article that establishes that reserve.

In addition to the above law-based reserves, corporations' managers, at their discretion, may establish a contingency reserve and/or a general reserve. The contingency reserve stresses on unforeseen future risks or contingencies which may arise from general risks, while the general reserve aims at fulfilling Board of Directors general objectives. Both reserves are made upon the recommendation of the Board of Directors. The contingency reserve is used, only, for the purposes recommended by the Board of Directors after the approval of the shareholders.

Finally, the ES&CMA listing conditions also encourage corporations to fully disclose with appropriate level of transparency certain risk related information (UAE federal Act No. 4 of 2000 and its amendments of 2004). For example, Article 35 of Federal Act No. 4 of 2000 states that capital market registrants have to promptly provide, when so requested, any explanatory information which relates to their corporations *circumstances* and *activities* to raise investors' confidence. An amendment (decision No. 75 of 2004 and decision 155 of 2005) set more detailed requirements that emphasis risk reporting. The amendment requires potential registrants, as a pre-listing condition, to supply financial statements users with a report from the corporation's board of directors that includes the following:

> *"A statement of the significant events that the company has experienced from its incorporation up to the date of submitting the application for listing"*
>
> *"Any significant developments affecting the prices of the company's securities such as catastrophes, fires, mergers, the issue of new securities, the discontinuance of a production line, voluntary liquidation or Act suits filed by or unexpected events against the company will."*

The ES&CM also passed the UAE corporate governance code in the early of 2007 (Khaleej Times (2006 a). The code encourages corporations, as a part of best practices, to have regular procedures allowing the determination, measurement and disclosure of their risks. The enforcement of corporate governance code is to raise investors' confidence and trust in the UAE business. That trust, eventually, will overcome the persistence of the secretive culture in the UAE.

The report of one of Abu Dhabi investment firm, the National Investment (TNI), states that:

> *"The quality of disclosed information is still very uneven. Some companies publish bare headline figures while others give out full details and accounts. Corporations still need to improve disclosure content."(TNI Director cited in Khaleej Times, 2006 b)*

The report concludes that the scarcity of data and the culture of secrecy are harmful, yet still to continue among UAE corporations (Khaleej Times, 2006 b). The report mentions *"the most challenging aspect about analyzing UAE stock markets is the scarcity of data".* In order to stimulate culture of transparency, the UAE developed Dubai Financial Service Authority (DFSA) (www.dfsa.ae).

DFSA aims at regulating the financial services and operations that are carried out in Dubai International Financial Center (DIFC). It also encourages international cooperation and partnership with international security markets. One of the DFSA's underlying principles is to ensure the compliance with principles of good governance and risk disclosure. DFSA is committed to the UAE financial markets success through clear and effective regulations that encourage transparency. DFSA clearly expresses its objectives as follows:

> *"Corporations, licensed and listed by the DFSA, have to demonstrate their ability to meet the high standards through applying the international best practices. Otherwise these corporations will be held accountable for "lagging" behind." (www.dfsa.ae).*

DFSA, through DIFC, aims at developing the UAE capital markets to match international capital markets. It aims at developing the UAE capital markets in harmony with, or as institutional theorists argue mimetic, the New York, London and Hong Kong capital markets (www.difc.ae). Both DFSA and DIFC request listed companies to report under IFRS and to comply with best practices adopted in other security markets (Irvine, 2008).

Normative isomorphism: the accounting profession

Greenwood et al., (2002, p.58) argue that professional bodies are institutions that contribute to creation and diffusion of knowledge. They add that accountancy profession activities create a discourse that legitimates the development and the deployment of certain accounting rules (like risk disclosure regulations). Professions host conferences, organize seminars and provide training programs that eventually disseminate knowledge about best practices such as risk disclosure. The UAE has two accounting related professional organizations: first, the UAE Accountants and Auditors Association (AAA), second, the UAE Institute of Internal Auditors (IIA-UAE chapter).

Although the AAA recommends the adoption of IFRS in order to enhance the quality of annual reports (Aljifri and Khasharmeh, 2006), the AAA activities seem to contribute more in providing a feedback on government legislations (Velyutham and Al-Segini, 2002). The number of conferences, training programs and workshops associated with risk reporting is low. At best the issue of risk reporting maybe introduced under the banner of "corporate governance" in the UAE (http://www.aaa.org.ae). However, the Institute of Internal Auditor (IIA-UAE chapter) organized conferences and seminars with different speakers in order to promote the importance of corporate governance, risk disclosure and risk management (IIA-UAE newsletter, 2007).

The IIA organized various workshops and conferences that address the issue of risk disclosure. During 2006, the IIA organized a workshop presented by a representative of Ernest and Young. That workshop addressed how the UAE can achieve effective corporate governance. The workshop also highlighted the role of internal auditor in managing and reporting business risks. In February 2006, the IIA organized the 7th annual gulf regional audit conference. The conference theme was "New frontiers and new challenges". The president of the conference states:

> *"Many organizations begun to implement approaches to ensure a uniform procedures to risk management and reporting across them, and therefore, there is need to develop auditors skills to face that challenge"* (IIA-UAE, newsletter, 2006).

In January 2007, a workshop about the role of internal auditor in risk reporting and risk management was organized. A senior internal auditor in Dubai Department of Civil Aviation presented that workshop (Harb, 2007). The workshop addressed some of risk reporting challenges such as the lack of awareness of the role of internal audit in risk reporting and management (Harb, 2007).

In March 2007, the IIA organized the 8th annual gulf regional audit conference. One of the conference main themes was risk management and reporting and the challenges that face UAE. The chief operating officer of DFSA presented a paper about the essence of risk management and reporting (Balden, 2007). On May 2007, an article about how to gain a competitive position through risk based approach was published (IIA-UAE, newsletter, 2007). The article also discusses the risk reporting and risk management methodologies.

The above analysis shows that the UAE profession, mainly institute of internal auditors, hosted an active discourse that legitimate the UAE corporations' managers towards putting into effect risk disclosure regulations. The institute hosted conferences and organized seminars that contribute in disseminating knowledge about risk disclosure among UAE practitioners. The IIA-UAE chapter was an

active institution or, as institutional theorists argue, organizational field player in developing risk disclosure regulations in the UAE.

Mimic isomorphism: pro-international practices

As an emerging capital market with ambitious plans to be recognized internationally, the UAE is engaged in partnerships with multinational organizations (Irvine, 2008). These partnerships together with the country vision to join global security markets make the mimic process inevitable. Irvine (2008) argues the UAE partnerships with international corporations encouraged the adoption of international standards for governance and risk management. IFRS, risk disclosure and governance, known as best international practices, became a must in order to achieve these partnerships and consequently participate in international security markets.

Furthermore, the practicing of accountancy profession in the UAE is dominated by the big international auditing firms, namely Ernst and Young, Arthur Andersen, Price Waterhouse Coopers, Touche Ross and Co and KPMG Peat Marwick. Among them, they audit most of the local commercial banks and big corporations. Islam (2003) argues that all the Abu Dhabi banks are audited by Ernst and Young. Similarly, Hussain et al., (2002, p.358) add most of UAE local banks use one of the international auditing firms.

Both partnerships with international corporations and the domination of big audit firms on audit service market excrete pressures to mimic international practices. That mimic is best described as follows "*The UAE corporations adopt the IFRS without modification compared to Saudi Arabia that modified those standards* (Kamla, 2007, p.114)." Likewise, DIFC clearly states that its underlying aim is to mimic the same stature as New York, London and Hong Kong security markets (www.difc.ae).

The existence of big audit firms, DFSA and partnerships with multinational corporations created a momentum to diffuse practices, such as risk disclosure, that resemble best practices applied in countries with advanced security markets. Risk regulations and disclosure practices not only legitimate the UAE corporations to international best practices but also facilitate those corporations' desire to compete with other corporations operating in the international security markets.

6. The UAE Corporations' activities: exercising risk regulations

The UAE institutional context – constituents' activities - stimulates the UAE corporations' managers to report on their corporations' unforeseen circumstances and risks. This study links the UAE corporations' risk disclosure practices exercised at micro organizational level to the UAE institutional context. It also aims at understanding how the UAE corporations' managers strategically utilize risk disclosure. Due to limited access to carry out interviews, the study relies on the disclosed risk information, published in the corporations' annual reports, to outline how corporations' mangers put into effect and deploy risk disclosure regulations in practice.

Two sets of risk disclosures practices, exercised at micro organizational level, are outlined. The first set, presented in Appendix 2, includes risk disclosure practices that are under the management discretion. This set include practices that span over general risks, accounting policies and others practices associated with financial instruments, segment reporting and risk management policies (see Diagrams in appendix 2). The diagrams show that financial and non-financial corporations exercise the first set of risk disclosure practices. Although financial corporations' level of deployment is higher than that level of non-financial corporations, the diagrams present a similar pattern of level of deployment across the two types of corporations.

There are two possible explanations for this observation. First, financial corporations are more sensitive to risk regulations and disclosure. Therefore, they exercise more risk disclosure practices in order to discharge their accountability to stakeholders, including corporations' constituents, about how they manage risk. Second, the examination of the UAE corporations' annual reports, whether financial or non-financial, reveals that most of these corporations hire one of the big four audit firms. These big audit firms legitimate UAE corporations towards international best practices such as risk disclosure practices.

The second set includes risk management practices associated with types of "accounting reserves" included in the UAE corporations' annual reports. The examination of how corporations put into effect and deploy accounting reserves not only raises the question of "whether corporations' managers utilize reserves to manage risk disclosure and consequently "constituents' impression", but also casts doubt on the quality of annual reports. To recall, the UAE regulatory framework requires the UAE corporations to have statutory and legal reserves (The Federal Commercial Companies Act No. 8 of 1984, Article 192, 193). The examination of annual reports shows that some of UAE have legal and statutory reserve in a lump sum figure.

> *"10% of the annual net profit of the company and its subsidiaries is appropriated to* ***legal and statutory*** *reserve until such reserve equals 50% of the paid-up share capital." (Corporations, 14; 25; 66)*

According to the commercial company Act of 1984, a 10% of net profit is transferable to statutory reserve. Then another percentage, on top of this

statutory 10%, is transferable to legal reserve. The above practice does not underscore the statutory reserve since no separate transfer is made to the statutory reserve. Likewise some corporations have legal reserve and a reserve that maintains the status of statutory reserve yet under the name of "regular reserve" (14), "special reserve" (3; 23; 32) and "general reserve" (5; 11; 22; 66). The use of a general reserve to serve as a statutory reserve can lead to conflicts since the former is meant to be available for distribution while the latter is not available for distribution except for matters specified by law.

Furthermore, examining annual reports reveals that one of the corporations uses contingency reserve to cover unforeseen future risks. The report states that:

> *"The contingency reserve is established to cover unforeseen future risks or contingencies which may arise from general risks."(Corporation 1)*

Other corporations have utilized general reserve as a contingency reserve. These corporations' annual reports state that:

> *"The corporation maintains a general reserve to address the risks inherent in the operating environment. Contributions to this reserve are made at the discretion of the Directors." Corporation 30; 35)*

The above observation raises a question about the differences between "general reserve" and "contingency reserve". The former is established to enhance the capital base of the corporation, while the latter is formed to cover unexpected future events and unforeseen circumstance. The conflation between the two reserves not only causes financial statements users' confusion but also runs the risk of earning management. Although both reserves are available for distribution, auditors, capital market and financial reports' users closely monitor the contingency reserve since it highlights the corporation's risks.

Some corporations have voluntary reserves (30; 57). One of these corporations has three reserves: a legal reserve; a voluntary reserve treated as statutory reserve and special reserve to cover credit risks (30). The other corporation has two reserves: a statutory reserve and a voluntary reserve treated as legal reserve (57). The voluntary reserve differs from statutory/legal one in that:

> *"In accordance with the Articles of Association of the bank, 10% of the net profit for the year is transferred to a **voluntary reserve** until such time as the balance in the reserve equals **20%** of the issued share capital. **This reserve is available for distribution**."(Corporations 30; 57)*

Reading the above quotation reveals two features of voluntary reserve. First, the transfer to voluntary reserve is suspended when it reaches 20% of capital. This feature coincides with the nature of statutory reserve, rather than the legal reserve, since the Act does not specify a percentage where the transfer to the legal reserve is suspended. Second, in contrast to the non-distributable legal/statutory reserves, voluntary reserve is available for distribution. The examination of UAE corporations' risk management practices, mainly accounting reserves, shows that mangers manage risk management disclosure in accordance with the corporation law of 1984 while, at the same time, conveying a positive image about their corporations.

7. Discussion

The conceptualization of risk reporting as interrelated macro-micro levels' activities together with exploring these activities using intuitional theory enable the paper to present interesting findings at each level. First, although the accounting profession is typically portrayed as an important regulatory mechanism (DiMaggio and Powell, 1983), it has been underscored as an immature and relatively powerless in emerging capital market and developing economies (Samules and Oliga, 1982; Chamisa, 2000). Greenwood et al., (2002, p.58) add that little attention has been given to understand the role of profession as an organizational field institution that links individual organizations to wider social context. This paper highlights how the accounting profession, as an organizational field player, has legitimated the deployment of risk disclosure practices in the UAE.

The UAE accounting professional association has legitimated the deployment of risk disclosure practices by hosting a process of discourse through which these practices are debated and authorized. To recall the IIA- UAE chapter hosted various conferences and workshops aiming at discussing issues related to risk disclosure and management. The accounting profession became an arena through which UAE corporations interact together and it is from that interaction an understanding of risk disclosure and management emerges. In other words, the profession plays a role in disseminating knowledge about risk disclosure and management.

Another major interesting finding is that the paper highlights the heterogeneity in risk reporting in the UAE. The notion of risk reporting appears to be heterogeneous within the UAE institutional context. Risk regulations and categories mentioned in the IFRS differ from those mentioned in ES&CA listing conditions and both differ from those mentioned in the Federal Corporation Act of 1984. The multiplicity and the diversity of sources may have led to a lack of homogenous risk disclosure practices. This finding coincides with the French case where a standardized definition of risk reporting is not fully accomplished yet (Combes-Thuelin et al., 2006).

Third, against the claim that transitional developing countries are characterized by secretive culture and therefore their corporations' annual reports lack transparency (Doupnik and Tsakumis, 2004), the paper reveals that the UAE openly

discloses risk related information similar to developed countries. The openness of UAE to join international global markets has facilitated the adoption of risk disclosure practices. Therefore, one can argue that the UAE corporations' adoption of risk reporting is a part of what Eldomiaty and Choi (2006) call "strategic transparency".

Eldomiaty and Choi (2006) argue that corporations, in transitional emerging economies, disclose information that strengths their market positions. The UAE corporations put into effect risk regulations to strengthen their market position locally and globally. The UAE institutional infrastructure enables the variation in exercising risk disclosure regulations. To recall, the Corporation Act of 1984 requires certain risk disclosure practices, the ESC&M requires other disclosure practices, the IFRS encourages the adoption of different practices, and finally corporations' managers can exercise other practices on top of legal and IFRS requirements. This variation in the institutional requirements enables UAE corporations, willing to operate at local, regional or international level, to exercise risk disclosure practices that suit their circumstances. It enables the creation of a flexible benchmark that accommodate to pressures excreted from international capital markets that request high level of disclosure and transparency.

Finally, the paper contributes to several studies that address "strategic disclosure" and "disclosure management" (Gibbins et al., 1990; Adam, 1997; Trabelsi, 2004). These studies identify two dimensions of managers' disclosure position: ritualism and opportunism. Opportunism disclosure position, they argue, refers to mangers interest to seek firm specific advantages through publishing certain information such as risk related information. This position involves an active role of managers in their attempt to seek these specific advantages and consequently reap benefits by managing the disclosure process. This paper provides an institutional analysis that coincides with that position. To recall, the exercise of risk regulations seems to legitimate the UAE to international best practices introduced by international security markets.

Ritualistic disclosure position, they argue, describes manages uncritical adherence to prescribed rules and regulations for measurement and disclosure. Accordingly, the role of managers is passive since they just comply with rules without necessary believe in the importance of these rules. To claim that the UAE corporations' ritualistically deploy risk disclosure practices requires a more in-depth investigation that relies on case-based studies of individual corporations. This investigation goes beyond the scope of the current paper and therefore represents an area of future research.

8. Conclusion

The paper uses institutional theory to reveal the institutional development behind risk regulations in the UAE and, at the same time, explore how the UAE corporations' managers put into effect and deploy these regulations. It defines risk regulations and disclosure as interrelated macro-micro activities. On the one hand, the macro level activities incorporate the activities of government, regulatory agencies and professional associations to develop risk regulations. On the other hand, the micro level activities refer to how organizations implement risk regulations. One can argue that both activities constitute the way in which risk disclosure is exercised in the UAE.

Exploring the UAE institutional context, at macro level, illustrates that the UAE regulatory framework requires the publication of risk related information in the annual reports. The Corporation Act of 1984, the ES&CMA listing conditions and DFSA requirements coercively align the UAE corporations towards the adoption of different risk disclosure practices. Furthermore, the UAE professional association, mainly the IIA-UAE chapter, organized different seminars and conferences associated with risk reporting. These seminars and conference created a discourse between the UAE corporations' managers and international audit firms. The interaction among these groups disseminates, or as institutional theorists argue creates normative pressure, knowledge about risk reporting and management. Finally, the UAE trend to adopt, or as or as institutional theorists argue "to mimic", international best practices applied in developed countries is evident. To recall, the DFSA is meant to enforce the same practices applied in USA and Hong Kong.

Examining annual reports, at micro organizational level, shows that UAE corporations' managers exercise risk regulations. The UAE corporations' disclose risk related information to gain legitimacy in international security markets and thereby access these markets. In the light of the global trends and pressures to adopt international best practices, developing and emerging economies countries harmonize local practices with those of international ones (Ali, 2005). That harmonization, Ali (2005, p.11) argues, could be formal (De-jure) and/or material (De-facto). The former refers to the process by which difference in national sets of disclosure regulations, acts, rules and principles can be reduced, whereas the latter refers to differences existing in actual reporting practices adopted by corporations. Ali (2005) also adds that both types can exist together or one may exist without the other.

In the light of the study analysis, risk reporting in the UAE is undergoing through the two types of harmonization. On the one hand, DFSA regulations aim at harmonizing the UAE regulatory framework in line with the stature of international financial markets

such as New York, London and Hong Kong. These regulations adhere to high level of corporate governance, transparency and risk management. On the other hand, examining the UAE listed corporations' annual reports reveals that the deployed risk disclosure practices are similar to those practices adopted by Western and European corporations (see Linsley and Actrence, 2007; Beretta and Bozzolan, 2004; Lajili and Zéghal, 2005; Linsmeier et al., 2002; Jorion, 2002; Schrand, 1997; Lopes and Rodrigues, 2007).

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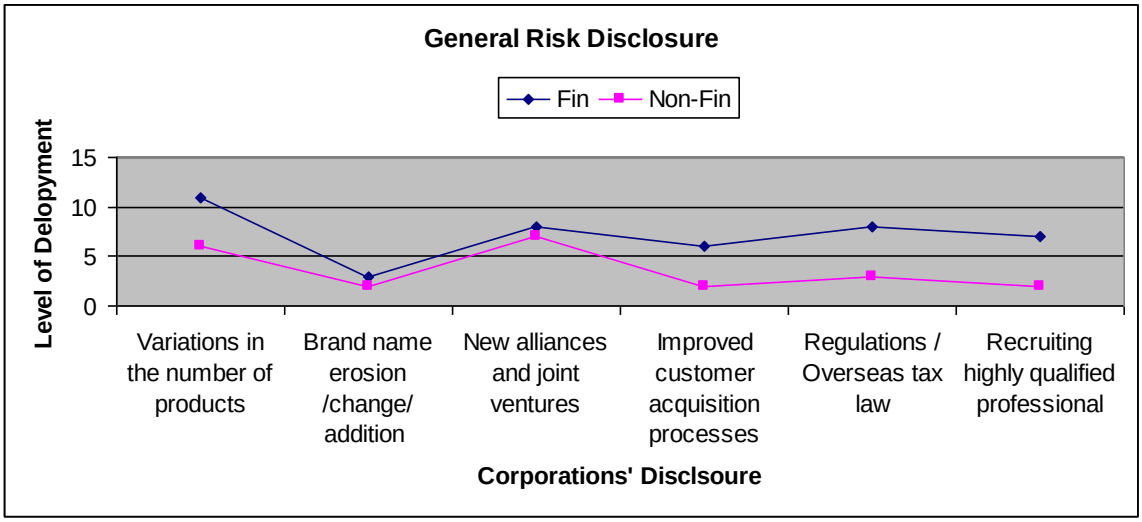
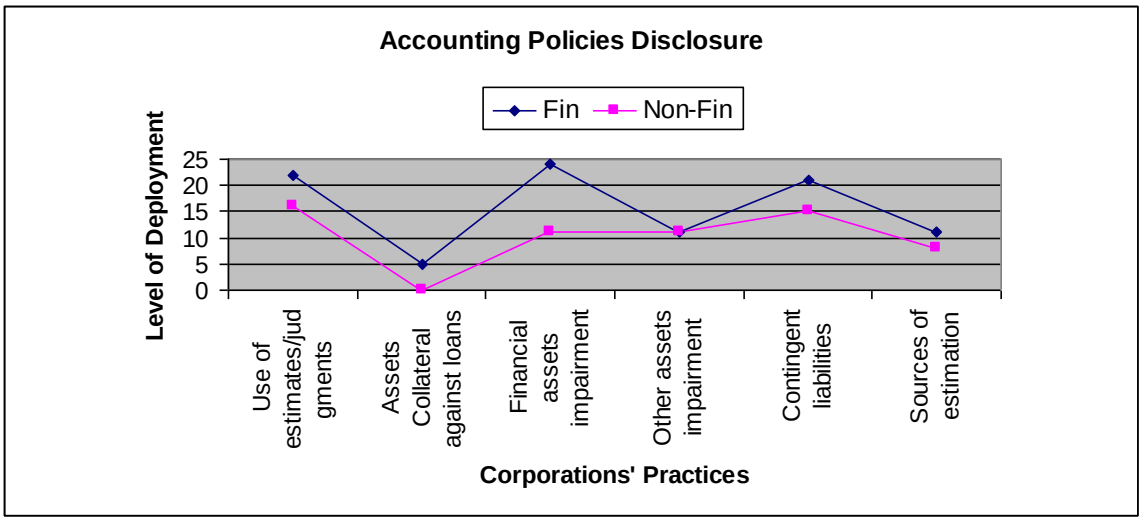
Appendix 1

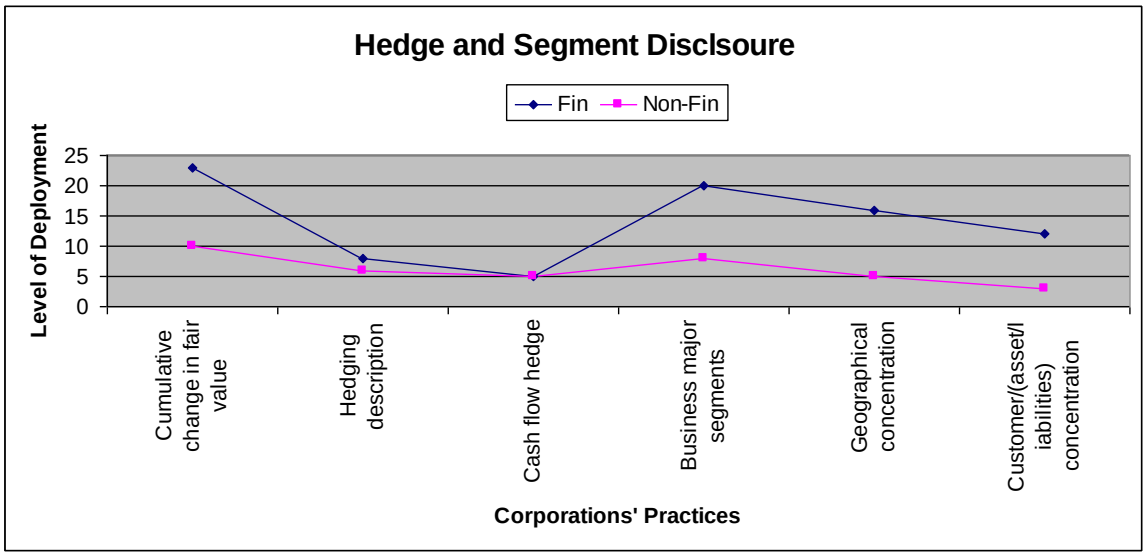
Financial Sector	Non-financial Sector
3- Arab Emirates Investment	51- Abu Dhabi National Energy
5- Amalak Finance	61- National Tourism & Hotels
37- United Arab Bank	Emirates Food Stuff
UAE Finance House	52- Abu Dhabi National Hotel
7- Commercial Bank of Dubai	40- Aldar Properties
10- Dubai Islamic Bank	66- Union Properties
11- Dubai Investment	49- Etisalat
Ins 5- Oman Insurance	53- Abu Dhabi Shipping
35- Umm Alqun Bank	63- Ras Al-Khaimah Cement
14/15 - Emirates Bank International	38- Abar Petroleum Company
16- Gulf Finance House	57- Gulf Cement Company
19- Gulf General Investment	71- Tabreed
33- Sharjah Islamic Bank	13- EMAAR
23- Investment Bank	6- Emirates Arab Technical Construction
25- Mashreq Bank	22- Arab Heavy Industries
26- National Bank of Abu Dhabi	
30- National Bank of Ras Al-Khaimah	
32- Bank of Sharjah	
1- Abu Dhabi Commercial Bank	
Alsagr national Insurance	Arab International logistics ARAMEX
Emirates Insurance Com	Emirates Integrated Telecommunication
Islamic Arab Insurance	
Tamweel	
Abu Dhabi Insurance	

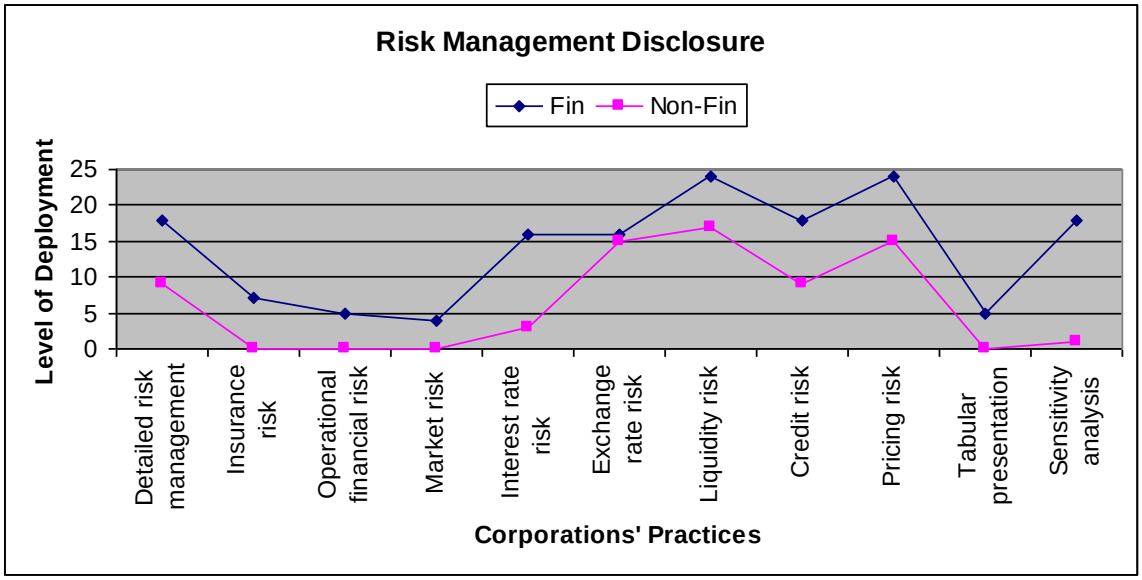
* The number besides the company name has been utilized as a reference number in the text.

Appendix 2


General Risk Disclosure
Fin
Non-Fin
Level of Delopyment
15
10
5
0
Variations in the number of products
Brand name erosion /change/ addition
New alliances and joint ventures
Improved customer acquisition processes
Regulations / Overseas tax law
Recruiting highly qualified professional
Corporations' Disclsoure


Accounting Policies Disclosure
Fin
Non-Fin
Level of Deployment
25
20
15
10
5
0
Use of estimates/judgments
Assets Collateral against loans
Financial assets impairment
Other assets impairment
Contingent liabilities
Sources of estimation
Corporations' Practices


Hedge and Segment Disclsoure
Fin
Non-Fin
Level of Deployment
25
20
15
10
5
0
Cumulative change in fair value
Hedging description
Cash flow hedge
Business major segments
Geographical concentration
Customer/(asset/liabilities) concentration
Corporations' Practices


Risk Management Disclosure
Fin
Non-Fin
Level of Deployment
25
20
15
10
5
0
Detailed risk management
Insurance risk
Operational financial risk
Market risk
Interest rate risk
Exchange rate risk
Liquidity risk
Credit risk
Pricing risk
Tabular presentation
Sensitivity analysis
Corporations' Practices

CORPORATE GOVERNANCE AND FIRM PERFORMANCE: NEW EVIDENCE FROM BRAZIL

Mariana Vieira, Andre Carvalhal, Otavio Figueiredo

Abstract

The relationship between governance and firm performance has been vastly studied in the academic literature. Although most studies indicate a positive relation between governance and performance, this result is not clear and conclusive to many experts. This paper uses a new methodology to analyze the relation between governance and performance. We compute the change in the quality of governance and classify the firms into three groups (positive, neutral and negative variation). Then we calculate the current and future performance for each group and check if there is a relation between changes in governance and firm performance. Analyzing Brazilian data from 2002 to 2008, our results indicate that positive (negative) changes on corporate governance are associated with positive (negative) changes on firm performance.

Keywords: Corporate Governance, Firm Performance, Corporate Governance Index, ROA

1. Introduction

Corporate governance has been vastly subject of numerous research articles and debates around the world. It has gained a lot of importance in the academic and corporate world, mainly after the financial frauds of large companies in the U.S. and other developed countries.

In the academic literature, there are many studies that examine the relationship between governance, value and performance of firms (La Porta et al. (2002), Claessens et al (2002), Gompers, Ishii and Metrick (2003), Klapper and Love (2004), Durnev and Kim (2005), Black, Jang and Kim (2006)). Although most studies indicate a positive relation between governance and firm performance, this result is not clear and conclusive to many researchers. Many of the questions refer to the methodology used and how corporate governance is measured.

Several authors use indices to measure corporate governance. Some indices are composed of subjective questions, answered by the companies themselves or by analysts or academics, and the results may be biased. Other authors use objective indices based on binary questions that can be answered with public data (Black, Jang and Kim (2003), Gompers, Ishii and Metrick (2003), Chidambaran (2006), Da Silveira (2004) and Leal and Carvalhal (2007)).

This paper uses a new methodology to analyze the relation between governance and performance of Brazilian companies. We measure the quality of corporate governance using the corporate governance index (CGI) developed by Leal and Carvalhal (2007).

Based on the CGI, we compute the change in governance quality and classify firms into three groups (positive, neutral and negative variation). Then we check if there is a relation between changes in governance and firm performance. Analyzing data from 2002 to 2008, our results indicate that positive (negative) changes on corporate governance are associated with positive (negative) changes on firm performance.

This study is structured in five sections. The next section presents the literature review on governance and firm performance, and the third section shows the data and methodology used. Section 4 reports the results, while Section 5 concludes the paper.

2. Literature Review

The relationship between corporate governance, value and firm performance has been subject of several studies in the literature. One of the key questions in governance studies is how to measure corporate governance. Gompers, Ishii and Metrick (2003) analyze the relationship between firm performance and shareholder rights by constructing a governance index. They conclude that corporate governance is positively related with Tobin's Q.

Klapper and Love (2004) analyze the relationship between corporate governance and firm performance in 14 emerging markets. They use the governance index created by Credit Lyonnais Securities Asia (CSLA). The results show a positive relationship between governance and firm performance.

Durnev and Kim (2005) show that the quality of governance practices is positively related to growth opportunities. The results also indicate that firms with better governance have higher market value. Black, Jang and Kim (2006) examine whether corporate governance affects stock prices in Korea. The results indicate that there is a significant relationship between stock prices and the existence of independent

members on the board. There is no evidence that firms with better governance are more profitable.

Bohren and Odegaard (2003) present two methodologies to analyze the relationship between governance and performance in Norway. To measure governance, they use various mechanisms, including ownership structure, and origin and characteristics of the controlling shareholder. First, they run multiple linear regressions and report a significant relationship between governance and firm performance. On the other hand, when governance and firm performance are modeled through simultaneous equations, the results have no statistical significance or have signs contrary to the theory.

La Porta et al. (1999) show that, in countries where there is little protection for shareholders, companies are penalized with a low valuation in the market. Claessens et al. (2002) show that firm value decreases when there is separation between ownership and control.

Chidambaran et al. (2006) analyzes the relationship between governance and firm performance by measuring the changes in the quality of governance. To measure the changes in corporate governance, they create an index of variation, which ranges from -13 to +13, according to different governance mechanisms (board characteristics, CEO compensation, controlling shareholders, CEO turnover and shareholder rights). They examine whether firms with positive changes in governance have better performance when compared to firms with negative changes in governance. The results are not significant, and do not support the hypothesis that firms with positive governance changes have better performance.

In Brazil, Leal and Carvalhal (2007) calculate a corporate governance index (CGI) for Brazilian firms. The CGI is a questionnaire with 24 questions measuring the quality of governance in four dimensions: transparency, board, ownership and control structure, and shareholder rights. The great advantage of CGI is that it can be answered objectively through public data, which allows evaluating the governance practices of a large number of companies without biased qualitative interviews or questionnaires. To control for the endogeneity, the authors apply two-stage and three-stage regressions (2SLS and 3SLS), and the results show a significantly positive relationship between governance and firm value.

Da Silveira (2004) also constructs a corporate governance index to measure the quality of corporate governance of Brazilian companies. The data are obtained through a questionnaire with 20 questions answered by the researcher through publicly available information. The hypothesis that better corporate governance has positive impacts on firm performance has not been confirmed.

Since the results of Leal and Carvalhal (2007) are different from those of Da Silveira (2004), we can conclude that there is no clear evidence of a positive relation between governance and firm performance. Therefore, this paper uses the methodology of Chidambaran et al. (2006) to analyze the relationship between governance and firm performance in Brazil, by associating changes in the quality of governance with changes in current and future firm performance.

3. Data and Methodology

The sample includes 142 companies listed on BM&FBovespa stock exchange from 2002 to 2008. We use return on assets (ROA, measured by EBITDA/total assets) as a proxy for firm performance, and CGI as a proxy for governance quality. Financial and accounting data come from Economatica and the CGI is obtained directly from the authors (Leal and Carvalhal (2007)).

Using the CGI changes from year t-1 to year t, we classify companies into three groups according to the changes in the quality of governance (positive, null, and negative). For each group, we calculate the changes in current performance (from year t-1 to year t) and future performance (from year t to year t +1 and from year t +1 to year t +2).

Since our sample contains 142 companies over 7 years (2002-2008), fixed-effects panel models are estimated to examine the relationship between governance changes and firm performance. The result of Hausmann tests (not reported) shows that the fixed-effects are more appropriate than common-effects and random-effects. The models are estimated according to the following equations, and are adjusted for autocorrelation and heteroskedasticity:

$$DROA_{i,t+k} = \beta_1 + \beta_2 DCGI_{i,t} + \beta_3 VOT_{i,t} + \beta_4 VOT/TOT_{i,t} + \beta_5 P/B_{i,t} + \beta_6 LEV_{i,t} + \beta_7 SIZE_{i,t} + \beta_8 GROW_{i,t} + \varepsilon_{i,t}$$

$$DROAIND_{i,t+k} = \beta_1 + \beta_2 DCGI_{i,t} + \beta_3 VOT_{i,t} + \beta_4 VOT/TOT_{i,t} + \beta_5 P/B_{i,t} + \beta_6 LEV_{i,t} + \beta_7 SIZE_{i,t} + \beta_8 GROW_{i,t} + \varepsilon_{i,t}$$

where DROA is the change in return on assets (EBITDA/total assets) from year t to year t+k, DROAIND is the change in return on assets adjusted for industry (DROA of the firm minus the average DROA of the industry to which the firm belongs) from year t to year t+k, DCGI is the change in corporate governance index (CGI) from year t to year t+k, VOT is the percentage of voting shares owned by the largest shareholder, VOT/TOT is the ratio between the percentage of voting shares and total shares held by the largest shareholder, P/B is the price-to-book (ratio between the share price and its book value), LEV is firm leverage (ratio of outstanding liabilities and total assets), SIZE is firm

size (logarithm of total assets), GROW is the average annual growth in net revenues over the past three years.

This study uses the CGI as a proxy for good corporate governance practices. Therefore, we should expect a positive relation between DCGI, DROA and DROAIND. We use six control variables (VOT, VOT/TOT, P/B, LEV, SIZE, and GROW), which were previously identified in the literature as determinants of firm performance. We expect a negative coefficient for VOT, VOT/TOT and LEV, because control concentration, separation of voting to cash flow rights and firm leverage are negatively related to firm performance. On the other hand, there should be positive coefficients for SIZE, GROW, and P/B, since firm performance is positively related to firm size, growth opportunities and price-to-book.

4. Results

Table 1 shows the descriptive statistics of the variables used in this study. On average, the changes in operating performance (DROA) are positive (ranging from 0.33% to 0.49%), and the changes in industry-adjusted performance (DROAIND) are negative (ranging from -0.15% to -0.12%). The average change in corporate governance is positive (0.31), with great variation among firms (-4.66 to 9.91).

Table 1. Descriptive Statistics

Descriptive statistics of the variables used in the study from 2002 to 2008. The definition of each variable can be seen in Section 3.

	Mean	Median	Min	Max
$DROA_t$	0.43	0.37	-14.05	16.68
$DROA_{t+1}$	0.49	0.30	-14.28	12.20
$DROA_{t+2}$	0.33	0.31	-16.96	8.68
$DROAIND_t$	-0.12	0.00	-16.13	17.25
$DROAIND_{t+1}$	-0.15	0.00	-47.89	19.03
$DROAIND_{t+2}$	-0.14	0.00	-35.39	22.63
DCGI	0.31	0.00	-4.66	9.91
VOT	56.67	57.70	0.00	100.00
VOT/TOT	1.57	1.39	0.00	3.00
P/B	1.92	1.30	-11.40	49.80
LEV	73.50	65.50	1.10	90.06
SIZE	14.35	14.37	9.45	19.51
GROW	13.83	13.55	-100.00	130.90

There is a large concentration of control (the largest shareholder owns, on average, 57% of the votes) and a strong separation between ownership and control (the controller has an average of 1.57 votes per share). On average, Brazilian firms have a P/B of 1.92, leverage of 73.5%, and annual growth rate of 13.8%.

Table 2 shows the change in current and future performance of Brazilian companies classified in three groups according to the change in governance practices (positive, negative and zero). We conduct a test to analyze if firms with positive changes in governance have higher performance.

We can note that firms with positive changes in governance have higher current and future DROA and DROAIND. All differences are significant at 5% and 10%. On average, the DROA of firms with governance improvement ranges from 0.78% to 1.42%, much higher than the DROA of firms with governance worsening (ranging from 0.43% to 0.74%). Furthermore, the DROAIND of firms with governance improvement ranges from 0.08% to 0.25%, much higher than the DROA of firms with governance worsening (ranging from -0.84% to -0.52%).

Table 2. Test of Means Between Governance and Firm Performance

Changes in current and future performance (DROA and DROAIND) of Brazilian companies classified in three groups according to the change in governance practices (ΔCGI). We conduct a test of means to check if firms with positive changes in governance have higher performance. ***, **, and * indicate that firms with positive changes in governance have higher performance at 1%, 5% and 10% levels, respectively.

	$DROA_t$	$DROA_{t+1}$	$DROA_{t+2}$	$DROAIND_t$	$DROAIND_{t+1}$	$DROAIND_{t+2}$
ΔCGI < 0	0.74	0.43	0.66	-0.66	-0.84	-0.52
ΔCGI = 0	-0.28	-0.31	-0.66	0.24	-0.20	-0.13
ΔCGI > 0	0.95*	1.42**	0.78*	0.08*	0.25*	0.19*

Table 3 presents the fixed-effects panel models for DROA and DROAIND. The DCGI variable is positive and statistically significant at 1% and 5% in 5 of 6 models. Therefore, we conclude that positive (negative) changes on the quality of governance have a positive (negative) effect on current and future performance of companies.

Table 3. Governance and Firm Performance

Fixed-effects panel models for DROA and DROAIND from 2002 to 2008. The definition of each variable can be seen in Section 3. The p-values, adjusted for autocorrelation and heteroskedasticity, are shown in parentheses. ***, **, and * indicate statistical significance at 1%, 5% and 10% levels, respectively.

	$DROA_t$	$DROA_{t+1}$	$DROA_{t+2}$	$DROAIND_t$	$DROAIND_{t+1}$	$DROAIND_{t+2}$
Constant	-1.80***	-3.01***	-0.54	4.04***	3.43***	2.02**
	(0.00)	(0.00)	(0.29)	(0.00)	(0.00)	(0.02)
DCGI	0.15**	0.31***	0.09**	0.06	0.24***	0.31***
	(0.03)	(0.00)	(0.03)	(0.31)	(0.00)	(0.00)
VOT	-0.01	-0.00*	0.00	0.00	0.00	0.01
	(0.14)	(0.07)	(0.39)	(0.35)	(0.45)	(0.13)
VOT/TOT	-0.40***	-0.38***	-0.43***	-0.58***	-0.48***	-0.49***
	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
P/B	0.03	0.01	-0.04**	0.36***	0.27***	0.22***
	(0.43)	(0.91)	(0.03)	(0.00)	(0.00)	(0.00)
LEV	0.01***	0.01**	0.00	-0.06***	-0.07***	-0.06***
	(0.00)	(0.01)	(0.61)	(0.00)	(0.00)	(0.00)
SIZE	0.02	0.23***	0.13***	-0.02	0.05	0.01*
	(0.65)	(0.00)	(0.00)	(0.68)	(0.40)	(0.06)
GROW	0.01***	0.00	-0.01	0.03***	0.02***	0.01***
	(0.01)	(0.84)	(0.14)	(0.00)	(0.00)	(0.00)
R^2 adj	0.33	0.31	0.19	0.60	0.37	0.52

5. Conclusion

In the academic literature, there are many studies that examine the relationship between governance, and firm performance. Although many studies find a positive relationship between governance and firm performance, there are several questions about the validity of the results, since they vary depending on the methodology used and how governance is measured.

This paper uses a new methodology to analyze the relationship between governance and performance of Brazilian companies. The quality of corporate governance is measured through the CGI index by Leal and Carvalhal (2007).

Based on the CGI, we compute the change in the quality of governance and classify firms into three groups (positive, neutral and negative change in CGI). Then we calculate the changes in current and future performance for each group and analyze whether there is relation between changes in governance and in firm performance.

Our results indicate that positive (negative) changes on the quality of governance are associated with positive (negative) changes in current and future performance of companies. All the results are significant both in economic and statistical terms. Therefore, we can conclude that firms with improvement in the quality of governance have higher performance in Brazil.

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CORPORATE GOVERNANCE AND PERFORMANCE: STAKES ON OWNERSHIP? EMPIRICAL RESEARCH OF THE UKRAINIAN BANKS

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Abstract

This paper was aimed to examine the relationship between corporate governance and financial performance in terms of ownership of 41 banks that represent Ukrainian banking system in 2006-2009. Correlation results could be used as an indicator of the weak link between corporate governance dynamics and operating performance. The Corporate Governance Dynamics Ratio was introduced to evaluate the CG in banks from the sample. It was determined during the study that majority of the banks could be found in the "30 to 80 points" range, which indicates the low level of CG practices' implementation. On the other hand, there were some outliers – 6 banks with Ukrainian ownership have higher rankings then foreign-owned ones ("over 80 points" range), while 5 foreign banks are "outsiders" with CG Ratios in the range "less than 30". In general it can be stated that the level of corporate governance in Ukrainian banking is in the initial phase, internal and state regulation should be introduced in order international practices to be put into action.

Keywords: Corporate Governance, Bank, Financial Performance, ROA, ROC, Ownership

1. Introduction

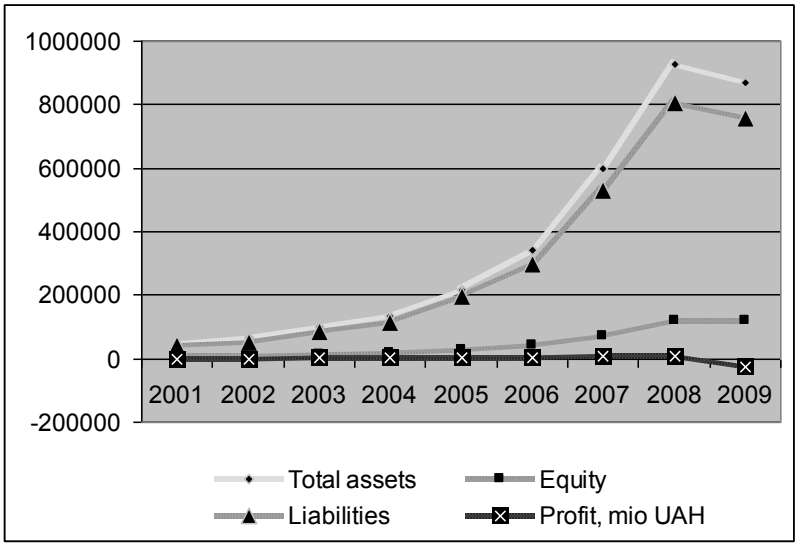
From the beginning of the crisis in 2008, world community began to pay more attention to the issues related to effective management (risk management, in particular) of financial and non-financial corporations. Media coverage and state authorities' actions have been concentrated on corporate governance issues specifically. Attention on the part of international organizations and forums (i.e. G20 Summit, BIS etc.) resulted in new rules and recommendations on state and international levels. E.g. established by BIS in April 2009 Financial Stability Board can prove serious intentions to strength the financial sector of economy. Majority of the anti-crisis measures are risk-management-related, which basically means being focused on the assets' management.

Ukrainian economy faced the financial crisis as many other countries, and crisis' influence on the economy was significant. Problems in Ukrainian economy, especially in financial sector (in banking, in particular), began in the end of 2008. Deposits outflows, national currency exchange rate fluctuations and devaluation over 50%, problems with liquidity of banks, markedly growing ratio of bad loans were some kind of indicators showing weakness of the Ukrainian financial system and asked for actions to be taken from the state establishments and direct regulators.

Ukrainian banks, especially the ones with foreign capital, used to have easy access to rather cheap resources, and actually these short-term loans from foreign-owned banks served as a main source for financing (see figure 1), as the deposit amount could not respond to the money demand (actually, these cheap resources were the financial background for the Ukrainian banks to provide loans – much more expensive - in Ukraine). Looking for the high profits, banks' management didn't pay much attention to the risk estimation, credit risk evaluation in particular, and did not pay much attention to the issues related to the liabilities' quality. Obviously, there were a lot of other problems with banking sector in Ukraine, not only imprudence of risk-taking strategies, but ineffective banks' risk management was the one of the banks' biggest drawbacks. And most of all, this applies to the question of improving and/or establishing new, more effective corporate governance mechanisms.

It is also should be noted, that share of foreign capital in Ukrainian banking sector has increased markedly over last few years (capital not as financial resources for domestically-owned banks, but as the background for establishing new or strengthening foreign-owned banks). According to NBU data, as for 01.01.2011 compared to 01.01.2007 share of foreign capital in Ukrainian banking system grew up from 27.6% to 40.6% respectively. This fact brings up the question of effectiveness of the banks with the foreign ownership. And from this point of view it is worth considering possible differences between bank performance and corporate governance in banks with different ownership type.

Figure 1. Dynamics of the main indicators of the Ukrainian banking system



Considering all mentioned above, the necessity of research on corporate governance in banks, its changes, its influence on performance, becomes obvious.

The paper is organized as follows: first section is an introduction; section II presents literature review of the papers on different aspects of corporate governance evaluation and its interaction with bank performance, sections III and IV include data and methodology. Results are presented in the section V, where also brief explanations are given and main tendencies are formulated. Final part of the paper provides conclusions, further research outlines and limitations of the paper.

2. Literature review

Corporate governance and performance

Bhasa, Malla Praveen (2006) stated that the dominant paradigm of corporate governance is based on the argument of Berle and Means in 1932 that separation of ownership and control affects the reported level of income of firms, either positively or negatively. Since Berle and Means we can find various studies devoted to the relation between corporate governance and performance of the firm, the influence of ownership structure etc.

However, skeptical investors and unconvinced firms, and not only in Ukraine, still do not see the existence of the link between good corporate governance, its dynamic and performance of the company. And it is still debatable whether there is any link between them. The empirical studies mainly focus on specific dimensions or attributes of corporate governance (board structure and composition, the role of non-executive directors, other control mechanisms such as director and managerial stockholdings, ownership concentration, debt financing, executive labour market and corporate control market, executives' compensation, capital market pressure and short-termism, social responsibilities and internationalization). Biswas, Pallab Kumar, Bhuiyan and Md. Hamid Ullah (2008) gave comprehensive review of studies, related to these issues.

Maher & Andersson (1999) conclude that comparing other factors differences in the identity of owners for various corporate governance systems can have important implications for firm performance. Luo Lei (2006) have found that the theory predicts that better-governed firms deliver higher shareholder value.

Brown and Caylor (2006) reported about higher valuation, higher profitability and higher dividends payments for better-governed firms. Some studies, however, had unexpected and mixed results on relation (association) between corporate governance and firm performance. Bauer et al. (2004) analyzed the relationship between corporate governance and stock returns, firm value, and operating performance for European firms. They found that corporate governance was positively associated with stock returns and firm valuation, but an unexpected negative relationship between corporate governance and operating performance was also found. Bebchuk et al. (2005) identified six entrenching provisions that are negatively correlated with firm valuation and stock returns. Such various results may be explained from that point of view that there were taken different methodologies.

Black (2001) found strong correlation between quality of firms' corporate governance and their valuation by the market (share price). In recent times, researchers from different parts of the world are mostly coming forward with strong correlation between these two variables. Rather than examining the impact of a complete set of governance standard on firm performance, these studies mostly investigate

impact of single governance characteristic on firm performance. But focusing merely on specific attribute of governance often fails to capture the total effect, which ultimately leads to questionable result.

However, there are complex indicators of corporate governance effectiveness - researchers attempt to measure overall corporate governance effectiveness level and try to identify the relationship between corporate governance and firm performance.

Corporate governance metrics

Brown and Robinson (2004) created a set of 51 corporate governance indicators (divided into eight corporate governance categories: audit, board of directors, charter/bylaws, director education, executive and director compensation, ownership, progressive practices, and state of incorporation). They analyzed 2,327 firms and concluded that good governance, as measured using executive and director compensation, is most highly associated with good performance. In contrast, good governance like existence of charter/bylaws is most highly associated with bad performance.

Brown and Robinson (2004) created their Gov-Score index using created by Gompers, Ishii and Metrick (2003) G-Index. G-Index is based on 24 governance factors thus less linked to firm performance than is G-Index.

Bebchuk, Cohen and Ferrell (2004) investigated the relative importance of the 24 factors included in the Gompers, Ishii and Metrick (2003) governance index, but focus on firm value relation to corporate governance.

Ricardo N. Bebczuk (2007) studied relationship between ownership and corporate governance (CG). He took Argentine 54 firms and studied their CG (3 groups of indicators: Board, Disclosure, and Shareholders) and performance (ROA, Tobin's Q). "Disclosure" measures the level of information of relevant corporate facts disclosure to outside stakeholders. "Board" includes the structure, procedures and compensation of Board and top management members. "Shareholders" measures the quality of information regarding the remuneration of minority shareholders. He found that ownership has positive relation to corporate governance and domestically-owned firms have stronger correlation between these indicators than foreign-owned ones have.

Claessens (2006) stated that "better corporate governance is likely to improve the performance of firms through more efficient management, better assets allocation, better labour practices, or similar other efficiency improvements".

Roche (2005) argued that the effect of corporate governance on share price performance used to be something of a contentious issue. This is because, for a long time, researchers failed to find empirical support for the notion that well-governed firms should be well-managed as well with (as a result) higher shareholder value.

Based on Gompers, Ishii and Metrick G-Index and Brown and Robinson Gov-Score we selected 40 factors, divided in several groups in order to estimate general corporate governance ratio in Ukrainian banks (Appendix I).

Financial performance metrics

Researches on similar topics use quite typical variables to measure firm performance. Many empirical works employ firm value (as a proxy variable Tobin's Q or market-to-book value is used), operating performance (ROA), or stock returns as the measure of firm performance. Luo Lei (2006) stated that his findings better-governed firms deliver higher shareholder value are generally consistent with the prediction of a positive association between corporate governance and firm performance. Klapper and Love (2004) find higher ROA and Q for better-governed firms in emerging markets. Others prefer to use ROE for their research purposes as variable that measures financial performance.

Previous studies of Ukrainian banks

Concerning Ukrainian banks in the light of relation between corporate governance and firm performance, Vitaliy Zheka (2005) examined the effects of different ownership structures and of the quality of corporate governance on the Farrell measure of efficiency. He found that domestic ownership of the organization is expected to enhance efficiency the most. Foreign owned firms are relatively inefficient. However foreign ownership is found to have a positive and significant effect on corporate governance quality. Concentrated ownership rights (including state ownership) improve efficiency, possibly reflecting country-specific factors. The quality of corporate governance is found to have a positive impact on the efficiency of domestically owned firms.

Inessa Love and Andrei Rachinsky (2007) investigated the relationship between ownership, corporate governance and operating performance in Ukrainian and Russian banks. They found some significant, but economically unimportant relationship between governance and contemporaneous operating performance and an even weaker link with the subsequent performance. They stated that aside from the popularity of the governance in public discussion, corporate governance has at best a second-order effect on operating performance in Russian and Ukrainian banks. They found that there is low correlation between corporate governance and ROA. On the contrary, correlation between corporate governance and ROC is significant.

3. Data

3.1. Sample

Ukrainian banking system includes over 150 banks, which are represented actually by three types of ownership – domestically-, state- and foreign-owned banks. The level of information disclosure is not high in banks in general, so it's hardly possible to gather the information about all system. In our research it was presumed that results obtained for the sample of banks representing substantial amount of assets could be extended to all banking system. With respect to this, data sample includes information about 41 Ukrainian banks, which covers more than 75% of total assets of Ukrainian banking system. Sample includes almost equal quantity of foreign-owned and domestically-owned banks – 20 foreign-owned banks and 21 national private- and state-owned banks (which in this particular research is included in the group of domestically-owned banks).

Data period is from 2006-2009. Since 2005 Ukrainian banks are to provide reports with regard to international standards in financial reporting. Information sources are annual reports of banks, information which is given in specified format by securities issuers to securities state commission, information from the National Bank of Ukraine and questioners banks are obligatory to submit. Such data should ensure the high level of statistical information quality.

3.2 Dummy variables evaluation

We used a set of indicators to analyze the level of corporate governance in banks that operate on the Ukrainian market. We have chosen 40 indicators, divided them in 8 groups of factors and in order to get the scoring for each bank we evaluated every indicator as zero or one.

The evaluating approach and our logic you can find described in Appendix I.

The groups we formed are as following:

- Good Audit,
- Board Composition,
- Annual Shareholders Meeting Competencies,
- Charters/Bylaws,
- Disclosure,
- Requirements to Directors,
- Remuneration practice and
- Advanced Practices.

They define corporate governance from different perspectives and provide overall view of the CG in Ukrainian banking sphere.

4. Methodology

First stage of the research involved calculation of the summary statistics for each CG indicator and correlation coefficients (for ROA, ROC and CG factors).

From the summary statistics we expected to be able to evaluate the character of the distribution and to make the conclusion about normal curve having right or left tail. We predict that if curve describing distribution of the factor has the right tail (average>median), particular CG practice could be described as uncommon, not exploited or majority of the banks in the sample implement the practice at the much lower level than those few banks that have the highest level of implementation. And vise-versa - if curve describing distribution of the factor has the left tail (average<median), particular CG practice could be described as common and majority of the banks in the sample implement this particular practice.

When calculating the correlation coefficients for ROA and ROC and CG factors, we were aimed to check the following hypothesis:

H1: There is a relationship between corporate governance and bank performance in Ukraine.

H2: Different corporate governance practices have different level of influence on bank performance.

H3: The link between bank performance and corporate governance is higher for foreign-owned banks than for domestically-owned banks in Ukraine.

As well, for the purposes of the further research, the computation of the correlation between CG factors was made. The results of this stage of research are presented in the section 5.1 of the paper.

Corporate Governance Dynamics Ratio

As the period of research is 2006-2009, and it is characterized by both economic growth (2006-2007) and economic downturn and crisis (2008-2009), the CG improvement ratio was calculated.

The improvement ratio was calculated as an indicator for each CG indicator. The following formula was used:

CG Dynamics Indicator = (Number of Years Bank Implements Particular Practice)-(Number of Deteriorated Changes in CG Practice Implementation)

E.g. There is a sample of calculation from the following data about CG in particular bank (table 4.1):

Table 4.1. Example of calculation of the CG Dynamics Ratio

Indicator	***2006***	***2007***	***2008***	***2009***	*Calculation*	*Final ratio for the indicator*
Education requirement for the directors – background in banking	***1***	***1***	***0***	***1***	*(Ind_2006+Ind_2007+Ind_2008+Ind_2009)-(Ind_2007-Ind_2006)=3-1=2* *(in 2008 the practice faced abolition)*	*2*
External CG consultation is involved	***0***	***0***	***1***	***1***	*(Ind_2006+Ind_2007+Ind_2008+Ind_2009)=2* *(no negative tendencies or disabling of the practice)*	*2*
Existence of the bylaw on GSM	***1***	***1***	***1***	***1***	*(Ind_2006+Ind_2007+Ind_2008+Ind_2009)=4* *(the practice was common for the bank for all 4 years)*	*4*

Next step was to calculate the final indicator for the bank by adding up ratios for every CG factor. Finally, what we could have got as a maximum score for the particular bank is (*40 indicators) * (4 points)* = ***160 points.***

When calculating the CG Improvement Ratio and its correlation with average annual accession rate ROA and ROC, we were aimed to check the following hypothesis:

H4: There is a relationship between corporate governance dynamics and bank performance (average annual accession rate of ROA/ROC) in Ukraine.

H5: Corporate governance dynamics is better in foreign-owned banks than in domestically-owned banks in Ukraine.

5. Results

5.1 Descriptive statistics

The descriptive statistics for the variables are given in Appendix II.

Since the total score of banks is amenable to the normal distribution law, we compare the median and mean. As stated above, in case when median is greater than average, particular indicators of corporate governance are commonly used by the banks. These practices are as following:

- number of SB members, which is a common practice for Ukrainian banks to use.
- confirmation of the annual reports by the External Auditor – banks are in commonly implementing that practice. Confirmation of the reports by the External Auditor provides the bank with a right to declare that it is open and has accurate data. That could serve a good background for bank's attractiveness for investors.
- the right of the ASM/shareholders to influence on the composition of the Supervisory Board enables to make it more independent from the Management Board. It is frequently used by the banks under consideration as well.
- existence of the bylaw on SB, existence of the bylaw on MB –charters and bylaws for these bodies can put a dividing line between their rights and obligations, thus improving corporate governance.
- disclosures on: major shareholders, financial statement, SB and MB composition and activity, charter and internal bylaws – in most cases banks disclose information about major shareholders, they provide financial statements for a wide range of information users; composition of MB and SB and bylaws are also available.

On the contrary, when the median is less than average, particular CG practice could be described as scarce, or the level of its implication by the majority of the banks in a sample is rather lower than at those with the highest level. In terms of the dummy variables that we use the "lower level" stands for 0. These practices are as following:

- number of shareholder meetings - for most banks it is an extremely rare practice of ASM to meet more than once a year. It could be a wise move to meet once in a quarter to input important decisions on how to run bank's activities especially in post-crisis period. However, holding extra ASM enlarges expenses, so Ukrainian banks avoid that.
- number of SB meetings during the year – this indicator doesn't exceed the industry average for

majority of the banks. In fact, the number of SB meetings in Ukrainian banks could be found in a range from 1 to 150 during the year. The importance of SB meetings is considerable: it is responsible for working out socially responsible strategy for bank, ensuring effective monitoring after financial activity of the bank, control over risk management system implication, etc.

– percent of major shareholder representatives in SB, percent of minor shareholder representatives in SB – SB composition is a secondary issue for most banks, so, as we'll see in the next section, this practice is negatively correlated with the financial performance of the banks. Most often the SB is formed by the major shareholders, which makes it less capable for solving bank's internal conflicts.

Concerning other indicators, which were used to assess the level of CG in the Ukrainian banks, their median equals 0, which means that the remaining practices in Ukraine are practically not exploited. At this stage, Ukraine is not the best example to follow in terms of active implementation of good corporate governance practices, particularly in the banking system.

It can be concluded that for today majority of the CG indicators in Ukrainian banking sector represents negative trend: 30 out of total 40 factors are found to obey the normal distribution law and to be asymmetric and shifted to a right-tail curve. That demonstrates a low level of using best corporate governance practices by both domestically- and foreign-owned banks in Ukraine.

5.2 Correlation

The next step in our research was to define the correlation between CG factors and indicators of the financial performance of the banks. Banks in the sample were divided into two groups: foreign-owned and domestically-owned ones.

The final table with all correlation coefficients could be found in the Appendix III.

All the indicators under research were marked out as ones correlated especially negatively and especially positively with ROC and ROA (comparing to one another).

Tables 5.1, 5.2, 5.3 and 5.4 display the most correlative to financial performance indicators according to the type of ownership.

Table 5.1. Strongest positive correlation between ROA and CG indicators

ROA+	For all banking system	r value	For foreign-owned banks	r value	For domestically-owned banks	r value
1	Percent of SB members represented by the Independent Directors on Supervisory Board	0,159559	Existence of the Internal Auditor	0,17927	Existence of the bylaw on MB	0,44603
2	Remuneration package is introduced as a percent of profit or related to the changes of share price	0,127731	Requirements for directors: Personal qualities	0,17648	Percent of SB members represented by the IDs in SB	0,20363
3	Number of SB members that are appointed by Government	0,0469	Existence of the bylaw on profit distribution	0,1674	Existence of the bylaw on SB	0,19719
4	Existence of the bylaw on profit distribution	0,046841	Requirements for directors: Educational background in banking	0,12476	Disclosure on Major shareholders	0,09818
5	Disclosure of the financial statement	0,041392	Disclosure on SB and MB composition and activity	0,12235	Disclosure on SB and MB composition and activity	0,09105

It can be seen from the table 5.1 that for the banks with foreign capital ROA most strongly correlates with following factors: disclosure on SB and MB composition and activity, existence of bylaw on profit distribution, requirements for directors in terms of personal qualities and knowledge in banking and the existence of internal audit. On the other hand, for domestically-owned banks presence of IDs in SB plays an important role.

However, the correlation itself is not considerable enough. The greatest value of it refers to the banks with national ownership - the correlation coefficient ROA and the existence of MB equals 44.6%. Other positively correlated indicators have the correlation coefficient with ROA that is in a range from 0 to 20%.

Concerning overall correlation it can be concluded that the correlation between ROA and CG factors is weaker for the banking system as a whole than for groups of banks separately.

Table 5.2. Strongest positive correlation between ROC and CG indicators

ROC+	For all banking system	r value	For foreign-owned banks	r value	For domestically-owned banks	r value
1	Percent of SB members represented by the Independent Directors on Supervisory Board	0,138042	Disclosure on Major shareholders	0,18673	Percent of SB members represented by the IDs in SB	0,18281
2	Number of SB members that are appointed by Government	0,059286	Requirements for directors: Personal qualities	0,1602	Existence of the bylaw on SB	0,16897
3	Remuneration package is introduced as a percent of profit or related to the changes of share price	0,052448	External CG consultation is involved	0,12846	Disclosure on Financial statement	0,1442
4	Requirements for directors: Personal qualities	0,049474	Disclosure on Financial statement	0,12183	Existence of the bylaw on MB	0,14017
5	Appointment of the External Auditor by the ASM	0,024705	Requirements for directors: Educational background in banking	0,11989	Appointment of the External Auditor by the ASM	0,09861

Exploring interaction between ROC and CG factors (table 5.2), it can be said that in general the correlation is less significant than for ROA. Moreover the influencing factors differ much for domestically-owned and foreign-owned banks.

Table 5.3. Strongest negative correlation between ROA and CG indicators

ROA-	For all banking system	r value	For foreign-owned banks	r value	For domestically-owned banks	r value
1	Number of SB members	-0,14427	Requirements for directors: no requirements at all	-0,2111	Presence of the representatives of the owners in SB	-0,348
2	The right of the ASM/shareholders to influence on the composition of the Supervisory Board	-0,15325	The right of the ASM/shareholders to influence on the composition of the MB	-0,2088	Percent of minor shareholder representatives in SB	-0,2834
3	The right of the ASM/shareholders to choose the Head of the SB	-0,15669	Charter and internal bylaws	-0,205	Existence of Nominating/ Remuneration/Nominating & Remuneration committee	-0,1279
4	Presence of the representatives of the owners in SB	-0,16829	The securities of the bank are /are planned to be involved in the listing on the stock exchange	-0,1729	The right of the ASM/shareholders to vote on the remuneration practices of the members of the SB	-0,1001
5	Percent of mi0r shareholder representatives on Supervisory Board	-0,18072	Stability of the External Auditor	-0,1689	Confirmation of the annual reports by the External Auditor	-0,0969

The negative correlation with financial performance indicators for CG factors is found when there is an inverse relation between them which might seems to be illogical for some CG indicators such as percent of minor shareholder representatives in SB or number of SB members.

Table 5.4. Strongest negative correlation between ROC and CG indicators

ROC-	For all banking system	r value	For foreign-owned banks	r value	For domestically-owned banks	r value
1	Number of SB members	-0,15881	Percent of minor shareholder representatives in SB	-0,2153	Percent of minor shareholder representatives in SB	-0,3091
2	The right of the ASM/shareholders to influence on the composition of the Supervisory Board	-0,16244	The securities of the bank are /are planned to be involved in the listing on the stock exchange	-0,1985	The right of the ASM/shareholders to vote on the remuneration practices of the Directors	-0,2605
3	The right of the ASM/shareholders to choose the Head of the SB	-0,1661	The right of the ASM/shareholders to choose the Head of the MB	-0,1825	The securities of the bank are /are planned to be involved in the listing on the stock exchange	-0,2214
4	Existence of the Internal Auditor	-0,19406	Charter and internal bylaws	-0,179	Existence of Nominating/ Remuneration/ Nominating & Remuneration committee	-0,1921
5	The securities of the bank are /are planned to be involved in the listing on the stock exchange	-0,21721	Number of SB members	-0,1707	Presence of the representatives of the owners in SB	-0,1782

The most negatively influencing factor on ROC for both groups is minor shareholder representatives in SB. From the theoretical point of view, good corporate governance is associated with this practice as it is important to protect the rights of the minority shareholders and to avoid conflict of interests between

shareholders. Another CG factor that has weak negative correlation on ROC is bank's securities listing on stock exchange or intention to be listed. As a matter of fact, Ukrainian banks (operating on the national banks-centered financial system with undeveloped stock market) can't get enough financial resources from securities emission and stock floatation.

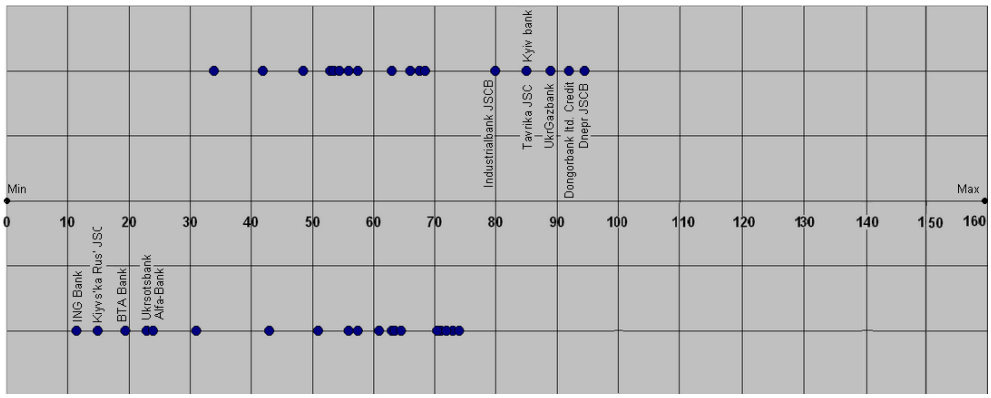
5.3. CG Dynamics Ratio

Using described in the Methodology section of the paper approach the CG Dynamics Ratios were evaluated for each bank in the sample. The possible minimum score was 0 (in case bank have never during the 4-year period implemented any of the CG practices under research), the possible maximum score was 160 calculated as maximum score of 4 for 4-years' implementation of the CG practice multiplied by 40 – number of indicators.

Final table with the resulting CG Dynamics ratios and average annual accession rates ROA and ROC for banks is presented in the Appendix IV.

The points on the graph (Figure 5.1) represent banks: points over axis – domestically-owned ones, points under axis - foreign-owned ones. As could be seen from the picture the majority of the banks were evaluated to have CG Dynamics indicator equals value in a range from 30 to 80 points. Figure 5.2 – normal curve build for the CG dynamics ratios of the banks in the sample - backs up the idea that the level of CG in majority of Ukrainian banks doesn't differ much.

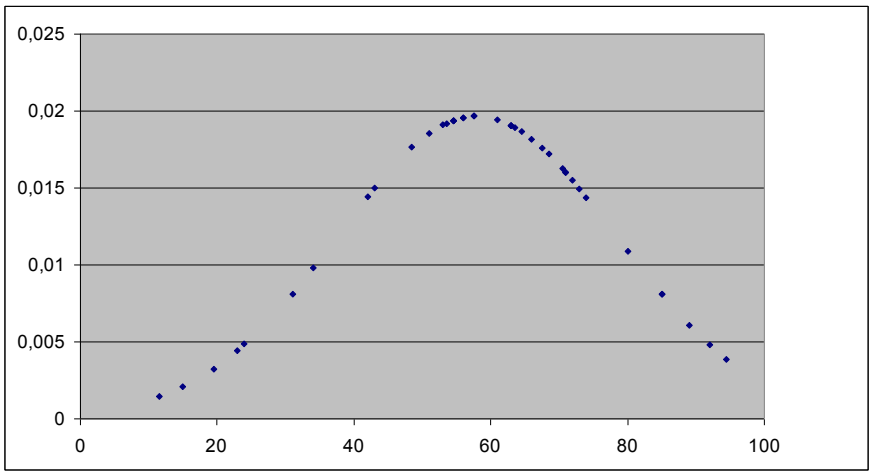
Figure 5.1. CG Dynamics Ratio in some Ukrainian banks



There are some outliers also:

– 6 domestically-owned banks have relatively higher scores:
  - Credit Dnepr JSCB - 94,5,
  - Dongorbank ltd. - 92,
  - UkrGazbank - 89,
  - Tavrika JSC - 85,
  - Kyiv bank -85,
  - Industrialbank JSCB – 80;
– 5 foreign-owned banks have relatively lower scores:
  - Kiyvs'ka Rus' JSC - 11,5,
  - ING Bank - 15,
  - BTA Bank - 19,5,
  - Ukrsotsbank – 23,
  - Alfa-Bank - 24.

Figure 5.2. Normal distribution of the CG Dynamics Ratio



From the summary statistics (Table 5.5) the following could be concluded:

- 68% of the banks in the sample have the CG Dynamics Ratio from 37 to 77 which comparing to the maximum of 160 are low scores.
- Asymmetry of the distribution is low; distribution is skewed to the left.
- The huge range (83 points) applies to the huge differences in the CG practice implementations (basically, in approaches to the CG) in different banks. The lowest score of 11.5 and the highest of 94.5 are clear indicators of the need for national CG regulation.

Table 5.5. CG Dynamics Ratio Summary Statistics

Mean	57.96341463
Standard error	3.207621937
Median	61
Mode	54.5
SD	20.53880177
Range	83
Min	11.5
Max	94.5

Correlation coefficients for the CG Improvement Ratio and average annual accession rate ROA and ROC are low and negative (relatively -0.17148 and -0.17231), which stands for the low relations between CG and performance dynamics.

H1: There is a relationship between corporate governance and bank performance in Ukraine.

Analyzing correlation between financial performance and indicators of corporate governance, we can conclude that the overall relationship between the observed issues is weak. Thus, this hypothesis has not been confirmed. Even though there is no evidence of this relationship, corporate governance in Ukrainian banks is looking for internal and external improvement in post-crisis period. Ukrainian conventional corporate governance rules and regulations often do not meet the requirements of the international best practices so it is of huge importance to review them by the national authorities and state regulators.

H2: Different corporate governance practices have different level of influence on bank performance.

The hypothesis was proved. Different indicators make different impact on banks' performance. The most influencing factors differ for domestically and foreign-owned banks as well.

H3: The link between bank performance and corporate governance is higher for foreign-owned banks than for domestically-owned banks in Ukraine.

The hypothesis proved to be of some kind true as far as foreign-owned banks turned to have greater link between their financial performance and CG, but for both groups that correlation is extremely weak.

H4: There is a relationship between corporate governance dynamics and bank performance (average annual accession rate of ROA/ROC) in Ukraine.

Judging from the data there was no strong correlation determined between the four-year dynamics of CG indicators and average annual accession rate of ROA/ROC. That means that improvement or deterioration of one group of factors did not necessarily assume direct change of other group. The strongest correlation did not exceed the level of 20%, which implies refuting of the hypothesis 4.

H5: Corporate governance dynamics is better in foreign-owned banks than in domestically-owned banks in Ukraine.

It can be inferred from Figure 5.1 that the majority of the banks have the similar level of the CG dynamics, while a few domestically-owned banks have got better ranking in terms of CG dynamics than a few of those with the foreign ownership. The group of banks with highest assessments is represented by the domestically-owned banks, while the weakest group is formed by foreign-owned ones. That statement disproves hypothesis 5. Perhaps this trend stems from the fact that there is much more difficulty for foreign banks when adapting to the Ukrainian market.

Conclusions

It can be concluded from the research that in general CG in Ukrainian banks during the period of study doesn't apply to using progressive world practices. Calculated correlation coefficients dispute the existence of relationship between corporate governance and bank performance in Ukrainian banks, which is common to results derived by Inessa Love and Andrei Rachinsky (2008). However it can be stated that future research using regression analysis will provide us with more efficient and powerful results.

The CG dynamics Ratio for the majority of the banks in the sample was found to be in the range from 30 to 80 points. The grounds for such situation can be explained from general conditions of corporate governance standards, their implementation in Ukraine.

Another group of banks was represented by those that were lying out of the range (30;80). They were mentioned to be "outsiders".

"Outsiders" are foreign-owned banks, which were bought out by foreign investors in the second half of researched period. Such banks own middle sizes of assets. The process of owner changing in such banks can cause implementation of their own CG standards by new investors. According to the results of the study several banks turned to have low CG Dynamics Ratio. Summing up we can mention that such standards are not the best to implement in that particular banks or, alternatively, such standards were not yet well-adopted for Ukrainian business environment. It is commonly expected that changes in the ownership go along with implementing new rules (e.g. standards in corporate governance). However, it could be inferred that these changes in listed above banks were not effective enough. Possibly, foreign investors had to focus on investing in smaller banks with well-established market share and associated with lower systemic risks.

During the crisis period banks are usually acting under more strict regulation. And the greater the bank is - the more drastic measures are introduced for it. Small banks somehow benefit from that situation and they are more "free" in their activities. Ukrainian banking sector is facing problems with reporting and regulation etc., so it could be a smart move for potential investors to pay attention to small banks. As far as the bigger banks are more sensitive to systemic risks, the owner or new investor in fact will take that risk, so from this point of view small banks in Ukraine are less risky and apply to using step-by-step strategies for foreign investor. Another strategy for the investors could be directing their funds to more risky operations: buying big banks with their disposition towards systemic risks and slow dynamics in changes. On the other hand this big bank could be possibly found at the top of the rating for foreign-owned banks and will open broader perspectives for its owner.

Retrospectively saying the risky scenario was put into effect. It can be explained by undeveloped disclosure practices in Ukrainian banks, especially small banks. This fact could be treated as an indicator for the National bank of Ukraine and Stock Market Commission to pay attention to the question of implementing world reporting standards. Consequently, it can draw foreign investors' attention to small Ukrainian banks.

Further research on small and medium-sized banks, ownership structure and its influence on CG could serve as a background for a separate scientific investigation. Regression analysis can be useful to establish presence or absence of the relationship between corporate governance, bank performance and the influence of the ownership structure. Other parameters or their different combinations could also help to define the link between variables etc.

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Appendix I
Factors definitions

1. The group of indicators under the heading "Good Audit Indicators" was assessed according to the best practices of corporate governance in European countries.

- Existence of the Internal Auditor defines the level of day-to-day audit inside the bank and its influences positively on the performance, that is why the bank got "1" if it implements such practice, "0" – if avoids it.
- Stability of the External Auditor. In best corporate governance practices an External Auditor is obliged to be impartial to provide an objective assessment of bank activity, so "1" was earned by the banks in which the Auditor was changed during last three years. On the contrary "0" stated the stability of an Auditor in a certain bank which is meant to be a negative trend.
- Appointment of the External Auditor by the ASM. Basing on the UK corporate governance Code one of the responsibilities of shareholders is the selection of External Auditor for the bank ("1" – if the ASM of the bank chooses the External Auditor, "0" – if that duty is delegated to other body).
- Confirmation of the annual reports by the External Auditor (External Auditor confirms annual reports which makes the users of the information sure that it is unbiased ("1"), non-confirmed information could be treated as subjective - "0").

2. The group of factors that explain the Board composition was analyzed from the effective-performance-of-SB point of view

- Number of SB meetings during the year – since good corporate governance requires SB to run open discussions with the MB and other stakeholders, the effectiveness of its work is in direct ratio to the number of meetings, so "1" was allocated to the banks where the number of SB meetings exceeds the average on the industry, "0" – otherwise.
- Number of SB members – objectivity and efficiency of decision making is directly proportional to the number of members in the Supervisory Board, so "1" was made by the banks in which the number of SB members exceeds the average on the industry, "0" – if not.
- Percent of major shareholder representatives in Supervisory Board answers for contraction of the SB works' transparency ("0" – if the number exceeds the average on the industry, in other case - "1").
- Percent of minor shareholder representatives in Supervisory Board implies more work aimed for different kinds of stakeholders' welfare ("1" – if the number exceeds the average on the industry, "0" – if not).
- Percent of the Independent Directors in Supervisory Board – basing on the Toronto CG Code the Board should have a majority of Independent Directors and disclose them as a percentage of the board. So "1" was allotted to the banks, where the number of IDs exceeds the average on the industry, "0" – for those, where it is less then the average.
- Number of Board Committees – the committees are aimed at carrying out specific functions, programs, or projects assigned by the board, so they separate different duties of the board. Committees simplify the work of the whole management system, so "1" was appointed if the number of board committees exceeds the average of the industry, "0" – otherwise.
- Number of State Representatives in the Supervisory Board/ Number of SB members that are appointed by Government - "0" was allotted to the banks, where the number of IDs exceeds the average on the industry, "1" – for those, where it is less then the average.

3. Group of ASM competencies indicators – according to the German, UK, Norwegian and US Codes of CG the ASM is responsible for composition of the MB and SB, so sticking to these rules means Ukrainian banks are following the best practices of CG. The banks that fit that got "1" for each indicator of the group and "0" if they failed to follow the line.

- The right of the ASM/shareholders to influence on the composition of the Management Board ("1" if the bank implements that practice, in other case - "0").
- The right of the ASM/shareholders to choose the Head of the MB ("1" if the bank implements that practice, in other case - "0").
- The right of the ASM/shareholders to influence on the composition of the Supervisory Board ("1" if the bank implements that practice, in other case - "0").
- The right of the ASM/shareholders to choose the Head of the SB ("1" if the bank implements that practice, in other case - "0").

4. In case of Charters/Bylaws group we used the "precision" approach: the more requirements are documented – the more accurate the job is done.

- Existence of the bylaw on GSM – the great volume of the responsibilities of shareholders and their rights as well calls for having a document with all that included into it. So the banks that have a bylaw on the GSM received "1", "0" – otherwise.

- As mentioned in Finnish CG Code the board shall draw up a written charter for its work and describe its essential contents. Correspondingly existence of the bylaw on SB gave "1" for the bank and existence of the bylaw on MB as well. Contrariwise they got "0".
- Existence of the bylaw on the distribution of profits signifies transparency of the performance of the bank, so "1" means occurrence of that ("0" stands for the lack of such a bylaw).

5. Disclosure indicators show how transparent and accessible the information about banks is. Greater transparency here improves clarity and attractiveness of particular bank to consumers and investors

- Disclosure of the financial statement ("1" if bank annual report discloses its financial statements for any kind of information user, "0.5" – if the information is available for the shareholders only, "0" – if the information is not available).
- Disclosure of the information about major shareholders ("1" if the information about the major shareholders is accessible for any kind of information user, "0.5" – if the information is available for the shareholders only, "0" – if the information is not available).
- Disclosure of the information about SB and MB composition and activity ("1" if the composition of SB or MB is provided to any kind of information user, "0.5" – if the information is available for the shareholders only, "0" – if the information is not available).
- Disclosure of the charter and internal bylaws ("1" if the bank gives out the Charter and internal bylaws to a free access for any kind of information user, "0.5" – if the information is available for the shareholders only, "0" – if the information is not available).
- Disclosure of the information about remuneration ("1" if bank's annual report discloses information on remuneration of members of Board for any kind of information user, "0.5" – if the information is available for the shareholders only, "0" – if the information is not available).

6. Requirements to Directors determine that each requirement sets the competence of the director up to a higher level, so the bank received "1" for providing each point of requirement to the directors.

- Educational background in banking ("1" – if it is required from the director, "0" – contrariwise).
- Educational background in management/finance ("1" – if demanded from the director, "0" – otherwise).
- Calling for personal qualities of a director was evaluated as "1", lack of that claim gave "0" to a certain bank.
- Absence of the conflict of interests ("1" – for having it in a list, "0" – in other case).
- No requirements at all – If the requirements were entirely avoided the bank got "0", having at least one alter claim to the director brought in "1".

7. Remuneration practice was treated to be following the best practices.

- If the package was formed as a percent of profit, the bank got "1" ("0" otherwise).
- If the package was related to the changes of share price or was introduced in the form of securities of the bank, the bank got "1" ("0" otherwise).
- The ones that had their remuneration package introduced as a fixed amount in cash earned "0". "1" was allotted if they did not follow that pattern.
- Existence of Nominating/Remuneration/Nominating & Remuneration committee is a crucial factor for addressing the issue of remuneration of the management ("1" if bank has Nominating/Remuneration or Nominating & Remuneration Committee in a Board structure, "0" otherwise).
- The right of the ASM/shareholders to vote on the remuneration practices of the Directors ("1" if the bank implements that practice, in other case - "0").
- The right of the ASM/shareholders to vote on the remuneration practices of the members of the SB ("1" if the bank implements that practice, in other case - "0").

8. Advanced practices group includes indicators that have significant importance to assess the corporate governance of banks that act on Ukrainian market, but can not be classified on the grounds of the previous 7 groups.

- Financial reports are formed according to the requirements of the International Accounting Standards. The International Accounting Standards are oriented on providing the uniform accounting reporting, so the banks are treated as those that are more internationally oriented if they formed their reporting according to the IAS ("1", "0" otherwise).
- The securities of the bank are /are planned to be involved in the listing on the stock exchange – the banks' target is operating on the international market, which is a positive trend and costs "1" or "0" - if not.
- Presence of the representatives of the owners in SB puts the performance and the reporting of the bank at a risk that it would lack objectivity. "0" stated that the bank has an owner in SB structure. If not then "1".
- External CG consultation is involved and brings "fresh" view on the CG practice in particular bank ("1" – if yes, "0" – if not).

- Number of shareholder meetings – the more meetings held, the more managerial decisions are controlled ("1" – if the number exceeds the average on the industry, "0" – if not).

Appendix II						
	MEAN	MEDIAN	StdDev	StdError	Minimum	Maximum
ROA	-0,0008	0,0038	0,0353	0,0027	-0,3263	0,1036
ROC	-0,0206	0,0284	0,2909	0,0223	-2,6727	0,4922
CG Indicators						
Existence of the Internal Auditor					0	1
Stability of the External Auditor	0,4012	0	0,4916	0,0375	0	1
Appointment of the External Auditor by the ASM	0,4222	0	0,4953	0,0369	0	1
Confirmation of the annual reports by the External Auditor	0,0944	0	0,2933	0,0219	0	1
Number of SB meetings during the year	0,7167	1	0,4519	0,0337	0	150
Number of SB members	16,9833	8	28,4624	2,1215	0	15
Percent of major shareholder representatives on Supervisory Board	3,8389	4	3,3927	0,2529	0	1
Percent of mi0r shareholder representatives on Supervisory Board	0,4143	0,3333	0,4000	0,0359	0	1
Percent of SB members represented by the Independent Directors on Supervisory Board	0,3057	0,1429	0,3524	0,0316	0	1
Number of Board Committees	0,2662	0	0,4009	0,0360	0	3
Existence of Nominating/Remuneration/Nominating & Remuneration committee	0,2389	0	0,6547	0,0488	0	1
The right of the ASM/shareholders to influence on the composition of the Management Board	0,0389	0	0,1939	0,0145	0	1
The right of the ASM/shareholders to choose the Head of the MB	0,1333	0	0,3409	0,0254	0	1
The right of the ASM/shareholders to influence on the composition of the Supervisory Board	0,2167	0	0,4131	0,0308	0	1
The right of the ASM/shareholders to choose the Head of the SB	0,7500	1	0,4342	0,0324	0	1
The right of the ASM/shareholders to vote on the remuneration practices of the Directors	0,7444	1	0,4374	0,0326	0	1
The right of the ASM/shareholders to vote on the remuneration practices of the members of the SB	0,0444	0	0,2067	0,0154	0	1
Existence of the bylaw on GSM	0,3722	0	0,4847	0,0361	0	1
Existence of the bylaw on SB	0,2333	0	0,4241	0,0316	0	1
Existence of the bylaw on MB	0,6833	1	0,4665	0,0348	0	1
Existence of the bylaw on profit distribution	0,7556	1	0,4310	0,0321	0	1
Disclosure of the financial statement	0,2389	0	0,4276	0,0319	0	1
Disclosure of the major shareholders	0,7139	1	0,4391	0,0327	0	1
Disclosure of the SB and MB composition and activity	0,5833	1	0,4683	0,0349	0	1
Disclosure of the charter and internal bylaws	0,6333	1	0,4441	0,0331	0	1
Disclosure of the remuneration practices	0,3889	0,5	0,3151	0,0235	0	0,5
Requirements for Directors: Educational background in banking	0,1278	0	0,2187	0,0163	0	1
Requirements for Directors: Educational background in management/finance	0,1889	0	0,3925	0,0293	0	1
Requirements for Directors: Personal qualities	0,2278	0	0,4206	0,0313	0	1
Requirements for Directors: Absence of the conflict of interests	0,2222	0	0,4169	0,0311	0	1
Requirements for Directors: No requirements at all	0,2556	0	0,4374	0,0326	0	1
Remuneration package is introduced as a fixed amount in cash	0,2611	0	0,4405	0,0328	0	1
Remuneration package is introduced as a percent of profit or related to the changes of share price	0,2111	0	0,4092	0,0305	0	1
Remuneration package is introduced in the form of securities of the bank	0,0333	0	0,1800	0,0134	0	0
Financial reports are formed according to the requirements of the International Accounting Standards	0,0000	0	0	0	0	1
The securities of the bank are /are planned to be involved in the listing on the stock exchange	0,3333	0	0,4727	0,0352	0	1
Presence of the representatives of the owners in SB	0,4167	0	0,4944	0,0368	0	6
External CG consultation is involved	0,4500	0	1,0742	0,0801	0	1
Number of shareholder meetings	0,2111	0	0,4092	0,0305	0	9
Number of SB members that are appointed by Government	2,4500	2	1,9441	0,1449	0	15

Appendix IIIa

1. ROA
2. ROC
3. Existence of the Internal Auditor
4. Stability of the External Auditor
5. Appointment of the External Auditor by the ASM
6. Confirmation of the annual reports by the External Auditor
7. Number of SB meetings during the year
8. Number of SB members
9. Percent of major shareholder representatives in Supervisory Board
10. Percent of minor shareholder representatives in Supervisory Board
11. Percent of SB members represented by the Independent Directors in Supervisory Board – to make the decisions more objective.
12. Number of Board Committees
13. Existence of Nominating/Remuneration/Nominating & Remuneration committee
14. The right of the ASM/shareholders to influence on the composition of the Management Board
15. The right of the ASM/shareholders to choose the Head of the MB
16. The right of the ASM/shareholders to influence on the composition of the Supervisory Board
17. The right of the ASM/shareholders to choose the Head of the SB
18. The right of the ASM/shareholders to vote on the remuneration practices of the Directors
19. The right of the ASM/shareholders to vote on the remuneration practices of the members of the SB
20. Existence of the bylaw on GSM
21. Existence of the bylaw on SB
22. Existence of the bylaw on MB
23. Existence of the bylaw on the distribution of profits
24. Disclosure of the financial statement
25. Disclosure of the major shareholders
26. Disclosure of the SB and MB composition and activity
27. Disclosure of the charter and internal bylaws
28. Disclosure of the remuneration practices
29. Requirements to Directors: Educational background in banking
30. Requirements to Directors: Educational background in management/finance
31. Requirements to Directors: Personal qualities
32. Requirements to Directors: Absence of the conflict of interests
33. Requirements to Directors: No requirements at all
34. Remuneration package is introduced as a fixed amount in cash
35. Remuneration package is introduced as a percent of profit or related to the changes of share price
36. Remuneration package is introduced in the form of securities of the bank
37. Financial reports are formed according to the requirements of the International Accounting Standards
38. The securities of the bank are /are planned to be involved in the listing on the stock exchange
39. Presence of the representatives of the owners in SB
40. External CG consultation is involved
41. Number of shareholder meetings
42. Number of SB members that are appointed by Government

Appendix IIIb

		Financial indicators		CG indicators																	
		1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*	*21*
Financial indicators	1	1																				
	2	0,623179	1																			
	3	-0,10024	-0,19406	1																		
	4	-0,09952	-0,01578	-0,08332	1																	
	5	0,010887	0,024705	0,04691	0,031624	1																
	6	-0,06204	-0,09096	0,006849	0,287888	0,076586	1															
	7	0,010493	0,016707	0,031164	0,086497	-0,07076	0,166863	1														
	8	-0,14427	-0,15881	0,246715	0,253485	-0,00708	0,334466	0,150566	1													
	9	-0,0321	-0,10005	0,37549	-0,14679	0,07948	-0,11973	-0,08804	-0,17881	1												
	10	-0,18072	-0,08894	-0,2138	-0,00096	-0,00975	-0,05215	0,141787	-0,05453	-0,3096	1											
	11	0,159559	0,138042	-0,15599	0,081834	-0,07214	0,185671	-0,06372	0,207213	-0,6349	-0,47239	1										
	12	-0,08722	-0,04601	0,013362	0,100688	0,027318	0,135646	0,096449	0,243783	-0,04112	0,183443	-0,11705	1									
	13	-0,07692	-0,02817	0,071552	-0,05559	-0,06496	0,062708	0,097312	0,136984	-0,08286	0,236081	-0,11642	0,674632	1								
	14	-0,02273	-0,02554	-0,1242	0,161032	0,208633	-0,00725	0,15109	0,100798	-0,07488	0,185833	-0,07567	0,006675	-0,0789	1							
	15	-0,03264	-0,1506	0,095033	0,09647	0,152938	-0,08828	0,112436	0,140636	0,03552	0,198523	-0,2008	0,096733	-0,03604	0,666457	1						
	16	-0,15325	-0,16244	0,255281	0,467572	0,186453	0,320311	0,336422	0,332768	0,254392	0,213089	-0,44958	0,211249	0,116136	0,226455	0,303642	1					
	17	-0,1185669	-0,1661	0,264308	0,475072	0,145662	0,309982	0,331285	0,333516	0,218191	0,197602	-0,40046	0,214379	0,117856	0,22981	0,308141	0,985401	1				
	18	-0,05049	-0,05427	-0,12444	0,033961	0,022533	0,075778	0,004876	-0,06941	0,079946	0,089131	0,037915	0,00367	-0,04338	0,153321	0,148323	0,124515	0,126359	1			
	19	-0,0478	0,024002	-0,07001	0,272503	-0,05218	0,331133	0,264861	0,301632	0,016805	0,190257	-0,22414	0,316754	0,201787	-0,09917	-0,1539	0,444567	0,424805	-0,16607	1		
	20	-0,07339	-0,05091	0,031785	0,299627	0,091327	0,142832	0,034107	0,204863	-0,06163	0,052954	-0,01865	0,4017	0,228737	-0,10046	0,060579	0,318511	0,293115	0,008498	0,336035	1	
	21	-0,02974	-0,10187	0,22751	0,267594	0,138169	0,340569	0,241545	0,500617	-0,10843	0,166377	-0,035	0,249081	0,136934	0,26701	0,242062	0,599886	0,586869	0,146813	0,35124	0,262604	1
	22	-0,00309	-0,11718	0,304469	0,407717	0,05108	0,359553	0,306186	0,572804	0,058939	0,047573	-0,0307	0,20812	0,114415	0,2231	0,299144	0,776206	0,763337	0,12267	0,331011	0,252664	0,75218
	23	0,046841	-0,02057	-0,00685	0,12779	-0,00272	0,236607	0,160532	0,176868	-0,26168	0,282394	0,069353	0,293902	0,156873	0,010221	0,116487	0,323455	0,328247	0,068842	0,188519	0,307018	0,297356
	24	0,041392	-0,0364	0,253175	0,430108	0,124242	0,264889	0,339552	0,44138	0,256344	-0,1112	-0,16064	0,103044	0,000182	0,181633	0,266639	0,736145	0,722489	-0,013	0,358761	0,255468	0,618881
	25	0,013206	0,016492	0,190238	0,341241	0,044072	0,389429	0,249507	0,374215	0,092436	0,066241	-0,11706	0,226261	0,148717	0,104995	0,223808	0,611327	0,60917	0,048109	0,342511	0,225031	0,44118
	26	-0,00964	-0,10413	0,255094	0,390306	0,074355	0,272832	0,340953	0,490821	0,107938	0,081485	-0,20283	0,254917	0,166551	0,177142	0,237521	0,70981	0,708501	-0,00406	0,352083	0,249152	0,622975
	27	-0,04586	-0,12241	0,092596	0,391713	0,053731	0,326916	0,260443	0,463871	0,029513	0,201924	-0,20799	0,4272	0,253994	0,112673	0,164487	0,632785	0,623697	0,033359	0,455089	0,424925	0,519362
	28	0,004936	-0,04658	0,041445	0,118052	-0,015	0,255334	0,20318	0,167197	0,304941	-0,09452	-0,12319	0,175795	0,079791	0,144881	0,001031	0,308857	0,28488	0,059059	0,312968	-0,02208	0,12504
	29	-0,0447	-0,00888	0,219236	0,219674	-0,01025	0,240431	0,072792	0,215959	-0,08513	-0,02596	0,108353	0,040821	0,049759	-0,10577	-0,04708	0,147501	0,152579	0,102544	0,098198	0,304257	0,236974
	30	-0,01824	0,017585	0,126733	0,233031	0,005788	0,282695	0,067991	0,319513	-0,0773	0,10241	-0,01457	0,369372	0,164822	-0,13509	0,003751	0,191197	0,196729	-0,11713	0,294277	0,42072	0,284288
	31	0,01657	0,049474	0,139085	0,327672	-0,03554	0,27678	0,109071	0,250592	-0,19207	0,066263	0,10108	0,254707	0,168961	-0,13104	0,010812	0,246885	0,251905	0,079254	0,19658	0,368605	0,248966
	32	0,002293	-0,07295	0,068244	0,246992	-0,05856	0,2836	0,249851	0,321552	0,037296	0,048482	-0,08265	0,273339	0,013908	-0,04246	0,001031	0,308857	0,314082	0,059059	0,365666	0,218833	0,289327
	33	-0,1019	-0,03484	-0,2357	0,260063	0,154016	0,065025	-0,06694	0,106816	-0,07279	-0,04378	0,119771	-0,10128	-0,05416	0,39936	0,147878	0,314002	0,290301	0,055919	0,091723	-0,08872	0,241537
	34	0,024872	0,011863	-0,00698	0,026337	0,158787	0,174213	0,33892	0,149371	-0,00962	-0,03949	-0,01274	0,331992	0,318432	-0,04272	-0,0738	0,267228	0,24067	-0,04551	0,362035	0,19741	0,118035
	35	0,127731	0,052448	-0,02631	0,029242	-0,05997	-0,0206	-0,06641	-0,10093	-0,06495	-0,07842	0,1016	-0,06794	-0,03735	-0,07284	-0,09766	0,035737	0,037843	-0,04005	0,049085	-0,02927	-0,07319
CG indicators	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	37	-0,0537	-0,05047	0,048041	0,302235	0,053731	0,209226	0,30975	0,089407	0,16816	-0,09117	-0,0557	0,084237	-0,02032	0,173344	0,143032	0,381032	0,360258	0,133436	0,089392	0,222911	0,177343
	38	-0,14267	-0,21721	0,189277	0,258572	0,112387	0,281332	0,189875	0,270069	0,20353	0,11259	-0,29659	0,346633	0,17972	0,066299	0,020515	0,48795	0,469344	-0,01823	0,304992	0,306394	0,405763

	39	-0,16829	-0,07889	0,190274	-0,0021	0,094877	0,033952	0,214945	0,217751	0,132227	0,127355	-0,24013	0,060768	0,103279	-0,02746	0,244851	0,242536	0,246129	0,010066	0,052034	0,123846	0,196779
	40	-0,06931	-0,03881	0,307528	0,164148	-0,07396	0,144003	0,021407	0,173513	0,34887	-0,22007	-0,15188	0,165185	0,177602	-0,16286	0,025334	0,298667	0,303092	-0,11157	0,193065	0,133037	0,000975
	41	-0,12671	-0,14658	0,075138	0,242515	0,07202	0,222256	0,259	0,098294	0,119037	0,096101	-0,19011	0,090635	0,08671	0,161853	0,218759	0,544313	0,530186	0,144614	0,24216	0,305562	0,392098
	42	0,0469	0,059286	0,131781	-0,08206	-0,07504	0,146091	-0,11425	0,444997	-0,24295	-0,17191	0,402755	-0,08501	-0,04674	-0,09113	-0,1222	-0,3407	-0,33528	-0,05011	-0,12361	-0,06498	0,158168

Table (continued)

		CG indicators																				
		22	*23*	*24*	*25*	*26*	*27*	*28*	*29*	*30*	*31*	*32*	*33*	*34*	*35*	*36*	*37*	*38*	*39*	*40*	*41*	*42*
	1																					
	2																					
	22	1																				
	23	0,318662	1																			
	24	0,80921	0,202406	1																		
	25	0,710543	0,262736	0,727904	1																	
	26	0,755081	0,316764	0,74105	0,678351	1																
	27	0,662716	0,488277	0,606667	0,545766	0,725186	1															
	28	0,33326	0,089944	0,382818	0,386414	0,384451	0,349	1														
	29	0,274486	0,029218	0,088415	0,15704	0,223284	0,23836	-0,12004	1													
	30	0,308917	0,25491	0,188477	0,271853	0,330032	0,444917	0,04623	0,787017	1												
Financial indicators	31	0,304034	0,295979	0,196663	0,27663	0,276609	0,401587	-0,06808	0,732112	0,761159	1											
	32	0,33326	0,29904	0,266469	0,359138	0,398832	0,450323	0,211551	0,433151	0,562516	0,544659	1										
	33	0,249835	-0,09574	0,301757	0,124143	0,16375	0,149805	0,231661	-0,25456	-0,2927	-0,28733	-0,2903	1									
	34	0,199212	-0,00248	0,213645	0,199211	0,151654	0,161237	0,13386	0,132934	0,141017	0,181916	0,071438	0,095389	1								
	35	0,033607	0,04113	0,050652	2,83E-17	-0,09085	-0,08207	-0,03784	-0,01054	-0,02706	0,049629	-0,1088	0,030533	0,358966	1							
	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1						
	37	0,347354	0,211894	0,354356	0,22714	0,266123	0,3625	0,261187	0,140507	0,121767	0,21733	0,234168	0,143097	0,038504	-0,06565	-	1					
	38	0,480721	0,266475	0,384936	0,331813	0,483479	0,478091	0,228213	0,139148	0,266449	0,198772	0,305719	-0,01497	0,308344	-0,03139	-	0,119523	1				
	39	0,202739	-0,06507	0,2271	0,180477	0,224854	0,107266	-0,11534	0,022525	0,019167	0,049899	-0,05588	0,045458	0,202062	-0,04912	-	-0,022	0,234061	1			
	40	0,294242	0,029443	0,229189	0,344975	0,289987	0,334506	0,258703	0,167713	0,238394	0,312895	0,196281	-0,02858	0,166049	-0,02022	-	0,154017	0,170279	0,036854	1		
	41	0,485425	0,165657	0,43305	0,366664	0,318367	0,346493	0,225346	0,04173	0,037921	0,110284	0,03482	0,233884	0,209953	0,132499	-	0,285705	0,245577	0,137901	0,146756	1	
	42	0,132157	-0,10124	0,010943	-0,05688	0,006655	-0,02908	-0,06542	0,27135	0,231704	0,053854	-0,00414	-0,0679	-0,12019	-0,04315	-	-0,0727	-0,14215	-0,0976	-0,12019	-0,26074	1

Appendix IV

	Banks	TOTAL Score (CG Dynamics Ratio)	average annual accession rate ROA	average annual accession rate ROC
Domestically-owned banks				
1	PrivatBank	53	1,51%	14,63%
2	Finance and Credit Bank JSC	67,5	0,46%	4,45%
3	First Ukrainian International Bank	54,5	2,08%	-1,57%
4	Brokbusinessbank	68,5	0,47%	2,87%
5	Delta Bank	53,5	0,56%	7,14%
6	Pivdenniy JSC	66	-0,11%	-3,04%
7	Dongorbank ltd.	92	0,49%	4,53%
8	Khreshatyk JSC	63	0,54%	7,84%
9	Bank Financial Initiative	56	1,58%	8,95%
10	Credit Dnepr JSCB	94,5	0,93%	6,26%
11	Express Bank JSC	63	1,69%	8,43%
12	Industrialbank JSCB	80	0,65%	6,15%
13	Kliringovniy Dim JSC	54,5	-9,51%	-21,41%
14	Tavrika JSC	85	0,65%	2,99%
15	Kyiv bank	85	-0,44%	-2,19%
16	Aktiv-Bank ltd.	57,5	-0,71%	-11,83%
17	UkrInBank	54,5	0,60%	4,81%
18	Expobank	34	0,58%	7,13%
19	Ukrexim Bank	42	0,96%	10,00%
20	Oschadny Bank	48,5	1,27%	6,78%
21	UkrGazbank	89	-2,57%	-11,62%
	Foreign-owned banks			
22	National Investments JSC	71	0,04%	-1,07%
23	Raiffeisenbank Aval	63	-1,45%	-20,50%
24	Ukrsibbank	51	0,76%	7,03%
25	Ukrsotsbank	23	-1,13%	-11,33%
26	Prominvestbank	73	0,04%	0,48%
27	Alfa-Bank	24	0,51%	4,44%
28	OTP Bank	63,5	-0,23%	-58,09%
29	Nadra Bank	57,5	-3,00%	-29,60%
30	Forum Bank	64,5	-3,36%	-24,70%
31	SEB Bank	71	0,07%	0,91%
32	KreditPromBank JSC	31	1,80%	12,57%
33	ING Bank	15	0,48%	0,78%
34	Unicredit Ban	74	-0,16%	-2,22%
35	Prokredit Bank	70,5	-1,51%	-12,20%
36	Pravex Bank	56	-3,23%	-29,95%
37	Kredobank	61	-0,06%	0,96%
38	BTA Bank	19,5	4,52%	31,46%
39	Citibank	43	-0,78%	-9,28%
40	BM Bank	72	0,06%	0,66%
41	Kiyvs'ka Rus' JSC	11,5	0,44%	1,55%