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Impact of Corporate Governance on Intellectual Capital Disclosure:

An Empirical Investigation of the Listed Textile Firms of Pakistan

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Corporate Governance, Intellectual Capital, Intellectual Capital Disclosures, Structural Capital, Human Capital, Relational Capital

ABSTRACT

The purpose of this study is to assess the impact of corporate governance (CG) on intellectual capital disclosure (ICD) in the context of Pakistan. CG is studied in the spectrum of the audit committee, CEO duality, board independence, and board size while ICD is in the spectrums of three widely recognized indices relational capital, structural capital, and human capital. Data from secondary sources collected from annual reports of textile sectors of Pakistan for the period between 2016 and 2020 is employed. Six regression models are estimated, three for each index of ICD. Hausman test is performed as an indicator for the selection of short-run panel data models (i.e., fixed effect and random effect). The findings reveal that board independence has a significant negative while firm size has a positive impact on human capital. Additionally, board size and firm size have a significant negative while financial leverage and firm size have a significant positive impact on structural capital while all the CG measures namely audit committee, CEO duality, board independence, and board size have a statistically insignificant impact on relational capital.

INTRODUCTION

In the recent knowledge-based countries, intellectual capital (IC) work as a key factor in process of value creation of businesses. It has been observed that the organizational success lies in the ability of an organization to exploit and unlock their IC to get the utmost organizational benefit (Cuozzo, Dumay, Palmaccio & Lombardi, 2017). Aggestam & Keenan (2001) were amidst the initial scholars to figure out the conceptual relationship between corporate governance (CG) and intellectual capital (IC). According to them, organizational executives (CEOs) have a fiduciary role to make use of complete benefit of IC, beside

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physical and financial capital. Although, empirical studies regarding the conceptual relationship between CG and IC is finite.

The features of CG mechanisms (mentioned as suggestions and recommendations in the Codes of Corporate Governance) like board independence and the estrangement of the chairman and chief executive roles, are considered to improve monitoring and regulating quality and mitigate the managerial advantages that managers get from withholding information. In this regard, widely discussed and most recent problem in both press and academic literature apprehends with how to formulate CG mechanisms to enhance the firm's transparency and to resolve the problem of information asymmetry occurring from the estrangement between control and ownership.

Prior literature presents the link between CG and voluntary disclosure (Saha & Kabra, 2020; Eng & Mak, 2003; Pernamasari, 2018; Boateng, Tawiah & Tackie, 2022). Apparently, there are studies inferencing CG in aspects like debt cost, transparency, corporate culture, handling, and profitability (Mudjib & Setiyono, 2022; Mappisabbi, 2022; Nel, Scholtz & Engelbrecht, 2022; He, 2022; Almaqtari et al., 2022; Shakri, Yong & Xiang, 2022; Antony et al., 2022). Although, to date, there are very limited studies conducted in the field of analysing the factors that influence the decisions of disclosure-of-intellectual-capital (IC) associated information in the annual reports.

The literature related to determinants of intellectual capital and intellectual capital in inconclusive and finite. Although, a review of present state of external and financial reporting study by the Soriya & Kumar (2022), Koernia & Cahyati (2022), Rahmawati, Fadlurrahman & Azzahra (2022) and Ulya & Puspitasari (2022) figured out intellectual capital accounting study as being till data in its start and a key area for additional studies.

Information on an organization's customers, innovation, technology, or human resources can't be exhibited in the financial annual reports due to recognition, measurement, and identification issues. Financiers are improvingly aware of the significance of business information not directly linked in the financial statements (Ulya & Puspitasari, 2022; Rahmawati et al., 2022). In the recent capital markets are focused on getting more authentic information about the knowledge resources in an organization like strategic direction, experience, integrity, innovatory skill, and risk factors. Such type of information guides the company when a company is faced by information transparency, agency problems, investor's profit, and information asymmetry problems (Nel et al., 2022; Almaqtari et al., 2022). Perhaps, such circumstances lead the scholars to examine the CG mechanism that effect voluntary-disclosures of intellectual capital. Studies previously conducted on corporate

governance and ICD either focused on the level of information regarding intellectual capital presented in the annual reports (de Pablos, 2022) or focused on identifying features resulting change across organizations. Though, very limited studies addressed the impact of CG on ICD (Soriya & Kumar, 2022). A critical approach and detailed review of the prior literature on topic on hand has highlighted some of the gaps for future research. The gaps are related to the analytic methodology used in previous research, period of time, studies have covered and their geographical context. A brief discussion is given below:

- There is a substantial work done across developed and developing countries on the subject of ICD. But a country like Pakistan has been ignored by the scholarly-hub and the practitioners. The ICD reporting practices of Pakistani firms can provide a helpful understanding to the investors, accountants, regulating agencies and governmental bodies.
- Lastly, most of the research done previously has based its findings on a cross-sectional analysis whereas the cross-sectional studies lack generalizability (Koernia & Cahyati, 2022). Hence, a longitudinal study will be undertaken to fill the gap in Pakistani context.

Research Objectives

The purpose this paper is to study the result of the CGM on the ICD. An assessment of financial statements was done to collect the data from the annual reports of the Pakistani listed businesses. This paper investigated the governance contrivances adopted by the firms and the number of ICD. Special disclosure index was developed. Following are the objectives of the study:

a) Identifying the pattern of ICD in Pakistani listed firms within the study period.
b) Investigating the impact of CG on ICD

Adding a new empirical proof from an under researched ICD practice geographical context.

LITERATURE REVIEW

Intellectual Capital

The beginning of the twenty first century has introduced the concept of knowledge-based economy and investment opportunities as an intangible aspect of financial assets such as research and development, information technology, personal relations, and telecommunications. Intangible which is also known as intellectual capital is an important factor of production. (Alvino et al., 2020; Martín-de Castro, 2019; Bayraktaroglu et al., 2019). IC has gained importance not only in academics and scholarly research but also in practice e.g., analyses and policy making (Bayraktaroglu et al., 2019). Therefore, the value

maximizing intangibles and a transit to knowledge economy (de Pablos, 2022), demands for a clear definition of IC.

Researchers were trying to define the IC concept and its recognition and theorization aspects (Rossi et al., 2018; Goebel, 2018; Alfraih, 2018). Alfraih (2018) defined IC as knowledge, materials & intellectual property belongs to individual entities. This was knowledge that maximizes value (Belal et al., 2019). The Alfraih (2018) outlines IC as knowledge-based economic resource (IC property, protocols, tacit knowledge, and systems) that plays a key role in prospective expected returns (Alvino et al., 2020).

Initially, IC was divided into two components: a) Human Capital and b) structural capital. HC included abilities, expertise and capabilities while procedures and policies formed the structural capital (SC) of the definition. Both were expected to boost the market value of the shares.

Later, Pedro et al. (2018) brought a subcategory to the definition of structural component where SC was divided into internal capital (Int. C) (administrative and technical structure) and external capital (Ext. C) (relational capital). Moreover, Rossi et al. (2018) splits IC into human, social and relational capital. Shakri et al. (2022) presented a primary and widespread explanation of IC, where it defines IC as: *"…. Acquisition of experience and knowledge, professional skills, technical and technological capacities, which through execution benefits the organization".*

A great deal of research has concentrated on the measurement, accounting, elements of Intellectual Capital Disclosure (ICD) and reporting practices (e.g., Allameh, 2018; Ali et al., 2021). There are a number of models offered to measure IC, given below are a few commonly used models discussed briefly.

a) Kaplan & Norton (1992) developed a performance-based measuring method for processes reengineering, named as *Balance Scorecard*. This score card has a great deal of utility in IC
b) *Skandia Navigator Model* divides the IC items into two main groups: Human resources and Intellectual resources. The value derived is on the basis of commercialization of today's inputs(Human resources) that channels tomorrow's development by using both intangible and tangible economic resources (Edvinsson, 1997).
c) According to Gogan et al. (2014), a pure IC measuring web-based model was developed by Ericson. *Ericson's Cockpit* scores top (i.e. corporate vision & strategy)

to down (i.e. executive procedures) system that aims to realize the blue-print plan considering all the KPIs.

d) Grimaldi et al. (2013), introduced the "IC Index". A value drive is calculated by the sum of IC components/groups. These set of groups are examined for value creation ability of the firm.

Apart from IC concept development, measurement and accounting treatment one of the crucial steps is the valuation. A group of researchers are digging for a critical dimension of IC i.e. how to value firms utilizing intellectual assets and creating value (Salvi et al., 2020a; Vitolla, Raimo, Rubino, 2019; Salvi et al., 2020b).

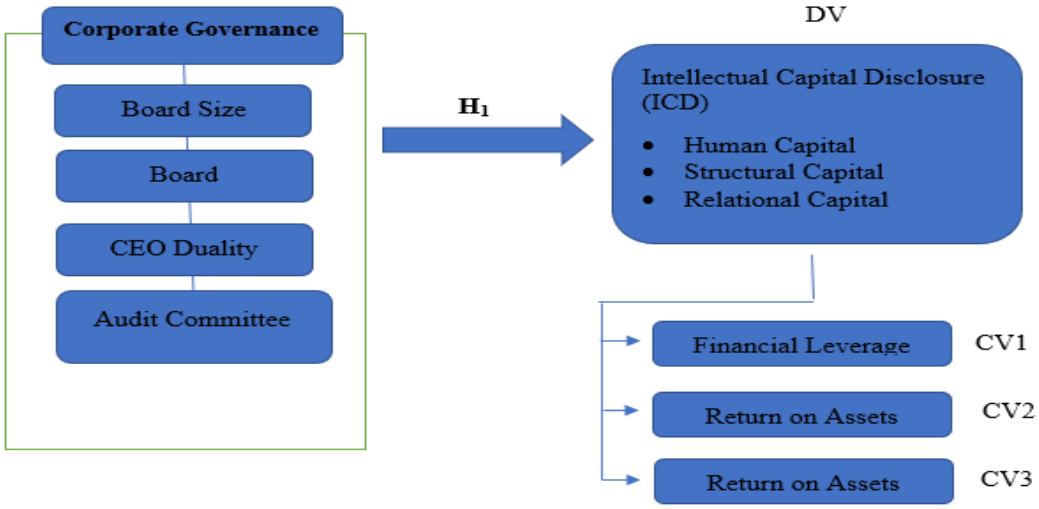
Corporate Governance & Intellectual Capital Disclosure

Another study investigated the relationship between CG mechanism and IC efficiency using revised code of CG of Malaysia in 2012. The study employed a sample of 150 firms listed on core Malaysian Bursa Board for 2014. The study used Value-Added IC to examine the IC efficiency and for this purpose the study employed multiple linear regression. The findings showed a positive impact of board size and audit committee meeting frequency and IC efficiency (Rossi et al., 2018).

In the present economic situation key fundamental factor for value creation is IC. Inconsistent and inadequate IC disclosure is mounting information-asymmetry among both uninformed and informed investors. This mechanism only helps formal financiers to get higher gains and wealth than from uninformed investors specifically during IPOs. The study examined relationship between ICD in prospectus of 444 firms who had gone for initial public offering (IPO) at their initial stages of listing for a period between 1997 and 2006. Three latent explanatory factors such as corporate governance (CG) structure, proprietary costs and ownership retention were considered. Statistical findings of the study supported the assumption of a significant positive relationship between ICD and the retention of ownership. Contrarily, the author rejected the conjecture regarding CG structure influence on ICD. Also, the study revealed a negative relationship between proprietary cost and ICD and positive relationship between ownership retention and ICD (Soriya & Kumar, 2022; Koernia & Cahyati, 2022; Rahmawati et al., 2022).

After reviewing literature comprehensively, different studies have revealed the significant impact of CG indicators on ICD (Jocubus, 2020). As shown in Figure 1.

Figure 1: Theoretical Framework



RESEARCH METHODOLOGY

Widely, two types of research designs are used in research studies such as exploratory and conclusive research design. Exploratory design is focused on exploring the and is mostly subjective in nature while conclusive on the other hand is objective and mainly focused on figuring out the descriptive statistics and relationship among the variables considered. Based on the nature of the study, conclusive research design was adopted for the study to analyze the impact of CG on ICD. This study focused on the listed non-financial textile companies on stock exchange as non-financial companies are more susceptible to greater transparency of information (Rahmawati et al., 2022; Nel et al., 2022). These organizations are obliged to comply with the requirements developed by law about the transparency of information, particularly, possessing a website for providing information to the users and interested parties, reason why the annual reports access is more accessible.

The study was carried out on listed non-financial textile companies that has the availability and publication of reports for the period between 2016 and 2020. The reason why the period between 2016 and 2020 is considered is because of understanding the impact of CG on ICD in the recent times.

The study used to adopt the purposive sampling technique based on which the sample size for the study will be selected. Purposive or judgmental sampling technique is a non-probability sampling technique in which researcher chooses a sample based on the population characteristics and research objectives. A total of 50 textile firms were employed in the study

on random basis. Additionally, data from the annual reports of listed textile firms of Pakistan Stock Exchange (PSX) were collected available on PSX Website.

Intellectual Capital Disclosure

The disclosures of intangible values of an organization particularly in three major aspects such as human capital, relationship capital and structural capital in the annual reports is termed as intellectual capital disclosure (Mention & Bontis, 2013). This study will measure the intellectual capital disclosures of listed non-financial organization via the disclosure index provided in Table 1.

Table 1. Intellectual Capital Disclosure Index

Items of Disclosure.	Category	Scale	Cumulative Score
Education Level	HC	0-4	4
Employee Turnover	HC	0-4	8
Employee Knowledge	HC	0-4	12
Employee Qualification	HC	0-4	16
Education and Training (M)	HC	0-4	20
Related Training Type (M)	HC	0-4	24
Employee Competency	HC	0-4	28
Number of Employees	HC	0-4	32
Code of Ethics (M)	SC	0-4	36
Vision and Mission (M)	SC	0-4	40
Trademarks	SC	0-4	44
Patent	SC	0-4	48
Organizational culture	SC	0-4	52
Copyright	SC	0-4	56
Management Philosophy	SC	0-4	60
Information System	SC	0-4	64
Management Process	SC	0-4	68
Violation Reporting System (M)	SC	0-4	72
Network System	SC	0-4	76
Comprehensive Financial Performance Analysis (M)	SC	0-4	80
Brand	RC	0-4	84
Debt Paying Ability (M)	RC	0-4	88
Customer	RC	0-4	92
Capital Structure (M)	RC	0-4	96
Company Name	RC	0-4	100
Customer Loyalty	RC	0-4	104
Liscence Agreement	RC	0-4	108
Distribution Network	RC	0-4	112
Franchise Agreement	RC	0-4	116
Business Collaboration	RC	0-4	120
Certification (M)	RC	0-4	124
Favorable Contracts	RC	0-4	128
Market Share	RC	0-4	132

Magnification Strategy (M)	RC	0-4	136
Award (M)	RC	0-4	140

***Source**: The Disclosure Index from **Soriya & Kumar (2022)**; Human Capital – HC, Structural Capital – SC, Relational Capital – RC*

Corporate Governance

Corporate Governance (CG) is the vital process to enhance the disclosure's quality and transparency extent (Rodríguez-Ariza, 2014). For this reason, the audit committee, CEO duality, board composition, and board size were studied as a measure of CG.

FINDINGS AND DISCUSSION

The study initially checked the descriptive statistics by observing average, minimum and maximum for ICD and CG elements. It helped in providing details regarding the proportion of disclosures made by the non-financial organizations and also the corporate governance practices currently they are doing.

Afterwards, the study performed correlation analysis in order to check for the relationship between CG elements and ICD.

In order to find the causal relationship between ICD, the study employed ordinary least square regression model, to test the hypothesis that there is a significant impact of CG on ICD. As the dataset is panel in nature, so the study also looked for static panel data models such as fixed effect model (FEM) and random effect model (REM) because it allows for heterogeneity among the cross sections. Apparently, based on Hausman's test, the study chose whether fixed effect model is appropriate or random effect model is appropriate. And lastly, findings derived on such techniques were interpreted and conclusion was drawn from the findings.

Results & Discussion

The data collected from the annual reports of the listed non-financial textile sector firms of Pakistan, was analyzed using EViews 14. Initially, descriptive statistics was performed followed by correlation analysis and thereafter regression analysis such as Pooled OLS, Fixed Effect Model and Random Effect Model. The results are as below:

Descriptive Statistics

The table 2. below illustrates the descriptive statistics of the data. For the period between 2016 and 2020, data was collected for all the measures of ICD namely relational capital, structural capital, and human capital followed by the components of CG and thereafter for the control variables namely return on assets (ROA), firm size (LnTA) and financial leverage (F.Lev). Dependent variable such ICD has been measured via structural capital, human capital and relational capital. The mean score for structural capital is 0.296 with a minimum

and maximum ratio of 0.08 and 0.690 out of total. Apparently, the mean ratio for human capital is 0.27 with a minimum and maximum ratio of 0.000 and 0.720. In addition, the mean ratio for relational capital is 0.188 with a minimum and maximum ratio of 0.04 and 0.46 respectively. Apparently, the corporate governance (CG) was measured via four major components namely board size (BoardSze), board independence (BoardIND), CEO duality (CEOdualty) and audit committee (AudCom). The mean value for audit committee, CEO duality, board independence, and board size is 3.016, 0.324, 2.128 and 7.07 respectively.

Furthermore, control variables have also utilized in the study namely return on assets (ROA), firm size (LnTA) and financial leverage (F.Lev). The mean value for ROA estimated to be 5.614, LnTA to be 15.47 and F.Lev to be 3.843.

Correlation Analysis

From the results of correlation analysis in table 3, it can be observed that there is weak positive correlation between human capital and board size. In addition, there exists a weak positive correlation between human capital, and ROA and FLev.

Furthermore, it was observed that there exists a weak positive correlation between relational capital and financial leverage (FLev). Moreover, structural capital is also positively correlated with board size, board independence and FLev.

Regression Analysis

To analyze the impact of CG on ICD, three regression models were performed for each of the three factors of intellectual capital disclosures (ICD). Additionally, for each factor of ICD, three regression models namely OLS, FEM and REM were performed. The results of OLS become invalid since it neglects the panel structure of the data. In order to consider, the panel data models, FEM and REM was performed to check for whether the factors are random or fixed. To check between the two (FEM and REM), Hausman's test was also performed. A rule of thumb is that the coefficients are no sufficient. The criteria of Hausman's test, fixed effect model was all supported for the study. As shown in table 5.

From Model 1 (a) to Model 1 (c) in table 4. Shows estimates of regression using structural capital as a dependent variable. Model 1 (a) is the pooled OLS while Model 1 (b) is the Fixed Effect Model and Model 1 (c) is the Random Effect Model. All the three model were performed as a procedure of the panel data statistics. Finally, to choose between FEM and REM, Hausman's test was performed. The outcomes of Hausman's test failed to accept the null hypothesis which is that random effect is more efficient. Therefore, it can be stated that except FEM, the rest of the outcomes of Pooled OLS and REM are redundant and only FEM can be interpreted. From the outcomes of Model 1 (b) it can be observed that only board

independence has a significant negative impact on human capital. While audit committee, board size and CEO duality has positive but insignificant impact on human capital. Additionally, among the control predictors, only firm size (LnTA) was observed to be statistically significant. Firm size (LnTA) has a significant positive impact on human capital. In other words, it means that one unit increase in human capital would results in increasing the firm size (LnTA) by 3%.

Apparently, from model 2(a) to 2(c) in table 5. shows the regression estimates using structural capital as a dependent variable. All the three models were performed such that Pooled OLS was performed to observe the impact though neglecting the panel structure of the data, FEM was performed considering the parameters as fixed while REM was performed considering the parameters as random. Hausman's test was performed to select between FEM and REM. Based on the significant results of Hasman's test it can be stated as that the results of FEM are valid while the rest are redundant. The estimates of Model 2 (b) in table 5. observes board size to be statistically significant, Audit committee, Board Independence and CEO duality were observed to be statistically insignificant. Additionally, financial leverage and firm size were also observed to be statistically significant. The outcomes are that board size has a significant positive impact on structural capital. Moreover, it was observed that structural capital is positively affected by financial leverage while negatively affected by firm size. As shown in table 7.

Finally, from model 3 (a) to model (3) in table 6 shows the regression estimates considering relational capital as a dependent variable. From Model 3(a) to Model 3(c) are the regression estimates for Pooled OLS, FEM and REM respectively. As a rule of thumb, Pooled OLS was performed to examine if there is any impact of corporate governance components on relational capital (measure of ICD). However, since there is a big shortcoming of the Pooled OLS, and which is it neglects the panel structure of the data hence FEM was performed as a next step followed by REM. To choose between which one between FEM and REM is to be selected, Hausman's test was performed. The significant results of Hasuman's test revealed that the results of FEM are valid, and REM is redundant. The estimates of FEM (Model 3b) shows that all the corporate governance components namely audit committee, board independence, board size and CEO duality are statistically insignificant. In addition, it was observed that control variables such as firm size, financial leverage and ROA also has insignificant impact on relational capital.

Table 2. Descriptive Statistics

Variables	HumCap	RelCap	StrucCap	ROA	LNTA	FLEV	CEODUALITY	BOARDSZE	BOARDIND	AUDCOM
Mean	0.271	0.188	0.296	5.614	15.747	3.843	0.324	7.072	2.128	3.016
Med.	0.220	0.160	0.230	3.145	16.100	2.235	0.000	7.000	2.000	3.000
Max.	0.720	0.460	0.690	179.700	18.300	68.830	1.000	16.000	5.000	5.000
Min.	0.000	0.040	0.080	-34.300	11.700	-98.100	0.000	1.000	0.000	1.000
Std. Dev.	0.185	0.100	0.154	15.650	1.591	11.213	0.469	2.153	1.189	0.791
Skew.	0.783	0.969	0.959	6.401	-0.679	-0.349	0.752	1.287	0.283	-0.710
Kurt.	2.462	2.895	2.755	65.804	2.575	40.564	1.566	7.384	2.537	3.633
Obs.	**250.000**	**250.000**	**250.000**	**250.000**	**250.000**	**250.000**	**250.000**	**250.000**	**250.000**	**250.000**

Table 3. Correlation Analysis

Correlation	HUMAN CAPITAL	RELATIONAL CAPITAL	STRUCTURAL CAPIT	ROA	LNTA	FLEV	CEODUALITY	BOARDSZE	BOARDIND	AUDCOM
HUMANCAPITAL	1									
RELATIONALCAPITAL	0.82*	1								
STRUCTURALCAPIT	0.82*	0.84*	1							
ROA	0.14**	0.07	0.13	1						
LNTA	0.08	0.03	0.08	0.26	1					
FLEV	0.22*	0.17*	0.24*	0.09	0.11	1				
CEODUALITY	0.06	0.01	0.03	-0.02	0.14*	-0.1	1			
BOARDSZE	0.15*	0.11	0.16*	0.001	0.02	0.06	0.02	1		
BOARDIND	0.06	0.11	0.16*	-0.17*	-0.24*	-0.02	0.02	0.3	1	
AUDCOM	-0.1	-0.1	-0.06	0.02	0.11	-0.19*	0.04	0.08	-0.25*	1

Table 4. Regression Estimates Using Human Capital as Dependent

Models	**Model 1 (a)**				**Model 1 (b)**				**Model 1 (c)**			
Variable	**Coef.**	**Std. Err**	**t-stat**	**Prob.**	**Coef.**	**Std. Err**	**t-stat**	**Prob.**	**Coef.**	**Std. Err**	**t-stat**	**Prob.**
AUDCOM	-0.017	0.015	-1.117	0.265	0.005	0.014	0.354	0.724	-0.002	0.013	-0.183	0.855
BOARDIND	0.005	0.011	0.436	0.663	-0.051	0.019	-2.693	0.008	-0.026	0.014	-1.828	0.069
BOARDSZE	0.011	0.006	1.958	0.051	0.001	0.006	0.160	0.873	0.006	0.006	0.979	0.329
CEODUALITY	0.029	0.025	1.170	0.243	0.031	0.024	1.289	0.199	0.027	0.022	1.193	0.234
FLEV	0.003	0.001	2.930	0.004	0.000	0.001	0.319	0.750	0.000	0.001	0.571	0.569
LNTA	0.004	0.008	0.495	0.621	0.033	0.015	2.192	0.030	0.015	0.011	1.405	0.161
ROA	0.002	0.001	1.981	0.049	0.000	0.000	0.391	0.696	0.000	0.000	0.521	0.603
C	0.145	0.133	1.087	0.278	0.868	0.250	3.467	0.001	0.526	0.187	2.816	0.005
Summary Statistics												
Mean dep. Var		0.2708				0.2708				0.0515		
S.D. dep. Var		0.1850				0.1850				0.0736		
AIC		-0.5742				-2.2149						
SC		-0.4615				-1.4121						
HQ		-0.5288				-1.8918						
DW stats		0.3096				1.9043				1.4550		
R-sq.		**0.0930**				**0.8812**				**0.0266**		
Adj. R-sq.		0.0668				0.8467				-0.0015		
S.E. of regr.		0.1788				0.0724				0.0737		
Sum sq resid.		7.7324				1.0127				1.4550		
Log-likelihood		79.7698				333.8682						
F-statistics		3.5458				25.5672				0.9453		
Prob		0.0012				0.0000				0.4722		
Criteria for Selection of FEM / REM												
Hausman's Test												
Chi Sq. Stats										15.421485		
Df										7		
Prob										0.031		

Table 5. Regression Estimates Using Structural Capital as Dependent Variable

Models	**Model 2 (a)**				**Model 2 (b)**				**Model 2 (c)**			
Variable	**Coef.**	**Std. Err**	**t-stat**	**Prob.**	**Coef.**	**Std. Err**	**t-stat**	**Prob.**	**Coef.**	**Std. Err**	**t-stat**	**Prob.**
AUDCOM	0.001	0.013	0.053	0.958	0.003	0.011	0.292	0.770	0.004	0.010	0.431	0.667
BOARDIND	0.022	0.009	2.512	0.013	0.017	0.015	1.119	0.264	0.015	0.011	1.305	0.193
BOARDSZE	0.007	0.005	1.438	0.152	0.010	0.005	1.920	0.056	0.009	0.004	2.071	0.039
CEODUALITY	0.012	0.020	0.614	0.540	-0.003	0.019	-0.136	0.892	0.000	0.018	0.020	0.984
FLEV	0.003	0.001	3.583	0.000	0.001	0.000	2.510	0.013	0.001	0.000	2.779	0.006
LNTA	0.006	0.006	0.923	0.357	-0.030	0.012	-2.539	0.012	-0.012	0.009	-1.311	0.191
ROA	0.001	0.001	1.891	0.060	0.000	0.000	-0.819	0.414	0.000	0.000	-0.643	0.521
C	0.085	0.109	0.784	0.434	0.653	0.195	3.345	0.001	0.364	0.149	2.436	0.016
Summary Statistics												
Mean dep. Var		0.2959				0.2959				0.0529		
S.D. dep. Var		0.1535				0.1535				0.0583		
AIC		-0.9752				-2.7127						
SC		-0.8626				-1.9098						
HQ		-0.9299				-2.3895						
DW stats		0.2563				1.8503				1.4305		
R-sq.		**0.1176**				**0.8951**				**0.0687**		
Adj. R-sq.		0.0921				0.8646				0.0418		
S.E. of regr.		0.1463				0.0565				0.0570		
Sum sq resid.		5.1776				0.6156				0.7868		
Log-likelihood		129.9053				396.0829						
F-statistics		4.6088				29.4020				2.5499		
Prob		0.0001				0.0000				0.0150		
Criteria for Selection of FEM / REM												
Hausman's Test												
Chi Sq. Stats										15.66751		
Df										7		
Prob										0.011		

Table 6. Regression Estimates Using Relational Capital as a Dependent Variable

Models	**Model 3 (a)**				**Model 3 (b)**				**Model 3 (c)**			
Variable	**Coef**	**Std. Err**	**t-stat**	**Prob.**	**Coef**	**Std. Err**	**t-stat**	**Prob.**	**Coef**	**Std. Err**	**t-stat**	**Prob.**
AUDCOM	-0.008	0.009	-0.916	0.361	-0.002	0.007	-0.333	0.740	-0.004	0.006	-0.623	0.534
BOARDIND	0.008	0.006	1.379	0.169	-0.009	0.009	-1.002	0.318	-0.003	0.007	-0.361	0.718
BOARDSZE	0.004	0.003	1.134	0.258	-0.003	0.003	-0.926	0.355	-0.001	0.003	-0.377	0.707
CEODUALITY	0.003	0.014	0.204	0.839	-0.004	0.012	-0.317	0.752	-0.004	0.011	-0.359	0.720
FLEV	0.001	0.001	2.230	0.027	0.000	0.000	-0.182	0.856	0.000	0.000	-0.007	0.994
LNTA	0.002	0.004	0.393	0.695	-0.014	0.007	-1.814	0.071	-0.007	0.006	-1.152	0.251
ROA	0.000	0.000	1.091	0.276	0.000	0.000	-1.926	0.056	0.000	0.000	-1.812	0.071
C	0.134	0.074	1.817	0.070	0.453	0.124	3.651	0.000	0.321	0.098	3.277	0.001
Summary Statistics												
Mean dep. Var		0.1876				0.1876				0.0311		
S.D. dep. Var		0.1003				0.1003				0.0360		
AIC		-1.7592				-3.6214						
SC		-1.6465				-2.8185						
HQ		-1.7139				-3.2983						
DW stats		0.2445				2.0566				1.6060		
R-sq.		**0.0563**				**0.9009**				**0.0242**		
Adj. R-sq.		0.0290				0.8722				-0.0040		
S.E. of regr.		0.0988				0.0359						
Sum sq resid.		2.3640				0.2481				0.3152		
Log-likelihood		227.9036				509.6747						
F-statistics		2.0607				31.3461				0.8570		
Prob		0.0485				0.0000				0.5413		
Criteria for Selection of FEM / REM												
Hausman's Test												
Chi Sq. Stats										17.018		
Df										8		
Prob										0.004		

CONCLUSION

The purpose of the study was to investigate the effect of CG on ICD. In this regard, utilizing quantitative method and conclusive design the study attempted to examine the impact, CG was measured via four factors namely Board-Size (BoardSze), Board-Independence (BoardIND), CEO-Duality (CEODual) and Audit-Committee (AUDCOM) while ICD was measured via three major indices namely human-capital (HC), structural-capital (SC) and relational-capital (RC). Data from 50 textile firms for a period between 2016 and 2020 was collected from different secondary sources such as annual reports of the respective firms and Pakistan Stock Exchange (PSX). Initially, descriptive statistics, followed by correlation analysis and thereafter regression analysis was performed to examine the impact. The descriptive statistics revealed that the mean ratio for ICD measures namely human capital was 0.27, structural capital was 0.296 and relational capital was 0.188 respectively. Additionally, from the correlation analysis it was observed that board size is positively correlated with human capital, board independence is positively correlated with structural capital, financial leverage is positively correlated with all the ICD measures and ROA is positively correlated with human capital. In addition, three regression estimates for three ICD measures individually was performed in an attempt to examine the impact of CG on ICD. Furthermore, for each of the ICD measure three regression models were performed namely Pooled OLS, FEM and REM. Based on the Hausman's test significance level, FEM was selected for all the three regression estimates of three ICD measures. From the FEM estimates it was observed that board independence has a significant negative while firm size has a positive impact on human capital. Additionally, board size and firm size has a significant negative while financial leverage and firm size is positively correlation with SC while all the rest of CG components aren't significantly correlation with RC.

Recommendations

The following recommendations were made on the basis of the study outcomes.

- According to Bijani & Ranani (2014), organizations should include the spectrums of CG and ICD in their financial statements alongside mandatory disclosures so to improve their value.
- Formal guidelines should be devised for the textile firms so to develop analogy in disclosure and to decrease the agency cost by enhancing the CG practices.

Limitations

The scope of this study is only limited to non-financial sector firms precisely 50 textile firms for a period between 2016 and 2020. In addition to that, the impact of CG on ICD was tested for a short run thereby neglecting the long run effect of corporate governance practices on intellectual capital disclosure.

Future Research

Since the scope of this study was only limited to only one industry particularly textile sector firms and 50 textile sector firms for a period between 2016 and 2020, hence there may be chances of sampling bias, therefore future studies need to consider all non-financial sector firms in order to provide a better picture of the non-financial sector and at times to reduce or eliminate the sampling bias. Furthermore, future research needs to consider the ICD as a mediating factor between CG practices and market cap. since it is observed that increased disclosure of IC helps in improving the market cap.

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