

# Corporate Governance and Intangibles Disclosure as Determinants of Corporate Reputation

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## Abstract

The paper investigates corporate governance mechanisms and the voluntary disclosure of intangible assets as determinants of corporate reputation. Reputation scores from Management Today Britain's "Most Admired Companies" 2004 survey are applied as a measure of corporate reputation. A content analysis method is applied to UK 2003/2004 annual reports in establishing the voluntary disclosure index which consists of structural, relational and human capital attributes. This paper suggests that when the resource based view of the firm is applied together with signalling theory, both the presence and disclosure of corporate governance structures and intangible resources is important if markets are to acknowledge a firm's quality and reputation; the agency approach is twofold, on the one hand the existence of governance structures allows firms to draw on various corporate governance mechanisms that may align directors' interests with the firm's objectives; on the other hand, governance mechanisms may enhance accountability and transparency through disclosure and therefore mitigate risks associated with asymmetry of information. The results of the analysis indicate that financial performance and growth enhance corporate reputation whereas directors' share ownership and executive remuneration appear to hinder the development and maintenance of corporate reputation. The presence of financial expertise on the audit committee is a governance mechanism that appears to be employed by firms whose strategy comprises building and developing corporate reputation. In addition, maintenance of lower voluntary disclosure of intangible assets appears to appeal to firms with higher levels of corporate reputation whereas, although the relationship is weaker, higher levels of financial gearing lead to lower corporate reputations as perceived by stakeholders. Furthermore, the results indicate that the proportion of experienced non-executive directors to total directors is insignificant in explaining the variation in corporate reputation. Management strategies differ significantly as they may be tailored to build and develop corporate reputation or tailored to maintain such reputations once attained.

**Keywords:** corporate reputation, corporate governance, voluntary disclosure, intangible assets

## 1. Introduction

### 1.1 Background

The paper investigates the impact of corporate governance mechanisms (CGM) and the voluntary disclosure of intangible assets (VDIA) on corporate reputation (CR). The determinants of CR, as a proxy for firm value, are investigated by examining the signals that the firm creates by way of voluntary disclosure in addition, the paper considers multiple proxies for the effectiveness of the firm's CGM and includes VDIA, gearing, experienced non-executive directors, financial expertise on the audit committee, directors' shareholdings and director's remuneration as measures of accountability and transparency. Recent research has indicated the absence of an agreed definition for CR due to its various components and the varied perceptions of many stakeholders (Walsh, Mitchell, Jackson, & Beatty, 2009, p. 190). Following Fombrun (1996) and Roberts and Dowling (2002), reputation is defined in this paper, as "a perceptual representation of a company's past actions and future prospects that describes the firm's overall appeal to all its key constituents when compared to other leading rivals". The paper applies reputation scores from *Management Today* Britain's "Most Admired Companies (MAC)" 2004 survey as a measure of CR. This measure is based on the survey responses of representatives from the boards of directors of rival companies, market equity analysts and financial commentators (RBDR, MA&FC)

(Hasseldine, Salama, & Toms, 2005; Roberts & Dowling, 2002). A content analysis method is applied to the narratives of UK 2004 annual reports in establishing the voluntary disclosure index which consists of structural (internal) capital attributes, relational (external) capital attributes and human capital attributes (Table 1). These attributes are drawn from the study of Stewart (1997), who defined intellectual capital (IC) as based on these three components.

The introduction of VDIA through the Resource Based View (RBV) and signalling theory as a determinant of CR is consistent with the model adopted by Toms (2002) and Hasseldine et al., (2005) in which the impact of quality adjusted environmental disclosures on environmental reputation is investigated. This paper adds to the developing research by investigating VDIA (Table 1) and governance characteristics on CR.

### *1.2 Developing, Building and Maintaining Corporate Reputation*

The paper argues that the VDIA signifies quality of performance, leadership and vision, quality and innovation of products and services and a responsible corporate social policy (Walsh et al., 2008, p. 193). Due to proprietary costs that may be attached to such disclosures, firms signal only those intangibles where the resources are necessarily valuable, rare, inimitable and non-substitutable (Barney, 1991). For this reason, such disclosures are credible as firms are likely to suffer reputational loss if they present false signals to the markets; furthermore, these disclosures do not attract proprietary costs in the short term due to their inimitable nature. This paper adds to the growing literature firstly, on the determinants of CR through an analytical framework that recognises the disclosure of intangible resources as an important facet in developing, building and maintaining of CR; secondly, by extending prior research on the effect of the interaction of various governance mechanism on a measure of corporate value; thirdly, the disclosure index provides a unique opportunity to investigate the variation of interaction between the proportion of structural capital attributes, relational capital attributes and human capital attributes disclosed relative to other attribute categories with the variation in corporate reputation fourthly, this paper adds to the developing research on CR by investigating the role played by RBDR, MA&FC as mediators in the equity market and fifthly, the contribution to the CG analytical framework captures the inclusion of the four objectives, mitigation of business risk, promotion of shareholder returns, enhancement of internal control and promotion of management's strategy, vision and stewardship.

### *1.3 Determinants and Impact of Corporate Reputation*

Effective governance structures in the form of effective boards, experienced non-executive directors and financial expertise on the audit committees may reduce earnings management (Peasnell, Pope, & Young, 2000; Klein, 2002) and ensure appropriate investment in discretionary expenses in particular R&D, human resources and product development, areas that are of particular importance for the generation of intangible resources. The literature to date has tended to focus on the impact of adverse events on CR (Schnietz & Epstein, 2005), on the relationship with financial performance (Toms, 2000; Roberts & Dowling, 2002; Gabbioneta, Ravasi, & Mazzola, 2007; Fombrun, Gardber, & Sever, 2000), on the impact of vision and quality of leadership (Gabbioneta et al., 2007), on the influence of governance structures (Toms, 2002; Gabbioneta et al., 2007) on the influence of systematic risk (Toms, 2002), on the effect of industry sector (Toms, 2002) and on the effect of quality of disclosure (Toms, 2002; Gabbioneta et al., 2007). The results have been mixed; this paper contributes by investigating these relationships simultaneously by including those variables hypothesised as having an impact on the perceptions of RBDR, MA&FC. The remainder of this paper is organised as follows. The next section provides an outline of the prior literature, a review of the analytical framework and model. The research hypotheses are developed and tested and the results analysed. In the concluding section, the paper discusses the implications of the findings for regulators, academia and practice.

### *1.4 Analytical Framework*

The analytical framework hypothesises that a firm's CR is determined by signals based on its financial performance, financial growth, financial structure, quality and innovation of products and services, human resource performance, social performance and management performance. To this end, this paper adopts a positivist approach and examines the determinants of CR by formulating and testing hypotheses with a view to providing corporate management with strategies to enhance their standing amongst their peers, market analysts and financial commentators. Past research has indicated financial performance, leadership and vision, quality and innovation of products and services and corporate social responsibility as the four general areas stakeholders examine in evaluating CR (Fombrun et al., 2000). The analytical framework for this paper is developed from these dimensions and incorporates a disclosure strategy that combines the possession of intangible assets and their disclosure as mechanisms that impact stakeholders' perceptions in the aforementioned areas. This paper applies the model adopted by Toms (2002) and Hasseldine et al. (2005) and combines the four dimensions as

mentioned above. The presence of intangible resources including governance mechanisms provides structural capital when the resource based view of the firm is applied, signalling theory (Morris, 1987) complements this approach as both the presence and disclosure of these intangibles is important if markets are to acknowledge a firm's quality and reputation. Financial performance (FINPERF) and CR have a complimentary effect as a good reputation may lead to superior profits which in turn may lead to maintenance and or enhancement of that good status (McGuire, Schneeweis, & Branch, 1990). The results of the relationship between financial performance and reputation in the literature have been mixed. Sabate and Puente (2003) in their analysis of the empirical work on this relationship concluded that the theoretical framework had not been fully explained as the different directions of the tests being conducted as well as the varying measures of performance, different lags attached to variables and the multitude of constructs measuring CR rendered comparisons more complex. Using Return on Equity (ROE), Toms (2002) found financial performance to be inconclusive and this was consistent with the results from Fombrun and Shanley (1990) who also found this proxy inconclusive. Consistent with the findings of McGuire et al., (1990) and Fisher (1996, p. 90), the nature of the relationship between CR and FINPERF will depend on the firm's stage of development and growth strategy. This paper extends the work of Amit and Schoemaker (1993) and Petraf (1993) who link sustained superior performance and sustained competitive advantage (Porter, 1985; Barney, 1991), by applying the ratio of profit before taxation to sales as a proxy for sustained superior firm performance. A firm's growth (GRWT) has been found to have a positive impact on CR. Growing firms illustrate the availability of resources that enable a firm to take advantages of opportunities by expanding operations, markets, products, services and the human resource base (Penrose, 1995). Firms on the decline have reduced or negative growth rates and this may indicate reduced market share, lack of successful innovation in products and services, lack of leadership, lack of technical competence and reduced staff competence and motivation. There is a case for GRWT having a negative impact on reputation particular where RBDR, MA&FC s' perceptions may have been influenced by other negative signals. In this case, past GRWT may have no bearing on future sales as a result of increased business risk, a reduction in market share, discontinuation of key products or services, changes in regulations, loss of a key license or loss of key personnel. GRWT may also be achieved in the short term at the cost of future financial stability where management have short-term incentives based on turnover; such incentives may lead to self-serving directors manipulating earnings by reducing discretionary expenses in a bid to achieve targets. This paper applies a compound annual growth rate over a five-year period as a proxy for GRWT, to minimising year on year changes in internal and external economic conditions.

### *1.5 Hypotheses Development*

The financial structure (FINSTR) of the firm is associated with the risk of increased levels of debt, the possibility of insolvency and higher financial risk therefore CR is likely to suffer in the presence of going concern issues. High debt levels may restrict any additional borrowings limiting the firm's ability to capitalise on favourable projects (Myers, 1977) however, increased debt levels may signal the firm's ability to take on more debt and management's confidence in its ability to service such debt (Ross, 1977). Alternatively, lack of debt may be attributed to lower credit ratings. Modigliani and Miller (1963) predict tax advantages that can be made from debt. Nevertheless, as debt repayments reduce the amount of free cash flow available to management, it may be a tool for managing agency costs (Jensen, 1986). A higher incidence of agency costs is associated with companies with a greater proportion of debt (Leftwich, Watts, & Zimmerman, 1981, p. 56). As such, the relationship between FINSTR and CR may vary depending on the amount of debt held, depending on management's ability to utilise such external finance in generating returns and depending on management's ability in utilising debt in mitigating agency costs. Stiglitz (1985) concluded that debt providers are likely to provide more monitoring than shareholders. CR is expected to decrease as the level of gearing increases due to the increased financial risk and the reduced resources required to finance investment in IA. Non-executive or independent directors are expected to reduce agency costs associated with the separation of ownership and control (Weisbach, 1988; Lee, Rosenstein, Rangan, & Davidson, 1992). Forker (1992) illustrates that the presence of non-executive directors reduces the benefits for executive directors to withhold information. The effect of the interaction of VDIA and non-executive directors is a phenomenon that has had fairly limited coverage in the literature (Eng & Mak, 2003); this paper examines this effect with respect to CR. The extant literature does not provide consistent evidence on this relationship with certain authors reporting positive results (Bushee & Noe, 2000; Weir, Laing, & McKnight, 2002), some authors reporting negative results (Haniffa & Cooke, 2005; Faccio & Lasfer, 2000) and still others, inconsistent results (Mehran, 1995). Within the agency theory context we expect VDIA and non-executive directors to complement each other in promoting CR as both mechanisms reduce opportunities for management's self-serving behaviour. VDIA enhances transparency and accountability whilst within the non-executive directors' framework independent directors have incentives to maintain their reputation as

effective monitors in advancing their career opportunities (Fama & Jensen, 1983; Kaplan & Reishus, 1990). The resource dependency theory may apply to variables related to reputational capital in particularly, the role EXPRCD (those non-executive directors who have held directorships in other listed companies or who hold concurrent directorships on other boards (Kosnik, 1987, p. 171). Fama and Jensen (1983) suggested that those directors who sit on several corporate boards have developed their expertise as effective directors (Gul & Leung, 2004). The proportion of experienced non-executive directors to total directors (EXPRCD) is therefore expected to have a favourable impact on reputation. Corporate governance mechanisms that incorporate executive remuneration (EXCREM) (compensation of directors through remuneration, performance bonuses, share options and equity shares) are aimed at aligning directors' interests with those of the firm and are expected to positively influence CR. Higher remuneration may be associated with higher director competence and performance. Where remuneration is tied into accounting measures of performance rather than long term incentives, management's self-serving behaviour may be more prevalent as directors strive to achieve accounting targets. As a driver of CR, higher EXCREM is associated with talented and skilled HC, talent which only a well governed and reputable firm is likely to attract. EXCREM therefore serves the purpose of retaining this resource by ensuring appropriate rents. The better and more capable firms illustrate best practice by hiring talent, actively training and developing, treating talent fairly and focusing on retention of high performers (Frank, Finnegan, & Taylor, 2004). Such a resource base has the potential to enhance the firm's agenda through leadership, vision and corporate social responsibility. The results from the literature have been mixed; Klein (1998) illustrates that although board compensation has little impact on financial performance, the structure of the compensation committee appears to be influential. However, the agency approach views directors as self-serving and may therefore increase remuneration at the expense of shareholders. Nevertheless, this paper's analytical frame work combines the presence of intangible resources, competitive advantage as such a quality HC base and their disclosure as positively influencing CR.

Table 1. Intellectual capital frameworks: Intangible asset attributes

Internal Structural Capital SC (8)	External Relational Capital RC (8)	Human Capital HC (7)
1. Patents (Proprietary process, Trade secrets, Methodologies)	9. Brands (Brand recognition, development, Sales per brand, Number of brands, Reconciliation of numbers)	17. Know-how (Competence, Intelligence, Knowledge, Motivation, Brainpower, Specialist, Expertise, Skills)
2. Copyrights (Copyrights)	10. Customers (New customers, Customer lists, items, satisfaction, Sales by segment, region, Market share, Order book, Long-term sales contracts and information)	18. Training (Third party certification, Certificate, Professional qualification, In-house training, External courses)
3. Trademarks (Trademarks)	11. Customer loyalty (Customer retention, Customer service, Customer support, Market share)	19. Level of education (GCSE, Diploma, Degree)
4. Management philosophy (Management philosophy)	12. Distribution channels (Distribution channels)	20. Vocational qualifications (Work related qualifications, Professional qualifications, Certificates, Experience in industry)
5. Corporate culture (Leadership, Communication)	13. Business Collaborations (Partnerships and joint ventures)	21. Training and development (Work-related knowledge, Work-related competencies)

Internal Structural Capital SC (8)	External Relational Capital RC (8)	Human Capital HC (7)
6. Management processes (Company capacity, Improvements in the business model, in functional distribution, in communication network, in efficiency of labour, capital and structural applications and in speed of process, Effective quality management procedures for product & service)	14. Licensing agreements (Licensing agreements)	22. Entrepreneurial spirit (Diversity of educational backgrounds [scientific or non- scientific], Innovation and venturing activities, New/radical products, services or Processes, Joint ventures, Outright purchase or Greenfield investment)
7. Information systems (Technological systems, Web transactions, Computer software and operating systems, Networking systems, Electronic data interchange, Telecommunication infrastructure)	15. Favourable contracts (Contracts for the supply of services, goods, capital and labour)	23. Innovativeness (Innovativeness, Proactive and reactive abilities, Changeability, New ground breaking production methods, New service or processes, New software, patents, ventures or developments)
8. Financial relations (Suppliers of capital, Suppliers of goods and services, Suppliers of labour, Regulations and inland revenue)	16. Franchising agreements (Franchising agreements)	

Source: Adapted from Stewart (1997).

Table 2. Resources, governance characteristics and voluntary disclosure of intangible assets: An analytical framework

Firm Resources and CG Characteristics	Theoretical Approach	Signals Influencing a firm's CR	Enhancement in financial reporting signalling of firm resources	Reporting Framework	Direction of the Test	Extent of the VDIA	Empirical Tests/Hypotheses Testing	Level of CR
CGMs and Structures (SC & HC) (Internal Environment Board Structures)	<i>Resource Based View</i>	<i>Quality and Innovation of Products and Services(RC &amp; HC)</i>	Intangible Resources (SC, RC & HC)/Competitive advantage	<i>Signalling Theory Proprietary Cost Hypothesis</i>	+ -	Very High, Very Low	→ → → →	Very High High Low, Very Low
CG Functions and Operations (External Environment)	<i>Agency Theory</i>	<i>Leadership and Vision, Corporate Social Responsibility</i>	Accountability and Transparency	<i>Asymmetry of Information</i>	+	Very High, High,	→ →	Very High High
Financial performance	<i>Signalling Theory</i>	<i>Performance Leadership and Vision</i>		<i>Signalling Theory/Proprietary Cost Hypothesis</i>	+	Very High, High,	→ →	Very High High
Growth	<i>Signalling Theory</i>	<i>Performance Leadership and Vision</i>		<i>Signalling Theory/Proprietary Cost Hypothesis</i>	+	Very High, High,	→ →	Very High High
Financial Structure	<i>Signalling Theory</i>	<i>Leadership and Vision Financial Performance</i>		<i>Agency Theory</i>	-	Very High, High,	→ →	Very High High

The proportion of equity shares held by directors (DIRSHS) is a governance mechanism aimed at limiting agency costs. As such, an expectation exists that directors' shareholding may enhance CR; on the one hand, through the alignment of the interests of the related parties and at the same time through the maintenance of discretionary expenses such as investment in SC, RC and HC and by limiting earnings manipulation (Warfield Wild, & Wild, 1995). Directors are more likely to accept a shareholding from a successful company with the expectation that their value will increase, this may influence the direction of the relationship. However, additional shares will provide directors with more control, thus enabling them to adopt entrenchment policies which are likely to have a detrimental effect on CR (Fama & Jensen, 1983). Previous empirical studies have focused on the relationship between DIRSHS and various measures of firm performance. The direction of causality and the nature of the relationships have been mixed with some authors identifying no relation, some a U-shaped relation, others a cubic relation and still others a quintic relation (Mura, 2007, p. 81). Financial expertise (FINEXP) is defined as previous or current specialised accounting or auditing experience (Defond & Francis, 2005). The presence of such experience on the audit committee is expected to enhance the effectiveness of the audit committee in carrying out its monitoring and internal control functions as well as its financial reporting role. Klein (2002) provides evidence that independent directors on the audit committee prevent opportunistic manipulation of the financial reporting process. The literature identifies that benefits from such appointments accrue in the presence of other strong CGMs (Engel, 2005). Some accountants may not wish to be associated with firms with weaker CGMs (Engel, 2005) firms that may be associated with higher levels of business risk (Krishnan & Lee, 2009). For firms that appoint professionals with financial expertise on their audit committees, the benefits are twofold; on the one hand such appointments provide the advice and strategic guidance that emanates from the financial expertise and on the other hand such appointments may lead to a favourable market reaction (Davidson, Xie, & Xu., 2004), leading to the enhancement of the reputation of the firm.

## 2. Methodology

### 2.1 Data and Sample

The paper utilises a matched sample. The initial population is derived from a 2004 voluntary disclosure of intellectual capital investigation of 441 UK listed companies (Mkumbuzi, 2008). This sample is matched with all companies covered by *Management Today* Britain's "Most Admired Companies (MAC)" 2004 survey (Hasseldine et al., 2005). This sample consisted of 220 companies of which the matched sample had a final tally of 106 companies. Financial variables were obtained from *DataStream* and CGMs and intangible assets attributes were obtained from the annual reports. The dependent variable, reputation score (RPSC) is based on the 2004 "MAC" survey. In order to test the model adopted from Toms (2002) and Hasseldine et al. (2005), a disclosure index (DISC) is generated based on a content analysis of intangible assets attributes as illustrated in Table 1. The disclosure index is quantitative and is measured as a dichotomous variable, scoring "1" for the presence of the intangible attribute and "0" for its absence within the annual report. The signalling of IA attributes and the development of a good CR may mature at different points in a firm's life cycle. The paper therefore investigates the impact of the determinants of CR on varying levels of reputation and disclosure. For both the dependent variable (RPSC) and the independent variable, voluntary disclosure index (DISC), the paper generates dummy variables (RPSC1, RPSC2, RPSC3, RPSC4 and DISC1, DISC2, DISC3, DISC4 respectively) so that hypothesised relationships can be examined by applying governance characteristic and control variables at different CR and disclosure levels. Data for both variables is categorised into quartiles such that RPSC1 represents the first 25% of the sample in terms of those having the lowest reputation scores and DISC1, first 25% of the sample in terms of those having the lowest disclosure scores. Descriptive statistics are run on DISC, by classifying the disclosure index into a SC (structural capital) index, RC (relational capital) index and HC (human capital) index. In this way, the variation in CR may be investigated with respect to DISCSC (voluntary disclosure of SC attributes), DISCRC and DISCHC.

### 2.2 Research Design

The paper thus extends the model by Toms (2002) who examined the relationship between quality adjusted environmental disclosures and environmental reputation, by investigating CG structures that may be associated with an impact on the perceptions of RBDR, MA&FC. The empirical form of the model and a summary of the defined variables are set out below:

$$RPSC = \beta_0 + \beta_1 FINPERF + \beta_2 GRWTH + \beta_3 DISC - \beta_4 FINSTR + \beta_5 EXPRCD + \beta_6 EXCREM + \beta_7 DIRSHS + \beta_8 FINEXP + \varepsilon \quad (1)$$

where  $\beta_0$ : intercept;

$\beta_1$ - $\beta_8$ : coefficient of slope parameters;

$\varepsilon$ : error term.

Dependent Variable:

RPSC: Reputation scores from Management Today Britain's "Most Admired; Companies (MAC)" 2004 survey is applied as a measure of CR.

Independent Variables:

FINPERF: The ratio of profit before taxation to sales;

GRWT: Compounded five-year annual sales growth rate;

DISC: Un-weighted disclosure index based on disclosed IC attributes;

FINSTR:  $(\text{Total debt}/\text{total capital})\% - (\text{long term debt} + \text{short term debt} \& \text{ current portion of long term debt}) / (\text{total capital} + \text{short term debt} \& \text{ current portion of long term debt}) * 100$ <sup>3</sup>;

EXPRCD:  $(\text{The proportion of experienced non-executive directors to total directors})$ <sup>3</sup>;

EXCREM: Natural logarithm of executive remuneration;

DIRSHS:  $(\text{The proportion of ordinary equity held by directors of the Firm})$ <sup>3</sup>;

FINEXP: The presence of previous or current specialised accounting or auditing experience on the audit committee measured as a dichotomous variable.

Descriptive statistics and correlation tests are applied in order to establish the existence of non-normal data distribution and the lack of significant multicollinearity between variables included in the model. These tests are applied in the form of the Pearson correlation coefficients and the Spearman's Rank Order correlation coefficient ( $\rho$ ) (p). Furthermore, variance inflation factors (VIF) are run as a further confirmation of the lack of significant multicollinearity, these are reported with the results of the regression analysis. Several different models are run in the regression analysis to ensure collinear variables are not included in the same equation. This limitation may be expected to affect FINPERF and GRWT variables, as GRWT is based on turnover. The empirical tests are applied using the statistical package STATA and comprise non-parametric tests that include pair-wise correlation tests, Spearman's Rank Order tests, SWILK test (Shapiro & Wilk, 1965) for normal data and rank regression analysis, and parametric tests that include the robust OLS multiple regression analysis. As the OLS regression may have non-normal residuals, the application of the quantile regression (QREG) model may mitigate the statistical problems associated with this data set. In the next section, the results of the descriptive statistics are tabled. The reputation score is discussed with reference to the DISC and other corporate characteristics. The results of the empirical tests and hypotheses are presented and discussed. Reference is made to results of prior comparative studies identified in the literature.

### 3. Data Analysis and Discussion

#### 3.1 Descriptive Statistics

Descriptive statistics for the dependent and independent variables and the results of the Pearson correlation coefficients between RPSC and the independent variables, the Spearman Rank order tests and the bivariate statistical correlations between all independent variables are reported in Table 3. The results of the descriptive statistics on RPSC (Table 3, Panel A.) indicate that there is a wide range of variation in the extent of CR. This result indicates that FINPERF of these firms varies from 30% loss to 40% profitability and that the mean GRWT rate is 52%; these companies disclose on average 36% of the attributes that could be disclosed within the IA framework. Up to 89% of the sample companies appointed a financial expert on their audit committees and an average of 14% of all directors are EXPRCD. Variables relating to CG have been transformed. FINSTR, DIRSHS and EXPRCD are transformed to the power of three and EXCREM by the natural logarithm to establish normal distribution by reducing kurtosis and skewness which is required for the OLS regression. Both FINPERF and GRWT illustrate a positive and significant relation with CR, consistent with the direction of the test and the signalling framework; RBDR. Although DIRSHS indicates a weaker relationship, the direction of the relationship is negative indicating decreasing CR with increasing director ownership. The correlation between FINPERF and GRWT indicates that financially performing companies are likely to grow as signals of the firm's viability increase accessibility to capital, markets and other resources. The correlation matrix indicates that DISC enhances GRWT as stakeholders are signalled when market share increases as management convert opportunities into sales. However, inappropriate or excessive EXCREM may hinder GRWT. DISC is therefore essential in promoting accountability and transparency, and is enhanced by the presence of EXPRCD who promote both GRWT and the signalling of intangible resources. The results of the correlation matrix illustrate

that highly geared companies may provide more monitoring as VDIA is enhanced when debt levels increase. Moreover, the presence of FINEXP on the audit committee minimises the amount of debt firms take on board. The correlation matrix results indicate that directors who hold larger stakes in their firms are likely to be associated with minimal EXCREM whereas, firms in which directors' equity is minimal, EXCREM is expected to higher. This result is only reported by the Spearman test; the Pearson's coefficients report insignificant results. The remaining variables appear insignificant in explaining the variation in CR. Other inter variable correlations are lower than 50% and insignificant.

Panel B of the descriptive statistics illustrates the variation in the means of the CGMs as the mean reputation score increases from RPSC1 which represents the quartile with the least reputation scores to RPSC4 the quartile with highest reputation scores. The results indicate VDIA (DISC1) is highest (0.38) when company's reputations are low (RPSC1); 39% of the companies with the worst corporate reputation (RPSC1) fall into the quartile of highest disclosing companies (DISC4). As these companies have little or no reputation incentives exist for managers to develop and build reputation; VDIA is viewed as a mechanism that can promote accountability and transparency as well as signal the existence and competitive advantage of intangible.

Table 3. Panel A: Descriptive statistics and correlation matrix for continuous variables

Variable	Mean	Standard deviation	Min	Max	A	B	C	D	E	F	G	H	I
A RPSC	53.673	7.201	35.400	66.300	1	0.404***	0.344***	-0.005	-0.079	0.030	-0.019	0.100	-0.150
B FINPERF	0.081	0.101	-0.400	0.300	0.393***	1	0.373***	0.068	-0.068	-0.065	-0.002	0.003	0.073
C GRWT	51.850	44.727	8.610	304.270	0.383***	0.224**	1	0.421***	0.058	0.140	-0.073	-0.177*	-0.001
D DISC	0.362	0.135	0.110	0.680	0.024	0.082	0.434***	1	0.239**	0.299***	-0.159	0.041	0.056
E FINSTR	17.228	67.182	0.000	672.000	-0.027	-0.058	-0.059	0.023	1	0.005	-0.111	-0.038	0.171*
F EXPRCD	0.140	0.123	0.000	0.614	0.100	-0.094	0.228**	0.278***	0.126	1	-0.030	0.014	0.064
G DIRSHS	0.007	0.036	0.000	0.260	-0.167*	0.031	-0.080	-0.077	-0.029	-0.028	1	0.211**	0.007
H EXCREM	14.513	2.118	0.000	16.420	-0.135	-0.005	-0.082	-0.009	0.074	-0.045	-0.015	1	-0.090
I FINEXP	0.887	0.318	0.000	1.000	-0.154	0.017	0.048	0.056	0.301***	-0.016	0.059	-0.069	1

Notes. \*\*\*  $P$ -value  $< 0.01$ ; \*\*  $p$ -value  $< 0.05$ ; \*  $p$ -value  $< 0.10$ .

Pearson's coefficients reported for pairs of continuous variables and Spearman for pairings involving dichotomous variables.

RPSC: Reputation scores from Management Today Britain's "MAC" 2004 survey is applied as a Measure of CR.

DISC: Un-weighted disclosure index based on disclosed IC attributes.

FINPERF: The ratio of profit before taxation to sales.

GRWT: Compounded five-year annual sales growth rate.

DISC: Un-weighted disclosure index based on disclosed IC attributes.

FINSTR:  $(\text{Total debt}/\text{total capital} \% (\text{long term debt} + \text{short term debt} \& \text{current portion of long term debt})/(\text{total capital} + \text{short term debt} \& \text{current portion of long term debt}) * 100)^3$ .

EXPRCD:  $(\text{The proportion of experienced non-executive directors to total directors})^3$ .

EXCREM: Natural logarithm of executive remuneration.

DIRSHS:  $(\text{The proportion of ordinary equity held by directors of the Firm})^3$ .

FINEXP: The presence of previous or current specialised accounting or auditing experience on the audit committee measured as a dichotomous variable.



Table 4. Panel B: Descriptive statistics by governance mechanism

Reputation Score	DISC	DISC1	DISC2	DISC3	DISC4	DISCSC	DISCRC	DISCHC	FINSTR	EXPRCD	EXCREM	DIRSHS	FINEXP
<b>Mean</b>													
RPSC1=1	0.380	0.250	0.179	0.179	0.393	0.263	0.449	0.387	10.099	0.125	14.628	0.023	1.000
RPSC2=1	0.348	0.192	0.346	0.346	0.115	0.207	0.428	0.373	41.081	0.157	14.877	0.002	0.846
RPSC3=1	0.361	0.346	0.231	0.192	0.231	0.242	0.420	0.385	10.767	0.114	14.870	0.000	0.846
RPSC4=1	0.358	0.308	0.269	0.192	0.231	0.250	0.374	0.415	7.515	0.166	13.668	0.002	0.846
<b>Standard Dev</b>													
RPSC1=1	0.141	0.441	0.390	0.390	0.497	0.111	0.181	0.210	9.573	0.094	0.644	0.069	0.000
RPSC2=1	0.097	0.402	0.485	0.485	0.326	0.101	0.149	0.174	132.320	0.131	0.655	0.006	0.368
RPSC3=1	0.150	0.485	0.430	0.402	0.430	0.122	0.177	0.207	20.125	0.096	0.615	0.000	0.368
RPSC4=1	0.149	0.471	0.452	0.402	0.430	0.132	0.171	0.203	12.389	0.160	4.070	0.005	0.368

Notes. \*\*\*  $p$ -value  $< 0.01$ ; \*\*  $p$ -value  $< 0.05$ ; \*  $p$ -value  $< 0.10$ .

Pearson's coefficients reported for pairs of continuous variables and Spearman for pairings involving dichotomous variables.

RPSC: Reputation scores from Management Today Britain's "MAC" 2004 survey is applied as a Measure of CR.

DISC: Un-weighted disclosure index based on disclosed IC attributes.

FINPERF: The ratio of profit before taxation to sales.

GRWT: Compounded five-year annual sales growth rate.

DISC: Un-weighted disclosure index based on disclosed IC attributes.

FINSTR: (Total debt/total capital % (long term debt + short term debt & current portion of long term debt)/(total capital + short term debt & current portion of long term debt)\*100)<sup>3</sup>.

EXPRCD: (The proportion of experienced non-executive directors to total directors)<sup>3</sup>.

EXCREM: Natural logarithm of executive remuneration.

DIRSHS: (The proportion of ordinary equity held by directors of the Firm)<sup>3</sup>.

FINEXP: The presence of previous or current specialised accounting or auditing experience on the audit committee measured as dichotomous variable resources. However, in this group of companies where the reputation is lowest (RPSC1), 25% of the companies with the lowest corporate reputation fall into the quartile of least disclosing companies (DISC1). It may be that VDIA alone is not sufficient to generate reputation; lack of investment in discretionary expense such as R&D may contribute to the lack of attributes to signal. However, the relationship appears to be u-shaped for companies with medium disclosure (DISC2 and DISC3) accounting for only 18% each of the companies in RPSC1. It appears that when reputation is low RPSC1, management have to take significant action in rectifying the issues; on the one hand some actions may leave the firm cash strapped and without resources to invest in IA, on the other hand firms must engage in an active strategy to regain or build and develop lost reputation through a high disclosure strategy. This u-shaped relationship where most of the companies fall into either high disclosing or low disclosing is found in RPSC1, RPSC3 and RPSC4. However, as the mean reputation score increases there is a shift from a majority disclosing companies (DISC4) to a majority of low disclosing firms (DISC1). In RPSC4, we find that the majority of the companies fall into DISC1 (31%). It appears that proprietary costs may contribute to a low disclosure strategy for firms in RPSC4; other firm signals may contribute to reputation maintenance. Nevertheless, 23% of all firms in RPSC4 fall into the high disclosing group DISC4. These firms are likely to apply existing intangible resources in developing new markets; such firms are able to sustain their competitiveness. In RPSC2, the u-shaped relationship is inverted, with the majority of companies falling into the medium disclosure groups DISC2 and DISC3 and accounting for 70% of all companies in RPSC2. It appears the incentives are higher for managers to invest in discretionary expenses such as R&D, at the same time the organisation has attained some reputation and the pressures for a high disclosing strategy are reduced; as such firms appear to manage a "middle of the road" disclosure approach that is matched by the lowest mean DISC (0.35). Panel B descriptive statistics further suggest that voluntary disclosure of SC, RC and HC is important for firm's strategies aimed at developing, building and maintaining corporate reputation.

The largest variation of these attributes in relation to CR is found in DISCSC. RPSC2 has the lowest voluntary disclosure of SC attributes (20.7%) relative to other categories and RSPC1 has the highest voluntary disclosure of SC attributes (26.3%) relative to other categories. The trends in this category are consistent with those of DISC4, the quartile of highest disclosing companies. The relationship is U-shaped; voluntary disclosure of SC is employed by low reputation firms (RPSC1) in developing and building CR and by high reputation firms (RPSC4) in maintaining their existing CR. For organisations that disclose a low number of SC attributes (RSPC2 and RSPC3), CR falls within the medium range. The trend for DISCHC follows one that is similar to the high voluntary disclosure strategies being employed by companies with extreme reputation scores, either very low or very high. DISCRC however, may be increased to reduce CR or to increase CR. The disclosure of these RC attributes is therefore reduced by firms that maintain their competitive advantage through non-disclosure, consistent with proprietary cost hypothesis. Within the group of low corporate reputation companies (RPSC1), RC attributes are the most disclosed attribute (0.449), ahead of disclosure by firms with more corporate reputation (RPSC2 to RPSC4) and ahead of other classifications of intangible attributes (SC and HC). Thus, on the one hand, reputation building and development begins with establishing reputational capital (RPSC1) (44.9%) and on the other hand, firms that have achieved a reputation (RPSC4) are associated with lower levels of voluntary disclosure of RC (37.4%) and higher levels of disclosure of HC (41.5%). Firm strategies that promote HC, signal vision, leadership and technical competence; these resources enable firms to sustain their competitiveness particularly within the board of directors and within R&D projects. Reputable personnel are likely to be attracted to reputable firms. It appears therefore, that the high disclosing companies (DISC4) that focus on RC are associated with lower reputation companies (RPSC1), however high disclosing companies (DISC4) that focus on HC attributes are associated with higher reputation companies (RPSC4).

Table 5. Panel C: Descriptive statistics by governance mechanism

Disclosure Index	RPSC	FINSTR	EXPRCD	EXCREM	DIRSHS	FINEXP
<b>Mean</b>						
DSC1=1	53.795	5.319	0.093	14.683	0.014	0.897
DSC2=1	54.148	30.741	0.136	14.838	0.001	0.852
DSC3=1	53.810	12.035	0.163	13.565	0.001	0.917
DSC4=1	52.918	21.272	0.176	14.860	0.010	0.885
<b>Standard Dev</b>						
DSC1=1	7.747	7.506	0.083	0.617	0.050	0.310
DSC2=1	6.570	0.250	0.200	1.950	0.080	0.360
DSC3=1	6.982	24.325	0.125	4.220	0.003	0.282
DSC4=1	7.741	28.527	0.141	0.661	0.051	0.326

Notes. \*\*\*  $p$ -value  $< 0.01$ ; \*\*  $p$ -value  $< 0.05$ ; \*  $p$ -value  $< 0.10$ .

Pearson's coefficients reported for pairs of continuous variables and Spearman for pairings involving dichotomous variables.

RPSC: Reputation scores from Management Today Britain's "MAC" 2004 survey is applied as a Measure of CR.

DISC: Un-weighted disclosure index based on disclosed IC attributes.

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DISC: Un-weighted disclosure index based on disclosed IC attributes.

FINSTR:  $(\text{Total debt}/\text{total capital} \% (\text{long term debt} + \text{short term debt} \& \text{current portion of long term debt})/(\text{total capital} + \text{short term debt} \& \text{current portion of long term debt}) * 100)^3$ .

EXPRCD:  $(\text{The proportion of experienced non-executive directors to total directors})^3$ .

EXCREM: Natural logarithm of executive remuneration.

DIRSHS:  $(\text{The proportion of ordinary equity held by directors of the Firm})^3$ .

FINEXP: The presence of previous or current specialised accounting or auditing experience on the audit committee measured as a dichotomous variable.

Further analysis of the governance mechanisms illustrates that FINSTR as represented by gearing has a negative impact on CR. Where gearing is highest (RPSC2) (41.08), the mean disclosure index is lowest (0.35) and where gearing is lowest, reputation is highest (RPSC4). Gearing limits the amount of free cash flow and may limit the amount available for investment in IA; in addition, due to the higher monitoring levels of debt providers, VDIA may be substituted by debt as a governance mechanism. Furthermore, lower gearing (7.52) represents reduced financial risk as such RBDR, MA&FC may view such a financial structure as favourable as illustrated by RPSC4. Firms in which gearing is highest fall into RPSC2; executive remuneration for this group is highest (14.88). The lack of sufficient disclosure in this group creates an environment that lacks transparency and accountability with respect to the investment in IA. In addition, high EXCREM may be an indication of agency issues particularly where CR is low. The relationship between EXCREM and CR appears to be inverse; firms which pay lower remuneration (13.668) are associated with higher reputations (RSPC4). Furthermore, in the quartile where EXCREM is highest (RSPC2), the majority of firms maintain an average disclosure policy (DISC2 and DISC3), with the most disclosed attributes being RC. A few firms maintain a very aggressive disclosure policy (DISC4) and few companies maintain a low disclosure policy (DISC1). Gearing appears to have a significant impact on management's strategies for this quartile (RSPC2) as monitoring by debt holders is more significant, free cash flows have been reduced and the resources available for the investment in IA are limited. The relationship between CR and DIRSHS appears to be non-linear. Where directors hold relatively more equity (RSPC1), the reputation of those firms is low. Given the interaction between RSPC1 and DIRSHS, it is not likely that directors will invest in firms whose reputation is on a downward spiral. However, it may be that previously reputable firms have lost their CR status as such directors' shareholdings have remained intact. Management apply an aggressive policy to regain lost reputation through VDIA. Furthermore, younger firms in which DIRSHS is higher are likely to have lower reputations and management may be involved in strategies aimed at developing and building that CR. Although directors' shareholdings is highest for RPSC1 (0.023), executive remuneration (14.628) is lowest, illustrating an inverse relationship when VDIA is high. These results indicate that VDIA promotes transparency and limits excessive remuneration whereas participation to a relatively large scale in the equity of the firm may bring on board entrenchment policies likely to be unfavourable for firm value. All companies in RPSC1 have appointed a FINEXP on their audit committees as they begin a process of developing and building reputation or repairing lost reputation. The presence of FINEXP renders the contribution by EXPRCD (0.125), in the variation of CR, less effective as FINEXP mitigates agency costs attributed to the separation of ownership and control. The relationship between EXPRCD and CR illustrates that the existence of more experienced directors (0.166) leads to higher disclosure of HC (0.415) and to a higher reputation score (RPSC4). For firms with a higher proportion of EXPRCD, with lower disclosure of RC and with higher disclosure of HC, with lower EXCREM and with a higher number of EXPRCD, the reputation score is higher. Whereas low reputation firms are associated with extremes in VDIA, with firms presenting either very low or very high levels of IA. These firms focus on the disclosure HC attributes and RC respectively. Directors' shareholdings are high for these firms and all companies appoint a FINEXP on their audit committees.

Panel C of Table 5 presents the results of the descriptive statistics of the variation of DISC, CR and the CGMs. The variation in CR in response to the variation in VDIA warrants further examination of the impact of firm characteristics on VDIA. The results of the descriptive statistics illustrate that firms with the higher CR (54.148) fall into the low disclosing quartile DISC 2. These firms have the highest gearing (30.741), high director compensation (14.838) and lower level of both financial expertise on their audit committees (0.852) and director participation in the firm's equity (0.001). The variation of VDIA matches that of EXPRCD; these directors appear to influence transparency and accountability directly. Gearing does not illustrate a linear relationship with either RPSC or DISC; however, companies with the highest and the lowest gearing have below average disclosure (DISC2 and DISC1 respectively). Thus firms with extremes of gearing limit VDIA. In contrast, firms that have the highest and lowest director compensation appear to have above average disclosure (DISC 4 and DISC3 respectively). The variation of DIRSHS with DISC illustrates that some directors with equity participation encourage VDIA whilst others suppress disclosure. Where DIRSHS is lowest (DISC2 and DISC3) reputation is above the average of the sample companies moreover, where DIRSHS is above the average of the sample companies, VDIA is low (DISC1) and high (DISC4). The descriptive statistics illustrate that there is no discernible relationship between FINEXP and DISC, however firms with the highest and lowest FINEXP represent firms with above average RPSC.

### *3.2 Regression Results*

The next section examines the results of the regression equation of Model 1. Comparative regression equations are presented, the first is a QREG model incorporating all the independent variables and the second is a robust

OLS model also incorporating all the independent variables. These are variants 1 QREG and variant 1 OLS of Model 1. Subsequent equations drop successive governance mechanisms one at a time based on a robust OLS model. These are variants 2 OLS to 7 OLS of Model 1. Thus in Model 1 variant 1, the dependent variable is represented by RPSC; both a robust OLS and QREG regression is run on the independent variables. The  $F$ -statistic 0.11, is significant at 1% being large this statistics indicates a linear relationship overall. The value of  $R^2$  is 0.34, is significant. Overall, the model appears robust; the sample size is large (106 observations).

Table 6. Model (1) regression results

Model	1 (q-reg)	1 (l-reg)	2 (l-reg)	3 (l-reg)	4 (l-reg)	5 (l-reg)	6 (l-reg)	7 (l-reg)
Dependent variable	RPSC	RPSC	RPSC	RPSC	RPSC	RPSC	RPSC	RPSC
Independent variables								
CONSTANT	63.853** *	60.929***	58.764***	60.752***	61.427***	60.585** *	55.227***	57.149***
	(14.16)	(15.53)	(16.60)	(15.80)	(16.38)	(15.03)	(27.31)	(14.88)
FINPERF	25.504** *	24.462***	24.262***	24.541***	23.476***	23.902** *	24.362***	24.573***
	(4.07)	(4.22)	(3.89)	(4.26)	(4.22)	(4.18)	(4.32)	(4.23)
GRWT	0.043***	0.056***	0.045***	0.057***	0.059***	0.058***	0.058***	0.056***
	(2.67)	(3.82)	(3.03)	(3.89)	(4.23)	(4.11)	(4.10)	(3.84)
DISC	-11.037* *	-9.842*		-9.937*	-8.739*	-9.397*	-10.091**	-10.458**
	(-1.90)	(-1.93)		(-1.95)	(-1.78)	(-1.80)	(-1.99)	(-2.03)
FINSTR	-0.007 *	-0.005*	-0.005		-0.003	-0.004	-0.005*	0.001
	(-1.45)	(-1.70)	(-1.56)		(-1.18)	(-1.64)	(-1.94)	(0.41)
EXPRCD	6.189 *	5.683	3.652	5.36		5.588	5.976	5.667
	(1.13)	(1.26)	(0.84)	(1.21)		(1.24)	(1.33)	(1.20)
DIRSHS	-31.408** *	-30.399** *	-28.852** *	-30.312** *	-30.220** *		-30.042** *	-32.314** *
	(-2.08)	(-2.99)	(-3.46)	(-3.01)	(-2.96)		(-2.94)	(-3.12)
EXCREM	-0.438* *	-0.384*	-0.404*	-0.392*	-0.397**	-0.376*		-0.357*
	(-1.79)	(-1.81)	(-1.93)	(-1.88)	(-2.01)	(-1.70)		(-1.68)
FINEXP	-5.239** *	-3.973***	-4.207***	-3.689***	-3.970***	-4.182***	-3.846***	
	(-2.39)	(-3.45)	(-3.64)	(-3.39)	(-3.28)	(-3.67)	(-3.31)	
Mean VIF		1.140	1.090	1.130	1.120	1.160	1.160	1.130
Z	0.128	0.206	0.241	0.243	0.249	0.290	0.270	0.174
F		11.190***	12.070***	11.270***	12.080***	10.650** *	12.110***	10.820***
$R^2$ /Pseudo $R^2$	0.249	0.342	0.316	0.341	0.334	0.319	0.330	0.315
N	106	106	106	106	106	106	106	106

Notes. Numbers in parentheses are  $t$ -statistics based on White's (1980) heteroscedasticity consistent estimation matrix. Significance levels (one-tailed test except intercept terms and industry dummies): \*\*\*  $p < .01$ ; \*\*  $p < .05$ ; \*  $p < .10$ . VIF: Variance inflation factor. Z: OLS specifications reported normal residuals ( $z = 0.14$ ) and these models (1.2 to 1.6) were re-specified using quantile regression. Numbers in parentheses are  $t$ -statistics based on White's (1980) heteroscedasticity consistent estimation matrix.

This research formulates the null hypothesis to determine if Model 1 has any explanatory power.

$H_0$ : all coefficients are  $< "0"$

This research rejects  $H_0$  when  $F_{observed} > F_{critical}$ . Thus  $F_{(0.05, 8, 106)} = 2.039$ . This research therefore rejects the null hypothesis that all the variables jointly have no explanatory power in the model. As  $F_{observed} > F_{critical}$ ,  $H_0$  is rejected and this research concludes that Model 1 has some explanatory power. As disclosed in Table 2, there is no multicollinearity in the data; Hair, Anderson, Tatham and Black, (1995) state that multicollinearity is only a problem when correlation values exceed 0.80. This research therefore applies a sensitivity test as an effective test of multicollinearity: the variance inflation factor (VIF). This factor is reported in Table 2, collinearity does not appear to be a serious problem in Model I as neither the highest factor nor the mean VIF exceeds two. Myers (1990) suggests that a VIF of 10 is cause for concern as the regression may be substantially biased if the average VIF is substantially greater than one. Thus, an average VIF of 1.14 confirms that collinearity is not a problem. Within the OLS model, the mean VIF indicates no collinearity and the  $z$ -statistics indicates that the residuals are normally distributed and within this research-defined threshold of 5% confidence for non-normality for all variants of Model 1. In addition, the adjusted  $R^2$  of 0.34 for the robust OLS regression indicates that the variables FINPERF, GRWTH, DISCLINDEX, FINSTR, DIRSHS, EXCREM and FINEXP are significant in explaining the variation in CR. The next section discusses the results of the individual variables and the hypothesis that are developed for the empirical tests. Generally in Model 1, the results are consistent with the parametric tests of Tables 3 and 4. All variables are significant in one or other variant of Model 1 with the exception of EXPRCD which although insignificant on its own throughout, appears to have some influence in the presence of highly geared firms. FINSTR is not significant in the absence of EXPRCD. EXPRCD are thus able to lower financial risk to enable the development and maintenance of CR through the signalling of “hidden value” generated by investment in IA. . The results are consistent with Balakrishnan and Fox (1993) and Baysinger and Hoskisson (1989) who find that highly geared companies have less R&D investment that may lead to less IC disclosure. The remaining variables in Model 1 variants 1 to 7 provide consistent results. The results of FINPERF is consistent with signalling as the theoretical approach; management signal successful management practices and strategies to inform markets of the company’s competitive advantage. The results of all variants of Model 1 illustrate that GRWT has a positive impact on CR; these results are consistent with those of the correlation matrix. The DISCLINDEX on the other hand is negative and may signal the presence of proprietary costs, as firms with lower levels of VDIA appear to have the higher CR. This is consistent with the correlation matrix which indicates that VDIA (DISC1) is lowest when CR is highest (RPSC4) and VDIA (DISC4) highest when CR is lowest (RPSC1). Growth prospects are likely to influence management strategies as their tailor VDIA to either build or maintain CR. This result however, conflicts with the hypothesised relationship within the RBV and signalling framework, adopted by this paper. FINSTR exhibits a weak and negative relationship with CR, and only in variants 1 and 6 of the robust OLS model. FINSTR is insignificant in all other variants. (Ross, 1977) reports that high debt levels may restrict any additional borrowings limiting the firm’s ability to capitalise on favourable projects (Myers, 1977). EXPRCD appear not to influence CR however, they appear to be effective monitors of debt levels in firms; in their absence lower gearing becomes insignificant in facilitating CR development and maintenance. The hypothesis on the proportion of experienced non-executive directors to total directors (EXPRCD) and CR is not confirmed; EXPRCD does not have a favourable impact on reputation. The coefficient for DIRSHS (-30.399) is the largest of the CGMs in Model 1 and is consistently negative and significant in all variants. Additional shares provide directors with more control, thus enabling them to adopt entrenchment policies which are likely to have a detrimental effect on CR (Fama & Jensen, 1983). The hypothesised relationship is not confirmed, larger director share holdings result in reduced CR. It appears RBDR, MA&FC is able to penalise agency costs associated with excessive compensation of directors (EXCREM) by reducing the associated firm’s CR. The results illustrate that higher remuneration is associated with agency costs with a detrimental effect on CR. It appears that higher remuneration is associated with inefficiency and that measurement basis for compensation may not be related to economic value added for shareholders. FINEXP appears to be a CGM that is associated with repairing or developing CR rather than maintaining CR. As illustrated in Table 4, all firms with a low reputation RPSC1 have appointed a financial expert on their audit committee thus FINEXP is a positive significant explanatory variable of the variation in the extent of CR.

All variants of Model I, 1 to 7 are consistent with the results of the QREG in variant 1 with the exception of FINSTR that is insignificant in the QREG model. In addition, within the OLS variants, FINSTR is not significant in the absence of VDIA, in the absence of EXPRCD, in the absence of DIRSHS and in the absence of FINEXP. The negative coefficient for FINSTR may be indicative that gearing has a negative impact on CR. This impact is enhanced when CGMs are not in place to reduce the financial and insolvency risk that may be attached to debt. In variant 4, the presence of EXPRCD is important within CGMs as they are able to lower gearing in generating CR. Thus, their experience and knowledge may direct management to more conservative debt levels. In variant 5, DIRSHS is an important CGM, such equity ownership encourages management to reduce debt

levels and thus enable the firm to generate and maintain CR. High debt levels may reduce the cash available for dividends and thus limit the personal income flow and capital gains for the directors as well as market value of their shares. Variant 6 indicates that presence or absence of EXCREM does not influence the variation of CR relative to changes in FINSTR. As such EXCREM may be one such control that is independent of other CGMs; whether directors receive low or high compensation, firms with lower levels of debt appear to always attract good CR. The results are consistent with the correlation analysis for the group of companies represented by RPSC2, gearing here is highest when executive remuneration is highest. As such, in the absence of moderate compensation for directors, gearing acts as the CGM to maintain CR. In the absence of FINEXP, the direction of the relationship changes and becomes insignificant. As such, the presence of both EXPRCD and FINEXP, enable debt monitoring as a mechanism that promotes CR. These results are consistent with the results of the correlation matrix, highly geared companies may provide more transparency as VDIA is enhanced when debt levels increase. Moreover, the presence of FINEXP on the audit committee minimises the amount of debt firms take on board. In conclusion, the descriptive statistics confirm that where gearing is highest (RPSC2), the mean disclosure index is lowest and where gearing is lowest, reputation is highest (RPSC4). Consistent, with the hypothesised test, lower gearing represents reduced financial risk as such RBDR, MA&FC may view such FINSTR as favourable as illustrated by RPSC4.

#### 4. Discussion

Voluntary disclosure of IA may be limited in particular for companies who may have attained a significant reputation. Management may be motivated to limit disclosures due to potential losses as competitors and rivals may be made privy to the firm's trade secrets and strategies. It appears that proprietary costs may contribute to a low disclosure strategy for some firms whose strategy is to maintain the existing high level of CR whilst some firms employ a signalling strategy aimed at developing and building the low level of CR. In addition, strategies vary in the nature of the IA disclosed; on the one hand, reputation building and development begins with establishing RC and on the other hand, firms that have achieved a high level of CR are associated with lower levels of voluntary disclosure of RC and higher levels of disclosure of HC. Thus, for firms with a higher proportion of EXPRCD, with lower gearing, with a lower general VDIA and extremes in the nature of disclosure, with firms presenting lower disclosure of RC and higher disclosure of HC, with lower EXCREM, lower director share ownership and with relative less FINEXP, the reputation score is higher. Whereas low reputation firms are associated with higher levels of general VDIA and extremes in the nature of the disclosures, with firms presenting lower levels of HC and higher levels of RC. Directors' shareholdings are high for these firms and all companies appoint a FINEXP on their audit committees. RBDR, MA&FC perceive financial performance and growth as reputation building and maintaining and that the involvement of executive directors with equity ownership as detrimental to the interests of shareholders and firm value. For firms adopting a signalling perspective, growth appears to enhance disclosure; VDIA is enhanced by the presence of EXPRCD who promote both GRWT and the signalling of intangible resources. Although low geared companies appear to provide less monitoring in the form of VDIA, CR is enhanced when debt levels decrease as the most reputable companies appear to have the lowest gearing. Where directors hold relatively less equity and where compensation is more conservative, the reputation of those firms is higher; firms with the lowest reputation have all appointed a financial expert on their audit committees as they begin a process of developing and building reputation or repairing lost reputation. This paper has investigated the information flow from management to the market through the annual report and the conflicts of interest that may arise and lead to less transparency and less accountability. In addition, this paper examines the motivation faced by management in influencing disclosure and the opinions of RBDR, MA&FC by striking a balance between various firm characteristics and their impact on CR. Nevertheless, this paper argues that not all stakeholders are exposed to or interested in all firm characteristics rather that, the focus seems to be on those characteristics that influence their particular component be it financial, environmental, employee policy or social reputation. Within the RBV and signalling framework, adopted by this paper, it is hypothesised that the variation of VDIA is positively associated with CR. On incorporation, an organisation may have very little in terms of CR; however, financial performance over an extend period, a well-managed financial structure, steady growth, effective management and the appropriate signals to stakeholders is likely to build a good reputation. Once attained, several benefits may accrue to the firm leading to increased FINPERF. On the other hand, a firm which has attained a good reputation may experience declining FINPERF, however due to the stickiness of reputation the good reputation may persist long after the first indications of financial woes. Voluntary disclosure continues to be a strategic tool for management. As disclosure of these IA attributes has the ability to influence the development and maintenance of CR and firm value, markets are likely to make better decisions if all relevant information was made available. This paper has identified that disclosure of IA is not regulated and generally governed by market forces. These forces lead to

various self-regulatory practices. Information asymmetry between management and markets may be due to IA information that falls outside the traditional reporting framework. Consequently, interest continues to grow with respect to the reporting of such IA outside the audited financial statements. The wide range in the disclosure the VDIA patterns of firms and in the IA attributes and categories disclosed, are indicative of management's perception that the different types of IA attributes are perceived differently by RBDR, MA&FC. The variation in the level of VDIA throughout the sample companies suggests that some companies may require increased disclosure to meet market demands and other companies may be disclosing in excess of market requirements. Mandatory regulations need to be aimed at a point that benefits both disclosing and non-disclosing companies whilst ensuring market information needs are met.

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