CORPORATE GOVERNANCE, INTELLECTUAL CAPITAL AND PERFORMANCE: EVIDENCE FROM THE PUBLIC SECTOR IN THE GCC

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Abstract

This unique study tries to link corporate governance, intellectual capital and organizational performance in the public sector in the Gulf Cooperation Council (GCC). To do so we collected data from 371 managers in public entities within the GCC region. Our findings indicate the importance of corporate governance (in form of human, social and structural capital) to enhance performance in the public sector. Not only have those, results showed that the examined forms of capital are interrelated. We therefore support earlier findings that attribute impact of intellectual capital variables on performance. These results are highly relevant within the context of the GCC public sector. The findings of the papers help both, scholars and practitioners: the findings of the paper help to better understand the links between corporate governance and intellectual capital. Further, the study provides – based on GCC public sector data - the unique opportunity to see the interrelationships between corporate governance, intellectual capital and performance within the GCC public sector.

Keywords: Corporate Governance, Human Capital, Structural Capital, Firm Performance, Public Sector, GCC

1. INTRODUCTION

Corporate governance aims at allocating (corporate) resources in a manner that maximizes value for its stakeholders, not the shareholders alone. Jean Tirole (2001) elaborated on that more than 15 years ago, mainly from the financial perspecitve. What has changed over the years in the area of corporate governance is twofold. We have seen a transformative approach to that goes beyond corporate governance as a managerial strategy (Visser, 2011) and a rethinking of the meaning of (economic, social, environmental, cultural) capital (McIntosh, 2015).

The increasing importance of knowledge, organizational and human capital highlights the importance that the providers of this capital find proper representation in the governance processes. In professional service firms, for example, the only important capital is human and the full powers of ownership are in the hands of providers of this human capital. The corporate governance of a company in form of intellectual capabilities can therefore contribute towards its competitiveness and success (Dumay, 2016; Choudhury and Orissa, 2010; Hsu and Sabherwal, 2011; Kamaluddin and Abdul Rahman, 2010; Schiuma and Lerro, 2008; Wang, 2011; Youndt and Snell, 2004).

Some scholars went to the extent of indicating that corporate governance is linked heavily to intellectual capital, which is the key driver of organizations (Shahveisi et al., 2017; Pardis et al., 2016). Along the same lines, scholars (Subramaniam and Youndt, 2005; Youndt et al., 2004) are linking key intellectual capital elements (human, structural, and social capital) to firm performance. Despite that, research onto the role of intellectual capital in a company's performance remains an area that requires additional empirical investigation (Dumay and Guthrie, 2017; Rossi et al., 2016; Hsu and Sabherwal, 2011; Ramirez, 2010; Youndt et al., 2004).

In this study, we want to focus on corporate governance in public entities. More specifically, the influence of corporate governance (in form of intellectual capital variables) on performance within the public sector is a blank spot in the literature. Reasons for that might lie in the belief that within the low-competition business context of public entities, quality of services, information management and customer satisfaction play a small role. This is misleading, as corporate governance has found its way into public entities for more than a decade now (Ramirez, 2010). This implies that intellectual capital variables might also contribute to high performance in public entities.

Moreover, we want to study the inter-connectivity between these intellectual capital variables while investigating their effect on performance. Little evidence has been found to demonstrate the presence of such associations in the public sector.

This study aims at making two contributions to the corporate governance in the public-sector literature. On the one hand, we conduct an empirical investigation of the influence of intellectual capital variables. On the other hand, we want to examine the interrelations between human, social and structural capital in public entities.

The rest of the paper is organized as follows. Section 2 presents the theoretical background on intellectual capital, the impact of knowledge resources on performance as well as corporate governance in the public sector to come up with six propositions. In section 3 the method of the study is presented. The (regression) analysis and presentation of findings follows in section 4 before we discuss the implications in section 5.

2. THEORETICAL BACKGROUND

In the literature one can find many classifications of intellectual capital. Most are versions of what could be termed the Sveiby-Stewart-Edvinsson model (Bukh et. al., 2001) that suggests - although the exact words differ between the three writers - that there are three types of intellectual resources (for a more recent debate see Ketchen et al., 2017).

2.1. Human, structural and social capital

Intellectual capital is the sum of everything the people of an organization know and what can be converted into value (Edvinsson, 1997). We focus on the three primary classifications of intellectual capital: human, structural and social (Subramaniam and Youndt, 2005; Youndt and Snell, 2004; Youndt et al., 2004).

Human capital signifies the individual and collective experience, knowledge, competencies and skills of the manpower in an organization, or in other words, the knowledge and skills possessed by the workforce that includes the creativity and innovation-power of the organization (Edvinsson, 1997). As much as this definition seems employee-focused, it highlights the possibilities that a firm could make from investments into its workers' knowledge, skills and abilities (Lepak and Snell, 1999). As we are studying the influence of intellectual capital variables on performance, it takes the latter view.

Structural capital comprises of the intangible infrastructure that exists in an organization. This includes the organization's processes, software and trademarks for example. Roughly speaking, structural capital is the knowledge-power that remains when the employees leave (Bukh et. al., 2001).

Social capital includes the inter-linkages that workers possess among each other and the bonds that an organization's employees can build with suppliers and customers. It is therefore defined as an intellectual asset that includes the knowledge, skills and abilities that are embedded in an organization's network of individuals (Youndt et al, 2004). This form of capital projects the extent to which a firm can leverage knowledge between networks of workers, customers, suppliers and/or partners (Youndt and Snell, 2004).

2.2. Controlling of knowledge resources and its impact on performance

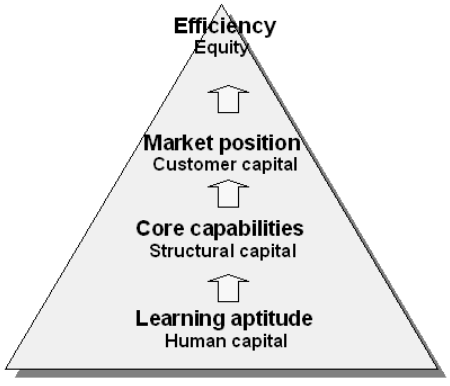
For most companies, the composition of companywide knowledge-goals is a relatively new challenge in practice. In a world, where most firms just have made decisions about monetary and market intentions, knowledge-goals can be described as "hidden" goals, which shall help to fulfil the engagingly determined finance and market goals (Raub & Wittich, 2004). In this context, the particular challenge for companies is to detect the requirement of such knowledge-goals and to agree them company wide as part of organizational performance.

The necessity of valuating knowledge affiliates to this challenge directly. Millar & Choi (2003) say that when defining goals, it should be clear that the achievement of objectives must be controlled currently, for ensuring that the arranged goals have been reached at the end of the relevant period. Concerning this knowledge-based idea, there is no difference compared to the controlling of financial goals. Additionally, it is worth to mention that more and more investors cannot be satisfied with purely key data of the balance sheet (Johansson et. al. 1996). There is a clear tendency that information about the productivity of a company - such as the qualification of management and employees, the ability to accomplish critical situations innovatively, as well as flexibility and promptness in the market - are taken into consideration, when thinking about investing into a company.

An approach for explaining the necessity of controlling of knowledge resources, was developed by Bullinger (1999). According to him, the requirement of this concept is correlated with the ability of companies to handle the preliminary factors of success. The management approaches of the last decades affirm his thesis. Whilst the financial management has always represented the center of the managerial thinking, people started to consider the handling of preliminary factors not until the appearance of the strategic management approach.

The following figure, using the aforementioned categorization of intellectual capital, shows the idea behind the concept of Bullinger (1999)

Figure 1. The strategic iceberg (Bullinger, 1999)



It is a fact that success in markets can be seen as a preliminary factor of financial success. Since the emergence of the knowledge-based theory of the firm, managers have started to take such domains into consideration which are responsible for success in the markets, namely the abilities to generate above-average performance.

2.3. The Interconnections between Human, Social and Structural capital

We have elaborated that human, social and structural capital can impact organizational performance. In addition, the latter forms of capital can as well be related to one another.

Researchers agree that **human capital can contribute to the development of social and structural intellectual capital** (Cavicchi, 2017: Kang et al., 2007; Youndt et al., 2004). In relation to the impact of human capital on social capital, Kang et al. (2007) indicate that based on the features of human capital of an organization, common component knowledge might develop between employees. Moreover, workers' interpersonal skills can facilitate the development of collective work between members within firms and can promote relationships between a company's members and different outside stakeholders (Youndt and Snell, 2004), which is very relevant in regards to corporate governance. Human capital can also impact a company's structural capital. In other words, workers' skills and knowledge can contribute to the development of a firm's databases, manuals and procedures (Hansen et al., 1999; Youndt and Snell, 2004). For example, the experience that employees have gathered from earlier projects can assist in the creation or optimization of a firm's procedures (Youndt and Snell, 2004). Similarly, employees' experiences and knowledge can help updating a firm's databases (Youndt et al., 2004).

This is not a one-way street, so **social and structural capital can as well contribute developing a firm's human capital**. To help supporting this argument, it is important to understand the two main categories of knowledge: tacit and explicit. Researchers have classified knowledge depending on the extent to which it can be capture and articulated in documents (Boh, 2007). **Explicit knowledge** can be described as knowledge that can easily be expressed or codified (Uzumeri and Nembhard, 1998). This can be shown in a documented written, a verbal or an electronic way. According to Koskinen et. al. (2003), explicit knowledge is the type of knowledge that an individual mainly has acquired in school, university and at work. A good example is the knowledge about how to handle a special machine. **Tacit knowledge** can be defined as knowledge that is not made explicit because it is highly personal, not easily visible or expressible (Sveiby, 1997). Following Tsoukas (1996), it usually requires joint, shared activities in order to transmit it. In other words, tacit knowledge can be seen as personal and context dependent. The best medium to exchange and learn tacit knowledge between employees is the network of interconnections that could exist among individuals (i.e. social capital) (Boh, 2007). Accordingly, it appears that social capital can help developing tacit knowledge in individuals and therefore, could promote human capital.

On the other hand, as explicit knowledge is knowledge that is scripted, it appears that documents (such as an organization's procedures, manuals and databases) could best help understanding and transmitting this form of knowledge (Hansen et al., 1999; Subramaniam and Youndt, 2005). Accordingly, it could be argued that structural capital could contribute to the development of human capital.

Perceived quality and value of products and/or services can have an influence on customer satisfaction (Fornell et al., 1996). It can be argued that structural capital can promote interactions among a firm's members. Accordingly, as social capital encompasses the connections that a company has with its clients and the relationships that members of a company could possess amongst each other, one can argue that **structural capital can impact social capital**. In turn, innovative ideas and work experiences that are exchanged between workers in networks of relations within a firm and contribute to the development of work processes and procedures. Hence, one could also argue **that social capital can impact structural capital**.

2.4. Corporate Governance Variables and Performance in the Public Sector

Before the 1930s, (public) companies were very often seen as a "black box" which was assumed to behave like any other self-interested utility maximizing economic actor. This view was based on the belief about the company's ability to almost instantaneously adjust itself to a changing environment. Consequently, resources of a firm (including the intellectual resources) were assumed to be put to their most efficient use without having a look "inside" the firm. It was treated as an entity competing with other firms in the market. Although the limitations of this macroeconomic view have already been cited by authors like Adam Smith, the contemporary legal concept of separate legal personalities of companies supports this theory. Only this broad and abstract perspective of firms can identify (mainly public companies) problems such as monopolies and oligopolies, where one or a group of firms are able to drive competitors out of the market.

Considering the benefits and effects Corporate Governance has in the short, medium and long term, the corporate governance model was adopted and implemented in the public sector, as a New Public Management approach during the '80-s and the '90-s by countries such as New Zealand, Australia and the UK, where the combined knowledge of a firm plays a significant function in its competitiveness and success (Kong and Thomson, 2009; Spender, 1996). While intellectual capital was commonly seen as a key asset for private more than public entities, there are indications pointing that such a view may no longer hold (Chen, 2008; Kong and Prior, 2008; Schiuma and Lerro, 2008). In effect, the public sector has been undergoing great reforms and is increasingly adopting management techniques and business objectives that are rather similar to those of private organizations (Carlin et al., 2005; Hodges

and Mellet,2002; Mouritsen and Thorbjornsen, 2004).

Much like in private firms, public organizations are more and more depending on a strong management of data and information (Chatterjee, 2017; Ramirez, 2010). Consequently, the exchange of knowledge between public sector employees and, among public entities and citizens can be significant to the performance of the public sector.

Nonetheless, while the examination of the literature points that intellectual capital constructs might play a role in the performance of public entities, research in this area is still in its embryonic stages (Cavicchi, and Vagnoni, 2017; Carlin et al., 2005; Chen, 2008; Guimet 1999; Hodges and Mellet, 2002; Kong and Prior, 2008; Mouritsen and Thorbjornsen, 2004; Ramirez, 2010; Schiuma and Lerro, 2008; Subramaniam and Youndt, 2005; Youndt and Snell, 2004; Youndt et al., 2004). Particularly, there is little empirical evidence supporting the influence of corporate governance (in form of intellectual capital variables) on performance in the public sector. In relation to that and in its attempt to contribute to the intellectual capital literature, this paper examines the subsequent three propositions:

Proposition 1: Human capital positively affects performance in the public sector.

Proposition 2: Social capital positively affects performance in the public sector.

Proposition 3: Structural capital positively affects performance in the public sector.

Moreover, while the presence of interconnections between intellectual capital variables still needs more research in private companies, there are, as discussed in the aforementioned section, arguments and findings that point towards a possible interrelationship between intellectual capital categories in these types of firms (Ujwary-Gil, 2017; Boh, 2007; Fornell et al., 1996; Hansen et al., 1999; Nonaka, 1994; Preece, 2003; Subramaniam and Youndt, 2005; Youndt and Snell, 2004). As discussed earlier in this section, many public entities are now adopting similar management techniques as in private companies. Accordingly, it could be argued that it is also likely that there exist interconnections between intellectual capital elements in public organizations. In relation to that, this papers tests the following propositions:

Proposition 4: Human capital is positively related to social capital in the public sector.

Proposition 5: Human capital is positively related to structural capital in the public sector.

Proposition 6: Structural capital is positively related to social capital in the public sector.

The subsequent section presents the methodological approach adopted in this research to test the aforementioned six propositions.

3. METHOD

Data in this study was collected from public organizations in the GCC region: on the one hand the regulatory body that mainly deals with issuing laws and regulations for other government entities. On the other hand, central government units that oversee the strategic planning, budgeting and performance management cycle for all government entities.

We used a self-administered questionnaire to collect data. The questionnaire included a cover letter introducing the research and its objectives, promised confidentiality and anonymity to the respondents. Data was gathered in an automated manner, using the NEPO software.

An internal communication was sent to all managers of the studied entities via an email, which encompassed a link to the survey. We talk about 371 managers who accepted to participate in the survey. The survey was drafted in English and all participating managers were fluent.

The survey items for the main variables in this study were formulated from previous research. Multi-item scales were adopted for all the key variables in order to obtain a comprehensive evaluation of these constructs (see Peter, 1979).

The corporate governance were measured by adopting the multi-item scale measure developed by Youndt and Snell (2004). The scale consists of 14 items designed to measure 3 subcategories of intellectual capital; *human*, *structural* and *social* capital.

Human Capital was measured using five-items tapping the overall skill, expertise, and knowledge levels of an organization's workers. Youndt and Snell (2004) reported an alpha coefficient of 0.81 for this measure. *Structural capital* was assessed using four items measuring an 'organization's ability to appropriate and store knowledge in physical organizational-level repositories such as databases, manuals and patents' (Youndt and Snell, 2004, p. 347) with a coefficient alpha of .62. *Social Capital,* was captured using five items reflecting 'an organization's overall ability to share and leverage knowledge among and between networks of employees, customers, suppliers, alliance partners, and the like' (Youndt and Snell, 2004, p. 347), with an alpha of .88. Regarding *Organizational Performance*, this variable was assessed through employees' perception of their company's performance rather than collecting financial measures (see stakeholder debate above). Whereas the use of perceptions of performance in place of measuring the actual performance can present limitations through increased error in the measurement, such a measure is commonly adopted in earlier studies. Most importantly, Dollinger and Golden (1992) have demonstrated that measures of perceived organizational performance have a positive association with objective measures of organizational performance. In this study, self-reported perceptions of performance are obtained with a multidimensional measure adapted from Gould-Williams (2003). This measure evaluated perceptions of value for money, service quality and service efficiency of a public entity, and has an alpha equal to .87.

4. ANALYSIS

All the variables used in this study were normally distributed. Table 1 highlights the variables means, standard deviations and reliability alpha coefficients.

Table 1. Variables Explanation

Variable	Items	Alpha	Standard Deviation	Mean
Human Capital	6	0.942	1.69608	1.085
Social Capital	4	0.866	1.15467	1.312
Structural capital	4	0.901	1.44019	1.969
Organizational Performance	5	0.731	1.01467	1.427

To test the hypotheses that the different corporate governance variables positively affect organization performance this study used regression analysis. The results are reported in table 2. The findings show that the human capital has a positive effect on organization performance (Beta=.576 p<0.001). In addition, social capital has a positive effect on organization performance (Beta=.605 p<0.001). As expected, the regression analysis output shows that structural capital has a positive effect on organizational performance (Beta=.598 p<0.001). Accordingly, the findings show that the effect of human, social and structural capital on organizational performance, when studied separately, was positive with beta and significance level being respectively 0.576 p<0.001, 0.605 p<0.001 and 0.598 p<0.001.

Table 2. Regression Analysis – the impact on performance

	Organization Performance Standardized Beta	Organization Performance Standardized Beta	Organization Performance Standardized Beta
Human Capital	0.576***		
Social Capital		0.605***	
Structural Capital			0.598***
R square	0.332	0.365	0.358
F	177.169***	204.427***	200.122***
*p<.05, **p<.01, ***p<.001			

5. IMPLICATIONS AND CONCLUSION

As shown above, corporate governance in the public sector is a highly relevant topic. The findings of this paper indicate that corporate governance in form of intellectual capital variables (human, social and structural capital) can have a positive impact on organizational performance.

The outcomes of the empirical study conducted support its propositions pointing that corporate governance in form of intellectual capital can have a positive impact on organizational performance in the public sector. In times where many public entities are undergoing substantial reforms and are now adopting management techniques and objectives that greatly resemble those of the private sector, it is not surprising that the studied knowledge assets were found to affect performance in the examined public entities.

Most interestingly, the findings of this paper offer valuable insights onto the role of corporate governance in enhancing performance within public entities in the GCC countries. In effect, the governments in the Arabian Gulf nations have been increasingly stressing on the usage of innovation and knowledge management assets within governmental organizations. This study aims to contribute to the literature by demonstrating a positive role of corporate governance in the GCC public sector.

For future academic research, the study points to the importance of studying corporate governance in the public sector in general, and more specifically in the GCC context. Further, the findings indicate that upcoming contributions can benefit from conducting a more general analysis of the connections linking corporate governance (in form of intellectual capital variables) to performance in the public sector. This could be achieved by testing the direct and indirect impact of variables on the performance of public entities.

In terms of limitations, the propositions of our paper might not hold in public entities outside the GCC, and more importantly in entities with different managerial systems. Therefore, future researches should investigate our proposed model in other geographical locations and managerial systems within the public sector.

This paper's results point that managers within the public sector need to review their corporate governance to ensure that enough time and investment is directed towards the development of intellectual capital. As these assets seem to be interconnected, practitioners in the public sector need to concurrently emphasize on the development of their unit's human, social and structural capital.

With regards to corporate governance, the growing complexity in the business environment has made approaches that dominated decision making for the hundreds of years no longer viable for solving organizational problems. Organizations are becoming more complex and interdependent. To overcome such complexities, company dynamics, its agility and authenticity in decision making, and its interaction with other elements in the complex organizational environment need to rise to the occasion.

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