

Intellectual Capital and Organizational Performance in Saudi Public Universities

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Abstract

Purpose this paper is to investigate the influence of four dimensions of intellectual capital (human, organizational, social and relational capital) on organizational performance. Design / methodology / approach Data were collected from 200 respondents of higher education institutions; the study used structural equation modeling to analyze the influence of human, organizational, social and relational capital on organizational performance. Findings Result suggests that organizational capital and social capital have significant and positive influence on organizational performance. Contrary to hypotheses, human capital has negative influence on organizational performance. Further, relational capital does not have significant influence on organizational performance. Practical implications Findings offer implications for higher education institutions managers to utilize the knowledge that resides with in universities. It also enhances managerial ability to identify and apply these knowledge resources to improve organizational performance. Value/ originality improving organizational performance for higher education institutions is the main concern for higher education institution's managers, yet the influence of intellectual capital on organizational performance mostly remain as unexplained puzzle. This study contributes to knowledge literature by examining the missing link between different dimensions of knowledge and organizational performance. It also helps to understand the important intellectual capital's dimensions that need to be capitalized and obtained to achieve higher performance specifically for higher education institutions.

Keywords: Intellectual Capital (IC), Organizational Performance (OP), Partial Least Squares (PLS), Higher Education Institution (HEI)

1. Introduction

Nowadays, in order to create the economic wealth governments recognizes the need to move to knowledge based economy. Knowledge is the corner stone for Knowledge based economy which consists of important process namely producing, transmission and dissemination of knowledge. The important element of knowledge based economy is knowledge which needs to be processed by intellectual capital. Universities play fundamental role in the process of producing, transmission and dissemination knowledge. The more of investments in modernization and the quality of universities is direct investment in the future of the nations. Recently, universities need to be transparent, flexible, effective and competitive in teaching and research (Paloma Sánchez, and Elena, 2006). The quality of higher education is important element for effectively creating knowledge based societies.

It is generally accepted that intangible assets play an important role in an organisation's success (Teece, 2007). The critical output and input for universities is knowledge and the output is incorporated in scientific and technical research publication, educated student, training and consultation. Input consists of teachers, professors, researchers, students, administration, service staff, organisational process and databases (Ramírez, Lorduy, and Rojas, 2007). All these important strategic assets are part of intellectual capital and university managers need to manage university intangible assets to achieve their goal. The need to measure and manage IC is critical as it continues to mature and this involves the productivities of researchers, new collaborations with business, new governmental cutting budget, new policies and so forth. These changes have to be considered in managing IC to allocate appropriate intellectual resources that effectively achieve university objectives. IC are important drivers of organisational success or failure but have not been considered in performance evaluation by previous studies.

IC consists of all non-physical resources or intangible resources, which include university process, patent, collaboration, (Bontis, 1999; Ramirez, et al 2007). Consequently, it refers to intangible activities that focus on the transformation of tangible resources such as financial resources and material to scheme that is capable of creating value (Ramirez, et al 2007). IC is important for universities for many reasons. Firstly, the government allocates billions of money to facilitate education services for citizens, where IC supports university transparency regarding using public funds. Secondly, the achievement of scientific and technical research, innovation, patents can be described and explained. Thirdly, the increasing competitions between universities force universities to improve their performance. (Ramírez and Gordillo, 2014). However, despite the necessity of adapting IC, no recommendations exist regarding the influence of IC on university performance

In the knowledge era, IC is one of the most important assets for improving overall performance. Successful firms realise the significant of applying IC techniques to improve the overall performance and achieve strategic objective effectively (Dadashinasab and Sofian 2014). Thus, competitive advantage relies increasingly on

strategic assets such as knowledge (Claver -Cortés, Zaragoza-Sáez., Molina-Manchón, and Úbeda-García, 2015). It is widely accepted that IC groups into three main blocks, human capital, organizational capital and relational capital (Claver-Cortés et al., 2015). Later, social capital was introduced as the fourth IC dimension. It has not been studied sufficiently and no previous study has examined the effect of the four ICs on OP. This means that there is a gap in the literature.

Despite the important contribution of the concept of IC in the performance of organisations, the concept of IC is not fully understood. The analysis of the literature reveals that, while several papers found positive direct influence of IC on OP (Sharabati , Naji Jawad, and Bontis.,, 2010). Other researchers empirically proved that the relationship varied inconsistently and reported no significant link between the two variables (Gholam , Ali , Reza , Reza and Rasekh, ,2012). Moreover, few studies have investigated the relationship between IC and the performance of universities. To date not enough attention has been made to the quantitative analysis of the influence of IC on OP. This paper examines the capability of transferring IC's values to influence research publications and educational performance of university.

The effect of IC on OP has not been studied sufficiently. Guthrie, Ricceri and Dumay (2015) argued that interests on IC on public sector should be continued and encouraged since political, social and economic changes give rise to emerging issues that impact public sectors. Consequently, researches that dedicated their work to the public sector theoretically and practically can fill the gap in literature and bring benefits to citizens in need of consuming public services. A good example of changes is the recent concern about an increase rate of terrorism and security - an emerging issue that needs to understand how organisations protect society. Effectively managing IC ensures utilizing knowledge effectively and in a timely nature in police department, hospital and emergency services, as this could make a difference between life and death (Jones and Mahon, 2012).

This calls for the need to conduct more in depth research to investigate the link between IC's dimensions and OP in different industries and countries. So, this paper aims to explore the effect of IC on university performance in Saudi Arabia. In order to identify relationships and provide recommendations that turn IC and universities performance into development opportunities. And the recommendations of this study are valuable for practitioners to implement IC modules. Effective use of IC enhances the universities' performance and would benefit the citizens. Saudi Universities have been chosen as an appropriate target for the exploratory analysis. Indeed, the kingdom of Saudi Arabia represents a typical country witnessing transition phase from low educational standards and low research productions toward more knowledge based condition supported by Saudi government.

The structure of this paper as follow, the second section reviews the concept of intellectual capital and organizational performance. The third section presents the detailed description of the methodology. The fourth section presents and discusses the analysis of the results. Finally, conclusion is drawn in the fifth section.

2. Literature review

Definition of Intellectual Capital

The concept of IC consists of all non-physical resources or intangible resources, which include process, patent, collaboration, human capital skills and capability, talents, and innovative capabilities (Bontis, 1999; Ramirez, et al, 2007). Consequently, it refers to intangible capabilities and activities that focus on the transformation of tangible resources such as financial resources and material to scheme that is capable of creating value (Ramirez et al, 2007).

Reviewing the literature reveals the concept of IC is complex and multifaceted. IC has been defined based on different approaches. Some authors define IC as knowledge that can be transfer to value (Edvinsson and Malone, 1997) or as fundamental source of sustainable competitive advantages. Researchers have not reached agreed definitions of IC. Some researchers had seen IC as knowledge, resources, and intangible resources. This current study defines IC as a unique collection of organisational intangible resources to achieve superior performance (Subramaniam and Youndt, 2005)

Intellectual Capital Dimensions

Human Capital

“Expenditures on education, training, medical care, etc., are investments in capital. However, these produce human, not physical or financial, capital because you cannot separate a person from his or her knowledge, skills, health, or values the way it is possible to move financial and physical assets while the owner stays put” (Becker , 1964, p 16). People as the most essential player in the knowledge economy have been neglected by a number of researches. Nevertheless, it is undeniable that one of the vital responsibilities of business is improving human capital capabilities as “The *sine qua non* of competition in a knowledge economy”. (Drucker , 2002, p. 71). Human capital is seen as the important engine for organisational knowledge where human capital contributes their skills, experience and knowledge to solve problems at the workplace. More importantly, human capital can be hired based on the needs of organisation.

Human capital is “the intelligence of the organisational member” (Bontis, 1998, p. 65). These

characteristics can be known as capabilities, attitudes, values, innovation, educational background, work experience, proactively, motivation, leadership skills, loyalty, flexibility, commitment, resolve, risk-taking propensity, creativity, and learning abilities (e.g. Bontis, 1998; Youndt and Snell, 2004; Sharabati et al., 2010; Inkinen, 2015; Asiaei and Jusoh, 2015). Based on Subramaniam and Youndt (2005), This present study defines human capital as the sophisticated characteristics of employees within organisations that are relevant to organisational objectives and strategic goals.

Organizational Capital

Organizational capital can be seen as the specific knowledge possessed by organisations such as information system, databases, process descriptions, strategies, intellectual properties of the organisation (such as patents, copyrights and trademarks), documents, organisations polices employee-supporting mechanisms and structures, organisational know-how procedures, organisational culture, methods, business development plans, organisational charts, manuals and program. (Bontis, 1998; Edvinsson and Malone, 1997; Stewart, 1997; Inkinen, 2015; Asiaei and Jusoh, 2015; Clarke Seng, and Whiting 2011). This present study defines organizational capital as institutionalised knowledge assets that support the workforce to achieve their tasks such as information system, databases, organisational charts, manuals and programs (Subramaniam and Youndt, 2005).

Social Capital

According to Nahapiet and Ghoshal, (1998). Social capital is the knowledge that can be derived and utilised from social interactions among individual and their networks of interrelationships. It is the knowledge that organisation can derive from the informal interactions between employees (Asiaei and Jusoh, 2015). Social capital is “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (Nahapiet and Ghoshal, 1998, p. 243). It reflects the organisational internal relationship which is considered a key factor in understanding value creation (Nahapiet and Ghoshal, 1998). Social capital plays a fundamental role in improving the quality of organisation group work and facilitate exchanging information among organization members (Subramaniam and Youndt, 2005).

Some studies consider social capital as the knowledge embedded in internal and external relationships. They combine social and relational capital as social capital. This fails to recognise the important of effective internal relationships between employees within organisations. This present study defines social capital as the knowledge embedded in the organisation’s internal relationships (Subramaniam and Youndt, 2005).

Relational Capital

Relational capital as the knowledge that can be acquired by relationships to the public such as the relationships to former and potential employees, society in general and all activities of public relationship management (Bontis, 1998) However, This study examines the influence of human capital, organizational capital, social capital and relational capital on OP in HEIs to fully understand the extent to which IC dimensions affect educational and research performance.

Organisational Performance

Organizational performance can be seen as an evaluation on the effectiveness of individuals, groups, or organisations. At the individual level, it refers to job satisfaction, achieved goals, and personal adjustment. At the group level, it refers to morale, cohesion, efficiency, and productivity, and at the organisational level, it is about profit, efficiency, productivity, absenteeism rate, turnover rate, and adaptability (Ivancevich, 1977) cited by (Tseng and Lee, 2014) Furthermore, Borman and Motowidlo, (1993) define OP as the all behaviours related to organisational objectives that depend on the contribution levels of individuals to the organisation (Tseng and Lee, 2014). The fundamental purposes of organisations are to improve performance. The development of OP can be seen as at the centre of strategic management, (Venkatraman and Ramanujam, 1986). The development of OP is the main concern of every manager in every organisation. To successfully developing OP, comprehensive measurement index is fundamental tool for organisation to provide managers and staff with clear directions and goals set by the organisation (Tseng and Lee, 2014).

Organisational Performance Measurements

Measuring the performance is critical for universities because the government has linked funds with university performance. Performance measurement is an important tool to recognise the strength and weakness to improve the university’s overall performance. Performance measurements can be classified in a number of dimensions, education, research, financial, environmental, service and network. This study focus only in education and research.

Educational can be measured by a number of indicators which are dropout rate, percentage of graduate, employment rate (Nedwek and Neal, 1994; Asif and Searcy, 2014). Research performance can be measured by a number of indicators which are research projects, percentage of research publications and patents, (Asif and Raouf, 2013; Asif and Searcy, 2014). Service refers to community service and program designed (Asif and Searcy, 2014). Environmental indicators can be the number of voluntary environmental agreements (Lukman,

Krajnc, and Glavič, 2010). Financial performance can be measured by a number of indicators which are revenue, income generated from research projects, consultations, and patents, and the percentage of budget allocated for research (Asif and Searcy, 2014) Network focuses on the relationship between university and local or international agencies for attracting and recruiting students (Bobe and Kober, 2015).

3. Theoretical Underpinnings

Resource Based View RBV

The Resource based view have been introduced by Penrose (1959), the idea focus on resources in examining the position of organizations in the market based on organization's resources. However, The idea of Penrose's (1959) have not gain significant notice at the time. Later, the idea of resource based view proposed by Wernerfelt (1984) who consider resources as the basis of competitive advantage for organisations. Wernerfelt (1984, p. 172) define resource as "anything which could be thought of as a strength or weakness of a given firm". Good examples of organisational resources are procedure, equipment, employees, brand names, and knowledge of technology. In long term, superior performance can be achieved by the possession of organizational resources (Wernerfelt, 1984).

Superior performance and sustained competitive advantages have been investigated by strategic management scholars. The fundamental question of strategic management scholars is discovering reasons behind some organisations that persistently outperforming of others. Over the years, a number of theoretical explanations have been introduced. Porter (1980) argues that the attractiveness of industry is determined by external forces. Other strategic management scholars argue that the organisation internal strengths and capabilities determine the degree of a firm competitiveness and therefore determine OP.

RBV considers organisations as a combination of resources and the conceptual foundation of RBV is that organisational resources which are internal factors are more applicable to be sources of sustained competitive advantages and superior performance rather than market structure (external factors). According to RBV proposed by Barney (1991), organisations that possess resources characterised as valuable, imitable, imperfectly and rare are more applicable to create competitive advantages. The uniqueness of a bundle of resources leads organisations to above industry average performance (Bobe and Kober, 2015).

4. The Relationship between Intellectual Capital and Organizational Performance

It has been contended in literature, time and again, that IC is the most important strategic asset added value activities that create competitive advantages for organizations (e.g. Drucker, 1993; Grant, 1996; Mention and Bontis, 2013). However, researches that empirically investigate the relationship between IC and its component on OP is scarce in certain geographical regions and sectors (Mention and Bontis, 2013).

IC literature focuses primarily on firms in developed economies such as Sweden, Canada, Italy, Australia, the UK and the USA. A number of scholars who studied organisations within developed countries found a link between managing IC effectively and the success of the firms. (Youndt and Snell, 2004; Clarke et al., 2011). The positive relationship between managing IC and the success of firms in developed world encourages scholars to conduct more research to investigate the role of managing IC to enhance OP in developing and under developed economics. For instance, in the Malaysian context there is a link between managing IC and the OP. (Hamzah and Isa, 2009, Ngah and Ibrahim, 2011)

It is clear that the majority of research focuses on for profit organizations and there is a lack of research that focuses on public organizations. Also, reviewing the previous literature reveals that there is no previous study examining the influence of IC on performance in the higher education context in KSA. This study fills the gap in the literature and empirically examines the influence of IC with its dimensions of human capital, organizational capital, social capital and relational capital on OP. Examining the effect of IC dimensions reveals that researchers did not reach that point that all IC dimensions affect OP for example some researches proof that there is an effect of human capital on performance (e.g., Komnenic and Pokraj, 2012, Al-Musali and Ismail, 2014). In contrast, surprisingly another research finalized that there is no effect of human capital on OP (e.g. Dost, Badir, Ali and Tariq 2016), and organizational capital has a negative effect on OP (e.g. Hejazi, Ghanbari and Alipour, 2016).

Relational capital has been ignored. Some research found that there is no effect of relational capital on performance (e.g. Andreeva, Garanina, 2016). Little research sheds the light on the effect of social capital on OP. Social capital has been ignored in previous research. The majority of research examined the effect of human, and organizational this means that no clear understanding of the influence of social capital on OP. To understand the essence of IC there is a need to comprehensive examination of IC dimensions and its effect on OP.

Hypotheses

Human capital and organizational performance

The basic human capital characteristics are intelligent, creativity, and skillful. Human capital characteristics affect organizational process and operational activities. They contribute to the problem-solving process. All

important roles of human capital encourage researchers to shed the light on the importance to recognize, manage, and measure human capital. Organizational objectives and goals can be achieved effectively by human capital especially when organizations' main output is related to creating knowledge such as universities.

According to Stewart (1997), human capital skills improved by fully utilizing employees' knowledge which lead to continuous expanding employees knowledge. Ramírez et al. (2007) indicated that the main purpose of the university is to produce and disseminate knowledge. However, developing economies struggle to transfer their position from developing to developed nations. This gap can be bridged by understanding and recognizing the vital role of shaping intelligent human beings. This can be achieved by improving university performance.

Economy, political, social, technological, environmental factors raise challenges. The current purpose of universities have changed dramatically. The purpose has shifted from basic educational services to establishing specific educational program to distribution knowledge for all levels of society, participating in voluntary programs to reduce the drawback of human affects that harm the environment. Furthermore, educating youth and conducting research that directed to solve society issues, provide all research needs and requirements for experiments such as laboratories. Achieving university objectives means improving the society through community services, education, voluntary, and research leads to improving the position of the nations.

Researchers have shown that human capital is one of the main factors that influence OP (e.g. Andreeva and Garanina, 2016; Komnenic, and Pokrajčić 2012). And other researches were contradicting, human capital does not exert significant influence on OP (e.g. Peng Pike and Roos 2007) and in innovation generation (Dost. et al 2016). Therefore, it is worth to revisit the relationship. This study proposes the following hypotheses:

Hypothesis 1: Human capital has influence on the organizational performance

Organizational capital and organizational performance

Organizational capital represent that knowledge that can be reside in different departments and units such as organizational knowledge that exists in manuals, databases, and patents (Hansen et al., 1999). It is known as Organizational Capital or structural capital. Organizational capital facilitates human capital tasks and affects OP because it is easy to be used to remind organisations to remember what has already been learned and know-how to use it (Subramaniam and Youndt, 2005).

Moreover, knowledge that is stored in systems, files, databases, patents or licences is important for OP because such knowledge saves employees time and effort to know the organizational routine and process. Organizational capital includes all internal processes, procedures, databases, culture. Organizational capital contributes to organization process and has a positive impact on performance. Organizations use advanced technologies to achieve their goals and objectives by managing their organizational capital efficiently (Hsu and Wang, 2012). In the Russian context, (Andreeva and Garanina ,2016) found that Organizational capital is positively associated with performance. Also, Wang , Wang and Liang (2014) showed the organizational capital enhance both operational and financial performance of Malaysian firms.

However, Hejazi, et al (2016) found that organizational capital has a negative effect on OP. in the case of Romanian public companies. Morariu (2014) found that market value is not necessarily improved by a properly managed organizational capital. Furthermore, Maji and Goswami (2016) examined the effect of IC and the performance of Indian traditional sector r(steel sector and Indian knowledge-based sector (engineering sector). The study finalize that organizational capital have non-significant influence on OP. It is worth mentioning that there is considerable number of research found that organizational capital has not shown important influence on organizational outcomes and some were contradicting. Therefore, it is worth to revisit the relationship. This study proposed the following hypothesis:

Hypothesis 2: Organizational capital has influence on the organizational performance.

Social capital and organizational performance

Achieving higher superior organizational requires a mechanism of communication among the employees to modify the existing knowledge through knowledge sharing. The knowledge that created and shared by interrelations among employees has useful outcomes (Nahapiet and Ghoshal, 1998) because social relationships facilitate the quality of interactions among individuals and strengthens the information exchange among teams and groups (Subramaniam and Youndt, 2005). Social capital, with its characteristics of knowledge sharing, networking and interaction, facilitates knowledge acquisition from within organizational s boundaries and has a positive impact on the organizational performance Social capital is seen as organizational resources that consisted of knowledge and information that resulted from network and relationships (Mura , Radaelli, Spiller, Lettieri, and Longo ,2014),

Organizations that own skilled employees who are perform well in interacting, sharing knowledge and information, with each other, are able to improve their performance. Additionally, social capital through network ties encourages knowledge sharing among employees facilitate the development of new knowledge that will affect OP.

Scholars primarily have utilized social capital as mediator independent variable (eg Rass , Dumbach,, Danzinger, Bullinger, and Moeslein, 2013;Lazzarotti , Manzini, Nosella, and Pellegrini, 2017). Social capital exerts

significantly positive impact on both innovation generation and adoption. (Dost , Badir, ,Ali, and Tariq, (2016). However, the important effect of social capital on OP needs more investigation because very little literature has shed light on the influence of social capital as IC dimensions on organisational outcomes. Therefore, it is worth to understand the relationship between social capital and OP. This study proposes the following hypothesis:

Hypothesis 3: Social capital has influence on the organizational performance.

Relational capital and organizational performance

Relational capital can be defined as the external relationships that any organisation has with external partners such as society, banks, government agencies, business and any other external parties that may influence the OP. It is important for an organisation to expand its relationships with external partners to generate access to new resources.

Relational capital is not considered in most past studies, so we know very little about its impact OP (e.g. Andreeva and Garanina, 2016; Gogan, Artene, Sarca, Draghici, 2016). However, some studies found that relational capital have not shown significant contribution on OP (e.g. Wang , et al 2014; Vishnu and Kumar Gupta 2014; Andreeva and Garanina, 2016). Therefore, it is worth to revisit the relationship. This study proposes the following hypothesis

Hypothesis 4: Relational capital has influence on the organizational performance.

5. Research Method

This research was designed as a quantitative study, which engaged in hypotheses testing of the relationships between variables. This research have employed questionnaire method as it is considered the appropriate method for collecting information that yield statistical data on a large sample for the purpose of generalizing the result (Creswell, 2003). This research has adopted the cross-sectional method to collect data over a single period of time. The structured questionnaire was designed to collect the relevant data using the self-administered method. At the end of the data collection, 200 instruments responded by lecturers in the three higher education institutions in Saudi Arabia. Later, structural equation modeling was employed for both measurement analysis and hypotheses testing using PLS.

6. Measurement:

In order to measure the latent variables, research measures for current research were adapted from previous literature that have been previously developed and used. For the dependent variable (organizational performance) eight indicators were adapted from the work of Hazadiah , and Faizah, (2006), Amin , Ismail, Abdul Rasid, and Selemani, (2014) , the four dimensions of intellectual capital (human, organizational , social and relational) were measured using seventeen indicators adapted from the work of Subramaniam and Youndt, (2005) Bontis (1998), Hsu and Fang (2009), and Wang, et al, (2014) In this case, the first five indicators represent human capital, four for organizational capital ,four for social capital and last four for relational capital respectively. Five-Point Likert-type scale (ranging from 1=strongly disagree to 5 = strongly agree) was also used for all constructs.

7. Sampling and Data Collecting

The study is based on higher education institutions in the kingdom of Saudi Arabia. The respondents of this study are lecturer, assistant professor, associated professor. The self-administrated questionnaire was used for data collection.

8. Analysis and Result

Measurement model

To specify the quality criteria for the measurement and structural model, this study employ the statistical technique PLS. (Hair Ringle, and Sarstedt, , 2013). PLS method carried out by the Smart PLS 3 software .At first stage of the PLS, goodness of measurement model was tested. This was done through testing of convergent and discriminant validity of the constructs. Once convergent and discriminant validity has been established, the next stage was to test structural model to confirm the hypothesized relationships.

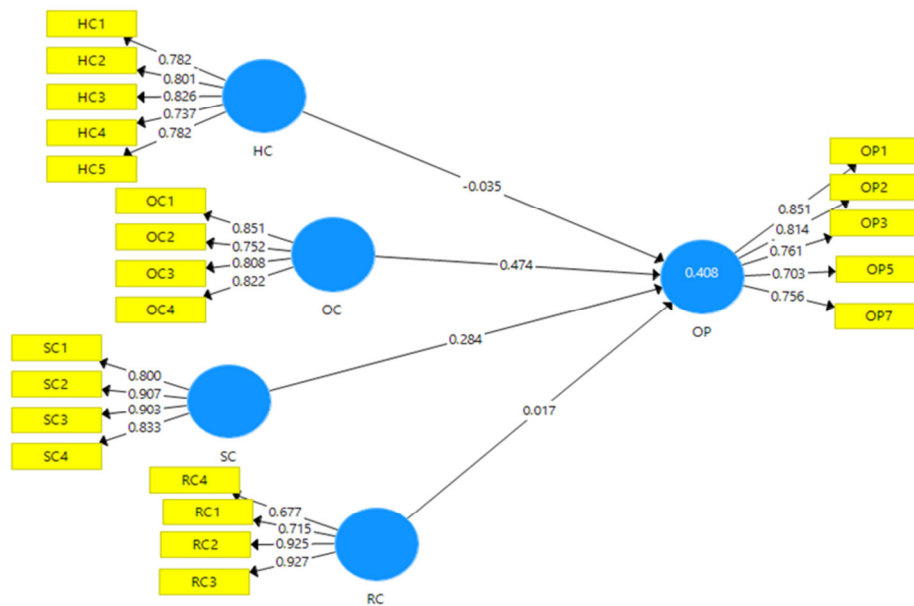


Figure 1; Factor analysis

In order to achieve item reliability of approximately 0.5 it is suggested that Outer loadings should be at least 0.7 or more (Hair, et al 2013). Based on these criteria, 3 items with outer loadings less than 0.7 were dropped off from the model to maintain parsimony, three items were removed from organizational performance.

The reliability analysis has been achieved for all reflective constructs as represented by Composite reliability which is above the threshold of 0.70 for all variables. The Average Variance Extracted that represents the convergent validity of reflective constructs is also achieved. The average of the squared of factor loadings of each construct's items is above the threshold of 0.50 and thus indicates that each of these constructs explains more than 50% of the variance of its indicators (Hair et al., 2013). On the other hand, to determine the discriminant validity of the reflective constructs, the square root of AVE of each variable should be higher than its correlations with any other construct (Fornell and Larcker, 1981). Therefore, in this study, the measurement model's validity is satisfactory when:

1. Composite reliability is higher than 0.8.
2. Item's loading is higher than 0.7.
3. Average Variance Extracted value for every construct is larger than 0.50.
4. Item's loading of each indicator is highest for its designated construct.
5. The square root of the Average Variance Extracted of a construct should be higher than the correlations between the construct and other constructs (Hair et al., 2013).

Overall, the reliability and validity tests conducted on the measurement model are satisfactory. All reliability and validity tests are confirmed and this is an indicator that the measurement model for this study is valid and fit to be used to estimate parameters in the structural model.

Structural model

With regard to the proposed relationships, the results provide support of strong positive significant relationships for two hypotheses: H2, H3, ($\beta=0.474$ and 0.284). These coefficients exceed 0.1 and are significant at a level of $p<0.05$. H1 is not supported because the path coefficient is negative ($\beta=-0.035$). other hypotheses, H4, is not supported ($\beta=0.017$) t-statistics less than 1.96, thus is not significant at the level of $p<0.05$. The Structural Equation Model was employed using bootstrap effect to analyze research hypotheses the statistical analysis have indicated that human capital is negative to organizational performance ($\beta = 0.035$, $p< 0.01$) and therefore hypotheses 1 is not supported. The empirical data indicated that organizational capital is positively related to organizational performance ($\beta = 0.474$, $p<0.01$). Hence, the empirical analysis also supported the H2. Also, the analysis also supported H3 as social capital is positively related to organizational performance ($\beta = 0.284$, $p<0.01$). Relational capital is not related to organizational performance ($\beta = 0.017$, $p < 0.01$). To sum, the hypothesized positive and significant relationships as H2 and H3 are thereby supported empirically. Two hypothesized relationships on the relationship between independent variables (organizational and social capitals) and organizational performance are therefore supported empirically.

9. Discussion

This study investigated the impact of human, organizational, social and relational capitals on organizational performance in Saudi higher education institutions. The study was built on the platform of resource based view

(Barney, 1991) However, the statistical analysis of this study established the empirical evidence on the effects of organizational and social capitals on organizational performance. However, the results are not surprised compared to the previous studies as they also found that organizational capital and social capital. As such, the study addressed an important knowledge gap of understanding how the intellectual capital form of knowledge resources could be used as an important player in organizational performance.

This study finalized that Human capital has negative influence on organizational performance. The result of this study is consistent with (Khalique, Bontis, Abdul Nassir bin Shaari, and Hassan Md. Isa, 2015; Peng et al., 2007) that shows negative influence between human capital and organizational performance. Further, the result is aligned with (Dost et al 2016) that found no significant influence of human capital and innovation generation. However, the result is not aligned with (Andreeva and Garanina, 2016; Morariu, 2014; Komnenic, and Pokrajčić 2012). Researchers have shown that human capital is one of the main factors that influence organizational performance.

Organizational capital has positive influence on performance in HEIs the result of this study is consistent with previous study that found positive and strong influence of organizational capital on OP (eg Dost, et al, 2016). Another studies found that there is no significant influence between organizational capital and firm profitability and value and weak relationship between organizational capital and financial performance (Hejazi, et al, 2016).

The result of this study confirms the positive significant relationship between social capital and organizational performance and these findings are consistent with (Dost, et al, 2016) the study found that social capital has positive relationship with innovation generation and adaptation. Since there is very little studies that have shed light on the influence of social capital on organizational outcomes, the findings of this study may add the result on the knowledge body. The statistical result of this study infers that there is no significant influence of relational capital on organizational performance, the findings of this study are aligned with (Wang, et al 2014; Sriranga and Gupta Vijay, 2014; Andreeva and Garanina, 2016).

10. Conclusion

In conclusion, this study concluded that the relationship between two dimensions of intellectual capital (organizational capital, social capital) and Organizational performance are significant and positive. Consequently, organizations need to deploy valuable knowledge assets to achieve organizational objectives successfully. On the other hand, one of the major limitations of this study is that it took into account only intellectual capital, thereby neglecting other forms of resources such as tangible resources. Hence, future study should include other types of assets, which were previously found to be significantly related to organizational performance. In essence, the future research should be able to establish how those resources could determine performance. This study included only public higher education institutions in Saudi Arabia. Thus, future study may consider other different sectors.

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	HC	OC	OP	RC	SC
HC1	0.782				
HC2	0.801				
HC3	0.826				
HC4	0.737				
HC5	0.782				
OC1		0.851			
OC2		0.752			
OC3		0.808			
OC4		0.822			
OP1			0.851		
OP2			0.814		
OP3			0.761		
OP5			0.703		
OP7			0.756		
RC1				0.715	
RC2				0.925	
RC3				0.927	
RC4				0.677	
SC1					0.800
SC2					0.907
SC3					0.903
SC4					0.833

Table 1 : Outer loading

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
HC	0.845	0.890	0.618
OC	0.825	0.883	0.654
OP	0.837	0.885	0.606
RC	0.837	0.889	0.671
SC	0.884	0.920	0.743

Table 2: AVE Value

	HC	OC	OP	RC	SC
HC	0.786				
OC	0.201	0.809			
OP	0.213	0.588	0.779		
RC	0.197	0.695	0.429	0.819	
SC	0.527	0.385	0.454	0.317	0.862

Table 3; Fornell-Larcker Criterion

	HC	OC	OP	RC	SC
HC			0.002		
OC			0.185		
OP					
RC			0.000		
SC			0.087		

Table 4: Effect size (f^2)

		Original Sample (O)	Standard Deviation (STDEV)	T Statistics	P Values
H1	HC -> OP	-0.035	0.069	0.515	0.303
H2	OC -> OP	0.474	0.069	6.902	0.000
H3	SC -> OP	0.284	0.079	3.598	0.000
H4	RC -> OP	0.017	0.071	0.233	0.408

Table 5: Path Coefficients