



The Effects of Intellectual Capital on Organizational Innovation within Abu Dhabi Police in UAE

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ABSTRACT: The research objective is to analyse the direct effect of the role of intellectual capital's players on the organizational innovation within Abu Dhabi police department in the UAE. This study employs quantitative data, a questionnaire designed essentially for measuring all the main constructs that the research model carried and was used for data collection within Abu Dhabi police department. The data valid for the analysis are 393 cases. The utilization of Structural Equation Modelling-Variance Based (SEM-VB) was done for examining the research model, by making the use of SmartPLS 3.0 software. Result from the analysis shed lights on what impact intellectual capital had on the organizational innovation via testing the impact that human, relational, and structural capital had on various innovations. The proposed research model explained 56% of the organizational innovations (OI). All tested factors had positively put effects on the OI in the public sector in the UAE. Results draw out of the current study have enough potential to give further insights into innovation of organizational strategies.

Keywords: capital, intellectual capital, structural capital, relational capital, organizational innovation.

I. INTRODUCTION

The most important factor considered responsible for how an organization performs and sustains is intellectual capital. In addition, intellectual capital seizes flows and stocks of the overall knowledge base of a firm. The research claims that the multi-disciplinary nature that is offered to by intellectual capital to itself to a richness of perspective and a valuation and relevance difficulty. Fronting powerful competition that exists globally is recognized extensively about intellectual capital as a main source of growth of the economy.

The people identify innovation as a new tool to create wealth. It has a very vital role to play in strengthening the efficiency of a firm. As competition is getting more intense and environment is getting more uncertain, innovation has become important for the promotions growth as well as for survival [1, 2]. In order to survive, firms must be able to adapt and evolve like their competitors make use of new processes and products for enhancing their power of competition. In an economic environment that keeps on fluctuating and changes rapidly in regard of markets, technology, customer preferences, environment full of competition, and financial issues, firms face an 'either innovate or die' scenario, innovation counts as the ultimate solution of survival.

Capacity of innovation and its role in enhancing the development process have a wide display of factors, policies, institutions having a driving force to strengthen the country's innovation., which includes institutional environment, funding of human capital, social inclusion, regulatory, and the legal framework, the infrastructure required for research ad development, and the use and adoption of communication and information technologies. In the latest Global Competitiveness Report (2018), the UAE ranks 15 among 137 countries in term of innovation

capacity. When comparing to Arab and neighboring countries, it is obvious that the UAE is a way step ahead from also the gulf countries especially Saudi Arabia that appears to be one of the biggest oil exporters in the whole world holding as rank of 64. Qatar also lagging behind the UAE ranking 34 among 137 countries included in this report.

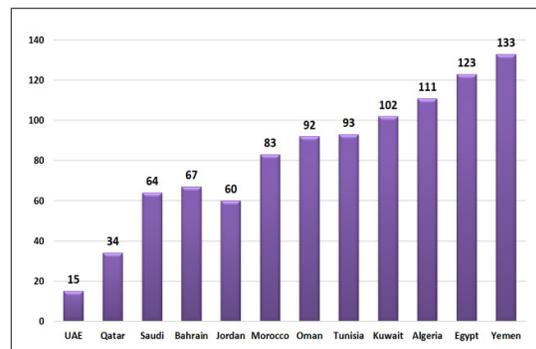


Fig. 1. Capacity for innovation ranking in UAE compare to neighboring (ranking among 137 countries).

It needs a significant realization of intellectual capital being real and offering value. As the UAE leads all the countries of the Arab world and the region in labour market efficiency, quality of overall infrastructure, organizational innovation ranking, and capacity for innovation, yet, the organizational innovation can be improved. As the UAE is one of the leading countries among the Arab world and the region in term of labor market efficiency, quality of overall infrastructure, organizational innovation ranking, and capacity for innovation, yet, the organizational innovation can be improved. This can be done focusing on IC and its components.

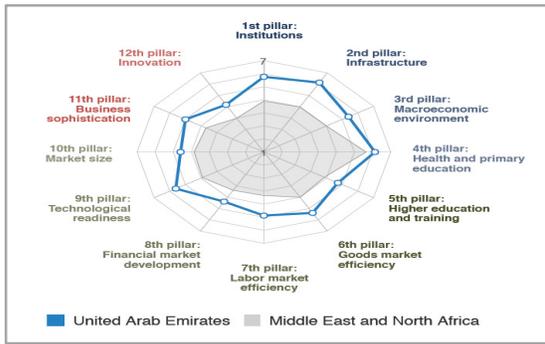


Fig. 2. Stage of Development in the UAE.

Most of intellectual capital researches have been performed in the developed world and countries in the west. Yet, intellectual capital has global appeal as it was studied in Egypt, Ireland, Mexico, Germany, Australia, Portugal, Malaysia, and others. A huge interest in phenomenon growth exists in the Arab region. This study has an impact on the organizational innovation in UAE.

II. LITERATURE REVIEW

A. Organizational Innovation (OI)

Innovation on a regular basis has become a primary requirement for viability in the current scenario characterized by increasing competition and globalization. Innovation always has been a fact to survive in an economy of free market. Hence, creating something fresh and innovative is not an option anymore but is necessary for all the similar organizations. The innovation output indicator evaluates the level up to which the sectors of innovation that come up with ideas are credible to reach the market to provide better jobs. According to the Global Innovation Index (2017a), the Arab region in term of innovation outputs does not do so well comparing the Europe, East Asia, North America countries. Arab countries scores between 11 and 36 in the same report. When comparing the UAE to Arab region countries, the UAE ahead of its neighbors in terms of innovation outputs score. However is it significantly behind its western and Asian counterparts.

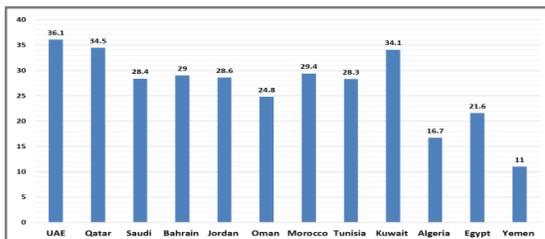


Fig. 3. UAE compare to neighboring countries regarding innovation outputs (Score 0–100).

There is a need to examine the factors of the study that affecting the organizational innovation. This is the performance of organization is influenced by many factors which include the collaboration of the organizational resources or assets that emerge as medium where competitive advantage for the performance of organization [3-5]. Organizational innovation can be a result of sharing valuable knowledge, the networking or relationship within and

outside the organizations, which gives the organizations an opportunity to succeed in the global competing economy [4,5]. Moreover, researchers such as Andrews (2010) believed that, intellectual capital is positively in relation to the innovation of organization.

B. Intellectual Capital (IC)

There are a lot of ways to define intellectual capital in Literature. Many of them have considered IC equal to that of intangible assets. The study mentions IC as “the total stocks of the collective knowledge, information, technologies, intellectual property rights, experience, organization learning and competence, team communication systems, customer relations, and brands that are able to create values for a firm.”

Profit through innovation of many organizations are derived from intangible assets like IC [6]. Intangible assets are the driving force that increase the value of a firm in the economy. As highlighted, intangible assets are the fundamental resource for wealth that help organizations to sustain and permit them for interacting in an unpredictable and competitive scenario. IC is a vital component within intangible assets that supports how a business sustains and makes new value. It plays an important role to help any organization in reaching its aims in an environment which is unpredictable. It serve as a lever in attaining competitive benefits. It is also a feasible source which can be used from where innovation can emerges [7] ask how IC has been accumulated needs to increase the outcome of a firm. Successful innovation being the focused source of the profit of an organization, is dependent primarily on assets which are unique, like IC.

Human Capital (HC). Youndt *et al.* (2004) [7] argues that HC counts as the experience, knowledge, professional skills and capabilities that exists and are used by an organization’s decision-making teams. Bontis (1998) considered that human capital was a core to innovate and renew in a strategized manner .Many researches have verified the direct link between HC and innovation in organization. Knowledge of employees creates capability measure of numbers of the years exposure and education and the knowledge they have gained based on their experience [8]. This knowledge serves as a main resource of fresh services and products in the huge organizational technology. By fulfilling the needs of the employees and paying attention to them, firms are creating an innovative culture since, employees are one of the most important channels for generating new ideas and applying them. Study revealed results that were similar but they focused on radical innovation and human capital. Wu and others (2008) [9, 10] whose study was interested in innovation among automotive suppliers; claimed that innovation could be promoted through employee’s skills; training; and education. Moreover, research claimed that the employees having professional skills, creative ideas, management credibility, special skills, and experience impact the advance of fresh products definitely. The below mentioned hypothesis is proposed, consequently:

H1. Human capital has positively laid an impact on organizational innovation..

Relational Capital (RC). RC is the knowledge available through, firmly attached to, and employed by

interacting with clients, government, clients, and all the organizations, which are widespread in the emerging economies. In the service sector, specifically, firms have a faith that customers are an innovation cornerstone. Likewise, study revealed about Taiwanese SMEs' relational capital positively affects new products development. Relational capital was displayed as having a substantial influence on innovative ideas in manufactured as well as non-manufactured products of any industry [10, 11]. Information obtaining about clients' needs is an essential in a service process redesigning. The process of innovation should be improved by a sense of cooperation between the firm and its clients. Furthermore, a firm can embrace new processes when clients necessities are acknowledged, which will lead to their satisfaction. A significant knowledge source is customers leading to innovation. Research found that high rate of innovation is produced via high level of customer orientation. Therefore, firms got higher production chances of fresh products and processes. Following is the proposed hypothesis:

H2. Relational capital positively impacted innovation of organization.

Structural Capital (SC). There's an involvement of knowledge of industry and codified experience in SC which is well utilized. SC includes the knowledge of organization and experience employed through systems, manuals, database, patents, and way than can be made into a concept on the basis of information system and organizational processes [7]. The prior studies concluded about a positive relationship existing between innovational and structural capital. Study found that a high level SC is producing high level innovation. Structural capital effect on generating new products; sustains new product development. Youndt et al. (2004) [7] proven that structural capital enhanced innovative capabilities increasing through applying knowledge formally fixed firmly in the processes and culture of business. SC has its effects positively on the capability of innovation in the industry of biotechnology. Study presented evidence on the main role that technologies and climate of an organization play in increasing innovation. Performance of product development has a positive correlation with SC (Chen et al., 2006). The below mentioned hypothesis is produced, consequently:

H3. Structural capitals has positively laid an impact on the innovation of an organization.

III. RESEARCH METHOD

A. Proposed Research Model

IC can provide support to the innovation level of the firm. study lays an emphasis on IC's capability of putting a positive impact on the development of fresh product and its performance. Based on the resource dependence theory, the study related all the intellectual capital and innovation of the organization.

B. Instrumental Development

For research model evaluation a questionnaire was framed and was used to gather data required in this study. It consisted of questions in Arabic for respondents from the UAE to understand. It was categorized into: a) it measured six core points with the help of a five-point likert scale which ranged from 1 to 5 (from strongly disagree to strongly agree), b) it

covered the demographic profile of the people who responded, was evaluated by a ordinal scale or nominal, scale.

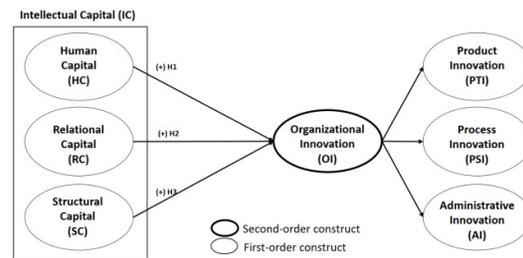


Fig. 4. The proposed model.

C. Data Collection

This study employs quantitative data, which are collected following the rules of statistical surveys. The respondents are employees from Abu Dhabi police department in UAE. A personally administered questionnaire being distributed by the researcher is put to use for data collection from the respondents within the sample populations in the current study. The number of distribution of questionnaire must not be equal to the sample size number as the rate of response will not touch a percentage of 100 so as to attain the size needed. Out of the 700 questionnaires, a set of 452 was returned out of which 393 responses were usefully analysed. The rate of response is 64.75% and it is good [12] when compared to other studies in Literature. 59 questionnaires were deleted, 33 were rejected because data was missing, 5 were outliers, and 21 were deleted as they were straight lining. Hence, the data generated contained 393 out of a total of 452 cases.

IV. DATA ANALYSIS AND RESULTS

PLS SEM-VB was used to evaluate the research model in the through SmartPLS 3.0 software. A two-stage analytical method [13] consisting of a) measurement model assessment b) structural model assessment was put to use after analysis. This method consisting of both measurement and structural model assessment is superior to an assessment of one step [14, 15]. While the model of measurement explains each construct's measurement, structural model provides a definition of how variables in it are related.

PLS technique used for measurement and structural model in the research is because of its ability to perform simultaneous analysis, resulting in more precise assessments [16]. The main reason to have chosen SEM as a method of statistics is SEM offering a side-by-side analysed study leading to appropriate estimation.

A. Descriptive analysis

The first table portrays the standard deviation and the mean deviation of each variable. Respondents opinionated the learning usage happening online on the basis of a scale from 1-5. The recorded human capital was 3.090 with an SD of 0.978 that indicated respondents agreeing to their organizations have knowledgeable employees, creative employees, and highly skilled employees. The recorded relational capital of 3.248 with a standard deviation of 1.063 which said about the respondents having a close

relationship with the customers, partners and suppliers. The recorded structural capital of 3.130 with an SD of 1.012 says about the respondents agreeing to the organizational procedure to be efficient. Product innovation was recorded with a score of 3.434 with an SD of 1.153 which indicated that the respondents' organizations always develop new product and services, introduce and diversify our product to suit customer needs, and try applying new idea/technology at our organization. Process innovation was recorded with a score of 3.410 with a standard deviation of 1.142 which says that the new technology in the respondents' organization is adapted for improving the work processes, try new methods for improving processes, and quick to respond to changing needs of its customer. Administrative innovation recorded a 3.381 points with a standard deviation of 0.936 to which the respondents agreed that that the administrative support is always there for employees, employees compensation system is linked to performance, the organization has a new and improved performance evaluation system, employees believe in the open communication environment, and employees are hired on their creativity.

B. Measurement Model Assessment

Methods of validity and reliability were used to examine the model of measurement. Cronbach's alpha coefficients were used to check whether the core variable are reliable or not. All the Cronbach's alpha coefficients' values were from 0.900 to 0.946 which was more than the value of 0.7 as suggested [17]. The values of all the CR were from 0.938 to 0.967 exceeding 0.7 (Werts, Linn, & Jöreskog, 1974; Kline, 2010; Gefen, Straub, & Boudreau, 2000). As table 1 shows CR has is as satisfied as Cronbach's Alpha and CR were free of errors.

Indicator reliability was assessed through factor loadings. According to values exceeding 0.50 indicate significant factor loadings. Table 1 presents all the factor loadings were more than the suggested value i.e., 0.5 except item A15 that was removed from the scale as it had low loadings.

AVE was put to use for the assessment of Convergent Validity showing a degree measuring positive correlates with measure that were alternative but of the same construct. AVE's values were from 0.786 to 0.905 exceeding the suggested value of 0.50 [15]. All constructs are as satisfactory as convergent validity in table 1.

Table 1: Mean, standard deviation, loading, cronbach's Alpha, CR and AVE.

Constructs	Item	Loading (> 0.5)	M	SD	α (> 0.7)	CR (> 0.7)	AVE (> 0.5)
Human Capital (HC)	HC1	0.888	3.090	0.978	0.955	0.967	0.881
	HC2	0.939					
	HC3	0.912					
Relational Capital (RC)	RC1	0.920	3.248	1.063	0.900	0.938	0.834
	RC2	0.917					
	RC3	0.923					
Structural Capital (SC)	SC1	0.875	3.130	1.012	0.942	0.963	0.896
	SC2	0.883					
	SC3	0.888					
	SC4	0.887					
	SC5	0.898					
	SC6	0.890					
Product Innovation (PTI)	PTI1	0.960	3.434	1.153	0.948	0.966	0.905
	PTI2	0.961					
	PTI3	0.933					
Process Innovation (PSI)	PSI1	0.953	3.410	1.142	0.909	0.943	0.846
	PSI2	0.941					
	PSI3	0.946					
Administrative Innovation (AI)	A11	0.945	3.381	0.936	0.946	0.957	0.786
	A12	0.938					
	A13	0.936					
	A14	0.937					
	A15	Deleted					

Note: M=Mean; SD=Standard Deviation, α = Cronbach's alpha; CR = Composite Reliability, AVE = Average Variance Extracted.

Key: HC: human capital, RC: relational capital, SC: structural capital, PTI: product innovation, PSI: process innovation, AI: administrative innovation

The extent that each item is distinguished among the constructs is depicted by validity of discriminant. Cross-loadings, Fornell-Larcker, and heterotrait-monotrait ratio (HTMT) were put to use to assess value of discrimination of measurement model. Cross-loadings are generally put to use to test DV [18]. The outer loadings of the indicators were exceeding all cross loadings therefore, the criterion of cross loading

fulfilled the need in table 2. As shown in table 3 AVEs square root on diagonals appear greater than the correlations existing between the constructs that strongly indicate how the constructs and their indicators correlate [19, 20]. It is a good value of discriminant validity. The exogenous constructs are correlated at a less value of 0.85 [21]. All constructs are as satisfactory as discriminant validity.

Table 2: Results of discriminant validity by the cross loading.

	HC	RC	SC	PTI	PSI	AI
HC1	0.888	0.404	0.313	0.402	0.414	0.368
HC2	0.939	0.429	0.379	0.487	0.458	0.463
HC3	0.912	0.449	0.385	0.463	0.442	0.460
RC1	0.439	0.920	0.555	0.600	0.595	0.519
RC2	0.411	0.917	0.537	0.593	0.549	0.499
RC3	0.443	0.923	0.544	0.572	0.543	0.518
SC1	0.360	0.530	0.875	0.506	0.478	0.457
SC2	0.361	0.537	0.883	0.513	0.516	0.452
SC3	0.350	0.527	0.888	0.521	0.500	0.473
SC4	0.332	0.527	0.887	0.478	0.475	0.458
SC5	0.352	0.522	0.898	0.536	0.503	0.504
SC6	0.348	0.513	0.890	0.524	0.506	0.513
PTI1	0.498	0.645	0.556	0.960	0.718	0.727
PTI2	0.473	0.617	0.569	0.961	0.713	0.744
PTI3	0.443	0.563	0.527	0.933	0.782	0.661
PSI1	0.457	0.574	0.552	0.741	0.953	0.645
PSI2	0.459	0.600	0.541	0.736	0.941	0.622
PSI3	0.448	0.563	0.498	0.724	0.946	0.635
AI1	0.463	0.539	0.485	0.702	0.620	0.945
AI2	0.460	0.518	0.500	0.706	0.645	0.938
AI3	0.434	0.506	0.510	0.675	0.600	0.936
AI4	0.425	0.526	0.524	0.722	0.649	0.937

Key: HC: human capital, RC: relational capital, SC: structural capital, PTI: product innovation, PSI: process innovation, AI: administrative innovation

Table 3: Results of discriminant validity by Fornell-Larcker criterion.

	Factors	1	2	3	4
		HC	OI	RC	SC
1	HC	0.913			
2	OI	0.533	0.856		
3	RC	0.469	0.662	0.920	
4	SC	0.395	0.616	0.593	0.887

Note: Diagonals represent the square root of the average variance extracted while the other entries represent the correlations.

Key: HC: human capital, RC: relational capital, SC: structural capital, OI: organizational innovation,

Fornell-Larcker criterion has been subjected to debate. because it does not have the ability to determine precisely the discriminant validity's lack in normal situations of research [22]. Therefore, another technique was recommended , namely the heterotrait-monotrait ratio (HTMT) of correlations on

the basis of multitrait-multimethod matrix. HTMT has been used to for testing the validity of discriminant. The DV a few issues in a higher value of the HTMT than the HTMT0.90 value of 0.90 [23] or HTMT0.85 value of 0.85, (Kline, 2010) but as shown in table 4 that all the HTMT values were less than the 0.85, hence fulfilling the discriminant validity requirement.

Table 4: Results of discriminant validity by HTMT.

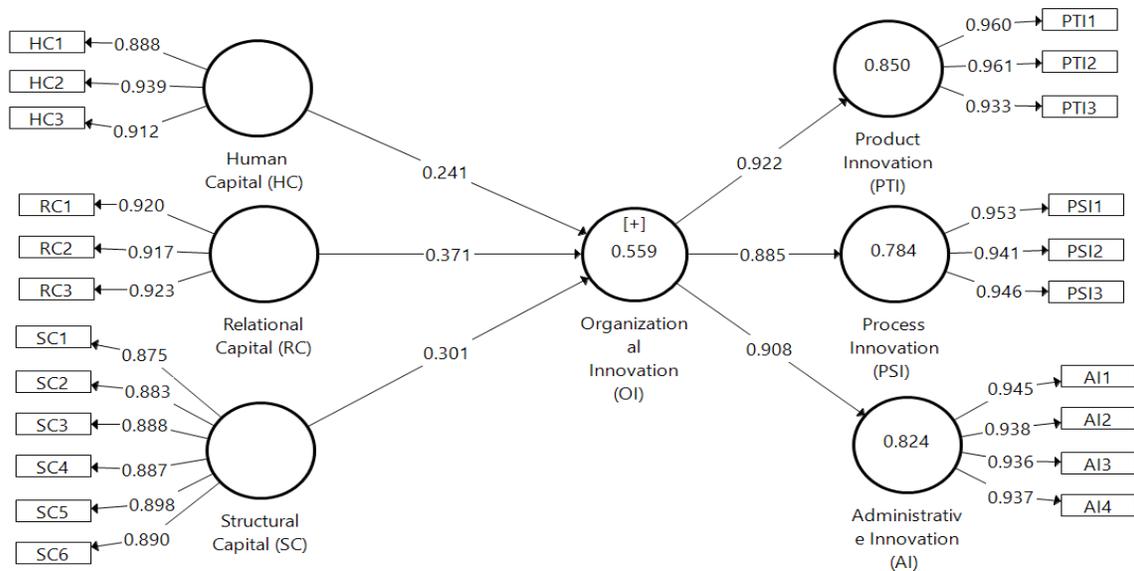
	Factors	1	2	3	4
		HC	OI	RC	SC
1	HC				
2	OI	0.571			
3	RC	0.517	0.707		
4	SC	0.426	0.645	0.640	

Key: HC: human capital, RC: relational capital, SC: structural capital, OI: organizational innovation,

C. Structural Model Assessment

The model of structure can be examined by computing beta (β), R^2 , and the corresponding t-values by a process of bootstrapping with a resample of 5,000 (Hair, Hult, Ringle, & Sarstedt, 2017). They also

recommended looking at the effect sizes (f^2) and the predictive relevance (Q^2). While p-value makes the existence of the effect certain, the size after effect is not mentioned [24].



Key: HC: human capital, RC: relational capital, SC: structural capital, OI: organizational innovation, PTI: product innovation, PSI: process innovation, AI: administrative innovation.

Fig. 5. PLS algorithm results.

Hypotheses Tests. Table 5 and figure 5 show SM assessment, showing the results of the hypothesis tests, with 3 out of the 3 hypotheses are supported. Human capital, relational capital, and structural capital significantly predict organizational innovation. Hence, H1, H2, and H3 are accepted with ($\beta = 0.241, t = 6.046, p < 0.001$), ($\beta = 0.371, t = 8.525, p < 0.001$), and ($\beta = 0.301, t = 7.601, p < 0.001$) respectively.

The strength of the how exogenous and endogenous constructs are related and are measured by standardised coefficients of path, which in this case show that the direct effects of relational capital on organizational innovation is hold more strength than the influence of other variables.

56% of the variance in innovation of organization is depicted by HC, RC, and SC. The values of R^2 carry an acceptable level of explanatory power, indicating a substantial model [20, 25].

Effect sizes (f^2) was examined in this research. According to Gefen and Ringdon (2011), the effect size f^2 ascertains the how exogenous latent construct has impacted endogenous latent construct. Recommendations are that the change in R^2 value is assessed. The f^2 value of 0.35 indicates large effects, 0.15 indicates medium effects, and 0.02 indicates

small effects [25]. Table 4 displays the f^2 results, indicating one medium effect sizes relationships and two small effect size relationship.

In assessing the predictive relevance research method that was proposed, this study had applied the blindfolding procedure. This process must be employed on endogenous constructs measurements that only reflect. According to Fornell & Cha (1994) [19] specific endogenous construct model proposed with relevance if the value of Q^2 exceeded 0. In this study, The Q^2 value was greater than 0, and hence, conclusion can be drawn that the model proposed is relevant. Relative measure that is relevant is indicated by Q^2 values of 0.35 for large, 0.15 for medium, and 0.02 for small. The exogenous construct in this study was found to have large predictive relevance.

According to multicollinearity poses a problem by presenting overlapping variance. Therefore, it cannot justify each variance in the endogenous variable. VIF is used as a measurement of the multicollinearity degree O'Brien (2007). A value that exceeds 10 for the biggest VIF depicts an issue [26, 27]. Meanwhile, study recommended if a value exceeds 5 for the largest VIF, then it depicts a multicollinearity issue. The VIF here is from 1.317 to 1.714.

Table 5: Structural path analysis result.

Hypothesis	Relationship	Std Beta	Std Error	t-value	p-value	Decision	R^2	f^2	Q^2	VIF
H1	HC→OI	0.241	0.040	6.046	0.000	Supported	0.56	0.100	0.380	1.317
H2	RC→OI	0.371	0.043	8.525	0.000	Supported		0.182		1.714
H3	SC→OI	0.301	0.040	7.601	0.000	Supported		0.129		1.586

Key: HC: human capital, RC: relational capital, SC: structural capital, OI: organizational innovation

Importance-Performance Map Analysis (IPMA). IPMA was employed as a post-hoc PLS method, along with organizational innovation used as an outcome. IPMA provides an estimation of the total

effects corresponding to the importance of constructs that come after and affect the target construct (organizational innovation); the ALV scores correspond to their performance, whereas the index

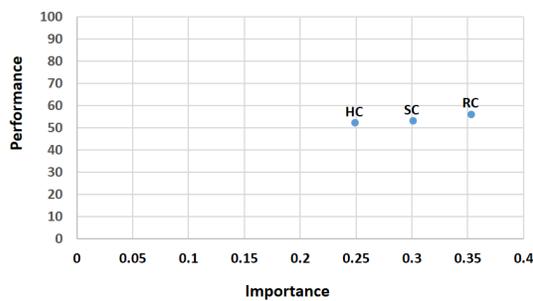
values' (performance scores) calculation was achieved by rescaling the scores of the latent constructs to within a range from 0 (lowest performance) to 100 (highest performance). IMPA makes the results of PLS analysis more prominent [28] as it gives attention to the average latent

constructs value and their indicators (the performance dimension) additionally performs the path analysis of coefficient (the importance dimension). The IMPA's results for all the effects and values of index of the outcome construct organizational innovation is displayed in Tables 6.

Table 6: IPMA for Organizational Innovation.

Latent constructs	Total effect of the construct <i>Organizational Innovation</i> (Importance)	Index values (Performance)
Human Capital (HC)	0.249	52.31
Relational Capital (RC)	0.353	56.20
Structural Capital (SC)	0.301	53.26

Total values and effects were mapped on a priority basis. It can be observed that relational capital is an important factor that determines a theoretical organizational innovation because of its high importance. There is a gap between all the importance of factors determining organizational innovation, having similar performances. IMPA aims to recognize the predecessors having both high as well as low performance for the target construct [18]. Particular attention may be given to the attributes of these constructs, which can be potential areas for improvement. Ultimately, for improving organizational innovation, the focus should be on ways to enhance how relational capital performs.



Key: HC: human capital, RC: relational capital, SC: structural capital

Fig. 6. IPMA (Priority Map) for Organizational Innovation.

V. DISCUSSION

The main objective is evaluating the effect of IC on OI. And the first specific objective of the current study focused on examining how HC and OI are related innovation in the public sector in the UAE, specifically, Abu Dhabi police department.

Human capital as highlighted in, indicated of its significant influence on organizational outcomes including organizational innovation. Past studies have revealed that the compensation is connected directly to the human abilities. This theory has been tested in many forms of empirical studies which significantly indicated positive relationship between HC and innovation abilities.

Hence, this is consistent finding when compared to previous studies having investigated how HC affected the organizational innovation. The result of the analysis showed significant effect of human capital on organizational innovation with ($\beta = 0.241$, $t = 6.046$, $p < 0.001$). This result explains the importance of the

human capital to the intangible performance of the organizations (innovation) in organizations in the UAE. This result as well corresponds with the past and recent studies that suggested the role of human capital to the future of the organizations innovation.

Second specific objective was to evaluate the link between RC and OI. This objective provided an important opportunity to advance the understanding of the effect. Literature has highlighted the importance of the relations and networking in organizations, despite the differences in the human capital themselves. Researchers have stressed that relational support is necessary for high performance (innovation), and disconnecting in social structure will negatively affect the performance.

Result from testing H2 was supported with ($\beta = 0.371$, $t = 8.525$, $p < 0.001$), this supports the assumption that there is a significant link between RC and innovation. In regard with this result, this study confirms the importance of relational capital among employees in the UAE to the innovation (performance) of their organizations. This result matched his research believed that the worker productivity is influenced by their networking in the organization. Thus, the communication and teamwork between the employees in the UAE is an important matter as their skills and knowledge, each one of the employees is contributing to the innovation of their organizations by their knowledge and by communicating in their work field.

The third objective is to determine how structural capital influences the organizational innovation among employees within the Abu Dhabi police department in the United Arab Emirates. SC's positive effect on organizational innovations and the relation is significantly positive with ($\beta = 0.301$, $t = 7.601$, $p < 0.001$). Hence, hypothesis H3 appears strong. Firms ought to address structural capital appropriately just not innovation of product, as mentioned, but also. It consists of knowledge and experience with code that can be used for fresh products, process, and innovative ideas for success. Innovations need structural capital for providing better products. By developing effective processes, fast response to change, and knowledge management, Abu Dhabi police department can create a high level of innovation [9].

In sum, this result is justified, as has been suggested in the literature on structural capital; as for this study structural capital influences organizational innovation, thus in order for Abu Dhabi police department to enhance its innovation, organization needs to improve their structural capital as intellectual capital role player

in terms of effective processes, fast response to change, and knowledge management. Thus, specific objective three of this study is achieved.

VI. IMPLICATIONS

A. Implications for research

This is one of the first to investigate the direct relationships between the actors of IC and the different innovations types (product, process and administrative innovation). Studies have examined these relationship earlier, for collecting knowledge about the skills of employees, their education, their training, RC for studying knowledge derived from how firm and customers are related, as well as structural capital to study knowledge in relation with to organizational culture, knowledge management, internal processes and top management. For enriching this area, the research is taken an extension which is natural from the studies done previously of intellectual capital due to its contribution to the via additional components of IC. Having made its interactions in a knowledge based content in the public sector. The research results have made its demonstrations that these indicate 56% of variations and can create an appropriate atmosphere.

B. Implication for practice

It has benefited Abu Dhabi police department managers and public sector in general to view intellectual capital as an acting catalyst for various innovations. Abu Dhabi police should try to encourage people to maintain good relationships amongst the employees and encourage people to come together and create ideas and innovations. Moreover, Abu Dhabi police department should keep a track of the knowledge derived from various sources in order to improve the processes.

VII. LIMITATIONS AND SUGGESTIONS

It has examined the model of research in the Abu Dhabi police department and consequently other researchers could validate the model in more public sectors in the UAE, as well as different Arab countries. In addition, this study focused in the public sector and did not cover the private sector. It evaluated intellectual capital which appear as organizational innovation in UAE.

It recommend to expand the research to be carried out in the other states in the UAE that was not covered in this study. Since each and every state may have different characteristics of culture that may affect the study.

VIII. CONCLUSION

This study aims at examining how IC has an impact on organizational innovation within Abu Dhabi police department in the UAE. All hypotheses were achieved by testing them empirically. Results shows that relational capital has the most impact in explaining the organizational innovation within Abu Dhabi police department. Further more, in the importance-performance map analysis also came first. Thus, the communication and teamwork between the employees in the UAE is an important matter as their skills and knowledge, each one of the employees is contributing to the innovation of their organizations by their knowledge and by communicating in their work field. Structural capital comes second in explaining the innovation of the organization and also in the importance-performance map. Moreover, human capital plays a role helping the organizations to improve their innovation and compete to stay alive. In sum, intellectual capital was found a major predictor of the innovation in organizations. Improving the role players of intellectual capital will improve the organizational innovation.

Appendix A

Instrument for variables

Variable	Measure
Human Capital (HC)	HC1: We have knowledgeable employees HC2: We have creative employees HC3: We have highly skilled employees
Relational Capital (RC)	RC1: We have a close relationship with our customers RC2: We have a close relationship with our suppliers RC3: We have a close relationship with our partners
Structural Capital (SC)	SC1: The overall operations procedure of our organization is efficient. SC2: Our organization responds to changes very quickly. SC3: Our organization has an easily accessible information system. SC4: Systems and procedures of our organization support innovation. SC5: Our organization's culture and atmosphere are flexible and comfortable. SC6: There is a supportive environment among different departments in our organization.
Product Innovation (PTI)	PTI1: We always develop new product and services. PTI2: We try to introduce and diversify our product to suit customer needs PTI3: We always try applying new idea/technology at our organization.
Process Innovation (PSI)	PSI1: In my organization, new technology is adapted for improving the work processes (computers, wireless networking etc.). PSI2: In our organization, we try new methods for improving processes (paperless environment, online learning etc.). PSI3: Our organization is quick to respond to changing needs of its customer.
Administrative Innovation (AI)	AI1: Administrative support is always there for employees. AI2: Employees compensation system is linked to performance. AI3: Our institution has a new and improved performance evaluation system. AI4: At our organization, we believe in the open communication environment. AI5: In our organization, employees are hired on their creativity.

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