



Faculty of Technology Management and Technopreneurship

**INTELLECTUAL CAPITAL MODEL FOR ORGANISATIONAL
PERFORMANCE THROUGH INNOVATION CULTURE WITHIN
ABU DHABI POLICE ORGANIZATION**

Ahmed Hmoud Saeed Jaafar Alderei

Doctor of Philosophy in Technology Management

2023

**INTELLECTUAL CAPITAL MODEL FOR ORGANISATIONAL
PERFORMANCE THROUGH INNOVATION CULTURE WITHIN ABU DHABI
POLICE ORGANIZATION**

AHMED HMOUD SAEED JAAFAR ALDEREI

**A thesis submitted
in fulfillment of the requirements for the degree of Doctor of Philosophy**



Faculty of Technology Management and Technopreneurship

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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2023

DECLARATION

I declare that this thesis entitled “Intellectual Capital Model For Organisational Performance Through Innovation Culture Within Abu Dhabi Police Organization” is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature



:



Name

:

AHMED HMOUD SAEED JAAFAR ALDEREI

Date

:

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APPROVAL

I hereby declare that I have read this thesis and in my opinion this thesis is sufficient in terms of scope and quality for the award of Doctor of Philosophy.

Signature

:



Supervisor Name

:

TS DR. NURULIZWA BINTI ABDUL RASHID

Date

:

26/09/2023

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DEDICATION

This work is dedicated to the ones who have influenced my life... my wonderful father and my lovely mother, who have always wish all the best for me, for their love, and for the prayers they has done for me.

...To my love...

My wife is a great wife, a lovely companion, and so much more in my life. Throughout these years, she has been a continuous source of love, courage, and strength.

...To my great guide...

My dear supervisor, Ts Dr. Nurulizwa Binti Abdul Rashid.

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ABSTRACT

The central concern that motivates the current research stems from the intangible nature of the intellectual capital in the Abu Dhabi Police. There is limited insight on how different types of intangible resources are managed by the Abu Dhabi Police in a way that such a competitive advantage is gained and sustained. Intellectual capital (IC) is seen as a key driver for organizations to achieve success in the knowledge related to economy. The present work investigates the impact of three IC elements, which are human capital (HC), structural capital (SC), and relational capital (RC), on innovation culture and organisational performance within Abu Dhabi Police organization. The data obtained from 392 employees of the Abu Dhabi Police organization is based on a cross-sectional time horizon. Using partial least squares structural equation modeling (PLS-SEM), the study found a significant relationship between IC and both Innovation Culture and Organizational Performance, with path coefficients of 0.643 and 0.254, respectively. Innovation Culture was also found to significantly influence Organizational Performance, with a path coefficient of 0.627. Further, Innovation Culture was found to partially mediate the relationship between IC and Organizational Performance, with an indirect effect of 0.403, suggesting that Innovation Culture plays an essential role in converting IC into improved Organizational Performance. Finally, Gender was found to have a significant, albeit weak, moderating effect on the relationship between Innovation Culture and Organizational Performance, with a path coefficient of 0.083. These findings highlight the importance of IC and Innovation Culture, as well as the role of Gender, in enhancing Organizational Performance within the Abu Dhabi Police Organization. Therefore, as expected, organisations with a higher level of intellectual capital place a higher value on it in order to achieve significantly higher performance. This research has consequences for both theoretical and practical aspects. From a theoretical perspective, this research utilises a more comprehensive intellectual capital paradigm than previous research through addressing innovation culture, gender and the three key intellectual capital components, namely human, structural, and relational capital in one research model. For practical prospects, the study underscores the need for strategic investment in human capital, relational capital, and structural capital to improve operational effectiveness. Second, the research emphasizes the crucial mediating role of Innovation Culture, suggesting that fostering an environment of innovation can facilitate the conversion of IC into tangible performance improvements. This implies that management strategies should prioritize the cultivation of an Innovation Culture, encouraging openness to novel ideas and approaches among staff. Third, the significant, though weak, moderating effect of Gender on the relationship between Innovation Culture and Organizational Performance underscores the importance of diversity in promoting a culture of innovation and improving overall performance. This suggests that greater efforts should be made to promote gender equality and inclusivity within the organization.

MODEL MODAL INTELEK UNTUK PRESTASI ORGANISASI MELALUI BUDAYA INOVASI DALAM ORGANISASI POLIS ABU DHABI

ABSTRAK

Kebimbangan utama yang mendorong kajian semasa berpunca daripada sifat tidak ketara modal intelek dalam Polis Abu Dhabi. Terdapat pandangan yang terhad tentang cara pelbagai jenis sumber tidak ketara diuruskan oleh Polis Abu Dhabi dengan cara yang kelebihan daya saing tersebut diperoleh dan dikekalkan. Modal intelek (IC) dilihat sebagai pemacu utama bagi organisasi untuk mencapai kejayaan dalam pengetahuan berkaitan ekonomi. Kerja ini menyiasat kesan tiga elemen IC, iaitu modal insan (HC), modal struktur (SC), dan modal hubungan (RC), terhadap budaya inovasi dan prestasi organisasi dalam organisasi Polis Abu Dhabi. Data yang diperolehi daripada 392 kakitangan organisasi Polis Abu Dhabi adalah berdasarkan horizon masa keratan rentas. Kajian mendapati hubungan yang signifikan antara IC dan kedua-dua Budaya Inovasi dan Prestasi Organisasi, dengan pekali laluan masing-masing 0.643 dan 0.254. Budaya Inovasi juga didapati mempengaruhi Prestasi Organisasi dengan ketara, dengan pekali laluan 0.627. Selanjutnya, Budaya Inovasi didapati menjadi pengantara sebahagian antara IC dan Prestasi Organisasi, dengan kesan tidak langsung 0.403, menunjukkan bahawa Budaya Inovasi memainkan peranan penting dalam menukar IC kepada Prestasi Organisasi yang dipertingkatkan. Akhirnya, Jantina didapati mempunyai kesan sederhana, walaupun lemah, ke atas hubungan antara Budaya Inovasi dan Prestasi Organisasi, dengan pekali laluan 0.083. Penemuan ini menyerlahkan kepentingan IC dan Budaya Inovasi, serta peranan Jantina, dalam meningkatkan Prestasi Organisasi dalam Organisasi Polis Abu Dhabi. Oleh itu, seperti yang dijangkakan, organisasi yang mempunyai tahap modal intelek yang lebih tinggi meletakkan nilai yang lebih tinggi untuk mencapai prestasi yang lebih tinggi dengan ketara. Penyelidikan ini mempunyai kesan untuk kedua-dua aspek teori dan praktikal. Dari perspektif teori, kajian ini menggunakan paradigma modal intelek yang lebih komprehensif daripada penyelidikan terdahulu melalui menangani budaya inovasi, jantina dan tiga komponen modal intelek utama, iaitu modal insan, struktur dan hubungan dalam satu model penyelidikan. Untuk prospek praktikal, kajian ini menekankan keperluan untuk pelaburan strategik dalam modal insan, modal perhubungan, dan modal struktur untuk meningkatkan keberkesanan operasi. Kedua, penyelidikan itu menekankan peranan pengantaraan penting Budaya Inovasi, mencadangkan bahawa memupuk persekitaran inovasi boleh memudahkan penukaran IC kepada peningkatan prestasi ketara. Ini membayangkan bahawa strategi pengurusan harus mengutamakan penanaman Budaya Inovasi, menggalakkan keterbukaan kepada idea dan pendekatan baru di kalangan kakitangan. Ketiga, kesan sederhana Jantina yang ketara, walaupun lemah, ke atas hubungan antara Budaya Inovasi dan Prestasi Organisasi menggariskan kepentingan kepelbagaian dalam mempromosikan budaya inovasi dan meningkatkan prestasi keseluruhan. Ini menunjukkan bahawa usaha yang lebih besar harus dibuat untuk menggalakkan kesaksamaan jantina dan keterangkuman dalam organisasi.

ACKNOWLEDGEMENTS

Alhamdulillah, praise be to Almighty Allah (SWT) for blessing me with the successful completion of this dissertation. This Doctor of Philosophy research has been difficult and full of twists and turns, but it has now come to a gratifying conclusion. Thank you for Allah (SWT) and the prayers of my family and friends. I could not have done it without their help.

May Allah (SWT) bless my supervisor. Ts Dr. Nurulizwa Binti Abdul Rashid deserves the deepest gratitude for the advice and assistance she provided to me. As a result, I'd like to express my heartfelt gratitude to her for being so generous with her time and advice on how to enhance my work. She is always helpful and patient when dealing with any of my challenges in this research. May Allah (SWT) bless her and her family.

Furthermore, I'd like to thank UTeM for providing me with a pleasant working environment.

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LIST OF ABBREVIATIONS

AVE	-	Average variance extracted
CFA	-	Confirmatory factor analysis
CR	-	Composite reliability
EFA	-	Exploratory factor analysis
GDP	-	Gross domestic product
GoF	-	Goodness of fit
HC	-	Human Capital
I	-	Innovation
IC	-	Innovation Culture
IC	-	Intellectual capital
KS	-	Knowledge sharing
OP	-	Organisational Performance
PLS	-	Partial least squares
RC	-	Relational Capital
SC	-	Structural Capital
SDG	-	sustainable development goals
SEM	-	Structural equation modelling
SPSS	-	Statistical package for the social science
UAE	-	United Arab Emirates
VIF	-	Variance inflation factor
VRIN	-	Valuable, rare, inimitable, and non-substitutable

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LIST OF PUBLICATIONS

Journal with Impact Factor

Alderei, A. H., Rashid, N., and Husseini, S. A., 2022. Modelling Intellectual Capital for Organisational performance through Innovation Culture within Abu Dhabi Police in UAE. *Journal of Positive School Psychology*, 6(3), 4655-4667.

Alderei, A. H., Rashid, N., and Husseini, S. A., 2022. Measuring Intellectual Capital factors for Organisational Performance of Abu Dhabi Police in UAE. *Journal of Positive School Psychology*, 6(3), 4646-4654.



CHAPTER 1

INTRODUCTION

1.1 Introduction

This is the introductory chapter of the research, and it provides an overview of the overall research. The chapter has started with the introduction, research background, problem statement, objectives and research questions of the research. Scope of the research and limitation are emphasized, respectively. Lastly, the overall structure of the research has been presented, with an outline of each chapter followed by a summary of the chapter.

1.2 Background

The increase of the organizational performance is not the result of macroeconomic policies or financial balance, but the result of technical progress, innovation and quality of human, structural and relational factors that, in turn, are heavily influenced by investment in knowledge, research and development (Gogan et al., 2019). The innovative performance of a company in the twenty-first century, in line with the Europe 2020 goals requires knowledge and intellectual capital management (which are key areas for most organizations), but particularly for those that are knowledge-intensive. The key factor of this creative performance is the intellectual capital, considered one of the most critical, yet strategic value that an organization can have. The intellectual capital with maximum efficiency, finding innovative solutions to reduce consumption of resources – these are two directions which must be taken in order to implement intellectual capital management in a knowledge-intensive company through changes in organizational structure, culture and processes (Alshamsi et al., 2019). Previous research (Alderei et al., 2022; Gogan et al., 2019; Alshamsi

et al., 2019) confirms the existence of a strong and positive relationship between intellectual capital and organizational performance. However, this link should be confirmed in other fields as well in different countries.

1.2.1 Introduction to UAE country

The UAE is one of the leading countries in the Middle East that has achieved rapid growth in its economy over the last decades. In a few years, the UAE has built several public organisations, which reflects the state trends toward improving the provided services to the public. The government has confirmed its commitment toward increasing its spending on the public sector; most of these infrastructures are designed to meet the government vision 2021, which is in line with the national agenda “competitive knowledge economy” (UAE, 2017). This vision has been marked by 12 key performance indicators; the most related four key performance indicators to the public organisations are:

1. Increase the share of UAE nationals in the workforce
2. Increase Emiratisation rate in the public sector
3. Achieving a high rank in the global innovation index
4. Increasing share of 'knowledge workers' in the labour force.

In the United Arab Emirates (UAE), each emirate's governmental operations are divided between the federal and local administrations. (i.e. state), as defined by the UAE's constitution (Government.ae, 2019). Federal government entities have exclusive legislative jurisdiction over particular areas. For example, the Public sector entities at the individual emirate level having authority over any subjects not designated to the federal government's exclusive jurisdiction. Despite differences in their aims, scope and responsibilities, government entities at each level as a key role in improving UAE's social and economic development.

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 the free market. Hence, creating something fresh and innovative is not an option anymore but is necessary for all similar organisations. 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. By referring to the Global Innovation Index (2017), the Arab region in terms of innovation outputs does not do so well comparing the Europe, East Asia, North American 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 neighbours in terms of innovation outputs score. However, is it significantly behind its western and Asian counterparts outside the organisations, which gives the organisations an opportunity to succeed in the competing global economy (Ameen and Ahmad, 2013:2016). Moreover, researchers such as Andrews (2015) believed that intellectual capital is positively in relation to the innovation of an organisation.

1.2.2 Innovation level in Arab regions

The capacity of innovation and its role in enhancing the development process has 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 and 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 neighbouring 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 the

rank of 64. Qatar also lagging behind the UAE ranking 34 among 137 countries included in this report as showing in Figure 1.1 (Alshamsi et al., 2019; Ahmed et al., 2019).

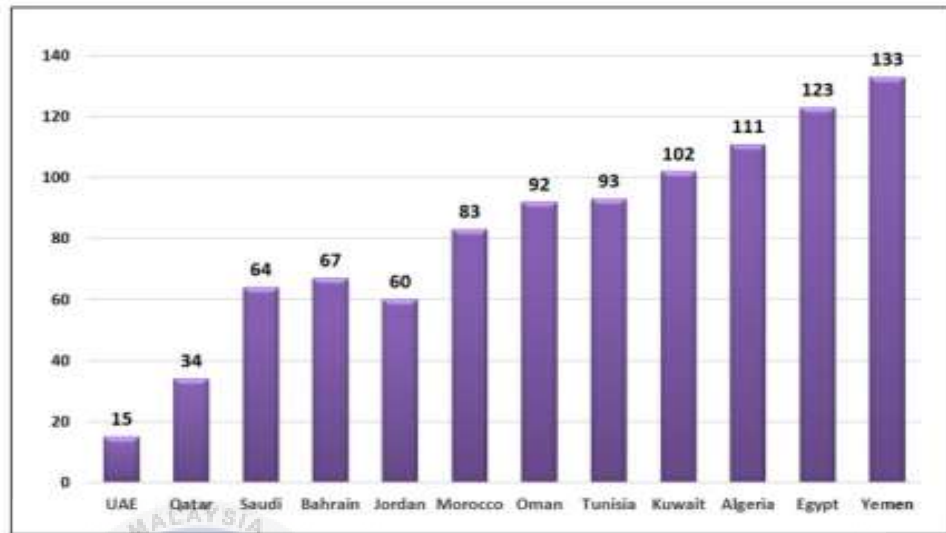


Figure 1.1: Capacity for innovation ranking in UAE compare to neighbouring

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, organisational innovation ranking, and capacity for innovation yet, organisational innovation can be improved. As show in Figure 1.1 above and Figure 1.2 below, UAE is one of the countries that leading between the Arab region in term of labour market efficiency, quality of overall infrastructure, organisational innovation ranking, and capacity for innovation, yet, organisational innovation can be improved (Ahmed et al., 2019; Alshamsi et al., 2019).

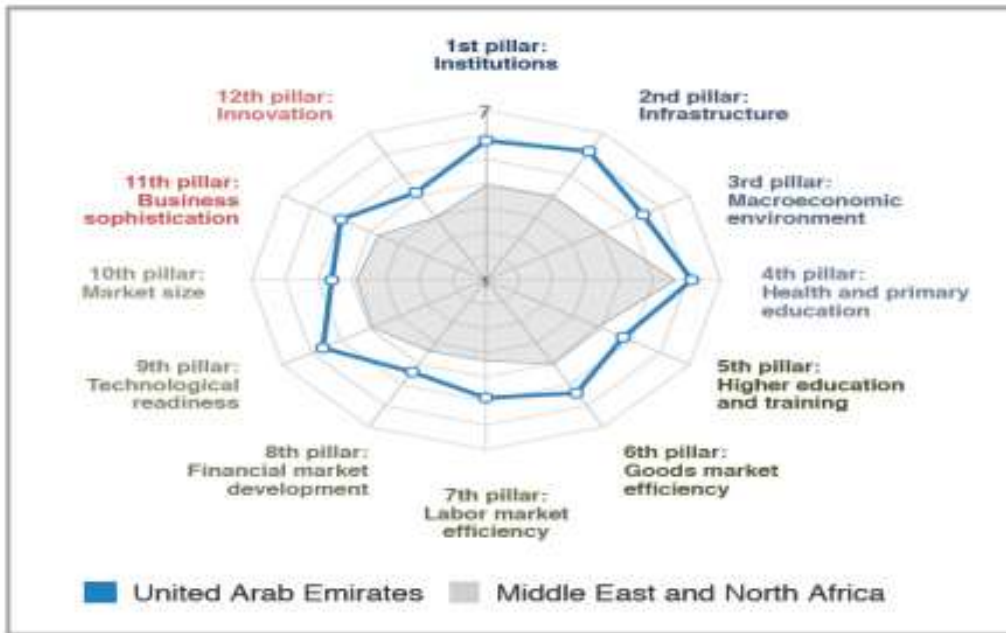


Figure 1.2: Stage of development in the UAE

Most of the intellectual capital research been performed to 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 or phenomenon growth exists in the Arab region (Al-Shamsi et al., 2019). A national transition toward a knowledge-based economy warrants the implementation of IC programs within all federal/central, semi-government, state/regional, organizations and entities (APO, 2013).

1.2.3 Intellectual capital and organizational performance

Intellectual capital (IC), which is associated with producing value for organizations, may provide organisations in the knowledge economy with a competitive advantage and improved performance (Ahmed et al., 2019). IC are also thought to add value to physical and financial assets (Dzenopoljac et al., 2017). The most important factor considered responsible for how an organisation performs and sustains intellectual capital. In addition, intellectual capital seizes flows and stocks of the overall knowledge base of a firm. The

research claims that the multidisciplinary nature that is offered to by intellectual capital 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 (Ahmed et al., 2019; Alshamsi et al., 2019).

The concept of intellectual capitals (ICs) became quite popular in the late 1990s. As a consequence, the IC were envisaged as a combination of knowledge and abilities, which may clearly provide a firm with a long-term competitive advantage (Tarus , 2015). Sharabati (2013) defined IC as the employees' key competencies comprising individual knowledge and skills. Smriti and das (2018) Identified IC as the stocks and information flows available within an organisation. Moreover, Li (2018) noted that assessing IC may aid in the formulation of company strategies and the allocation of corporate resources. According to Meles et al. (2016), there are three interconnected groups of reasons in favour of IC measurement: The increasing importance of IC as a factor of corporate growth; only IC ensure long-term competitive advantage in the market; and IC provide a continual and endless source of innovations.

According to Sharabati et al. (2016), the key driving force behind the continued rise of the national and global knowledge economies is IC development. Market success can now be measured by productivity and innovation, which are aided intentionally by the efficient management of both visible and intangible assets such as IC (Shkolik, 2016). IC regarded critical business assets that have an impact on the company's strategic performance. The ability of the organisation to create value is dependent on greater usage of IC, and the impact of IC efficiency on financial performance varies by sector (Malkawi, 2018). As a result of the rise of the knowledge economy, practitioners are being driven to identify and measure IC for successful management (Jaara et al., 2016).

The people identify innovation as a new tool that place a significant role in strengthening the efficiency of a firm (Ameen et al., 2019). As competition is getting more intense and the environment is getting more uncertain, innovation has become important for the growth of the promotion as well as for survival (Alkhateri et al., 2018). 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, an environment full of competition, and financial issues, firms face an 'either innovate or die' scenario, innovation counts as the ultimate solution of survival.

Therefore, Organizations must innovate to respond to changing client needs and lifestyles, as well as to capitalise on possibilities provided by technology and changing marketplaces, structures, and dynamics (Donate et al., 2018). Innovation is a method of responding to changes in a company's internal or external environment, as well as a proactive activity made to affect the environment (Adams et al., 2016). The adoption of innovation is meant to ensure adaptive behaviour, altering the organisation to maintain or improve its performance (Blok et al., 2015). According to Serrat (2017), innovation is the process of taking creative ideas and transforming them into usable goods or work techniques. This is in contrast to how these authors understood invention as the process of creating new ideas. Flor and Oltra (2018) defined innovation as the capacity to integrate two or more bodies of knowledge. Geisler et al. (2015), on the other hand, saw innovation as the creative and commercial manifestation of organisational learning. Dogan, (2019) defined innovation as a prospective new combination that results in extreme departures from the past, rendering a significant portion of acquired knowledge.

On the other side, Innovation denotes new methods to public action, as well as the skill of conceiving and developing ideas and activities in ways that are superior to those