MODERATING ROLE OF DYNAMIC CAPABILITIES ON THE RELATIONSHIP BETWEEN INTELLECTUAL CAPITAL AND INNOVATION PERFORMANCE

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DEDICATION

I dedicate this thesis to Allah Almighty, my creator, my strong pillar, my source of inspiration, wisdom, knowledge, and understanding. He has been the source of my strength throughout this journey and on His wings only, I have soared.

I dedicate this research to the prophet of mercy, "Muhammad bin Abdullah (Peace Be Upon Him)" and my beloved country (Iraq).

I also devote this work to my beloved, lovely wife Ibtihal, who has encouraged me all the way and her encouragement made me sure that I give it all it takes to finish that which I have started. My gratitude extended to my children Mohammed, Yousif, and Ali, who have been sacrificed in every way possible by this quest. I am truly thankful for having you in my life.

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ABSTRACT

Ongoing economic imbalances worldwide have demanded a major transformation from an industrial-based economy (relying on tangible assets) into an intellectual capital-based economy (relying on intangible resources). In today's competitive market scenario, effective manipulation of intellectual capital components has emerged as the basis for value creation, thus leading to the innovative performance of the financial institution. Lately, intellectual capital components (human, structural, relational and social) and their implications on innovation performance have generated renewed research interest. Based on these facts, this study examined the impacts of intellectual capital components to gain the competitive advantages of commercial banks of Iraq in terms of improved innovation performance. Direct and indirect effects of various study variables on intellectual capital components and innovation performance were determined to validate such claims. To ascertain the direct influence, the relationship between different antecedent factors such as culture and trust in intellectual capital components was analysed. In addition, a correlation between intellectual capital components (as intangible assets) and innovation performance in the banking sector was established. To find out the indirect impact, the interaction between the various factors of the dynamic capabilities (such as sensing, seizing, and reconfiguring) in moderating the relationship between intellectual capital components and innovation performance was evaluated. The positivism philosophy, deductive approach and quantitative method were used as the research methodology to accomplish the research objectives. In this process, a questionnaire survey and purposive sampling technique were used to collect the responses from 364 employees of the Iraqi commercial banks (with a response rate of 77.4%) to verify the study hypotheses. The obtained data were analysed statistically using the SPSS v.25 and AMOS v.24 software. The results revealed a significant impact of culture and trust (antecedent factors) on various intellectual capital components. Furthermore, a strong connection between these antecedent factors and intellectual capital components was evidenced, confirming the study hypotheses. Interestingly, intellectual capital components were found to enhance the innovation performance of the banks significantly. Besides, the dynamic capabilities were shown to moderate the correlation between intellectual capital components and innovation performance in the Iraqi commercial banks positively. Thus, this will improve the competitive advantages. It was asserted that intellectual capital components implementation could strongly influence the innovation performance of the financial sector, leading to numerous benefits to the bank employees and long-term sustenance. Thus, it can be concluded that commercial banks must consider intellectual capital components as a catalyst for creative innovations. In short, this study provided some valuable insights and guidance to the academicians and practitioners in the financial sector regarding the development of intellectual capital components to enhance the innovation performance, especially for the Iraqi commercial banks to take full advantage of their intangible assets.

ABSTRAK

Ketidakseimbangan ekonomi yang berterusan di seluruh dunia menuntut transformasi besar dari ekonomi berasaskan industri (bergantung pada aset ketara) kepada ekonomi berasaskan modal intelektual (bergantung pada sumber yang tidak ketara). Dalam senario pasaran yang kompetitif hari ini, manipulasi komponen modal intelektual yang efektif telah muncul sebagai asas untuk penciptaan nilai, sehingga membawa kepada prestasi inovasi institusi kewangan. Semenjak kebelakangan ini, komponen modal intelektual (manusia, struktur, hubungan dan sosial) dan implikasinya terhadap prestasi inovasi telah menjana minat penyelidikan yang baru. Berdasarkan fakta-fakta ini, kajian ini meneliti impak komponen modal intelektual untuk memperoleh kelebihan daya saing bank perdagangan di Iraq dari segi peningkatan prestasi inovasi. Kesan langsung dan tidak langsung dari pelbagai pemboleh ubah kajian terhadap komponen modal intelektual dan prestasi inovasi telah ditentukan untuk mengesahkan tuntutan tersebut. Untuk memastikan pengaruh langsung, hubungan antara faktor anteseden yang berbeza seperti budaya dan kepercayaan terhadap komponen modal intelektual telah dianalisis. Di samping itu, hubungan antara komponen modal intelektual (sebagai aset tidak ketara) dan prestasi inovasi untuk sektor perbankan telah diwujudkan. Untuk mengenalpasti kesan tidak langsung, interaksi antara pelbagai faktor keupayaan dinamik (seperti penderiaan, penyitaan, dan penyusunan semula) dalam menyederhanakan hubungan antara komponen modal intelektual dan prestasi inovasi telah dinilai. Falsafah positivisme, pendekatan deduktif dan kaedah kuantitatif digunakan sebagai metodologi penyelidikan untuk mencapai objektif kajian. Dalam proses ini, tinjauan soal selidik dan teknik persampelan bertujuan digunakan untuk mengumpul maklum balas dari 364 pegawai bank perdagangan di Iraq (dengan kadar maklum balas 77.4%) yang mengesahkan hipotesis kajian. Data yang diperoleh telah dianalisis secara statistik menggunakan perisian SPSS V.25 dan AMOS v.24. Hasil menunjukkan pengaruh budaya dan kepercayaan yang signifikan (faktor anteseden) pada pelbagai komponen modal intelektual. Tambahan pula, hubungan yang kuat antara faktor anteseden dan komponen modal intelektual ini telah dibuktikan, bagi mengesahkan hipotesis kajian. Menariknya, komponen modal intelektual didapati meningkatkan prestasi inovasi bank dengan ketara. Di samping itu, kemampuan dinamik telah ditunjukkan mampu untuk menyederhanakan secara positif korelasi antara komponen modal intelektual dan prestasi inovasi di bank perdagangan Iraq. Justeru itu, ia akan meningkatkan kelebihan daya saing. Ditegaskan bahawa pelaksanaan komponen modal intelektual dapat mempengaruhi prestasi inovasi sektor kewangan, yang membawa kepada pelbagai manfaat kepada pekerja bank dan pendapatan jangka panjang. Oleh itu, dapat disimpulkan bahawa bank perdagangan wajar mempertimbangkan komponen modal intelektual sebagai pemangkin untuk kreatif inovasi. Ringkasnya, kajian ini memberikan beberapa pandangan dan panduan berharga kepada para akademik dan pengamal di sektor kewangan mengenai pengembangan komponen modal intelektual untuk meningkatkan prestasi inovasi, terutama bagi bank perdagangan Iraq untuk memanfaatkan sepenuhnya aset tidak ketara mereka.

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LIST OF ABBREVIATIONS

IC	-	Intellectual Capital
SC	-	Structural Capital
HC	-	Human Capital
RC	-	Relational Capital
SOC	-	Social Capital
IP	-	Innovation Performance
DC	-	Dynamic Capabilities
SEN	-	Sensing
SEI	-	Seizing
REC	-	Reconfiguring
CUL	-	Culture
TRU	-	Trust
CT	-	Contingency Theory
RBV	-	Resource-Based View
VRIN	-	Valuable Rare Inimitable Non-substitutable
ICS	-	Intellectual Capital Statement
RIC	-	Regional Intellectual Capital
CBI	-	Central Bank of Iraq
R&D	-	Research and Development
MR	-	Measurement Routine
CFA	-	Conformity Factors Analysis
SEM	-	Structural Equation Modeling
CMIN	-	Contrast Media-Induced Nephropathy
AVE	-	Average Variance Extracted
MaxR(H)	-	Maximal Reliability
RMSEA	-	Root Mean Square Error of Approximation
CFI	-	Comparative Fit Index
CR	-	Composite Reliability
DF	-	Degrees of Freedom
CPA	-	Certified Public Accountant

LIST OF SYMBOLS

β	-	Beta
Chi^2	-	Value on the chi-square distribution that specifies the probability of obtaining the chi-square value from chance
N	-	Number of Samples
R^2	-	Coefficient of determination
t	-	t-value
p	-	P-value
%	-	Percentage

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CHAPTER 1

INTRODUCTION

1.1 Research Background

Currently, the main concern of the world economy is to develop some competitive outlooks of the banks that can enforce the conventional managerial practices to become more strategized through cost-cutting, re-engineering, and benchmarking. However, all these strategies practically became inefficient and deficient in acquiring the practical markets' competitive advantages (Guo and Pillath, 2017). Consequently, the global economic reforms have posed a critical question regarding the master plans of the enterprises for their future survival in the competitive market environments. Previous studies have focused on the essential economic constituents represented by banks' performance that could offer solutions to the financial performance improvement (Abhayawansa and Guthrie, 2016). Nevertheless, all these solutions have neglected the impact of intellectual capital development that can describe the entire scenarios understandable by the organisation's employee, thus facilitating to accomplish the values of the enterprise (Opresnik and Taisch, 2015).

Innovation performance is considered as the improvement or modernization in the formation of novel ideas (Koryak *et al.*, 2015; Si *et al.*, 2020; Sok and O'Cass, 2015) or the development and execution of better/professional work culture from the customer's perspectives (Asiaei and Jusoh, 2017). In addition, it aims to improve the internal business structures and processes, creating new goods and better-quality services to fulfill the market demands (Kamau and Oluoch, 2016). Thus, innovation performance can be considered as the intermediary variables among definite processes of businesses and common performances of the organisations, therefore enabling some superior depiction of the action and impact that may be achieved

within the organisations (Sahibzada *et al.*, 2019). Some studies exhibited a positive relationship between intellectual capital components as non-tangible assets and innovation performance (Alrowwad, 2020; Jabbouri *et al.*, 2016).

Repeated researches revealed that innovation could significantly affect the organisations' existence, competitiveness, and growth through its influence on the customer's satisfaction, employees' productivity, service quality, companies share, market value, and customers retention. It was shown that innovation performance could increase the sales and market shares with considerable customers satisfaction (McDowell *et al.*, 2018; Xu and Wang, 2018). Additionally, the innovation can generate economic value for the organisations, thereby increasing the profits and improving the performance (Cabrilo *et al.*, 2018). Briefly, the innovation performance of any organisation can be described as the degree to which the improvement of intellectual capital components can successfully generate the outcomes, leading to novel or significantly improved products or services (Rosenbusch *et al.*, 2019).

Tastan and Davoudi (2015) demonstrated that innovation performance could originate from the mental properties represented in the facts, figures, reports and procedures of the organisations. It was argued that in addition to improve the employees' knowledge, skill and perception like the non-sensorial and intangible attributes together with intellectual capital components can be exploited to acquire wealth via the business assets expansion (Rindermann and Christainsen, 2015). Essentially, the definitions of intellectual capital may differ according to its scale. In this rationale, an organisation's intellectual capital can be used to generate extra benefits or items that may be easily understood by its employees, thereby achieving the value-based services and assets. Deltorn (2017) described the scope of formalising, controlling, and enabling the intellectual capital to generate valuable assets wherein the absence of intellectual capital may act as a deficiency for the larger interest of an enterprise and expected value to be paid.

According to Zambon and Dumay (2016), intellectual capital constitutes the static aspect of passive, measurable, classified, and potentially value-generating

knowledge. Some reports claimed that intellectual capital comprises of four components including human, structural, relational, and social capitals (Al-Musali and Ismail, 2016; Allameh, 2018; Cabrilo *et al.*, 2018). Human capital is considered as an essential ingredient of intellectual capital, determining its capital growth and overall performance enhancement (McDowell *et al.*, 2018). Thus, holistic talents with excellent education and refined skill possess enhanced cognitive capacities that can lead to their high productivity and proficient action improving the working performance of the enterprise. Consequently, the enterprise can make improved entrepreneurial judgments and decisions, running the company more efficiently and eventually advance the innovation performance of the organisation (Rehman, 2020). Despite many dedicated efforts, no consensus has been reached regarding the actual essence of human capital and its impact on the organisational performance improvements.

Few investigations revealed that over 50% of the intellectual capital values were comprised of human resources and thus the knowledge, awareness, experiences and skilfulness of the employees in an enterprise became vital in this rapidly changing business settings worldwide (Cabrilo *et al.*, 2018; Heaton *et al.*, 2019). Moreover, structural capital contains the procedures and information system of the organisation (Khan *et al.*, 2016; Nimtrakoon, 2015). These processes help the organisations coordinating their strategies, structures, culture, routines, etc. for improving the working effectiveness. Meanwhile, the sophisticated information system contributes in accessing valuable data to help making decisions, leading towards enhanced competence and profits. According to the latest report, a distinctive custom or procedure to perform the jobs and activities is the prospective resource for innovation performance of an organisation. Organisation having inadequate systems and processes cannot attain their prospective goals, the value making action for an organisation may be more effectual if it has robust structural assets (Al-Jinini *et al.*, 2019).

The relational capital refers to the reliance in diverse modes such as horizontal or vertical and downstream or upstream reflects different types of cooperation or collaboration mechanisms in varieties of settings. Thus, the relational

capital of an organisation is not regarded as the resource of innovation performance in a dynamical market scenario except used more judiciously compared to the contestants to generate capacity arrangement (Aureli *et al.*, 2019). Experiential evaluation in the context of China and other emergent nations revealed that the relational capital of an organisation could enhance its innovation performance (Rehman *et al.*, 2017). It was also shown that relational resources established with the customer, supplier and various stakeholders enable generating the competitive capacities, thus gaining a long-term sustainability (Nimtrakoon, 2015). Lastly, social capital refers to an embedded interactional knowledge of an organisation, signifying the nature and level of interaction among its members (Nevado *et al.*, 2018). According to Rodrigo *et al.* (2018), the social capital of an organisation acts as an instrument to determine the possible impact of knowledge on dynamical capabilities. Thus, an organisation with strong social capital can improves its capacity and inspires others for betterment.

Comprehensive literature survey helped the present authors to identify the interesting and useful aspects of intellectual capital components and their impact on the innovation performance of an organisation. Some reports statistically informed the situation in the financial sector, especially for the commercial banks. Various studies displayed that intellectual capital components can contribute to innovation performance at very low levels. For example, Abdal *et al.* (2017) mentioned that the USA and UK banking sectors have low intellectual capital development of approximately 63-67% as opposed to more than 80% in the developed countries. Whereas human, structural, relational and social capitals were found to have 0.3 growth per year, rather than being more than 0.6% for those countries (Asiaei and Jusoh, 2017; Cuozzo *et al.*, 2017). Other investigations indicated similar results in the context of developed countries like Netherland, France and so forth, wherein the intellectual property growth was 0.2 - 0.4%. The main reasons for these low indications are attributed to the shortages in the intellectual properties of the financial sector.

Moreover, the situation was not better in the developing countries, especially in the middle east. Conversely, UAE, KSA, Jordan and Syria showed high demands

for developing intellectual capital of the banking sector to achieve the required innovation performance and overcome the present financial challenges encountered by those countries (Beretta *et al.*, 2019; Abhayawansa and Guthrie, 2016; Abhayawansa *et al.*, 2018). The studies on intellectual capital components of the banking sector in those countries showed a low level of 27.4% (UAE), 25.1% (KSA), 22.0% (Jordan), and 19.4% (Syria) of growth. Concerning the present research context, few investigations in the Iraqi banking sector indicated that intellectual capital components in the banking sector encountered serious challenges which highly impacted the innovation performance (Adeniran *et al.*, 2020; Alabass, 2019; CSO, 2019; Sadq *et al.*, 2020). Considering this trend, the present study aimed to investigate the challenges faced by the Iraqi commercial banks. It contributed a new database in the literature via the identification of necessary reform in the Iraqi banking sector as addressed in the financial reports of the national monitory committee (Alabass, 2019; Ghali, 2017; Jabbouri *et al.*, 2016; Sadq *et al.*, 2020).

The synergistic effects of intellectual capital components on the improved innovation performance became increasingly significant in the field of economics and accounting practices, particularly in the banking sector (Isanzu, 2017; Shang and Liu, 2019). However, only a few investigations have been performed to qualify the impact of intellectual capital components on the innovation performance and financial growth of the banking sector (Edvinsson and Malone, 2007). Past studies revealed that the retention of successful innovation performance is determined by the efficient and reliable actions of the bank's capacity to learn and adjust dynamically with the ever-altering market settings (Chang and Wang, 2012). In this insight, intellectual capital components alone cannot gain high innovation performance without leveraging via the transformation of capacities and resources into competitive productivity (Agostini and Nosella, 2017). In particular, the developing countries like Iraq with full of turbulence cannot ensure high innovation performance by merely focusing on intellectual capital components due to disrupting and volatile economic conditions (Zhang and Wang, 2017).

All-inclusive review of the previous literature showed that the survival of the businesses under dynamic and turbulent economic environments necessitates

continual innovations, wherein modernization acts as the key element for the improved performance of the organisations (Alford and Duan, 2018). Indeed, the notion of such innovations must be correlated to the development of the intellectual capital components and incorporation of new values creation. This concept generally encompasses diverse aspects of creativity including product making, implementation of the emergent technologies, smart management, and meticulous strategies. In addition, these procedures must focus on the consumers' expectations and needs to improve the business competitiveness and productivity in the banking sector (Kalkan and Arman, 2014). Principally, the growth of the intellectual capital components must be strongly linked to the improved innovation performance of an organisation (Ferreira *et al.*, 2020; Wendra *et al.*, 2019). The "resource-capability-advantage" structure suggests that sudden alteration of the market environments is the decisive factor for both intellectual capital components and dynamic capabilities establishment which can be considered as a significant source to support the innovation performance of the banks (Isanzu, 2017).

Based on the aforementioned facts, the present study examined the implications of antecedent factors of culture and trust on the main intellectual capital components (human, structural, relational, and social). The obtained results based on a questionnaire survey in the Iraqi commercial banks were statistically analysed to establish a correlation amongst intellectual capital components and innovation performance. Finally, the moderating role of the dynamic capabilities were examined to validate the close connectivity amongst intellectual capital components and innovation performance. It was found that by the intellectual capital components with dynamic capabilities, a clear understanding of the competitive innovation performance for the Iraqi commercial banks can be achieved. This systematic study can constitute a basis to gain better knowledge of the intellectual capital components-innovation performance correlation for the banking sector in other developing countries.

1.2 Problem Statement

The existing literature displayed an immense significance of the intellectual capital as a knowledge resource and cornerstone for undertaking the competitive advantage in the businesses for innovation performance (Asiaei *et al.*, 2020; Budiarso, 2019; Cabrilo *et al.*, 2018). Although some studies emphasized the relationship between intellectual capital and innovation performance in financial organisations (Duodu and Rowlinson, 2019), administrators could not use intellectual capital effectively. According to Sangiorgi and Siboni (2017), intellectual resources can be considered as fundamental drivers of the banks competitive advantages. Some studies unified the concept of intellectual capital with the organisational relationships, infrastructures, cultures, routines and intellectual properties (Dumay and Guthrie, 2017; Lentjushenkova and Lapina, 2014; Secundo *et al.*, 2018). In the Iraqi banking business, intellectual capital has been defined as the gap between a bank's source value and the cost of replacing its assets. It is those things that we cannot ordinarily place a price on, such as competence, knowledge, and a firm's organisational learning potential (Alabass, 2019; Hasan, 2021).

Most of the previous researchers emphasised the effects of intellectual capital components for explaining the reasons and factors that contribute to maintaining the organisation's innovation performance (Asiaei *et al.*, 2020; Scafarto *et al.*, 2016; Agostini and Nosella, 2017). However, an exact relationship between intellectual capital and innovation performance in the context of the banking sector was seldom defined (Cabrilo *et al.*, 2018). Some literature reports criticised the success associated with the innovation with different views and opinions regarding the intellectual capital and its classifications into components (Chowdhury *et al.*, 2018; Asiaei and Jusoh, 2015; Bogdan *et al.*, 2017). Thus, it is essential to investigate a multi-level correlation amongst various components of the banks' intellectual capital and innovation performance to shed some new knowledge and understanding on the correlation between these factors and its implications on the bank's innovation performance.

In light of the current situation, Iraq is one of the Middle Eastern nations that relies mostly on oil exports to pay its government. Therefore, the process of controlling those assets required highly skilled employees in the banks to present innovation performance, which contributes in adding competitive advantages to specific bank than others and attract the attention of the national, foreign beneficiaries and investors. The statistical investigations in the previous literature showed that commercial banks contribute 43-47% of the total fund exchange inside and outside the country between 2015-2020. The previous investigation in the present research context showed instability in the required performance of the commercial banks in the country.

Along with their tangible assets, Iraq's leading commercial banks shown an expanding trend for developing their intellectual sources, particularly human capital (Abdulrahman, 2017). This tendency is seen in the banks' expenditure budgets during the course of the current research. In contrast, studies by the World Bank and the CPA revealed that Iraq's commercial banking infrastructure needs were $55 billion. Furthermore, according to certain research, commercial banks spend an average of 36-39 % of their budgets on developing intellectual capital such as (Alabass, 2019; Ali *et al.*, 2021; Sadq *et al.*, 2020). This trend was a result of the ongoing decline in intellectual capital of Iraqi banks presented in studies that found low levels of innovative performance and competitive requirements.

Thus, Iraqi commercial banks must employ efficient ways (strategies) to penetrate the market and achieve high innovation performance and market advantages by outlining the feasible goal values of commercial banks through growing intellectual capital to attain high innovation performance (Abhayawansa *et al.*, 2018; Pasamar *et al.*, 2015; Ramadan *et al.*, 2017; Sarjana *et al.*, 2017). Statistical evidence from the previous literature is shown in Figure 1.1 throughout the assessment of the central bank of Iraq (CBI) for the performance of commercial banks in Iraq. The figure depicts the frequencies of low innovation performance in Iraqi commercial banks between 2000-2019, in comparison to the objectives of the shareholders to attain high innovation performance. Whereas, the innovation

performance levels were close to 40-65% in the mentioned period (Hamid and Durmaz, 2021).

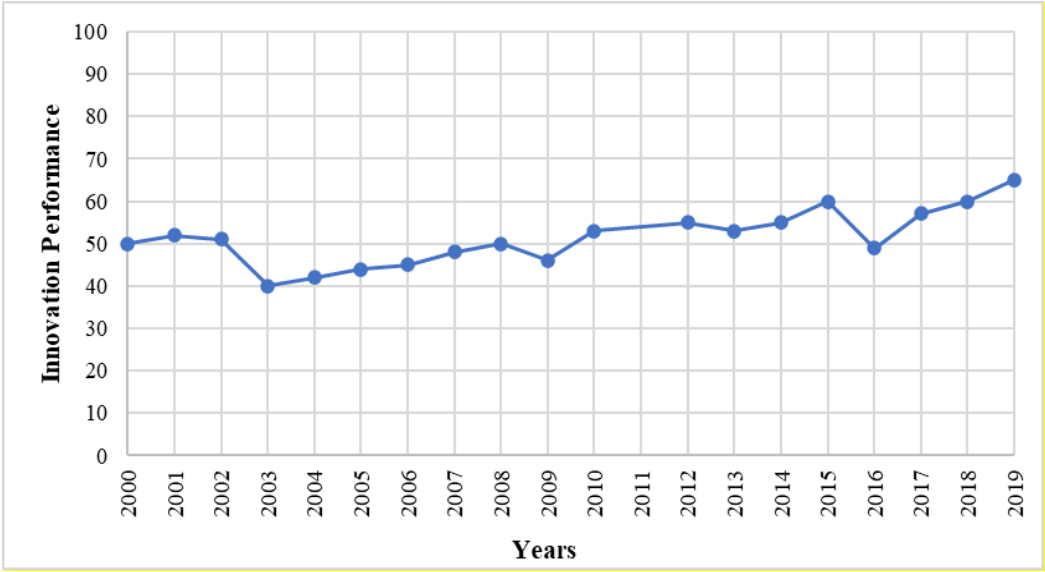

Figure 1.1 Innovation performances of the Iraqi commercial banks during the period 2000-2019 adapted from CBI (2019)

The present study concentration is based on the notion that innovative performance is critical for gaining competitive advantages such as quality of service or/and management, strategy development, creativity, and other aspects impacting competitive advantage in the banking industry (Ansari *et al.*, 2016; Ferreira *et al.*, 2020; Wendra *et al.*, 2019). As a result, the majority of research on innovation performance concentrated mostly on the service and industrial industries (Aluchna *et al.*, 2018; Lim *et al.*, 2017). As a result, it is recognised that intellectual capital consists of intangible assets that contribute to improved competitive advantages in terms of organisational skills, knowledge, experiences, technology, and relationships (Isanzu, 2017). As a result, Nevado *et al.* (2018) revealed a close relationship between an organisation's intellectual capital and its innovation performance, which was confirmed in a variety of situations, countries, and sectors (Cabrilo *et al.*, 2018). Arfah (2019) investigated the role of intellectual capital in fostering both radical and gradual breakthroughs. Despite these attempts, a basic understanding of intellectual capital and its significance as knowledge resources for value generation is insufficient.

As explained earlier, the existing literature does not provide enough understanding and perception concerning such organisational knowledge processing towards innovation performance. Therefore, the main obstacle for accomplishing further intellectual capital enhancement or insight can be directed to the institution's ability to understand that the knowledge resources are intrinsically intangible (Argote and Ingram, 2000). Although some studies indicated that innovative actions could strongly affect the competitiveness of the banking sector and its performance (Ozkan *et al.*, 2017), only a few studies focused on the effective traits of the intellectual capital that acts as a key factor for the improvements. The present study examines the relationship between the intellectual capital components and innovation performance for the financial expansion, concerning the banking competitiveness. Based on the premise of the resource-based view (RBV) theory, the intellectual capital components was shown to play a crucial role in the sustainability and competitiveness of the organisations. Consequently, another fundamental question emerges in the organisations related to the intellectual resources through which the competitive advantages can effectively be achieved and uphold.

In addition, it has been argued that due to fast-tracking environmental and technological complications, becomes problematic to develop the intellectual capital of employees in commercial banks to acquire innovation performance for competitive advantages (Sadq *et al.*, 2020; Alabass, 2019; Jabbouri *et al.*, 2016). Instead, the banks need to rely more on other sources of renewal and innovation (Vézina *et al.*, 2019; Yavari and Ohadi, 2019). Thus, following Teece's (2007) framework on the implications of dynamic capabilities, thereby offering the opportunity to renew the intellectual capital in the commercial banks in terms of organisational processes that satisfy the stakeholders, shareholders and costumers' need at the time change. Using survey data of the banks, the mechanisms by which these capabilities enhance the intellectual capital and contribute to competitive advantage into innovation performance. In light of the present research gap, a crucial question refers to how organisations can renew their intellectual capital to maintain innovation performance through tapping into these dynamic capabilities. Thus, the present research will enrich the previous body of knowledge with the required capabilities for renewing commercial banks' intellectual capabilities. Lastly, the present study examines the relationships among the variables to clarify the

mechanisms by which these capabilities contribute to competitive advantages in the banking industry.

1.3 Research Questions

This study examines the correlation between the present research variables toward competitive advantages in the commercial banking sector regarding the gap identified in the previous literature. Thus, the following research questions had been addressed in this study.

1. What are the effects of culture on intellectual capital?
2. What are the effects of trust on intellectual capital?
3. What are the effects of human capital on structural and relational capitals?
4. What are the effects of intellectual capital on innovation performance?
5. To what extent does sensing capability moderate the relationship between intellectual capital and innovation performance?
6. To what extent does seizing capability moderate the relationship between intellectual capital and innovation performance?
7. To what extent does reconfiguring capability moderate the relationship between intellectual capital and innovation performance?

1.4 Research Objectives

This study aimed to develop a logical understanding of the effects of intellectual capital components moderated by the dynamic capabilities for better innovation performance in Iraqi commercial banks. Based on the abovementioned research questions, the following objectives are projected.

1. To examine the effects of culture on intellectual capital.

2. To examine the effects of trust on intellectual capital.

3. To examine the effects of human capital on structural and relational capitals.

4. To examine the effects of intellectual capital on innovation performance.

5. To examine the moderating role of sensing capability on the relationship between intellectual capital and innovation performance.

6. To examine the moderating role of seizing capability on the relationship between intellectual capital and innovation performance.

7. To examine the moderating role of reconfiguring capability on the relationship between intellectual capital and innovation performance.

1.5 Research Scope

The current study's scope was generated from two major areas in the literature: intellectual capital and innovation performance. To achieve the specified goals, the link between intellectual capital and innovation performance tempered by dynamic capacities of Iraq's commercial banking industry was investigated at many levels of correlation. Whereas, the impacts of antecedent trust and cultural drivers have been re-examined. Furthermore, the effects of human capital on relational and structural capital were evaluated. The last level of the current research multilevel framework is outlined by assessing the influence of dynamic capabilities on the relationship between the research variables. Regarding the present research context, it is worth noting that the Iraqi banks have been recognised since 1934 when the first Iraqi currency note was printed. Iraqi banks have now developed into an exciting and flourishing market in which either private or public banks with numerous branches inside the country deal with more than 330 institutions with a market capitalisation of more than US$104.21 billion (CSO, 2019).

Banks being the key player for the economic growth of a nation it helps the citizens turn their short-term income into long-term assets. The Iraqi financial sector included a large number of banking networks for operating financial performance in Iraq. Commercial banks are considered as the frontline of automating their functions for better financial service. It is considered as the most category engaged in product innovation which internet banking is taken its roots. Despite the increasing number of financial institutions, competition in the financial sector is still limited and services and products are only found in some urban centers. Commercial banks in the Iraqi economy offer various financial services, including deposit accounts, withdrawals, foreign exchange, transfer, and remittance services. In addition, some of them provide loans for international trade and guaranty letters for large investment projects in the country.

The quantitative method was included in the study scope, with a close-ended questionnaire based on a five-point Likert scale serving as the primary data collecting tool (1-Strongly Disagree into 5- Strongly Agree). In this approach, 364 respondents from the targeted Iraqi commercial banks were chosen from a total of 470 participants in the current research population based on pre-determined criteria. These individuals were invited to answer the surveys on behalf of their respective institutions. Thus, the target organisations for this research were 24 commercial banks in Iraq, which are regarded as the primary institutions in charge of essential financial activities, including monthly payments, trades, internet banking, and government loans. The data collecting procedure is expected to take three months. Accordingly, data was analyzed using the assessment model indicated in the current research design.

1.6 Research Significance

This study can be considered one of the studies that combined the theoretical and practical significance, thus indicating a shift from the traditional approach of deriving benefits from the tangible financial capital to develop the intangible intellectual capital of the Iraqi bank employees. It introduced new concepts and

added new knowledge to the existing field, reflecting human capital development towards improved performance for the banks. Thus, the current research opened new directions for future scholars to enhance the intellectual capital and motivate the banks' stakeholders to invest in the intellectual capital of the employees for better innovation performance. In short, the significance of the current research can be verbalized both theoretically and practically within the contribution of the present study.

1.6.1 Theoretical Significance

The unique nature of the intellectual capital and its relationship with the antecedent factors and impacts on innovation performance made it possible to track their development. In this view, the present study can contribute to the theoretical knowledge of the previous literature and provide a broader understanding of nature and the relationship between the primary constructs of the study. Detail literature review showed the necessity of reconceptualising and continuously evaluating the correlation between these components and their effects in the banking sectors (Tull, 2018). Briefly, this study contributes to understanding the intellectual capital before implementing a new moderator through conducting a theoretical investigation into the present state of intellectual capital and innovation performance. It is worth mentioning that the present study contributed to previous financial researches, which focused mainly on the intellectual capital in the different economic sectors without ascertaining any correlation.

Furthermore, the current study invested in reviewing the dominant theories in the relevant literature, such as contingency and resource-based view theories. It had been found that the findings could significantly contribute to existing knowledge of multilevel measurement as asserted in resource-based view theory. The theories were used to regulate the descriptions and procedures in the current study, contributing to the authentication of the developed conceptual framework for improved comparativeness of intellectual capital in the banks. This upbeat attitude has a greater impact on the construction of innovation performance in the Iraqi banking industry.

Finally, the perspective of resource-based theory indicated that the present research extends the previous literature findings by investigating to what extent dynamic capabilities can enhance the correlation between intellectual capital and innovation performance in the banking sector within Iraq's developing economic environment (Ibrahim, 2019; Al-Jubouri, 2019; Alabass, 2019).

1.6.2 Practical Significance

One of the significances of the current research was to provide a comprehensive conceptualisation of the current situation on the components of intellectual capital and innovation performance in the commercial banking sector for practitioners and market beneficiaries. Since these components are considered intangible resources, which are the property of individuals, they remain restricted when it comes to financial analysis to reflect their value appropriately (Al-Jubouri, 2019). However, a wide range of frequencies was considered for every component of the intellectual capital (human, structural, and relational capitals). These capitals were most frequently included, while the social capital was less focused on innovation performance in the banking industry. The majority of previous researches focused on their variables of interest. For instance, only the measurable assets were considered by the manufacturing, insurance, financial, and economic fields, while little consideration was given to the component of social capital (Kianto and Aramburu, 2017).

The current research dealt with the intellectual capital at multilevel, thereby, it evaluate and classify the influences of every capital on the innovation performance. Thus, it will show how the managers in the field might focus on a certain factor of intellectual capital to initiate better performance in unstable limits, limiting the level of innovativeness in the bank. Besides this, the study dealt with various components of intellectual capital to identify their impacts on the innovation performance of the employees. This relationship had prominent effects on the outcomes of those components, which might not have been obtained if merely one or two components of intellectual capital had been used (Hameed and Anwar, 2018). This was due to the

supportive nature preserved for others by every component in this complicated process.

Thus, the study offers practical evidence for other researchers and beneficiaries on the implementation of dynamic capabilities towards enhancing the intellectual capital in the banking industry toward high innovation performance. The present study design would enable them to acquire valid and practical measurements to attain the required level intellectual capital for innovation performance in multi-level relationships. This idea was incorporated with Hameed and Anwar (2018) found that financial institutions can acquire practical standards for identifying and developing their strategic resources and capabilities. The standards can provide the main components for guiding the banks in their annual assessment of intellectual capital and innovation performance. This supposition will enable the banking sector to draw successful and practical development plans for future targets.

1.7 Definitions of Key Terms

The upcoming sections explain the conceptual definitions of some of the key terminologies used in this study.

1.7.1 Intellectual Capital

Intellectual capital is formalized, collected and leveraged to build a property by creating an asset with a greater value. From this standpoint, intellectual capital is the sum of all knowledge or a set of intangibles organisations utilize for superior performance.

1.7.1.1 Culture

Employee attitudes and methods in the workplace are influenced by a company's culture, which consists of a set of rules and values that workers adhere to.

1.7.1.2 Trust

The trust factor in this study was mainly based on simplistic/common generalisations and faiths. It refers to the passive way of exchanging partner, party, actor, person, thing, or target within the financial context.

1.7.1.3 Human Capital

Human capital is the knowledge, experience, professional skills, and abilities of an organisation's executive teams and staff in the bank.

1.7.1.4 Structural Capital

Structural capital refers to the capacity of an organisation to fulfill its customs and make-ups, thus supporting the employees' effort to generate the best intellectual presentation and organisation performance. In addition, it included the infrastructure assets and codified knowledge that are distributed in the bank.

1.7.1.5 Relational Capital

Relational capital refers to an organisation's capacity for upholding its pleasant affiliation/union network with the partners, i.e., the interaction and collaboration between the bank's employees for sharing knowledge and its external stakeholders.

1.7.1.6 Social Capital

Social capital is defined as an aggregate of the tangible or prospective capital correlated to the ownership of a long-lasting network of relatively institutionalized associations of the shared acquaintances and recognitions.

1.7.2 Dynamic Capabilities

Dynamic capability refers to "the organisation's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments" (Wu *et al.*, 2007, p. 23). Teece (1998) defines them as "the ability to sense and then to seize new opportunities, to reconfigure and protect knowledge assets, competencies, complementary assets and technologies to achieve sustainable competitive advantages" (p. 14).

1.7.2.1 Sensing Capability

Sensing capability refers to the bank's management ability to search and interpret valuable external and internal knowledge, which helps it to scan opportunities and threats in the external environment. Similarly, it enables identifying the advantages and disadvantages of internal knowledge bases, thereby contributing to the improvement of knowledge resource orchestration.

1.7.2.2 Seizing Capability

Seizing capability refers to the bank's ability to produce new products, processes, or services for attracting customers through quick and correct decisions on how to invest and combine external and internal knowledge resources into opportunities.

1.7.2.3 Reconfiguring Capability

Reconfiguring capability refers to effectively recombine and transform knowledge resources and organisational structures as the bank grows and the surrounding environment changes.

1.7.3 Innovation Performance

The idea of innovation is significantly approved influential in organisations' existence, competitiveness, and growth through its influence on customer satisfaction, employees' productivity, service quality, the share of the organisation, market value, and customer retention. Innovation performance refers to the employee's ability in the bank to produce new services by leveraging the intangible resources and knowledge in the bank to fulfil current and future market competitiveness.

1.8 Thesis Organisation

This thesis is composed of five chapters, as summarised briefly in this section. **Chapter 1** presents a brief background of the study to indicate the rationale of this study, a discussion of the research context and problem statement to describe the research gap, the research questions and objectives were set. Then, to achieve the proposed objectives, the methods were briefly described as the scope of the study. Finally, the significance of this research in terms of new knowledge generation and its contribution to the state-of-the-art literature was presented and the key terms' definition.

Chapter 2 critically overviewed the relevant past literature that consists of discussion on the underpinning theories, which emphasised three main concepts of this study such as the intellectual capital, innovation performance, and dynamic capabilities together with their interrelationships. On top of that, many empirical and theoretical studies from the previous studies were evaluated, analysed, and compared to relate the question of how in the current study. In addition, the study variables, hypotheses and the development of the conceptual framework. Then, a summary is derived at the end of the chapter to digest all the important parts discussed in the chapter in a simplified manner.

Chapter 3 dealt with the methodological approach used to carry out the research process from the beginning to meet the research objectives derived in this study. The chapter further discusses the research design, research instrument, sampling design, and validity and reliability. The discussion continues with the data collection procedure, data cleaning, data analysis procedure, and moderator analysis. The chapter ends with a summary of all sections discussed in the chapter.

Chapter 4 highlighted the main results in detail, the analyses result of the data collected in the present study. The chapter explains the process of data cleaning, analysis results of demographic profile and the results of SPSS and AMOS analyses, including the evaluation of the measurement model, structural model and moderating analysis. The chapter ends with a summary of all sections discussed in the chapter.

Chapter 5 is the last in this thesis, concluded the discussion on the findings and the results derived in the present study. The chapter discusses the findings relating to the research questions and hypotheses stated in the earlier chapter. Then, the discussion covers the theoretical contribution, practical contribution, study limitations and recommendation for future research directions. The chapter ends with the conclusion discussed in the chapter.

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APPENDIX A

Survey Questionnaire

English Version

Moderating Effect of Dynamic Capabilities on Relationship between Intellectual Capital and Innovation Performance

Dear Respondent

You are invited to participate in research being conducted for a Doctor of Philosophy Degree (PhD), AHIBS, UTM, Malaysia. The purpose of this study is examining the relationship between Intellectual Capital and Innovation Performance through the moderator dynamic capabilities.

I will be grateful if you co-operate with me in completing the following questionnaire. It will take approximately 30 minutes to complete it. Since the questionnaire is being used for academic purpose, the information gathered will be strictly confidential.

Thank you for your participation in this study. Your contribution is greatly appreciated.
If you have any question or concerns regarding this study, please feel free to contact me via:

Sincerely,
Mostafa Abdul Kareem Ali,
PhD. Student,
Azman Hashim International Business School (AHIBS),
Universiti Teknologi Malaysia (UTM).
HP: +60183188277
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Section A - Demographic questions: This section includes information on the participant's gender, age, experience, and education.
Please check (√) or fill in the appropriate box.

1. Gender	**2. Age Group**
□ Male □ Female	□ 18-25 □ 26-30 □ 31-35 □ 36-40 □ Above 40
3. Year of experiences	**4. Education**
□ 0-5 □ 6-10 □ 11-15 □ 16-20 □ More than 20	□ Diploma □ Bachelor □ Master □ PhD □ Others

Section: B - Culture: Refers to the system of norms and values are common among bank's employees to determine their attitudes and approaches toward confronting their different problems in the bank.

Please read the following statements carefully and tick (√) the number that best represents your behaviour based on the following criteria. This process should be adopted in all the sub sequent sections.

Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

Index	**Culture**						
CUL.1	Our bank values people who are creative and offer fresh ideas.						
CUL.2	The members of our bank are proud to belong to this bank.						
CUL.3	The greatest asset of our bank comprises its dedicated members.						
CUL.4	The management of our bank positively reacts to initiatives proposed by staff members.						
CUL.5	The management of our bank has trustworthy relations with staff members.						
CUL.6	Our bank is like one big family.						
CUL.7	People at our bank gladly discuss personal things.						

Section: C - Trust: Refers to the passive way of exchanging partner, party, actor, person, thing, or target within the financial context.

Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

Index	**Trust**						
TRU.1	Honesty is guaranteed among our employees.						
TRU.2	Our employees showed willingness to share knowledge with others.						
TRU.3	Honesty guaranteed in admitting and taking responsibility when mistakes occurred.						
TRU.4	Responsibility's classification is clear between our bank employees.						
TRU.5	The criteria for promotion are clear in every position.						
TRU.6	The evaluation system for employees is fair.						
TRU.7	Teamwork is encouraged and preferred among our employees.						

Section: D - Intellectual Capital: Refers to the acquired knowledge and information which aid the bank in attaining competitive advantage and driving for a superior performance.							
Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**			
1	**2**	**3**	**4**	**5**			
Index	**Human Capital:** Refers to the cumulative investment in employees' experience and education related to their knowledge, talents, experience, and abilities inside the bank.						
HC.1	Our bank employees have excellent intellectual skills.						
HC.2	The bank has a low employee turnover rate.						
HC.3	Our bank employees have excellent communicative skills of discussion with their partners and leaders.						
HC.4	The employees in my bank can properly arrange their work and allocate resources.						
Index	**Structural Capital:** Refers to the infrastructure assets and codified knowledge that are distributed in the bank.						
SC.1	Our bank has efficient and relevant information systems to support business operations.						
SC.2	Our bank has tools and facilities to support cooperation between employees.						
SC.3	Our bank has a great deal of useful knowledge in documents and databases.						
SC.4	Our bank invests a high proportion of its money in patent maintenance.						
Index	**Relational Capital:** Refers to the interaction and collaboration between the bank's employees for sharing knowledge and experience.						
RC.1	Our bank is interested in achieving the satisfaction and loyalty of customers and maintains good relations with them.						
RC.2	Cooperation between our bank and its external stakeholders runs smoothly.						
RC.3	My enterprise maintains long-term relationships with its customers.						
RC.4	The enterprise effectively cooperates with experts and consultancies.						
Index	**Social Capital:** Refers to the actual and potential knowledge embedded within the networks of mutual acquaintance and recognition among employees.						
SOC.1	Our bank's employees have team skills at collaborating work to identify and solve any problems.						
SOC.2	Our bank's employees show readiness to exchange ideas with people from different banks.						
SOC.3	Our bank's employees can use acquired experiences to solve current problems or raise new opportunities.						
SOC.4	Our employees are willing to share information and learn from others.						
Section: E - Innovation Performance: Refers to the bank ability to produce new services by leveraging the intangible resources and knowledge in the bank to fulfil current and future market competitiveness.							
Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**			
1	**2**	**3**	**4**	**5**			
Index	**Innovation Performance**						
IP.1	Our bank invests in creating more services in the last three years in comparison with other competitors.						

IP.2	Our bank is willing to develop new services for local market.					
IP.3	Our bank constantly explores new distribution channels.					
IP.4	Our bank upgrades for existing customers' services.					
IP.5	Our bank introduces to improve products for local customers.					
IP.6	Our bank has improved the efficiency of offered services in the last three years.					
Section: F - Dynamic Capabilities: Dynamic capabilities are the direction of corporations' stable actions in sensing, seizing and reconfiguring their skills and services by reconstructing and improving their core technologies in reaction to the changing market and maintain competitive advantages.						
Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**		
1	**2**	**3**	**4**	**5**		
Index	**Sensing:** Refers to the bank's management ability to understand, create and paraphrase opportunities in a market and estimate needs.					
SEN.1	Our bank invests in looking for new business opportunities.					
SEN.2	Our bank periodically reviews the effect of changes in our business environment.					
SEN.3	There are periodic reviews of our services to ensure customers' satisfaction.					
SEN.4	Our bank invests in developing new services.					
Index	**Seizing:** Refers to improving technological competences and may require new investment.					
SEI.1	We are effective in transforming existing information into new knowledge.					
SEI.2	We are effective in utilising knowledge into new products.					
SEI.3	We carefully interrelate our actions to each other to meet changing conditions.					
SEI.4	We are effective in developing new knowledge that has the potential to influence product development.					
Index	**Reconfiguring:** Refers to the ability to recombine and reconfigure bank's assets as the enterprise grows, and as markets and technologies change.					
REC.1	Our bank employees have effective routines to identify, value and import new information and knowledge.					
REC.2	We can successfully reconfigure our resources to come up with new productive assets.					
REC.3	Our bank effectively engages in resource recombination to better match our product/market areas and assets.					
REC.4	Our bank ensures that the output of our work is synchronised with the work of others.					

Thank you very much for your precious time and to complete this questionnaire. Your participation and cooperation are highly appreciated.

Arabic Version

الدور الوسيط للقدرات الديناميكية في العلاقة بين رأس المال الفكري والأداء الابتكاري

عزيزي المستجيب:

أنت مدعو للمشاركة في بحث يتم إجراؤه للحصول على درجة دكتوراه في الفلسفة (PhD) ، AHIBS، UTM، ماليزيا. الغرض من هذه الدراسة هو فحص العلاقة بين رأس المال الفكري وأداء الابتكار من خلال القدرات الديناميكية.

أكون ممتنًا إذا تعاونت معي في إكمال الاستبيان التالي. سيستغرق إكماله حوالي 30 دقيقة. نظرًا لاستخدام الاستبيان لأغراض أكاديمية ، ستكون المعلومات التي تم جمعها سرية تمامًا. أشكركم على مشاركتكم في هذه الدراسة.

مساهمتك موضع تقدير كبير. إذا كان لديك أي أسئلة أو استفسارات بخصوص هذه الدراسة ، فلا تتردد في الاتصال بي عبر:

Sincerely,
Mostafa Abdul Kareem Ali,
PhD. Student,
Azman Hashim International Business School (AHIBS),
Universiti Teknologi Malaysia (UTM).
HP: +60183188277
Email: mostafa1988@graduate.utm.my

القسم: أ - الأسئلة الديمغرافية: يتضمن هذا القسم معلومات عن جنس المشارك وعمره وخبرته وتعليمه.
يرجى تحديد (√) أو ملء المربع المناسب:

1. الجنس	**2. العمر**
□ ذكر	□ 25-18
□ أنثى	□ 30-26
	□ 35-31
	□ 40-36
	□ أكثر من 40

3. سنوات الخبرة	**4. مستوى التعليم**
□ 5-0	□ دبلوم
□ 10-6	□ بكالوريوس
□ 15-11	□ ماجستير
□ 20-15	□ دكتوراه
□ أكثر من 20	□ أخرى

القسم: ب - الثقافة: العامل الثقافي هو تحديد مسار إجراءات المؤسسة ويتنبأ، أي كيف سيتقدم البنك في سياق تنافسي.
يرجى قراءة العبارات التالية بعناية ووضع علامة (√) على الرقم الذي يمثل سلوكك على أفضل وجه بناءً على المعايير التالية. يجب اعتماد هذه العملية في جميع الأقسام الفرعية المتتالية.

لا أوافق بشدة	لا أوافق	محايد	موافق	موافق بشدة
1	2	3	4	5

فهرس	الثقافة					
CUL.1	يقدّر مصرفنا الأشخاص المبدعين ويقدمون أفكارًا جديدة.					
CUL.2	يفخر عملاء مصرفنا بالانتماء إلى هذا البنك.					
CUL.3	يتألف أعظم أصول مصرفنا من عملائه المتفانين.					
CUL.4	تتفاعل إدارة مصرفنا بشكل إيجابي مع المبادرات المقترحة من قبل موظفينا.					
CUL.5	تتمتع إدارة مصرفنا بعلاقات جديرة بالثقة مع الموظفين.					
CUL.6	بنكنا مثل عائلة واحدة كبيرة.					
CUL.7	الناس في مصرفنا يناقشون بكل سرور الأمور الشخصية.					

القسم: ج - الثقة: يشير إلى طريقة سلبية لتبادل الشريك أو الحزب أو الفاعل أو الشخص أو الشيء أو الهدف في السياق المالي.

لا أوافق بشدة	لا أوافق	محايد	موافق	موافق بشدة
1	2	3	4	5

فهرس	الثقة					
TRU.1	الصدق مضمون بين موظفينا.					
TRU.2	أظهر موظفونا استعدادًا لمشاركة المعرفة مع الآخرين.					
TRU.3	الأمانة مضمونة في الاعتراف وتحمل المسؤولية عند وقوع الأخطاء.					
TRU.4	تصنيف المسؤوليات واضح بين موظفي البنك.					
TRU.5	معايير الترقية واضحة في كل منصب.					
TRU.6	نظام تقييم موظفينا عادل.					
TRU.7	يتم تشجيع العمل الجماعي ويفضل بين موظفي البنك لدينا.					

القسم: د - رأس المال الفكري: رأس المال الفكري للمؤسسة عبارة عن حزمة من المعلومات القيمة والأصول غير الملموسة للمؤسسة التي تمكن الشركات من اكتساب ميزة تنافسية والسعي لتحقيق نتائج متفوقة.

لا أوافق بشدة	لا أوافق	محايد	موافق	موافق بشدة
1	2	3	4	5

فهرس	**رأس المال البشري:** يشير إلى الاستثمار التراكمي في خبرة الموظفين وتعليمهم المرتبط بمعرفتهم ومواهبهم وخبراتهم وقدراتهم داخل المنظمة.					
HC.1	يمتلك الموظفون في البنك الذي أعمل به مهارات مهنية ممتازة.					
HC.2	البنك لديه معدل دوران منخفض للموظفين.					

HC.3	يتمتع الموظفون في المصرف الذي أتعامل معه بمهارات تواصل ممتازة في المناقشة مع زملائهم وقادتهم.					
HC.4	يمكن للموظفين في البنك الذي أتعامل معه ترتيب عملهم بشكل صحيح وتخصيص الموارد.					
فهرس	**رأس المال الهيكلي:** يشير إلى شبكة الخصائص والمعلومات المقننة المنتشرة داخل المنظمة.					
SC.1	يمتلك مصرفنا أنظمة معلومات فعالة وذات صلة لدعم العمليات التجارية.					
SC.2	يمتلك مصرفنا أدوات وتسهيلات لدعم التعاون بين الموظفين.					
SC.3	يمتلك مصرفنا قدرًا كبيرًا من المعرفة المفيدة في المستندات وقواعد البيانات.					
SC.4	يستثمر مصرفنا نسبة عالية من أمواله في صيانة براءات الاختراع.					
فهرس	**رأس المال العلائقي:** يشير إلى التفاعل والتعاون بين الموظفين داخل المنظمة لتبادل المعرفة والخبرة.					
RC.1	.يهتم مصرفنا بتحقيق رضا وولاء العملاء ويحافظ على علاقات جيدة معهم					
RC.2	يسير التعاون بين مصرفنا وأصحاب المصالح الخارجيين بسلاسة.					
RC.3	تحافظ مؤسستي على علاقات طويلة الأمد مع عملائها.					
RC.4	تتعاون المؤسسة بشكل فعال مع الخبراء والاستشارات.					
فهرس	**رأس المال الاجتماعي:** يشير إلى الشبكة الاجتماعية التي تتطور بمرور الوقت وتوفر الأساس للثقة والتعاون داخل المؤسسة.					
SOC.1	يتمتع موظفو البنك لدينا بمهارات الفريق في العمل التعاوني لتحديد وحل أي مشاكل.					
SOC.2	يبدي موظفونا استعدادهم لتبادل الأفكار مع أشخاص من شركات مختلفة.					
SOC.3	يمكن لموظفي مصرفنا استخدام الخبرات المكتسبة لحل المشكلات الحالية أو زيادة الفرص الجديدة.					
SOC.4	موظفونا على استعداد لمشاركة المعلومات والتعلم من الآخرين.					

القسم: هـ - أداء الابتكار: النمو في الأداء المالي، أو التأثير المطلوب للأداء على رضا العملاء، وإنتاجية الموظف، وجودة الخدمة، والقيمة السوقية، وحصة الشركة، وكذلك على الاحتفاظ بالعملاء.

لا أوافق بشدة	لا أوافق	محايد	موافق	موافق بشدة
1	2	3	4	5

فهرس	**أداء الابتكار**					
IP.1	يستثمر مصرفنا في إنشاء المزيد من الخدمات في السنوات الثلاث الماضية مقارنةً بالمنافسين الآخرين.					
IP.2	بنكنا على استعداد لتطوير خدمات جديدة للعملاء المحليين.					
IP.3	يستكشف مصرفنا باستمرار قنوات توزيع جديدة.					
IP.4	يقوم مصرفنا بترقية خدمات العملاء الحاليين.					
IP.5	يقدم مصرفنا منتجات محسنة للعملاء المحليين.					
IP.6	قام مصرفنا بتحسين كفاءة الخدمات المقدمة في السنوات الثلاث الماضية.					

القسم: و - القدرات الديناميكية: القدرات الديناميكية هي اتجاه الإجراءات المستقرة للشركات في تجديد مهاراتهم وخدماتهم ودمجها وإعادة تكوينها وإعادة تشكيلها من خلال إعادة بناء وتحسين تقنياتها الأساسية كرد فعل على السوق المتغير والحفاظ على المزايا التنافسية.

لا أوافق بشدة	لا أوافق	محايد	موافق	موافق بشدة
1	2	3	4	5

فهرس	**الاستشعار:** يشير إلى قدرة الشركة على فهم الفرص وإنشائها وإعادة صياغتها في السوق وتقدير الاحتياجات.					
SEN.1	يستثمر مصرفنا في البحث عن فرص عمل جديدة.					
SEN.2	يقوم مصرفنا بشكل دوري بمراجعة تأثير التغييرات في بيئة أعمالنا.					
SEN.3	هناك مراجعات دورية لخدماتنا لضمان رضا العملاء.					
SEN.4	يستثمر مصرفنا في تطوير خدمات جديدة.					
فهرس	**الاستيلاء:** ينطوي على تحسين الكفاءات التكنولوجية وقد يتطلب استثمارات جديدة.					
SEI.1	يقوم مصرفنا بتحويل المعلومات الموجودة بشكل فعال إلى معرفة جديدة.					
SEI.2	يستخدم مصرفنا المعرفة بشكل فعال في المنتجات الجديدة.					

SEI.3	يقوم مصرفنا بربط أعمالنا ببعضها البعض بعناية لتلبية الظروف المتغيرة.					
SEI.4	يطور مصرفنا بشكل فعال معرفة جديدة من شأنها التأثير على تطوير المنتجات.					
فهرس	**إعادة التكوين:** تتضمن تحسين الكفاءات التكنولوجية وقد تتطلب استثمارات جديدة.					
REC.1	يمتلك مصرفنا إجراءات فعالة لتحديد وتقييم واستيراد المعلومات والمعارف الجديدة.					
REC.2	نجح مصرفنا في إعادة تكوين مواردنا للتوصل إلى أصول إنتاجية جديدة.					
REC.3	يشارك مصرفنا بشكل فعال في إعادة تجميع الموارد لتتناسب بشكل أفضل مع مجالات سوق منتجاتنا وأصولنا.					
REC.4	يضمن مصرفنا أن مخرجات عملنا متزامنة مع عمل الآخرين.					

شكرا جزيلا على وقتك الثمين على استكمال هذا الاستبيان ... نقدر مشاركتك وتعاونك

Appendix B

Content validity

Culture: Refers to the system of norms and values are common among bank's employees to determine their attitudes and approaches toward confronting their different problems in the bank.						
Original Items from (Reino et al., 2020)		**Questionnaire Items**	**Your Assessment**			
			Perfect Match (maintain item as it is)	**Moderate Match (maintain item but need some redefining)**	**Poor Match (remove item)**	**Feedback**
CUL1	Our organisation values people who are creative and offer fresh ideas.	Our bank employs people who are creative and offer fresh ideas.				
CUL2	The members of our organisation are proud to belong to this organisation.	Our bank employees are proud to belong to this bank.				
CUL3	The greatest asset of our organisation comprises its dedicated members.	The greatest asset of our bank comprises its dedicated members.				
CUL4	The management of our organisation positively reacts to initiatives proposed by staff members.	The management of our bank positively reacts to initiatives proposed by staff members.				
CUL5	The management of our organisation has trustworthy relations with staff Members.	The management of our bank has trustworthy relations with staff members.				
CUL6	Our organisation is like one big family.	Our bank is like one big family.				
CUL7	People at our organisation gladly discuss personal things.	Our bank employees gladly discuss personal things.				

Trust: Refers to the passive way of exchanging partner, party, actor, person, thing, or target within the financial context.						
Original Items from (Paliszkiewicz and Koohang, 2013)		**Questionnaire Items**	**Your Assessment**			
			Perfect Match (maintain item as it is)	**Moderate Match (maintain item but need some redefining)**	**Poor Match (remove item)**	**Feedback**
TRU1	There is atmosphere for honest cooperation among employees.	Honesty is guaranteed among our bank employees.				
TRU2	Employees are willing to share knowledge.	Our bank employees showed willingness to share knowledge with others.				
TRU3	Employees openly admit and take responsibility for their mistakes.	Honesty guaranteed in admitting and taking responsibility when mistakes occurred.				
TRU4	In general, the work responsibilities are established and clear.	Responsibility's classification is clear between our bank employees.				
TRU5	The criteria of promotion are clear in every position.	The criteria for promotion are clear in every position.				
TRU6	Evaluation of employees is fair.	The evaluation system for employees is fair.				
TRU7	Team work is encouraged and preferred.	Teamwork is encouraged and preferred among our bank employees.				

Human Capital: Refers to employees' experience and education related to their knowledge, talents, experience and abilities inside the bank.						
Original Items from (Alrowwad, 2020)		**Questionnaire Items**	**Your Assessment**			
			Perfect Match (maintain item as it is)	**Moderate Match (maintain item but need some redefining)**	**Poor Match (remove item)**	**Feedback**
HC1	Our company employees are highly skilled.	Our bank employees have excellent intellectual skills.				
HC2	Our company employees are creative and bright.	Our bank has a low employee turnover rate.				
HC3	The employees of our company have the ability to develop new ideas and knowledge.	Our bank employees have excellent communicative skills of discussion with their partners and leaders.				
HC4	The company's employees have high experience in their jobs.	Our bank employees can properly arrange their work and allocate resources.				

Structural Capital: Refers to the infrastructure assets and codified knowledge that are distributed in the bank.						
Original Items from (Alrowwad, 2020)		**Questionnaire Items**	**Your Assessment**			
			Perfect Match (maintain item as it is)	**Moderate Match (maintain item but need some redefining)**	**Poor Match (remove item)**	**Feedback**
SC1	Our company has efficient and relevant information systems to support business operations.	Our bank has efficient and relevant information systems to support business operations.				
SC2	Our company has tools and facilities to support cooperation between employees.	Our bank has tools and facilities to support cooperation between employees.				
SC3	Our company has a great deal of useful knowledge in documents and databases.	Our bank has a great deal of useful knowledge in documents and databases.				
SC4	Our company invests a high proportion of its money in patent Maintenance.	Our bank invests a high proportion of its money in patent maintenance.				

Relational Capital: Refers to the interaction and collaboration between the bank's employees for sharing knowledge and experience.						
Original Items from (Alrowwad, 2020)		**Questionnaire Items**	**Your Assessment**			
			Perfect Match (maintain item as it is)	**Moderate Match (maintain item but need some redefining)**	**Poor Match (remove item)**	**Feedback**
RC1	Our company and its external stakeholders-such as customers, suppliers, and partners-understand each other well.	Our bank is interested in achieving the satisfaction and loyalty of customers and maintains good relations with them.				
RC2	Our company is interested in achieving the satisfaction and loyalty of customers and maintains good relations with them.	Cooperation between our bank and its external stakeholders runs smoothly.				
RC3	Our company and its external stakeholders frequently collaborate to solve problems.	Our bank maintains long-term relationships with its customers.				
RC4	Cooperation between our company and its external stakeholders runs Smoothly.	Our bank effectively cooperates with experts and consultancies.				

Social Capital: Refers to the actual and potential knowledge embedded within the networks of mutual acquaintance and recognition among employees.						
Original Items from (Engelman & Fracasso, 2017)		**Questionnaire Items**	**Your Assessment**			
			Perfect Match (maintain item as it is)	**Moderate Match (maintain item but need some redefining)**	**Poor Match (remove item)**	**Feedback**
SOC1	Our employees are skilled at collaborating with each other to diagnose and solve problems.	Our bank employees have team skills at collaborating work to identify and solve any problems.				
SOC2	Our employees share information and learn from one another.	Our bank employees show readiness to exchange ideas with people from different banks.				
SOC3	Our employees interact and exchange ideas with people from different areas of the company.	Our bank employees can use acquired experiences to solve current problems or raise new opportunities.				
SOC4	Our employees apply knowledge from one area of the company to problems and opportunities that arise in another.	Our bank employees are willing to share information and learn from others.				

Innovation Performance: Refers to the bank ability to produce new services by leveraging the intangible resources and knowledge in the bank to fulfil current and future market competitiveness.						
Original Items from (Jin *et al*., 2015)		**Questionnaire Items**	**Your Assessment**			
			Perfect Match (maintain item as it is)	**Moderate Match (maintain item but need some redefining)**	**Poor Match (remove item)**	**Feedback**
IP1	Our company has created more new products and services in the last three years when compared with its competitors.	Our bank invests in creating more services in the last three years in comparison with other competitors.				
IP2	Our company is willing to develop new products and services for the local market.	Our bank is willing to develop new services for local market.				
IP3	Our company constantly explores new distribution channels.	Our bank constantly explores new distribution channels.				
IP4	Our company often upgrades for existing customers products and services.	Our bank upgrades for existing customers' services.				
IP5	Our company often introduces the improved products and series for local market.	Our bank introduces to improve products for local customers.				
IP6	Our company has improved the supply efficiency of the products and services in the last three years.	Our bank has improved the efficiency of offered services in the last three years.				

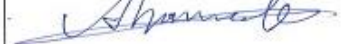
Sensing: Refers to the bank's management ability to understand, create and paraphrase opportunities in a market and estimate needs.						
Original Items from (Hernández *et al*., 2018)		**Questionnaire Items**	**Your Assessment**			
			Perfect Match (maintain item as it is)	**Moderate Match (maintain item but need some redefining)**	**Poor Match (remove item)**	**Feedback**
SEN1	We frequently scan the environment to identify new business opportunities.	Our bank invests in looking for new business opportunities.				
SEN2	We periodically review the likely effect of changes in our business environment on customers.	Our bank periodically reviews the effect of changes in our business environment.				
SEN3	We often review our product development efforts to ensure they are in line with what the customers want.	There are periodic reviews of our bank services to ensure customers' satisfaction.				
SEN4	We devote a lot of time implementing ideas for new products and improving our existing products.	Our bank invests in developing new services.				

Seizing: Refers to improving technological competences and may require new investment.						
Original Items from (Lopez *et al*., 2017)		**Questionnaire Items**	**Your Assessment**			
			Perfect Match (maintain item as it is)	**Moderate Match (maintain item but need some redefining)**	**Poor Match (remove item)**	**Feedback**
SEI1	We are effective in transforming existing information into new knowledge.	Our bank employees effective in transforming existing information into new knowledge.				
SEI2	We are effective in utilizing knowledge into new products.	Our bank employees effective in utilising knowledge into create new products.				
SEI3	We carefully interrelate our actions to each other to meet changing conditions.	Our bank employees carefully interrelate our actions to each other to meet changing conditions.				
SEI4	We are effective in developing new knowledge that has the potential to influence product development.	Our bank employees effective in developing new knowledge that has the potential to influence product development.				

Reconfiguring: Refers to the ability to recombine and reconfigure bank's assets as the enterprise grows, and as markets and technologies change.						
Original Items from (Lopez *et al*., 2017)		**Questionnaire Items**	**Your Assessment**			
			Perfect Match (maintain item as it is)	**Moderate Match (maintain item but need some redefining)**	**Poor Match (remove item)**	**Feedback**
REC1	We have effective routines to identify, value, and import new information and knowledge.	Our bank employees have effective routines to identify, value and import new information and knowledge.				
REC2	We can successfully reconfigure our resources to come up with new productive assets.	Our bank employees successfully reconfigure our resources to come up with new productive assets.				
REC3	We often engage in resource recombination to better match our product-market areas and our assets.	Our bank employees effectively engage in resource recombination to better match our product/market areas and assets.				
REC4	We ensure that the output of our work is synchronized with the work of others.	Our bank's employees ensures that the output of our work is synchronised with the work of others.				

Expert Verifications

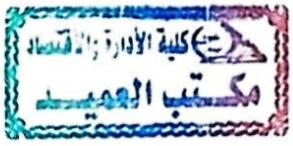
Research Validation

Title	The Moderating Role of Dynamic Capabilities on the Relationship between Intellectual Capital and Innovation Performance.
Researcher	Mostafa Abdulkareem Ali, Azman Hashim International Business School (AHIBS), UTM
Expert name	Dr. Ahmed Saad Jari
Current position	Assistant Professor
Institution	Faculty of Management and Economics -Almustansiriyah University
Years of experience	15 Years
Comments	• The content of the questionnaire reflects the present problem in intellectual capital which reflected on the innovation performance. • Choosing dynamic capabilities to enhance intellectual capital indicates that the researcher has sufficient knowledge on the subject. • Response questions are consistent with the study variable and reflect its true meaning. • The content of the questionnaire recommended for the present research in the context of the study.
Signature/Stamp	 
	Date: 28 / 7 / 2020

Research Validation

Title	The Moderating Role of Dynamic Capabilities on the Relationship between Intellectual Capital and Innovation Performance.
Researcher	Mostafa Abdulkareem Ali, Azman Hashim International Business School (AHIBS), UTM
Expert name	Dr. Selma Mansour Saad
Current position	Dean
Institution	Faculty of Management and Economics -Almustansiriyah University
Years of experience	33 Years
Comments	1. A successful choice for the study title reflects a current problem facing the banking sector in Iraq. 2. Structural capital and human capital are among the leading causes of enhancing the innovation performance. Therefore, the researcher is requested to verify the fourth question, HC.3 of the first index, and the question SC.2 of the second index. 3. The structure and design of the questionnaire reflect the researcher's adequate understanding of the subject of study. 4. The content of the questionnaire reflects the accurate choice of trustworthy of the research instrument.
Signature/Stamp	
	
	Date: 27 / 7 / 2020

Research Validation

Title	The Moderating Role of Dynamic Capabilities on the Relationship between Intellectual Capital and Innovation Performance.
Researcher	Mostafa Abdulkareem Ali, Azman Hashim International Business School (AHIBS), UTM
Expert name	Dr. Zahid Qasim Beden
Current position	Professor
Institution	Faculty of Administration and Economics -University of Misan
Years of experience	13 Years
Comments	1) The present set of question are reliable for the current investigation based on the intent of the study and the research title. 2) The selection of four main component of intellectual capital, especially human capital, is a positive indicator for their reliability in the study. 3) I recommended the researcher to analyse the outcomes of the questionnaire through AMOS program for its reliability in analysing complex relationships between the study variables.
Signature/Stamp	
	Date: 26 / 7 / 2020

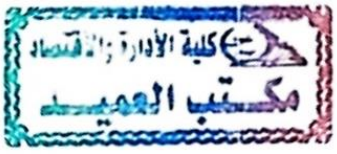
Research Validation

Title	The Moderating Role of Dynamic Capabilities on the Relationship between Intellectual Capital and Innovation Performance.
Researcher	Mostafa Abdulkareem Ali, Azman Hashim International Business School (AHIBS), UTM
Expert name	Dr. Alaa A. AL-Abbasi
Current position	Professor
Institution	Faculty of Management and Economics -Almustansiriyah University
Years of experience	12 Years
Comments	- The paragraphs of the questionnaire reflect the component of intellectual capital. - I expect that the current indicators of dynamic capabilities will positively impact the relationship and the results of the study after highlighting the reconfiguring capabilities questions. - Determining the number of questions for each variable in the study allows the researcher to use AMOS for analysing their relationships.
Signature/Stamp 	 Date: 28 / 7 / 2020

Research Validation

Title	The Moderating Role of Dynamic Capabilities on the Relationship between Intellectual Capital and Innovation Performance.
Researcher	Mostafa Abdulkareem Ali, Azman Hashim International Business School (AHIBS), UTM
Expert name	Dr. Emad Sabih Alsaffar
Current position	Professor
Institution	Faculty of Management and Economics -Almustansiriyah University
Years of experience	30 Years
Comments	1. The consistency between the variables of the study with its subordinate paragraphs is good. 2. Measuring the dependent variable, the innovation performance in the current study in one order reflects the actual indicator for it. 3. I advise the researcher to use the AMOS program to measure the relationships between the study variables.
Signature/Stamp	
	
	Date: 29 / 7 / 2020

Research Validation

Title	The Moderating Role of Dynamic Capabilities on the Relationship between Intellectual Capital and Innovation Performance.
Researcher	Mostafa Abdulkareem Ali, Azman Hashim International Business School (AHIBS), UTM
Expert name	Dr. Reyath Thea Azeez
Current position	Assistant Professor
Institution	Faculty of Administration and Economics -University of Misan
Years of experience	11 Years
Comments	➢ The final set of the questionnaire is clear and reflects all the variables of the study within the context of the present investigation and its axes. ➢ The researcher did well in measuring the innovation performance in its current study. ➢ Recommend to use the AMOS program will reflect the study indicators' actual results and the nature of the relationships therein.
Signature/Stamp	
	Date: 30 / 7 / 2020

APPENDIX C

List of Commercial Banks in Iraq

No	Bank Name	No. of Employees
1	Al-Huda Bank	274
2	Ashur International Bank for Investment	241
3	Babylon Bank Company	263
4	Bank of Baghdad	284
5	Basrah International Bank for Investment	265
6	Commercial Bank of Iraq	278
7	Credit Bank of Iraq	242
8	Dar Al- Salaam Investment Bank	265
9	Economy Bank for Investment and Finance	324
10	Erbil Bank for Investment and Finance	289
11	Gulf Commercial Bank	345
12	International Development Bank	293
13	Investment Bank	314
14	Iraqi Middle East Investment Bank	298
15	Mansour Bank for Investment	274
16	Mosul Bank for Development and Investment	269
17	National Bank of Iraq	285
18	North Bank	302
19	Rt Bank	342
20	Sumer Commercial Bank	354
21	Trans Iraq Bank	346
22	Union Bank of Iraq	268
23	United Bank for Investment	298
24	Warka Bank for Investment and Finance	287
TOTAL		**7000**

APPENDIX D

Sample Size from a G~LW Population

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2600	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note: N is the population size.
S is the sample size.

APPENDIX E

Accessibility Letters

Universiti Teknologi Malaysia
Jalan Sultan Yahya Petra
54100 Kuala Lumpur, Malaysia
Tel: 03-2615 4100

Our References : UTM.K.55.01.03/13.11/1/4 Jld.8 (24)
Date : August 7, 2020

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

REQUEST TO CONDUCT AN ACADEMIC RESEARCH / PERMISSION TO COLLECT DATA

Name	:	**AL-NIDAWIY MOSTAFA ABDULKAREEM ALI**
ISID No. / Passport No.	:	**201709M10164 / A10320922**
Matric No.	:	**PBS173057**
Admission Status	:	**Full Time**
Registration Date	:	**05 September 2017**
Medium of Instruction	:	**English**
Programme	:	**Doctor of Philosophy**

With regard to the above, this is to certify that **AL-NIDAWIY MOSTAFA ABDULKAREEM ALI (PBS173057)** is pursuing **Doctor of Philosophy** at Azman Hashim International Business School, Universiti Teknologi Malaysia, Kuala Lumpur.

The student is currently conducting a research under the supervision of Dr. Nazimah Hussin on a title of **The Moderating Role of Dynamic Capabilities on the Relationship between Intellectual Capital and Innovation Performance**. In order to fulfill her research requirement, it would be greatly appreciated if you could allow her to distribute questionnaires, conduct an interview and collect data on related topic in your organization.

Data collection will be used for academic purpose only and shall remain confidential and will not be identified in publication or media. Kindly, contact us at 03-21805032 or email to norharyani.kl@utm.my for any further clarification.

Thank you for your cooperation.

"BERKHIDMAT UNTUK NEGARA"

I, who uphold trust,

AZMAN HASHIM INTERNATIONAL BUSINESS SCHOOL

NORHARYANI BINTI HAMID
Assistant Registrar
Azman Hashim International Business School
Level 10, Menara Razak
UTM Kuala Lumpur
☏ : 03-21805032
✉ : norharyani.kl@utm.my

Embassy of the Republic of Iraq
Cultural Attaché - Kuala Lumpur

سفارة جمهورية العراق
الدائرة الثقافية - كوالالمبور

ممثلية وزارة التعليم العالي والبحث العلمي العراقية في ماليزيا
Representative of the Iraqi Ministry of Higher Education and Scientific Research (MOHESR) in Malaysia

العدد : ٨٤٤
التاريخ : ١٨ / ٨ / ٢٠٢٠

الى /المصارف التجارية في العراق

م/ تسهيل مهمة

السلام عليكم ورحمة الله وبركاته ...

بناءا على الطلب المقدم من قبل طالب الزمالة الدراسية السيد مصطفى عبد الكريم علي الذي يدرس حالياً للحصول على شهادة **الدكتوراه** في إختصاص **المحاسبة** من جامعة **UTM المالیزیة** والذي يروم فيه تسهيل مهمته لغرض جمع البيانات الخاصة بموضوع دراسته , وكما ورد في طلب الطالب ورسالة الجامعة.

للتفضل بالإطلاع وتسهيل مهمته ... مع التقدير

المرفقات:
- طلب الطالب.
- رسالة الجامعة.

أ. د. عبد الجليل منشد خلف
المستشار الثقافي
٢٠٢٠/٨/١٨

This letter illustrates Iraqi cultural office acceptance for conducting fieldtrip to Iraq for undertaking the main data collection process.

نسخة منه:
- وزارة التعليم العالي و البحث العلمي / دائرة البعثات و العلاقات الثقافية – قسم شؤون الدارسين في الخارج/ للتفضل بالإطلاع.. مع التقدير.
- وزارة التخطيط / الجهاز المركزي للاحصاء/ للتفضل بالإطلاع.. مع التقدير.
- ملف الطالب.
- الصادرة.

Address: Unit 5.07 Level 5 North Block Ampwalk 218 Jalan Ampang Kuala Lumpur 50450 Malaysia
Tel: 0060 3216 30741 Website: Iraqculturalattache-my.org Email: kualalumpur@scrdiraq.gov.iq,
Email: culturalofficemalaysia@yahoo.com Fax: 0060 3216 30742

رويده

APPENDIX F

Statistical Analysis in SPSS 25

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
C1	364	3.31	.814	-.046	.128	-.198	.255
C2	364	3.18	.779	.060	.128	.092	.255
C3	364	2.83	.951	-.151	.128	-.449	.255
C4	364	3.13	.771	-.086	.128	.330	.255
C5	364	3.18	.755	-.048	.128	.310	.255
C6	364	3.19	.799	.134	.128	.075	.255
C7	364	2.83	.931	-.072	.128	-.367	.255
TR1	364	3.67	.883	-.361	.128	-.201	.255
TR2	364	3.56	.816	-.401	.128	.056	.255
TR3	364	2.99	1.110	-.253	.128	-.772	.255
TR4	364	3.45	.843	-.398	.128	-.023	.255
TR5	364	3.38	.852	-.249	.128	-.044	.255
TR6	364	2.80	1.117	.026	.128	-.985	.255
TR7	364	3.50	.883	-.346	.128	-.151	.255
HC1	364	3.38	.723	-.153	.128	-.396	.255
HC2	364	3.46	.732	-.248	.128	-.335	.255
HC3	364	3.49	.744	-.134	.128	-.096	.255
HC4	364	3.49	.722	-.224	.128	-.266	.255
RC1	364	3.38	.882	.064	.128	-.608	.255
RC2	364	3.39	.937	.019	.128	-.647	.255
RC3	364	3.39	.898	.023	.128	-.580	.255
RC4	364	3.37	.885	.030	.128	-.544	.255
SC1	364	3.54	.797	-.169	.128	.086	.255
SC2	364	3.60	.812	-.190	.128	.031	.255
SC3	364	3.60	.805	-.215	.128	-.070	.255
SC4	364	3.49	.801	-.239	.128	.019	.255
SOC1	364	3.52	.889	-.241	.128	-.379	.255
SOC2	364	3.49	.958	-.178	.128	-.627	.255
SOC3	364	3.47	.954	-.162	.128	-.626	.255
SOC4	364	3.42	.983	-.195	.128	-.660	.255
IP1	364	3.74	.889	-.310	.128	-.278	.255
IP2	364	3.78	.865	-.283	.128	-.579	.255

IP3	364	3.76	.878	-.307	.128	-.353	.255
IP4	364	3.77	.870	-.191	.128	-.699	.255
IP5	364	3.67	.993	-.427	.128	-.430	.255
IP6	364	3.78	.867	-.241	.128	-.635	.255
SEN1	364	3.79	.732	-.282	.128	-.064	.255
SEN2	364	3.72	.770	-.245	.128	-.048	.255
SEN3	364	3.79	.756	-.123	.128	-.399	.255
SEN4	364	3.79	.699	-.117	.128	-.207	.255
SEI1	364	3.69	.792	-.264	.128	-.122	.255
SEI2	364	3.66	.798	-.132	.128	-.429	.255
SEI3	364	3.67	.808	-.239	.128	-.214	.255
SEI4	364	3.57	.826	-.049	.128	-.240	.255
REC1	364	3.54	.803	-.144	.128	-.116	.255
REC2	364	3.56	.796	-.124	.128	-.248	.255
REC3	364	3.55	.813	-.167	.128	-.155	.255
REC4	364	3.54	.758	-.169	.128	.105	.255
Valid N (listwise)	364						

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
CUL	364	1.00	5.00	3.0942	.65098	.443	.255
TRU	364	1.14	5.00	3.3344	.67980	.129	.255
HC	364	2.00	5.00	3.4560	.66659	-.116	.255
SC	364	1.00	5.00	3.5577	.75976	.015	.255
RC	364	1.00	5.00	3.3826	.86271	-.529	.255
SOC	364	1.00	5.00	3.4760	.90830	-.603	.255
IP	364	1.83	5.00	3.7505	.84083	-.640	.255
SEN	364	1.75	5.00	3.7706	.66462	-.163	.255
SEI	364	1.75	5.00	3.6470	.72682	-.203	.255
REC	364	2.00	5.00	3.5481	.72378	-.511	.255
Valid N (listwise)	364						

APPENDIX G

Measurement Model Validity

Model Validity Measures

Validity Analysis

	CR	AVE	MSV	MaxR(H)	Cul	TRU	SEN	SC	HC	SEI	IP	RC	REC	SOC
Cul	0.954	0.807	0.087	0.956	**0.898**									
TRU	0.930	0.728	0.129	0.933	0.276***	**0.853**								
SEN	0.922	0.749	0.081	0.931	0.020	0.182**	**0.865**							
SC	0.960	0.858	0.150	0.971	0.296***	0.313***	0.129*	**0.926**						
HC	0.933	0.778	0.144	0.936	0.250***	0.248***	0.206***	0.295***	**0.882**					
SEI	0.924	0.751	0.080	0.928	0.081	0.132*	0.283***	0.177**	0.179**	**0.867**				
IP	0.975	0.868	0.163	0.981	0.204***	0.359***	0.165**	0.387***	0.380***	0.123*	**0.932**			
RC	0.970	0.891	0.163	0.973	0.088	0.301***	0.182**	0.202***	0.163**	0.206***	0.404***	**0.944**		
REC	0.939	0.798	0.109	0.973	0.072	0.215***	0.284***	0.331***	0.183**	0.206***	0.131*	0.160**	**0.893**	
SOC	0.973	0.900	0.124	0.987	0.275***	0.352***	0.139*	0.348***	0.014	0.057	0.346***	0.189***	0.165**	**0.949**

Validity Concerns

No validity concerns here.

HTMT Results

HTMT Analysis

	Cul	TRU	SEN	SC	HC	SEI	IP	RC	REC	SOC
Cul										
TRU	0.273									
SEN	0.011	0.199								
SC	0.302	0.312	0.125							
HC	0.250	0.247	0.206	0.303						
SEI	0.088	0.134	0.285	0.192	0.179					
IP	0.192	0.361	0.168	0.392	0.375	0.106				
RC	0.091	0.302	0.180	0.194	0.169	0.199	0.405			
REC	0.050	0.234	0.305	0.331	0.198	0.216	0.131	0.152		
SOC	0.284	0.350	0.146	0.369	0.016	0.068	0.348	0.190	0.143	

HTMT Warnings

There are no warnings for this HTMT analysis.

References

Significance of Correlations:
† p < 0.100
* p < 0.050
** p < 0.010
*** p < 0.001

Thresholds From:
Hu, L., Bentler, P.M. (1999), "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives" SEM vol. 6(1), pp. 1-55.
Henseler, J., C. M. Ringle, and M. Sarstedt (2015). A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modeling, Journal of the Academy of Marketing Science, 43 (1), 115-135.
Thresholds are 0.850 for strict and 0.900 for liberal discriminant validity.

--If you would like to cite this tool directly, please use the following: Gaskin, J., James, M., and Lim, J. (2019), "Master Validity Tool", AMOS Plugin. Gaskination's StatWiki.

LIST OF PUBLICATIONS

1. **Ali, M.A**.; Hussin, N.; Haddad, H.; Al-Araj, R.; Abed, I.A. Intellectual Capital and Innovation Performance: Systematic Literature Review. Risks 2021, 9, 170. doi.org/10.3390/risks9090170. **(SCOPUS -Q2).**

2. **Ali, M.A**.; Hussin, N.; Haddad, H.; Alkhodary, D.; Marei, A. Dynamic Capabilities and Their Impact on Intellectual Capital and Innovation Performance. Sustainability 2021, 13, 10028. doi.org/10.3390/su131810028. **(ISI-Q1-IF:3.25).**

3. **Ali, M.A**.; Hussin, N.; Haddad, H.; Al-Araj, R.; Abed, I.A. A Multidimensional View of Intellectual Capital: The Impact on Innovation Performance. J. Open Innov. Technol. Mark. Complex. 2021, 7, 216. doi.org/10.3390/joitmc7040216. **(SCOPUS-Q1).**

4. **Ali, M. A**., Hussin, N. and Abed, I. A. (2020) 'Dynamic Capabilities and Intellectual Capital: Developing New Quantitative Research Instrument', Technology Reports of Kansai University, 62(09).

5. **Ali, M. A**., Hussin, N., Abed, I. A., Khalaf, B. K. and Nader, A. (2020) 'Systematic Literature Review of Intellectual Capital Components (Multi-View)', TEST Engineering & Management, (4682).

6. **Ali, M. A**., Hussin, N., Abed, I. A., Othman, R. and Mohammed, M. A. (2020) 'Analysis and Measurement of Human Capital Based on Multi-Criteria Decision- Making (MCDM) Technique', Technology Reports of Kansai University, 62(08), pp. 4799–4825.

7. **Ali, M. A**., Hussin, N., Abed, I. A., Othman, R. and Qahatan, N. (2020) 'Systematic Review of Intellectual Capital and Firm Performance', Technology Reports of Kansai University, 62(08), pp. 4199–4216.

8. **Ali, M. A**., Hussin, N., Jabbar, H. K., Abed, I. A., Othman, R. and Mohammed, A. (2020) 'Intellectual Capital and Firm Performance Classification and Motivation: Systematic Literature Review', TEST Engineering & Management, 3(28691), pp. 28691–28703.