



Review

A Multidimensional View of Intellectual Capital and Dynamic Innovative Performance

Mostafa A. Ali ^{1,*} , Nazimah Hussin ¹, Hakeem Hammood Flayyih ² , Hossam Haddad ³,
Nidal Mahmoud Al-Ramahi ³, Tareq Hammad Almubaydeen ⁴, Sahraa Anwer Hussein ⁵
and Areej Saad Hasan Abunaila ²

¹ Azman Hashim International Business School, Universiti Teknologi Malaysia, Kuala Lumpur 54100, Malaysia

² College of Administration and Economics, University of Baghdad, Baghdad 10011, Iraq

³ Business Faculty, Zarqa University, Zarqa 11831, Jordan

⁴ Faculty of Economics and Administrative Sciences, Zarqa University, Zarqa 11831, Jordan

⁵ Institute of Medical Technology AL-Mansur, Middle Technical University, Baghdad 10011, Iraq

* Correspondence: mostafa1988@graduate.utm.my

Abstract: A review of the literature on intellectual capital development was conducted using systemic criteria for the inclusion of relevant studies. The concepts behind the ideas explored in the present study were discussed in respect to the subject matter. Examining the past state of the art in the intellectual capital sector for achieving high levels of innovation performance provided a multidimensional picture of intellectual capital, innovation performance, and dynamic capabilities. The present review was designed to illustrate the correlation between intellectual capital and innovation performance, as well as the role of dynamic capabilities in moderating the relationship between these constructs. Accordingly, we presented an extensive discussion on the relevant fundamental theoretical perspectives of contingency and resource-based views to provide an in-depth understanding of the abovementioned correlation. Finally, the conceptual framework was illustrated.

Keywords: intellectual capital; innovation performance; dynamic capabilities; contingency theory; resource-based view theory and conceptual framework



Citation: Ali, Mostafa A., Nazimah Hussin, Hakeem Hammood Flayyih, Hossam Haddad, Nidal Mahmoud Al-Ramahi, Tareq Hammad Almubaydeen, Sahraa Anwer Hussein, and Areej Saad Hasan Abunaila. 2023. A Multidimensional View of Intellectual Capital and Dynamic Innovative Performance. *Journal of Risk and Financial Management* 16: 139. <https://doi.org/10.3390/jrfm16030139>

Academic Editor: Thanasis Stengos

Received: 13 November 2022

Accepted: 30 November 2022

Published: 21 February 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Currently, the main concern of the world economy is the development of competitive outlooks in banks that will encourage conventional managerial practices to become more strategized through cost-cutting, re-engineering, and benchmarking. However, these strategies are inefficient and unable to match the competitive advantages of practical markets (Guo and Herrmann-Pillath 2017). Consequently, global economic reforms have posed a critical question regarding the master plans of enterprises for their future survival in competitive market environments. Previous studies have focused on the essential economic constituent of banks' performance, which could offer a route to financial performance improvement (Abhayawansa and Guthrie 2016). Nevertheless, these solutions neglect the impact of intellectual capital development, which describes scenarios from the point of view of an organization's employees, facilitating the realization of the enterprise's values (Opresnik and Taisch 2015).

Innovation performance is considered the improvement or modernization of the process of forming ideas (Koryak et al. 2015) or the development and enactment of a better professional work culture from the customer's perspective. In addition, it aims to improve internal business structures and processes, creating new goods and better-quality services to fulfill market demands (Kamau and Oluoch 2016). Thus, innovation performance can be considered the intermediary variable between the definite processes of a business and the shared performance of the organizations, enabling a more accurate depiction of the successes and impacts that may be achieved within an organization (Sahibzada et al. 2019).

Several studies have found a positive relationship between intellectual capital components as non-tangible assets and innovation performance (Alrowwad 2020; Jabbouri et al. 2016).

The definitions of intellectual capital may differ according to its scale. Following this rationale, an organization's intellectual capital can be used to generate extra benefits or goods that may be easily understood by its employees, i.e., value-based services and assets. Deltorn (2017) described the scope of formalizing, controlling, and enabling intellectual capital to generate valuable assets, arguing that the absence of intellectual capital may be detrimental to the larger interests of an enterprise and the expected value to be gained. Human capital is considered an essential ingredient of intellectual capital, determining its capital growth and overall performance enhancement (McDowell et al. 2018). Thus, holistically talented employees with excellent educations and refined skill possess enhanced cognitive capacities that can lead to their high productivity and proficiency in improving the working performance of an enterprise. Consequently, the enterprise can make improved entrepreneurial judgments and decisions that allow the company to be run more efficiently and eventually advance the innovation performance of the organization.

Structural capital includes the procedures and information systems of an organization (Hammad Ahmad Khan et al. 2016). These processes help organizations coordinate their strategies, structures, culture, and routines to improve the effectiveness of their work. Meanwhile, a sophisticated information system facilitates access to valuable data that can aid in decision making, leading towards enhanced competence and profits. According to recent reports, distinctive customs or procedures for performing jobs and activities are promising approaches for improving the innovation performance of an organization. Organizations with inadequate systems and processes cannot attain their prospective goals, and the an organization's value-producing actions may be more effective if it has robust structural assets (Al-Jinini et al. 2019). Relational capital refers to diverse modes of interaction, such as horizontal, vertical, downstream, and upstream, reflecting the different types of cooperation or collaboration mechanisms in a variety of settings. Thus, the relational capital of an organization is not regarded as a resource for innovation performance in a dynamic market scenario unless it is used more judiciously than competitors to generate capacity arrangement (Aureli et al. 2019). Lastly, social capital refers to the embedded interactional knowledge of an organization, signifying the nature and level of interactions among its members (Nevado et al. 2018). According to Gonzalez and Melo (2017), the social capital of an organization acts as an instrument to determine the possible impact of knowledge on its dynamic capabilities. Thus, an organization with strong social capital can improve its capacity and inspire others to better themselves.

The synergistic effects of the intellectual capital components in improving innovation performance have become increasingly significant in the field of economics and accounting practices, particularly in the banking sector (Isanzu 2017). However, only a few investigations have been performed to qualify the impact of the intellectual capital components on the innovation performance and financial growth of the banking sector (Inkinen 2015). Past studies have revealed that the retention of successful innovation performance is determined by the efficient and reliable actions taken by a bank, demonstrating its capacity to learn and adjust dynamically with the ever-altering market landscape (Hsu and Wang 2012). With this insight, intellectual capital components alone cannot ensure high innovation performance without being leveraged via the transformation of capacities and resources into competitive productivity (Agostini and Nosella 2017). In particular, developing countries such as Iraq that are full of turbulence cannot ensure high innovation performance by merely focusing on intellectual capital components, due to their disruptive and volatile economic conditions (Zhang and Wang 2017).

The 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 value 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 et al. 2014). Principally, the growth of the intellectual capital components must be strongly linked to the improved innovation performance of an organisation (Baía and Ferreira 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 examines 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 administered in Iraqi commercial banks were statistically analysed to establish a correlation between intellectual capital components and innovation performance. Finally, the moderating role of the dynamic capabilities was examined to validate the close connectivity of 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 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.

This article summarizes the research on the components of intellectual capital and their effect on the financial sector's innovation performance. Therefore, the reviewing approach was employed to obtain a better comprehension of the research variables and important theoretical background by showing the issues investigated here in order to draw attention to the current research gap. Consequently, this overview, encompassing diverse literary studies in a chronological fashion, indeed revealed the significance for implementing the dynamic capabilities as the moderating factors between intellectual capital and innovation performance. In addition, the underpinning theoretical concepts are discussed in the present research context to establish a correlation between the study variables, followed by detailed discussions.

The review started with the multidimensional view of intellectual capital. Thereafter, the structure and previous studies concerning innovation performance and dynamic capabilities are discussed in the subsequence sections. The survey of the existing literature enabled the researcher to identify a trend for using the subjective aggregated measures, thereby determining a broad array of performance on the cited topic. In short, the paper works to offer a conceptual framework of the present research to gain a fundamental insight of the aforementioned relationship. Following earlier suggestions, the current study focused on a multidimensional view of intellectual capital, including human, structural, relational, and social capitals (Ali et al. 2021a). 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. Thus, 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 the banking sector. Based on the abovementioned, the following objectives are projected:

- To examine the relationship between the antecedent factors and the main components of the intellectual capital.
- To examine the relationship between the human, structural, and relational capitals.
- To examine the relationship between the intellectual capital and the innovation performance.
- To examine the moderating role of dynamic capabilities on the relationship between intellectual capital and innovation performance.

2. Methodology

An analysis of the prior data is presented, revealing a connection between intellectual capital and innovation success in the financial sector. This research analysed and contrasted existing studies, discussed pressing problems in the financial sector, and suggested that the industry incorporate intellectual capital into its corporate culture to better compete in the market and increase productivity. An extensive literature review was undertaken based on the influences of intellectual capital on the innovation performance in order to achieve the given study objectives. When compared to previous reviews, such as Manes-Rossi, Nicol, and Argento's 2020 work, the present piece takes a more objective and methodical approach to summarising and interpreting the data. This paper followed a structured procedure executed in three stages as described below, which was motivated by the importance of intellectual capital components implementation in the financial sector as advocated by various recent studies.

In the first stage, researchers looked for and critically analysed the vast majority of applicable scientific publications (published in English and peer-reviewed) in order to achieve our objectives. This paper employs specific search queries, including (“intellectual capital”) OR (“human capital”) OR (“structural capital”) OR (“relationship capital”) OR (“social capital”) AND (“innovation performance”). These articles were gathered between 2015 and 2020 utilising a variety of sources, including Scopus, Science Direct, Emerald, and Web of Science. Nonetheless, the fields of social science, business management, finance, and accounting have seen a dearth of papers throughout this time. In order to maintain a high standard of quality, the study scope was reduced (using systematic inclusion and exclusion criteria) for the selection of publications to be published in peer-reviewed journals (Higgins and Green 2009). Books, edited collections, editorials, conference papers, and research reports were not included for this analysis. According to (Gough 2007), such standards can improve the values and quality of judgement in light of the evidences when re-examining the prior works that have made a contribution. As many as 862 documents were culled from online sources. To further eliminate duplicates, 799 of these contributions were hand-selected after a thorough manual search.

After retrieving the articles, the next stage involved determining how relevant they were by comparing their titles, abstracts, and contents to a set of predetermined criteria. The focus of this analysis was on intellectual capital components format relevant to the financial sector; as a result, 523 publications were disregarded. The SCImago Journal Rank was also taken into account, which led to the elimination of another six previously published works. A third stage supplemented the selection process to increase sampling accuracy. Manually inspecting the top journals that published studies on finances and accounting methods allowed for the selection of an additional 16 papers. In order to exclude some of the less important publications, a second round of filtering was undertaken based on the complete text; this yielded a total of 128 research papers that met all of the selection criteria. The total number of publications critically examined for this work was 128 papers. Figure 1 display the systematic framework of the research structure.

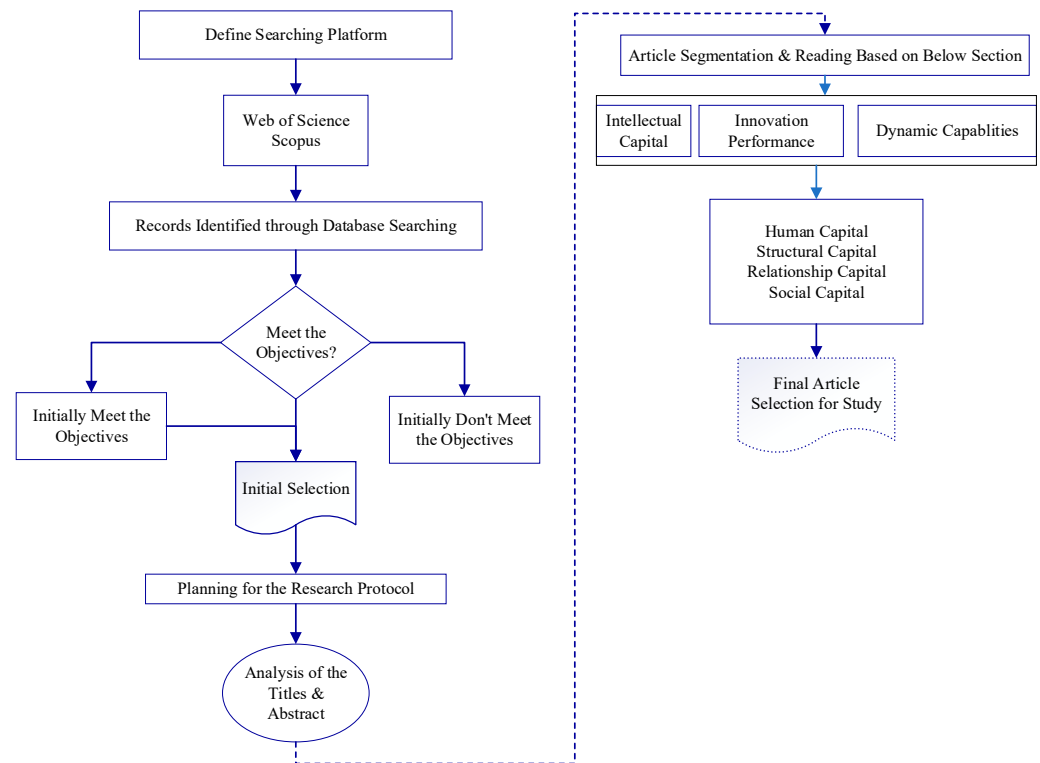


Figure 1. Systematic framework of the research structure adapted from (Hasan et al. 2020).

3. Multidimensional View of Intellectual Capital

This study mainly followed the concepts about the components of intellectual capital introduced by (Bontis et al. 1999). Herein, the primary aim was to gain a basic understanding of the multidimensional view of intellectual capital. In the proposed framework, two antecedent factors such as culture and trust. Some research groups adopted the essential need to create a foundation for the antecedent variables that are necessary for the efficient production of intellectual capital (Khalique et al. 2018; Cahyaningrum and Atahau 2020; Oliveira et al. 2020). In this standpoint, the present study supported the necessity to establish a basis that can efficiently develop a multidimensional outlook of the intellectual capital (Asiaei et al. 2018; Massaro et al. 2019; Palazzi et al. 2020).

The earlier reports comprehensively discussed the concepts of the intellectual capital and a careful analysis of the existing literature revealed some remarkable facts as discussed here. First, a multidimensional view of the intellectual capital must be undertaken to understand its concepts (Bontis and Fitz-enz 2002). Such a multidimensional perspective can be explained by two antecedents, also called drivers of the intellectual capital adopted from one of the most famous intellectual capital ideas suggested by various scholars (Nkundabanyanga 2016; de Frutos-Belizón et al. 2019; Peñalba-Aguirrezabalaga et al. 2020; Khalique et al. 2018). The second fact refers to the varied range of frequencies at which each of the intellectual capital components was considered (Cleary 2015). Figure 2 shows the relationship between the antecedent factors and the main components of the intellectual capital.

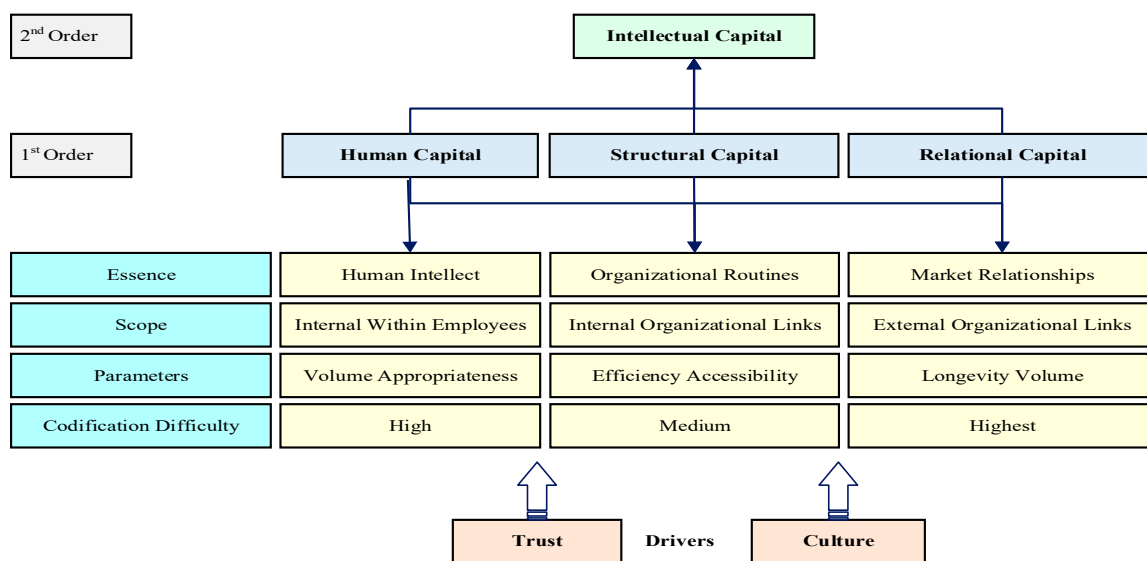


Figure 2. Conceptualisation of the intellectual capital adapted from (Bontis 2001).

3.1. Culture

Organisational culture was initially recognised by (Peters and Waterman 1982) as a precursor to success and greatness. As a result of studying the knowledge of the most successful organisations, they came to this conclusion. Therefore, (Henri 2006) stated that “The best companies have a very strong culture, so powerful that you can only stay if you buy into their conventions. Most employees in the best organisations can’t find a middle ground” (p. 11). A strong organisation culture is based on a set of fundamental beliefs, traditions, symbols, rituals, and unwritten norms to which all workers are expected to abide. Organisations that develop their identity by emphasising ideals, heroes, rituals, and cultural connections may also have a secret weapon lying dormant in their arsenals (Dombrowski et al. 2007).

In a study which set out to determine the organisational culture, (Stewart 1997) considered the employees’ capital as the resources of the organisational cultures and innovations. This capital can possibly be developed by considering the ideas and suggestions of the employees for the improvements of the business. The cultural factor determines the course of actions of an institution and foresees its progress (Kim and Chang 2019). According to (Berezinets et al. 2016), strong social networking being significant for the innovations can help to gain and maintain the flexibility, acting as the performance indicator. In brief, the supportive cultures are constructive due to their encouraging nature for the positive emotion that motivates the innovation performance (Berson et al. 2008).

3.2. Trust

The issue of organisational trust has been the primary focus of study in management studies in general, and in organisational behaviour studies in particular (Chow and Chan 2008). This is owing to the importance of the issue and its direct interaction with a wide variety of organisational factors that impact an organisation’s performance and development, as well as its capacity to fulfil its objectives successfully (Sadj et al. 2020). Thus, trust is defined as an individual’s belief in the organisation’s goals, choices, and policies, which reflects the individual’s contentment and commitment to the organisation (Cheng et al. 2020). Previous surveys suggested that an organisation could not function without trust among its employees, and managers cannot overlook the importance of trust in the business (Ashrafi et al. 2020). Thus, organisational trust is a critical component for the expansion of human property among organisations and lenders, organisations and producers, customers, and internal trustees (Ahmed et al. 2019).

Numerous definitions exist for trusting a person, products/services, or organisations (Chow and Chan 2008). These can subjectively be regarded as general shared views, implying the informant make-up of the personal generalisations (Asiaei and Jusoh 2015). Therefore, the trust factor in this study was mainly based on simplistic/common generalisations and faiths. The existing literature reports seldom addressed the establishment of such empirical generalisations. Mutual relationships are the significant constituents to develop the emotional capacities in teamwork, thereby relating to improved trust and performance (Paliszkiwicz and Koohang 2013). In this context, (Gu et al. 2014) argued that trust and collaborative associations among group members could promote much better innovation performance. To summarize, trust is essential for inter-organisational collaboration and cooperation (Dumay et al. 2019).

3.3. Human Capital

Value in today's world, and especially in the knowledge-based economy, is largely focused on the quality of human capital (Cuzzo et al. 2017). Moreover, Human capital has been suggested to be the most important factor in an organization's value generation (Osorio et al. 2015). Human stocks such as skills, attributes, and competences have been the focus of previous research on human capital. Human capital may be thought of as the intangible assets that have dominated debates in the field of accounting for the better part of two decades. Intangible assets have presented several difficulties for governments, organisations, and regulatory agencies (Hammad Ahmad Khan et al. 2016). According to (Hsu and Wang 2012), employee equity, safety, relations, and wellbeing are all aspects of human capital that should be developed and nurtured. Human capital has been defined in several ways; for example, (Daou et al. 2014) it is all the knowledge, productivity, skills, values, expert networks, and professional teams that an organisation has.

In this context, (Massaro et al. 2015) stated that the human capital could be formed by the talents, competencies, experiences and skills of the internal members of an organisation. In addition, the human resources are crucial for the creation of human capital because the organisations do not create knowledge otherwise (Isanzu 2017). Thus, the organisations can increase their human capital by attracting individuals with high skills from the external labour market and via the internal development of the skills of their current members (Berezinets et al. 2016). However, (Palazzi et al. 2020) asserted that an organisation with a high human capital in terms of education or skills is likely to have better entrepreneurial judgment. It was inferred that as long as human capital continues developing, the employees can improve their job performance and eventually enhance the performance of the organisation (Massaro et al. 2015). Based on the aforementioned facts, it can be concluded that the human capital forms the heart of the intellectual capital.

3.4. Structural Capital

For the purposes of this article, "structural capital" will be taken to mean the "systems and configurations of an organisation that enable to build up greater productivity of the personnel," as described by (Slađana Cabrilo and Dahms 2018). In addition, The infrastructure assets and the codified information (such records, databases, and intellectual property rights) that shape up the framework of the organisation for future sustenance are both included in the structural capital (Buenechea-Elberdin 2017). This research basically linked the ideas of network characteristics and standardised information dissemination inside an organisation to the concept of structural capital (Khalique et al. 2018). However, as pointed out by (Kaya and Erkut 2017) structural capital is the means to add efficiency to human capital in order to accomplish organisational performance since it owns intellectual property, which is crucial to the growth of any organisation.

In effect, structural capital equips human capital with means to pursue novel possibilities (Chowdhury et al. 2018). The expression of human capital in an organization's operations is facilitated by its unique culture, which in turn is largely due to its structural capital (Hammad Ahmad Khan et al. 2016). When an organization's employees have access

to a centralised database of useful information, called the “knowledge directory,” their talents can grow to their full potential (Turner et al. 2013). Information flows that underpin established structures and processes, as stated by (Vladu et al. 2017). They are expected to adhere to predetermined standards. As a result, there is a build-up of knowledge that is fundamental to structural capital but which must be used in a predetermined fashion by (Budiarti 2017). Yet again, structural capital provides an environment that enables the organisations to create and leverage knowledge (Benevene et al. 2017). Conversely, an organisation with a strong structural capital has a supportive culture that encourages its employees to try to learn new knowledge, thereby moving many steps ahead towards improved performance (Xu and Wang 2018).

3.5. Relational Capital

The ability of an organisation to maintain a positive affiliation/union network with its partners is referred to as its “relational capital” (Bogdan et al. 2017). Another definition of relational capital is the intangible assets based on the formation, maintenance, and promotion of high-quality connections with any firm, people, or group that affects the organization (Hsu and Wang 2012). Such capital arises when workers share their insights and experiences with one another inside an organization (Elsetouhi et al. 2015), fuelling a cycle of ongoing adaptation and development (Lamond et al. 2010). Based on the aforementioned facts, (Sladjana Cabrilo et al. 2018) draw on this background to define relational capital as the integration of all the relationships within an organisation, which can include internal relations between management and employees and between employees, as well as external relations with stakeholders such as customers, suppliers, and research and development bodies, as well as the government.

In the healthcare and pharmaceutical industries, relational capital is most valuable when it is used to successfully implement and manage programmes that ensure patients make a full recovery (Lardo et al. 2017). What this means is that the medical centre will lose relational capital when patients become dissatisfied with the therapy and abandon it owing to its length and the unpleasantness of its side effects. It is possible that the resources that might be used through the connections under evaluation have quite different features of relational capital (Černe and Etinger 2017). Improvements in the organization’s relational capital reflect the calibre of its members and the depth of communication between them (Bontis et al. 2018). Multiple relational capital studies have concluded that companies benefit from actively engaging their most loyal consumers (Al-Jinini et al. 2019). These considerations led to the study’s hypothesis that relational capital has a beneficial effect on innovation performance.

3.6. Social Capital

The term “social capital” is used to describe a resource that helps keep communities safe while also giving businesses more say in their operations (Allameh 2018). Another definition of social capital offered by (Nahapiet and Ghoshal 1998) that “it is the sum of the real and potential resources inherent within, available via, and derived from the network of relationships owned by an individual or social unit” (p. 13). Additionally, the term “social capital” is used to describe the aggregate of real and potential assets linked to the set of interpersonal ties represented by a given social unit (Salicru and Perryer 2007). According to a number of studies, social capital is crucial to any business’s ability to thrive in today’s cutthroat marketplace (Bolino et al. 2002; Shipilov and Danis 2006). Knowledge sharing, competitive advantage enhancement, organisational performance enhancement, value generation, and general organisational growth are all aided by a healthy dose of social capital (Ibrahim 2019; Stacchezzini et al. 2019). A variety of models have been created to describe the organisational idea of social capital and its many facets (Manes Rossi et al. 2016).

Researchers have shown that an organization’s social capital grows when members share tacit and explicit information with one another through a variety of internal networks, leading to increased innovation and competitive advantage (Nevado et al. 2018). In order to

build norms and values inside an organisation that promote healthy interactions, encourage the extension of connections, and increase partnerships among employees, it is essential to invest heavily in the development of the organization’s social capital (Christensen and Kowalczyk 2017). Several studies have found that firms with high levels of social capital have higher rates of innovation (Asiaei et al. 2020). To facilitate communication and cooperation among employees and with external communities and enterprises, social capital is essential (García Lirios 2020). Figure 3 shows how intellectual capital is organised inside the framework that are most important for protecting its most important parts (the dominant ones).

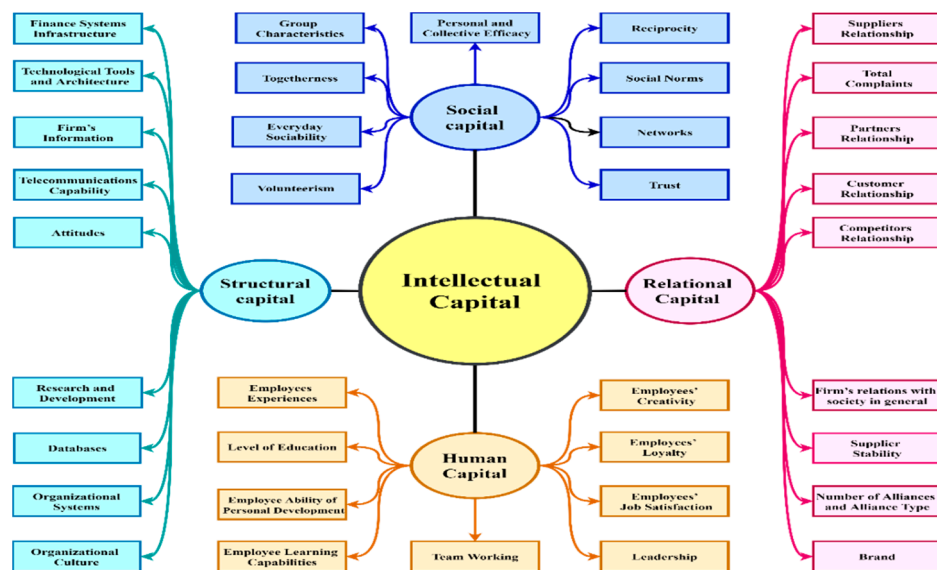


Figure 3. Structure of intellectual capital. Source: own elaboration.

4. Innovation Performance

Recent years have seen a rise in the number of studies conducted on the topic of innovation performance, indicating that this phenomenon has expanded to encompass other dimensions of study. This review concurs with the assertion made by (Gimenez-Fernandez et al. 2020) that innovation and production are foundational to economic development. Therefore, the national innovation system is one in which knowledge is developed and transferred, and in the second phase, while innovation takes place and helps to the economic progress of developing nations (Alrowwad 2020). Conversely, innovation performance is useful in bolstering national banking systems’ capabilities in regard to a wide range of intellectual capital qualities (Alford and Duan 2018). Innovation performance is typically defined as the development and implementation of a better/professional work culture from the perspective of customers (Koryak et al. 2015).

Thus, innovation emerges whenever people add value towards goods, services, processes, marketing, delivery system, and policy, not only for the benefit of the organisation but also for the stakeholders to develop trustworthiness in the organisation (Shahzad et al. 2019). Essentially, innovation performance aims at improving the internal business structure and process, creating new goods and better-quality services to fulfil the market demand (Kamau and Oluoch 2016). The summation of the skill and knowledge within a human being is the predictor for the innovation performance in the organisation (Slađana Cabrilo and Dahms 2018). In this regard, innovation performance can be considered as an intermediate variable between certain business processes and the general performance of the organisation, thus allowing a better picture of actions and effects that need to be attained within the organisation (Li et al. 2019). In addition, many studies considered innovation performance as the final dependent variable on an organisation level that characterises the productivity of the organisation (Cabrilo and Dahms 2020; Ali et al. 2021b).

Previous studies demonstrated that innovation plays an important role as a stimulus to promote organisational excellence, competitiveness, profitability, and efficiency (Dženopoljac et al. 2016). In order to achieve the constant innovation, managers need to focus not only on the products, technology, and processes of an organisation, but also on the organisational culture, norms, and values (Globocnik et al. 2020). Essentially, the innovation emerges whenever people add value to goods, services, processes, marketing, delivery systems, and policies not just for the benefit of the organisation, but also for the stakeholders (Shahzad et al. 2019). Indeed, innovation has a major impact on the survival, development, and expansion of businesses thanks to the ways in which it improves customer happiness, employee output, service quality, market value, and the percentage of the market that each business owns. In a nutshell, an organization's innovation performance may be defined as how well it creates unique or significantly better goods and services through its improvement process (Rosenbusch et al. 2019).

In conclusion, innovation contains multidimensional services in terms of their different dimensions and viewpoints that required greater analysis (Buenechea-elberdin et al. 2018). Very little theoretical work has been conducted on the topic of the success of innovation performance across various industry segments (Shahzad et al. 2019). Studies on innovation performance in recent years have attracted the interest of scientists and researchers; it has become a multidimensional phenomenon. Therefore, the national innovation system, especially in the banking sector, is one in which knowledge is created and transferred and in the second step, whereas, innovation takes place and contributes to the economic growth of developing countries (Alrowwad 2020). Then again, to expanding the capabilities of national financial systems in regard to various forms of intellectual capital, innovation performance is highly effective (Alford and Duan 2018). Thus, the present research contributes to the financial sector in one of the developing countries through highlighting the impacts of intellectual capital on innovation performance.

5. Dynamic Capabilities

The term 'dynamic' refers to the ability for reviving the competencies which are related to achieving resemblance with the required change in the business environment (Makkonen et al. 2014), while capabilities describe the integration, application, and restructuring of the external and internal resources in the organisation in response to the environmental changes in the markets (Helfat et al. 2007). Presently, discussion of the organisation's dynamic capabilities reflects its ability to update, develop, and acknowledge all its resources, i.e., the intangible, tangible, and human resources, to create value for all services (Fitri Ande et al. 2018). Hence, the dynamic capabilities include facilitating all the human resources and skills possessed by the organisation for implementing external changes, and the formulation of strategies to fulfil the organisational needs during a changing environment (Teece et al. 1997).

The previous literature significantly contributed to the development of dynamic capabilities, but it has presented a few overlapping ideas on the function of dynamic capabilities (Wagner et al. 2017). Moreover, it had been perceived that the concept of dynamic capabilities includes the ability of the organisation to renew its competencies, which will help it to keep up with the changing business environment (Barrales-Molina et al. 2014). Accordingly, dynamic capabilities are viewed as the mechanism used by organisations for balancing their competencies and managing knowledge processing (Wagner et al. 2017). This view encouraged many researchers to implement a resource-based view (RBV) theory for studying the dynamic capabilities of the organisations to explain why some organisations are able to sustain their competitiveness in rapidly changing and non-predictable markets (Wendra et al. 2019). Thus, (Furnival et al. 2019) argued that dynamic capabilities are strategic techniques that are used to acquire new resources' configurations. The study of (Engelman and Fracasso 2017) showed that a good model fit could take place between the dynamic environment and the requirements for positive impacts on organisation's intellectual capital. Recently, dynamic capabilities were categorised into sensing, seizing, and reconfiguring opportunities (Murschetz et al. 2020).

Consequently, the dynamic capability of sensing is considered as the potential ability of the organisation to systematically investigate or identify all their present threats and opportunities using dynamic adjustments based on the ability to sense the competitiveness of the markets (Garrido et al. 2020), while seizing capability indicated the ability of the organisation to invest in the required reform for the innovation competitiveness in comparison to other organisations (Enkel and Sagmeister 2020). Lastly, reconfiguring capability reflects all the identified opportunities to synthesise the acquired new knowledge with the previous indication of the intellectual property of employees in the organisation (Choi et al. 2018). These capabilities aim to integrate with the rapidly changing environment in the financial industry that an organisation must reassemble or transform in the internal and external resources (Khan et al. 2021), whereas (Teece 2014) agreed that dynamic capabilities should be classified into three dominant portions: sensing, seizing, and reconfiguring. Figure 4 displays the architect constructs of dynamic capabilities.

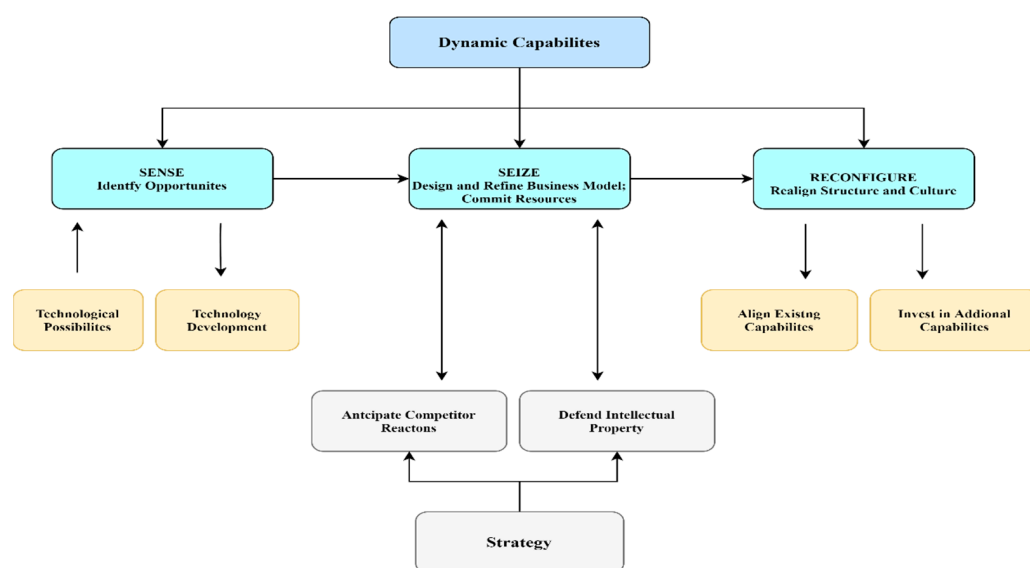


Figure 4. Basic architecture of the dynamic capabilities of an organisation adapted from (Teece 2014).

5.1. Sensing Capability

Sensing capability is defined as the new information and knowledge that can create opportunities for the innovation. Thus, it is vital for the organisations to continually scan and explore newer technologies and markets for better opportunities (Helfat et al. 2007). In today’s world, the rapid change and implementation of the technology in high-velocity markets have made it hard to predict and discern the trajectories of the future developments (Fischer et al. 2010). Thus, the sensing capability of an organisation not only involves the investment for exploring better opportunities, but also the probing and reproofing of the technological possibilities. Some recent investigations indicated that more in-depth understanding are required by the organisations on how to exploit this vital component so-called the sensing capability for evaluating the new acquired information (Breznik et al. 2019).

The information and resources can externally affect all the innovations and development of an organisation (Ali et al. 2020b). As sensing relies on the ability of an organisation to understand, adjust, or develop unique market opportunities and predict the market requirements, such an integral asset must be had in the present technologically driven era (Vézina et al. 2019). In this regard, improved sensing capability can theoretically boost the technological innovations of an organisation. Hence, a stronger sensing capability could possibly lead to more technological innovations for the organisation (Jørgensen et al. 2015). It also provides the organisations with the foundations for figuring out the right market segments that must be targeted (Arndt and Pierce 2018). Finally, such organisations echo

these demands of their valued customers via marketing innovations, for instance, though the creation of new distribution channels (Zhou et al. 2019).

5.2. Seizing Capability

Seizing capability is the willingness of a business organisation to capture potentially competitive assets (Vézina et al. 2019). This not only requires the internal cooperation (implying the effective coordination between the multiple sub-units within an organisation), but also the ability of the organisation to incorporate outside capital (Babely te-Labanausk  and Nedzinskas 2017). This capability of seizing often enables the organisation to turn and leverage its capital into creative goods to some extent (Furnival et al. 2019). This demonstrates that by taking the advantage of the technological innovations, an organisation can strengthen its market creativity. In terms of technical innovation, the external resources as input can be beneficial for the organisations, while the internal resources input capabilities can significantly promote the inter-organisational information sharing. In this regard, the seizing capability of an organisation is defined as the ability to present new products, processes, or services for attracting the customers.

In this perception, the collaborative attributes with the evolving technology suppliers might be essential for ensuring the optimum returns on the investments. It comes as no surprise that an organisation may seize a business opportunity and yet fail to invest (V zina et al. 2019). Thus, vertical integration, exporting, and developmental strategies must be established by businesses in order to incorporate external and internal assets via this capability (Souza and Takahashi 2019). (Shuen et al. 2014) argued that organisations should possess the ability to seize external information and integrate it internally with their employee's expertise for achieving better performance (Raman and Bharadwaj 2017). In this spirit, the seizing capability of an organisation determines its ability to attract, create, store, and implement new knowledge (Souza and Takahashi 2019). In this regard, (V zina et al. 2019) identified seizing as a core class of the competitive skills control functions. Moreover, dynamic capabilities focus more on the effective sharing of knowledge and information between various units of a group (Torres et al. 2018).

5.3. Reconfiguring Capability

The reconfiguring capability of an organisation is regarded as the reshaping of the external and domestic resources in response to changes in the surrounding socio-economic evolution (Aminu and Mahmood 2015). Other researchers considered the reconfiguring as the indicative of an organisation ability to create a competitive advantage (Furnival et al. 2019). The creation of such a competitive advantage requires willingness on the part of the organisation to rearrange its infrastructures for dealing with the paradigm shifts in the external world economy (Breznik et al. 2019). However, the wisdom to handle the organisational capabilities are manifested in the building projects, personnel and events associated with the organisation (Souza and Takahashi 2019). Actually, the organisations need to simplify and reorganize their assets and infrastructural resources into the competitive and sustainable models such as economies and technologies development. This is particularly true over time, as the expertise and capital become dwindled and the unified effects of the prior practices become lost (Hern ndez-linares et al. 2018). In this context, (Lin and Wu 2014) indicated that the strategic flexibility which stresses the flexible use and reconfiguration of resources can appreciably strengthen the positive effects of technological capability, thus improving the organisation's performance.

Reconfiguring capability may entail practices such as addition, transfer, merging, and capital or business sharing through the organisations (Karim and Capron 2016). For an organisation, the dynamic capabilities value for the competitive advantages relies on the capacity to change the resources foundation by creating, integrating, recombining, and releasing the resources (Arndt and Pierce 2018). The organisational assets can be recombined and reconfigured during the constant growth of the organisation with the market and technology changes. Concisely, the reconfiguring is a prerequisite for the sustained evolution of fitness,

thus attempting to get away from adverse path dependence (Teece 2018). In brief, the reconfiguring capability of an organisation may help it adapt to different market environments for working out innovative marketing plans (Vézina et al. 2019).

6. Intellectual Capital and Innovation Outcomes, with Dynamic Capabilities as a Moderating Factor

There has been a lot of attention paid to the impact of intellectual capital on innovation performance in previous state-of-the-art literature reviews, but it is still unclear what function some variables that have been demonstrated to influence this connection play (Scafarto et al. 2016). The competitive advantage of the mediating variable was exploited by several studies (Khouroh et al. 2020) to reinforce the aforementioned link. Therefore, (Wendra et al. 2019) concluded that these studies did indeed reveal a substantial association to accomplish the competitive advantages for boosting the intellectual capital to better innovate competitive performance at various levels. On the other hand, this study examined the impact of a number of dynamic capacities that have been the subject of several empirical investigations and each of which has made a unique contribution to the development of intellectual capital (Engelman and Fracasso 2017). If a company wants to maintain its standing in today's competitive market and keep up with the pace of technological change, it needs to manufacture competitive goods. Strong and patient execution of the right dynamic capabilities and constant innovation are needed to fully capitalised on this opportunity (Gonzalez and Melo 2017).

Therefore, when businesses spend a lot of money on an implementation, it is expected that the investment would pay off in the form of better long-term outcomes (Jordão and de Almeida 2017). Organizations are shown to be subject to constantly shifting environmental conditions (Ferreira et al. 2020), which means that the relationship between intellectual capital and dynamic capabilities is important because it influences the effectiveness with which the organisation innovates (Rehman et al. 2017). According to (Engelman and Fracasso 2017), the dynamic capabilities present a bridge that determines the strategy related to the dynamic business environment. Herein, the researchers defined the dynamic capabilities as an orientation and stable behaviour of the organisation to sense, seize, and reconfigure all their abilities and resources. The final aim is to upgrade and reconstruct their basic capabilities based on the dynamic and changing markets for sustaining a competitive advantage (Wagner et al. 2017; Zhou et al. 2019).

In addition, the dynamic capabilities mechanism aids in determining whether or not an organisation is capable of making the alterations necessary to better its operational setting (Zhou et al. 2019). Because of this, (Pedro et al. 2018) established a connection between dynamic capacities, human capital, and the declarative and procedural knowledge of organisations. The knowledge is ingrained in the people, systems, and procedures that together make up the particular arrangement of assets that an organisation may call its own. It also has the informational assets necessary to develop several dynamic capacities (Zhou et al. 2019). These actions steer the company in the right direction and help alter the state of the market (Han and Li 2015). Yet again, this connection sheds light on how and why businesses today are able to maintain an edge over their rivals (Chahal and Bakshi 2015). Therefore, it is possible to improve innovation performance by employing and cultivating capable resources (Ansari et al. 2016).

In this perception, intellectual capital alone cannot gain innovation performance but needs to be leveraged through transformational capabilities to convert resources into competitive outputs (Agostini and Nosella 2017). Therefore, the present intensive review of the previous literature shows that dynamic and turbulent economic environments are essential necessities for the survival of innovativeness, wherein modernisation acts as the key element for the organisations' performance (Alford and Duan 2018). The ability to sense opportunities for developing intellectual capital indeed require a constant surveillance and monitoring of the innovation performance (Arndt and Pierce 2018). According to (Vézina et al. 2019), the seizing capability is all about making good decisions under uncertainty

and executing these decisions meticulously. Thus, when the opportunities are sensed and seized, the next and final step needed to be reconfigured. Explicitly, the successful identification of the opportunities must be eventually addressed through new products, processes, positions, and paradigms.

7. Fundamental Theoretical Perspectives

The present research examines the role of dynamic capabilities on intellectual capital to acquire better innovation performance. Therefore, the theoretical perspectives of this study were rooted in two major strategies (Denford 2013). The first approach involved the classification, creation, management, and use of intellectual capital, dynamic capabilities, and innovation performance. The second approach dealt with the measurement and metric models' expansion to determine the developmental status of the intellectual capital. In this view, the present approach is highly strategic for deriving and administering the intangibles, enhancing the value of an organisation (Roos and Roos 1997). As mentioned before, the intangible assets of an organisation can be viewed as the main contributors for transforming the productive resources into value-added assets (Carroll et al. 1992). The contingency theory was proposed to reconceptualise and acquire more in-depth understanding for the stimulus relationship between the antecedent factors of culture and trust with the main components of intellectual capital.

Fundamentally, the contingency theory is a strategic approach because it underpins that the no method exists for organizing a business. In a series of seminal studies, (Tayles et al. 2007) indicated that intellectual capital should be oriented towards the perspective of an integrative and dynamic resource-based view (RBV) to understand the integration between intellectual knowledge development and innovation performance of an organisation. According to (Roos and Roos 1997), the intellectual capital of an organisation should also be oriented towards the perspective of an integrative and dynamic resource-based view. Consequently, the competitive advantage is a consequence of the procedures for the acquisition and exploitation of resources inside the organisation (Barney 2001). Based on all these views, it can be said that the theoretical orientation to rationalize the studies in intellectual capital requires a use of the opportunities to move towards the productivity of intellectual capital, acquiring a better innovation performance (Darroch 2005). The salient features of the contingency theory are briefly discussed hereunder.

7.1. Contingency Theory

The contingency theory assumes that the environment of an organisation has a strong influence on the efficiency and performance of the system. In addition, it posits the deficiency of a generally applicable system in the contingency theory. The contingency theory was formulated by the general hypothesis that organisations with the internal features that best match their situation-specific demands realise the optimum levels of adaptation (Lawrence and Lorsch 1967). The contingency theory presumes that entities can only achieve effectiveness by tailoring the features of the organisation to manifest contingencies according to the conditions of the organisation. Contingencies that emanate from the operational environment can appreciably influence the elements of the intellectual capital that can be perceived as the characteristics of an entity (Schreyögg and Steinmann 1987). Several researchers mentioned that the components of the intellectual capital and contingencies should fit each other for the survival of an entity (Donaldson 2001).

Thus, it is believed that the accessibility of internal intellectual capital information has to fit the operational environment or contingencies (Fisher 1998; Gordon and Miller 1976; Hayes 1977; Otley 1980). Lately, the contingency approach is used in numerous areas in the organisational management and other fields of sciences and technologies (Betts 2011; Gallagher and Gallagher 2012). This framework is effective in textbooks that are based on organisational theory, which mostly adopt a rational-contingency view (Padgett et al. 1992). Other issues with the contingency theory assume that the connections between variables are linear with symmetrical outcomes (Otley 1980). There can be linear and other

curvilinear interactions between technology, structure, atmosphere, and efficiency. These risks arise when numerous contingencies and effective measures are taken into account. Communication and trade-offs cannot exist until specific background components are investigated (Huang et al. 2010). However, recently this theory has lost its popularity because of its inability to address various theoretical and methodological issues (Al-Jinini et al. 2019).

To overcome this limitation, researchers have attempted to develop and adopt other management ideas that are essentially much more complicated and incomplete contingency proposal structures (Alves et al. 2017; Bals et al. 2018; Pavlov et al. 2019). Moreover, (Dikova and Veselova 2021) indicated that the contingency theory concentrates more on adapting the organisational framework for the functions. Despite this crucial idea, some researchers have seriously analysed its impact wherein their approach relied on an overall meta-theoretical point of view that includes a definition of fitness as a large implicit assumption (Williams et al. 2017; Lucianetti et al. 2018; McAdam et al. 2019). It was asserted that few scientific studies could be made into these more advanced structures until a simple structural contingency theory framework can work out their fundamental common issues, particularly the inability to deal explicitly with the core principle (Huang et al. 2010). Figure 5 elucidates the basic concepts of the contingency model. In the past few decades, the scientific analysis of the organisational design and efficiency was governed by the contingency theory.

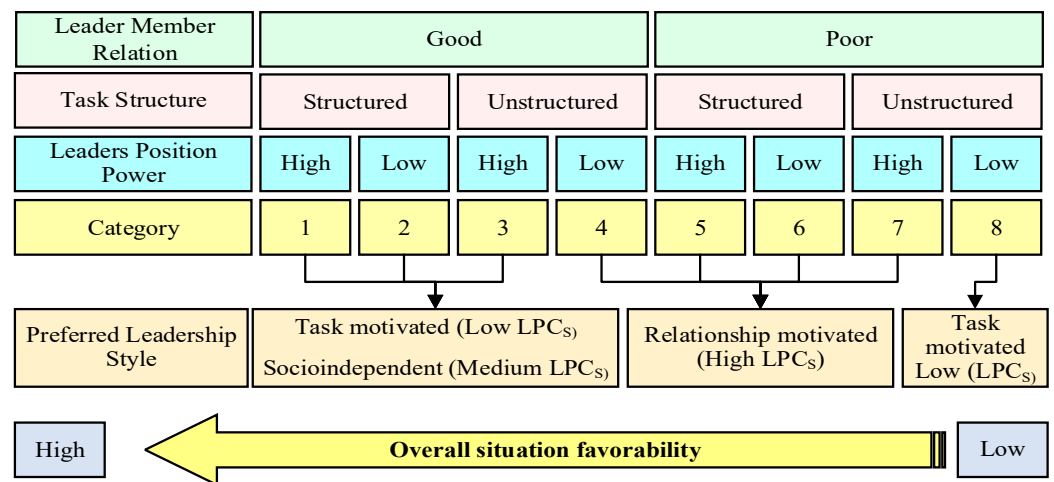


Figure 5. Basic concepts of the contingency model adapted from (Fiedler 1964).

The current study assumes that most of the earlier examples used to analyse the contingency theory involved the selection and connection criteria. It was concluded that the methods explained the ambiguity in the literature on a systematic contingency theory and offered a repertoire of alternatives for the future creation of such theories as a whole. As explained before, intellectual capital literature provided sufficient supports that innovation performance is influenced by the combined effects of the antecedent factors and intellectual capital. Based on this idea, the present study also considered the contingency theory as one of the main topics of interest. As mentioned earlier, the literature on intellectual capital provides enough support to the assumption that the performance of the businesses is strongly affected by the intellectual capital improvement. Therefore, this study used the contingency theory to establish a better understanding of the relationship between the organisational culture and trust (the two antecedent drivers of the intellectual capital). Based on the contingency theory, it can be shown that the intellectual capital of an organisation will align itself to suit contextual or contingency factors (Asiaei et al. 2018). Figure 6 shows the intellectual capital from the contingency lens.

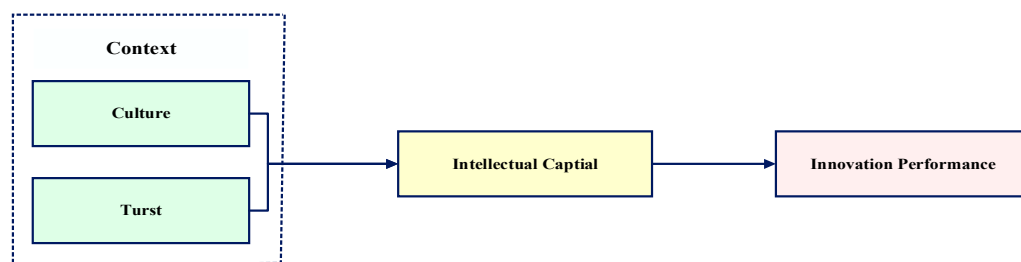


Figure 6. Intellectual capital when viewed through the contingency lens. Own elaboration.

7.2. Resource-Based View Theory

The resource-based view posits that some of the organisation resources are unique because they are rare, valuable, and irreplaceable (Barney 2001). The resource-based view assumes the need of conceiving, choosing, and implementing the strategies that are heterogeneously distributed across the organisations wherein their differences remain stable over time (Alvarez and Barney 2017). According to the resource-based view, organisations can have a stable competitive advantage in the market if they manage their tangible and intangible assets (Belkaoui 2015). In addition, the resource-based theory suggests that the success of organisations is no longer attributable solely to gain access of the material resources compared to the commodities. It rather focuses of gaining the non-tangible assets that provide a competitive edge over the long term (Grant 2009). In recent times, growing importance is being given to the intellectual capital that underlines the limits of financial measurement systems.

However, it cannot fully evaluate the non-tangible resources due to its inadequacy to deal with the difficulties inherent for managing the development. The resource-based view indicates that the performance of an organisation strongly depends on certain internal resources and capabilities (Carnahan et al. 2010) that are considered as being able to enhance the competitive advantage of that organisation. The resource-based view considers an organisation as being comprised of a heterogeneous set of tangible and intangible resources and such heterogeneity confers the organisation with more flexibility to compete favourably (Zhang and Wang 2017). It tries to identify the role of resources in supporting the performance of the organisation in a changing environment wherein these resources are employed to support organisations in producing better products and services to meet the needs of the customers (Spender 1996). These resources have rare, valuable, and nonreplicable attributes.

The resource-based view posits those intangible resources including the intellectual capital, are the major determinants for the success of an organisation. It also believes that the supporting role of the organisational resources for innovation performance is absolutely essential. In addition, it confirms that innovation performance can be driven by the intangible resources such as human capital and structural capital (Rehman et al. 2017; Massaro et al. 2019; Kozlenkova et al. 2014). Moreover, (Sanchez 2008) argued that the durability of an organisation's productivity could be derived mainly from the unique assets of the business. In this essence, the resource-based view of an organisation can most explicitly address the problem. In addition, it considers the organisation as a particular set of capitals and capabilities (Levitas and Ndofor 2006). Thus, the internal management of the organisation depends on a resource-based view. In short, the resource-based perspective specifically acknowledges the significance of the intangibles including the organisational expertise thereby provides the theoretical foundation to examine the correlation between definite variables.

The resource-based hypothesis states that firms rely on unique assets that are both difficult to copy by rivals and impossible to replace with similar resources (Rehman et al. 2017). Furthermore, the intellectual knowledge resources play a significant role in the resource-based view. Sometimes, their significance is regarded as compromised by all-inclusive meanings wherein it is hard to differentiate between resources and capabilities (P. M. Madhani 2009). As an illustration, (Barney 2001) mentioned that the active proper-

ties, resources, organisational processes, qualities of organisations, facts, and intelligence are related to a competitive market benefit. Throughout the section on materials and configurations, it was proposed that the intellectual capital be classified into measurable, intangible, static, and dynamic types, as shown in Figure 7.

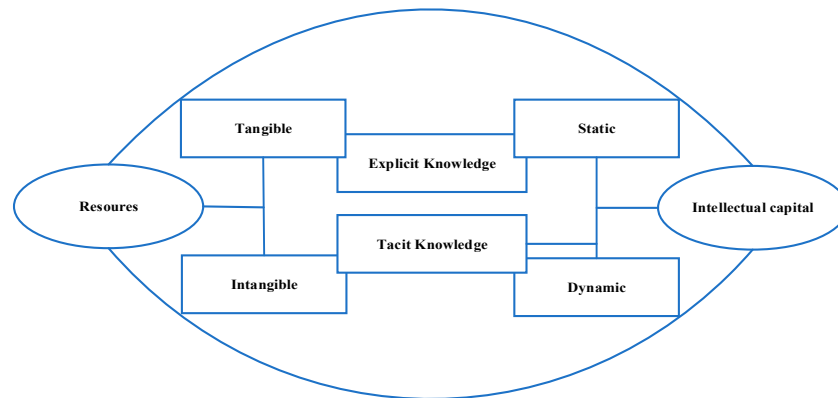


Figure 7. Multidimensional resources of intellectual capital adapted from (Barney 2001).

Practically, it is not an easy task to explore the intangible assets through the theoretical scope of the organisation’s resource-based view. However, (Wade and Hulland 2004) described that the resource-based view is generally irrelevant except used in some specific fields of science. Past literature reports showed that the resource-based view must be at the level of intangibles since its leads to the sustainability of product success and competitive benefits explicitly (Collins 2021). However, interactions between assets and functions through the former turn into the higher-value outputs (Kraaijenbrink et al. 2010). Figure 8 describes the intangibles as a strategic resource-based view subset.

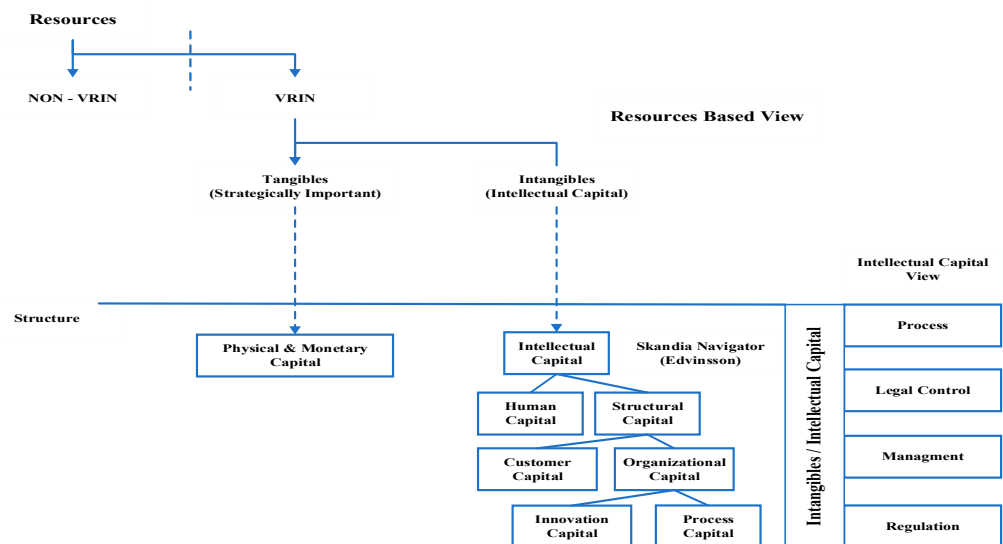


Figure 8. Intellectual capital as a subset of the strategic resources adapted from (Wright et al. 2001).

Figure 8 clearly exhibits how businesses compete as a subset of the strategic services that are the component of the overall capital portfolio of the organisations. In addition, it displays a range of strategic services adoption by the organisations to cut the resources that are irrelevant to their strategic objectives and may directly affect a proportion of the material assets. Based on this argument, all the strategically essential measurable resources can be divided to obtain the intangibles. Additionally, the figure disclosed a link with the first intellectual capital system. It was concluded that by extending the

theoretical framework of the resource-based view, further interpretation could be obtained (P. Madhani 2010). It is important to note that the dynamic capabilities offer a bridge to debate in the field of strategy, proposing either a resource-based view of the organisation or an emerging discourse surrounding the external dynamic business environment (Batjargal 2007; Fincham and Roslender 2003; Nielsen 2006; Massaro et al. 2015; Passaro et al. 2018; Inkinen 2015). Meanwhile, numerous studies tried to determine their impacts and business values (Moon and Kym 2006). Few studies focused on the theoretical perspectives to evaluate the influence of the dynamic capabilities related to the intellectual capital on the performance of an organisation.

Based on the aforementioned factors, it can be concluded that the resource-based view focuses on the importance of the organisational resources such as intellectual capital to support the innovation performance (Abrate et al. 2020). Many reports in the literature viewed the intellectual capital constituted of human skills, expertise, and motivation, with the structural features of production treasured in the organisational processes, systems, solutions, databases, patents, and innovation performance (Alvarez and Barney 2017). However, this study believes that a basic insight of the intangible resources can be achieved by incorporating the improvements of the intellectual capital machineries, leading to the acquirement of better innovation performance of the organisation.

7.3. Correlation between Theoretical Perspectives

Scholars provide a sound foundation for current theoretical perspectives that owe a great deal to the field of intellectual capital (Siegel 2004). Despite the fact that researchers such as (Stewart 1997; Edvinsson and Malone 1997; Roos and Roos 1997) attempted to raise public awareness of the concept of “intellectual capital,” their studies rely on the analytical models of these scholars, particularly those who investigated how corporate knowledge is developed and used to gain a competitive advantage (Heaton et al. 2019). Some significant works in RBV theory and knowledge management that laid the groundwork for the topic of intellectual capital should be highlighted. The fundamental idea, which is key to strategic approach, means that there is a lack of strategy to organising a corporation, as supported by the contingency theory. However, the RBV of the organisation as a whole is insufficient to explain the studies in intellectual capital since superior entities require a systematic employment of chances to advance towards the productivity of knowledge labour and the knowledge worker (Drucker 1993).

The contingency theory presumes that entities can only achieve effectiveness by tailoring the features of the organisation to manifest contingencies according to the conditions of the banks. The general premise underpins the contingency theory, which states that organisations with internal characteristics that best meet their situation-specific needs would achieve the highest degree of adaptability (Wright et al. 2001). Even though there is sufficient data to justify a beneficial effect of intellectual capital on business market values (Choi et al. 2018) and innovation performance (Ali et al. 2021c), some evidence also points to a weak relationship.

On the other hand, the bank’s RBV considers that the bank’s resources and competencies may define the immediate and longer advantage in a particular market. According to proponents of RBV, organisations are unique entities characterised by their private resources (Ali et al. 2020a). Such resources include the bank’s intellectual capital (Ali et al. 2021b). Therefore, (Ali et al. 2019a) emphasizes the value of a bank’s internal resources, which in this context refer to the productive services obtained from the bank’s own resources. To comprehend the significance of bank “inherited” assets, the entrepreneur visualizes the environment in his or her imagination, identifying potential possibilities and limits.

The contingency and resource-based view theories contributed to the examination of the study variables, wherein each theory completes the explanation of the current phenomenon. In the context of emerging markets, the contingency theory arguments emphasize the external pressures as important drivers of the banks’ trust and culture (Massaro et al. 2015). Moreover, the contingency theory focuses internally on the opportunism due to the

principal conflicts between the stakeholders (Chen and Wang 2015). Thus, the combination of the contingency and RBV theories provide a holistic depiction of how the dynamic context may constrain or enable the autonomy of the majority owners to pursue private benefits in the emerging markets.

The multi-theory perspective primarily investigated the correlation between the independent and dependent variables from one side, and the influences of the moderator on the correlation between the variables from the other side. In the emerging markets, most of the researches assume that since the government, family, or business group is the predominant shareholder and manages the organisation or is closely related to the top management team, there is a natural alignment of the interests between owners and managers and thus the principal problems are unlikely to surface (Rehman et al. 2017). Instead, a different type of intervention problem termed as the principal activity problem is pervasive due to the conflicts of interest between the majority and minority shareholders whenever the majority shareholders disregard the interests of the minority shareholders (Ali et al. 2019b).

8. Conceptual Framework

The methodology of this study is based on some well-known theories. Indeed, a review of the previous literature validated the usability of two dominant theories in the field to control the research process to accomplish the proposed objectives of this research. The first theory was the contingency theory that explains the effects of antecedent factors in fostering the development of the intellectual capital on the innovation performance (Nevado et al. 2018). The contingency theory was implemented to fit the contextual placement of the current antecedent factors of intellectual capital. In addition, the ability of the contingency theory in development and measurement was analysed. This implementation is expected to justify the effects of the antecedent factors on intellectual capital components.

The intellectual capital of the financial sector is believed to align itself for contextual or contingency components (Brüggen et al. 2017; Selto et al. 1995), which in turn creates a balance between the structural variables (intellectual capital components) and contingencies. The second theory was the resource-based view that illustrated the development of the intellectual capital for better innovation performance moderated by the dynamic capabilities. To achieve a competitive advantage, the resources of the intellectual capital are considered to be rare and valuable if they help the organisation to gain opportunities and deal with the risks (Barney 2001). These resources cannot be easily imitated by the competitors. In this respect, the resource-based view is equally important in the management of innovation performance, indicating it as a major approach towards understanding the innovation performance (Bogers et al. 2019).

The resource-based view confirms that innovation performance is mainly driven by the intangible resources such as human and structural capital. In addition, the resource-based view focuses on the importance of the organisational resources including the intellectual capital supporting the competitive advantage and innovation performance (Wendra et al. 2019). The detail literature survey indicated that only a few studies had been conducted to examine the relationship between the intellectual capital and innovation performance under numerous dynamic capabilities (Slađana Cabrilo and Dahms 2018). The previous studies reflected a certain significance of the dynamic capabilities through which an intellectual capital can improve the innovation performance at multidimensions view in the financial sector (Ali et al. 2021b). In other words, this study designed a conceptual framework for the role of dynamic capabilities in moderating the relationship between the intellectual capital and innovation performance with relevant constructs underneath. Figure 9 shows the present conceptual framework.

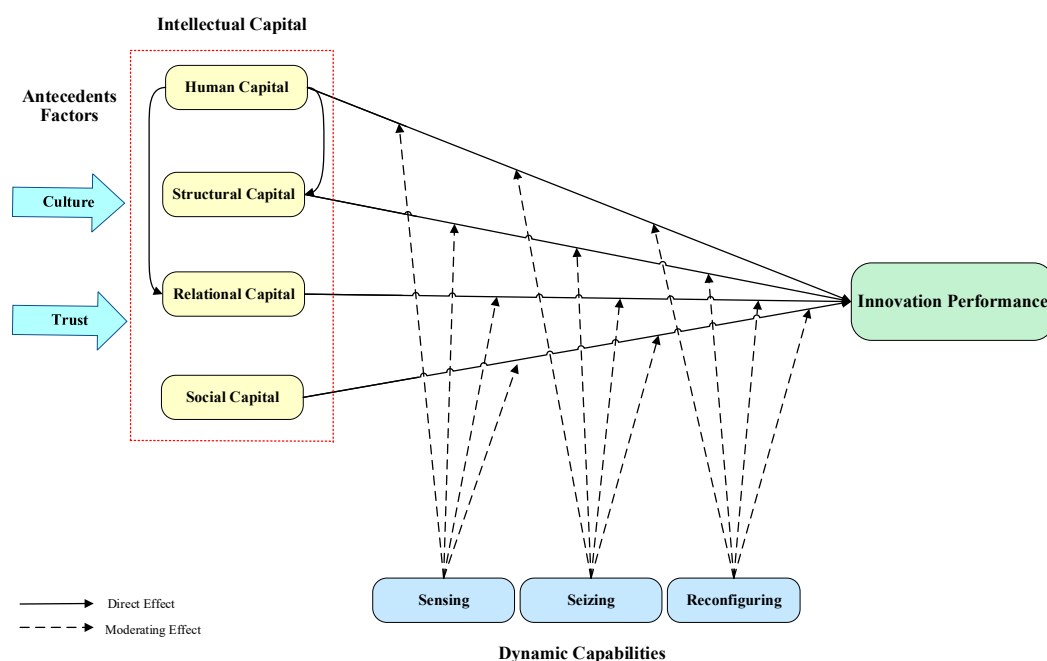


Figure 9. Conceptual framework of the present research. Own elaboration.

9. Discussion

This study intends to extend the knowledge concerning the importance and implications of dynamic capabilities for developing the intellectual capital of employees in the financial sector. This knowledge was found to be relevant to attain better innovation performance in the financial practice. Thus, the study started reviewing the previous literature systematically to explore the claims concerning the shortage of knowledge in the intellectual capital practice (Ali et al. 2022). In addition, the relevant theoretical perspectives of contingency and the resource-based view were brought into innovative settings of investigations compared to the conventional ones.

The findings of the present study contribute with a multidimensional view of the preceding and main variables of intellectual capital on one side, besides the moderated relationship between the independent and dependent variables on the other side. This view displays the significant impacts of the antecedent factors of culture and trust on the acquired intellectual capital components by the employees in the financial sector as shown in the findings of the present study, whereas the present study identified an inter-correlation between the three components of intellectual capital ‘human, structural and relational’, which have the higher impacts on the intellectual capital development in correlating with other variables. Moreover, the direct relationship between intellectual capital components and innovation performance was set up to measure the correlation moderated by dynamic capabilities, and it was found to be highly significant in the context of Iraqi commercial banks. Thus, the study achieved the designed objectives as a global communicative implication for other research contexts, especially in the developing countries.

What lends the present research a different position from the previous literature is the structured analysis procedure to explore the present phenomenon and examine the correlation between the present research variables. These structural analysis procedures are found to be absent in most of the previous studies which investigated the relationship between intellectual capital and innovation performance. Accordingly, the present research findings are found to be representative and comprehensive to address the contemporary condition in the field. Thus, it could be addressed to extend future understanding and procedures to develop intellectual capital assets, especially in the financial sector.

Author Contributions: Conceptualization, M.A.A. and N.H.; methodology, M.A.A.; software, H.H.; validation, N.M.A.-R., T.H.A. and M.A.A.; formal analysis, H.H.F.; investigation, S.A.H.; resources, N.M.A.-R.; data curation, M.A.A.; writing—original draft preparation, M.A.A.; visualization, N.H.; supervision, N.H.; project administration, A.S.H.A.; funding acquisition, H.H.F. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Acknowledgments: The authors are grateful to the Zarqa University in Zarqa, Jordan, for which the authors are appreciative. The authors are also grateful to the editor and the anonymous reviewers for their extremely critical and helpful remarks, which allowed us to make further efforts to enhance the clarity and quality of the study.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Abhayawansa, Subhash, and James Guthrie. 2016. Drivers and Semantic Properties of Intellectual Capital Information in Sell-Side Analysts' Reports. *Journal of Accounting and Organizational Change* 12: 434–71. [\[CrossRef\]](#)
- Abrate, Graziano, Clementina Bruno, Fabrizio Erbetta, and Giovanni Fraquelli. 2020. Which Future for Traditional Travel Agencies? A Dynamic Capabilities Approach. *Journal of Travel Research* 59: 777–91. [\[CrossRef\]](#)
- Agostini, Lara, and Anna Nosella. 2017. Enhancing Radical Innovation Performance through Intellectual Capital Components. *Journal of Intellectual Capital* 18: 789–806. [\[CrossRef\]](#)
- Ahmed, Abdelmuttlib Ibrahim Abdalla, Siti Hafizah Ab Hamid, Abdullah Gani, and Muhammad Khurram Khan. 2019. Trust and Reputation for Internet of Things: Fundamentals, Taxonomy, and Open Research Challenges. *Journal of Network and Computer Applications* 145: 102409. [\[CrossRef\]](#)
- Alford, Philip, and Yanqing Duan. 2018. Understanding Collaborative Innovation from a Dynamic Capabilities Perspective. *International Journal of Contemporary Hospitality Management* 30: 2396–416. [\[CrossRef\]](#)
- Ali, Mostafa A., Nazimah Hussin, and Ibtihal A. Abed. 2019a. E-Banking Fraud Detection: A Short Review. *International Journal of Innovation, Creativity and Change* 6: 67–87.
- Ali, Mostafa A., Nazimah Hussin, and Ibtihal A. Abed. 2019b. Electronic Payment Systems: Architecture, Elements, Challenges and Security Concepts: An Overview. *Journal of Computational and Theoretical Nanoscience* 16: 4826–38. [\[CrossRef\]](#)
- Ali, Mostafa A., Nazimah Hussin, Hader Khadum Jabbar, Ibtihal A. Abed, Rafidah Othman, and Mohammed A. Mohammed. 2020a. Intellectual Capital and Firm Performance Classification and Motivation: Systematic Literature Review. *TEST Engineering & Management* 3: 28691–703.
- Ali, Mostafa A., Nazimah Hussin, Ibtihal A. Abed, Nada Salman Nikkeh, and Mohammed A. Mohammed. 2020b. Dynamic Capabilities and Innovation Performance. *Systematic Literature Review* 62: 5989–6000.
- Ali, Mostafa A., Nazimah Hussin, Hossam Haddad, Dina Alkhodary, and Ahmad Marei. 2021a. Dynamic Capabilities and Their Impact on Intellectual Capital and Innovation Performance. *Sustainability* 13: 10028. [\[CrossRef\]](#)
- Ali, Mostafa A., Nazimah Hussin, Hossam Haddad, Reem Al-Araj, and Ibtihal A. Abed. 2021b. A Multidimensional View of Intellectual Capital: The Impact on Innovation Performance. *Journal of Open Innovation: Technology, Market, and Complexity* 7: 1–27. [\[CrossRef\]](#)
- Ali, Mostafa A., Nazimah Hussin, Hossam Haddad, Reem Al-Araj, and Ibtihal A. Abed. 2021c. Intellectual Capital and Innovation Performance: Systematic Literature Review. *Risks* 9: 170. [\[CrossRef\]](#)
- Ali, Mostafa A., Nazimah Hussin, Hossam Haddad, Nidal Mahmoud Al-Ramahi, Tareq Hammad Almubaydeen, and Ibtihal A. Abed. 2022. The Impact of Intellectual Capital on Dynamic Innovation Performance: An Overview of Research Methodology. *Journal of Risk and Financial Management* 15: 456. [\[CrossRef\]](#)
- Al-Jinini, Dina Khalid, Samer Eid Dahiyat, and Nick Bontis. 2019. Intellectual Capital, Entrepreneurial Orientation, and Technical Innovation in Small and Medium-Sized Enterprises. *Knowledge and Process Management* 26: 69–85. [\[CrossRef\]](#)
- Allameh, Sayyed Mohsen. 2018. Antecedents and Consequences of Intellectual Capital: The Role of Social Capital, Knowledge Sharing and Innovation. *Journal of Intellectual Capital* 19: 858–74. [\[CrossRef\]](#)
- Alrowwad, Ala. 2020. Innovation and Intellectual Capital as Intermediary Variables among Transformational Leadership, Transactional Leadership, and Organizational Performance. *Journal of Management Development* 39: 196–222. [\[CrossRef\]](#)
- Alvarez, Sharon A., and Jay B. Barney. 2017. Resource-based Theory and the Entrepreneurial Firm. *Strategic Entrepreneurship: Creating a New Mindset* 25: 87–105.
- Alves, Marcelo Wilson Furlan Matos, Ana Beatriz Lopes de Sousa Jabbour, Devika Kannan, and Charbel Jose Chiappetta Jabbour. 2017. Contingency Theory, Climate Change, and Low-Carbon Operations Management. *Supply Chain Management: An International Journal* 22: 223–36. [\[CrossRef\]](#)
- Aminu, Mohammed Ibrahim, and Rosli Mahmood. 2015. Mediating Role of Dynamic Capabilities on the Relationship between Intellectual Capital and Performance: A Hierarchical Component Model Perspective in PLS-SEM Path Modeling. *Research Journal of Business Management* 9: 443–56. [\[CrossRef\]](#)

- Ansari, Reza, Azar Barati, and Ali Akbar Abedi Sharabiani. 2016. The Role of Dynamic Capability in Intellectual Capital and Innovative Performance. *International Journal of Innovation and Learning* 20: 47–67. [CrossRef]
- Arndt, Felix, and Lamar Pierce. 2018. The Behavioral and Evolutionary Roots of Dynamic Capabilities. *Industrial and Corporate Change* 27: 413–24. [CrossRef]
- Ashrafi, Majid, Ebrahim Abbasi, Seyed Ali Hosseini, and Mahjoobeh Poor Etemadi. 2020. The Effect Of Related Parties Transactions On The Firm Value: Moderating Role Of Audit Committee. *Iranian Journal of Finance* 3: 25–43. [CrossRef]
- Asiaei, Kaveh, and Ruzita Jusoh. 2015. A Multidimensional View of Intellectual Capital: The Impact on Organizational Performance. *Management Decision* 53: 668–97. [CrossRef]
- Asiaei, Kaveh, Ruzita Jusoh, and Nick Bontis. 2018. Intellectual Capital and Performance Measurement Systems in Iran. *Journal of Intellectual Capital* 19: 294–320. [CrossRef]
- Asiaei, Kaveh, Omid Barani, Nick Bontis, and Maryam Arabahmadi. 2020. Unpacking the Black Box: How Intrapreneurship Intervenes in the Intellectual Capital-Performance Relationship? *Journal of Intellectual Capital* 21: 809–34. [CrossRef]
- Aureli, Selena, Daniele Giampaoli, Massimo Ciambotti, and Nick Bontis. 2019. Key Factors That Improve Knowledge-Intensive Business Processes Which Lead to Competitive Advantage. *Business Process Management Journal* 25: 126–43. [CrossRef]
- Babelyť-Labanauskė, Kristina, and Šarunas Nedzinskas. 2017. Dynamic Capabilities and Their Impact on Research Organizations' R&D and Innovation Performance. *Journal of Modelling in Management* 12: 603–30. [CrossRef]
- Baía, Elisabeth P., and João J. M. Ferreira. 2019. Dynamic Capabilities and Performance: How Has the Relationship Been Assessed? *Journal of Management and Organization* 11: 1–30. [CrossRef]
- Bals, Lydia, Jari Laine, and Godfrey Mugurusi. 2018. Evolving Purchasing and Supply Organizations: A Contingency Model for Structural Alternatives. *Journal of Purchasing and Supply Management* 24: 41–58. [CrossRef]
- Barney, Jay B. 2001. Resource-Based Theories of Competitive Advantage: A Ten-Year Retrospective on the Resource-Based View. *Journal of Management* 27: 643–50. [CrossRef]
- Barrales-Molina, Vanesa, Francisco J. Martínez-López, and Juan Carlos Gázquez-Abad. 2014. Dynamic Marketing Capabilities: Toward an Integrative Framework. *International Journal of Management Reviews* 16: 397–416. [CrossRef]
- Batjargal, Bat. 2007. Internet Entrepreneurship: Social Capital, Human Capital, and Performance of Internet Ventures in China. *Research Policy* 36: 605–18. [CrossRef]
- Belkaoui, Ahmed Riahi. 2015. Antecedents and Consequences of Earnings Opacity: An International Contingency Theory. Available online: https://www.researchgate.net/publication/280922680_Antecedents_and_Consequences_of_Earnings_Opacity_An_International_Contingency_Theory?channel=doi&linkId=55cb5a3108aea2d9bdce256d&showFulltext=true (accessed on 11 November 2022).
- Benevene, Paula, Eric Kong, Barbara Barbieri, Massimiliano Lucchesi, and Michela Cortini. 2017. Representation of Intellectual Capital's Components amongst Italian Social Enterprises. *Journal of Intellectual Capital* 18: 564–87. [CrossRef]
- Berezinets, Irina, Tatiana Garanina, and Yulia Ilina. 2016. Intellectual Capital of a Board of Directors and Its Elements: Introduction to the Concepts. *Journal of Intellectual Capital* 17: 632–53. [CrossRef]
- Berson, Yair, Shaul Oreg, and Taly Dvir. 2008. CEO Values, Organizational Culture and Firm Outcomes. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior* 29: 615–33. [CrossRef]
- Betts, Stephen C. 2011. Contingency Theory: Science Or Technology? *Journal of Business & Economics Research (JBER)* 1: 21–36. [CrossRef]
- Bogdan, Victoria, Claudia Diana Sabău Popa, Mărioara Beleneși, Vasile Burja, and Dorina Nicoleta Popa. 2017. Empirical Analysis of Intellectual Capital Disclosure and Financial Performance—Romanian Evidence. *Economic Computation and Economic Cybernetics Studies and Research* 51: 125–43.
- Bogers, Marcel, Henry Chesbrough, Sohvi Heaton, and David J. Teece. 2019. Strategic Management of Open Innovation: A Dynamic Capabilities Perspective. *California Management Review* 62: 77–94. [CrossRef]
- Bolino, Mark C., William H. Turnley, and James M. Bloodgood. 2002. Citizenship Behavior and the Creation of Social Capital in Organizations. *Academy of Management Review* 27: 505–22. [CrossRef]
- Bontis, Nick. 2001. Assessing Knowledge Assets: A Review of the Models Used to Measure Intellectual Capital. *International Journal of Management Reviews* 3: 41–60. [CrossRef]
- Bontis, Nick, and Jac Fitz-enz. 2002. Intellectual Capital ROI: A Causal Map of Human Capital Antecedents and Consequents. *Journal of Intellectual Capital* 3: 223–47. [CrossRef]
- Bontis, Nick, Nicola C. Dragonetti, Kristine Jacobsen, and Göran Roos. 1999. The Knowledge Toolbox: A Review of the Tools Available to Measure and Manage Intangible Resources. *European Management Journal* 17: 391–402. [CrossRef]
- Bontis, Nick, Massimo Ciambotti, Federica Palazzi, and Francesca Sgro. 2018. Intellectual Capital and Financial Performance in Social Cooperative Enterprises. *Journal of Intellectual Capital* 19: 712–31. [CrossRef]
- Breznik, Lidija, Matej Lahovnik, and Vlado Dimovski. 2019. Exploiting Firm Capabilities by Sensing, Seizing and Reconfiguring Capabilities: An Empirical Investigation. *Economic & Business Review* 21: 12–26.
- Brüggen, Alexander, Philip Vergauwen, and Mai Dao. 2017. Determinants of Intellectual Capital Disclosure: Evidence from India. *Management Decision* 47: 233–45. [CrossRef]
- Budiarti, Isnari. 2017. Knowledge Management and Intellectual Capital-A Theoretical Perspective of Human Resource Strategies and Practices. *European Journal of Economics and Business Studies* 3: 148–55. [CrossRef]

- Buenechea-Elberdin, Marta. 2017. Structured Literature Review about Intellectual Capital and Innovation. *Journal of Intellectual Capital* 18: 262–85. [\[CrossRef\]](#)
- Buenechea-elberdin, Marta, Josune Sáenz, and Aino Kianto. 2018. Knowledge Management Strategies, Intellectual Capital, and Innovation Performance: A Comparison between High- and Low-Tech Firms. *Journal of Knowledge Management* 22: 1757–81. [\[CrossRef\]](#)
- Cabrilo, Slađana, and Sven Dahms. 2018. How Strategic Knowledge Management Drives Intellectual Capital to Superior Innovation and Market Performance. *Journal of Knowledge Management* 22: 621–48. [\[CrossRef\]](#)
- Cabrilo, Slađana, and Sven Dahms. 2020. The Role of Multidimensional Intellectual Capital and Organizational Learning Practices in Innovation Performance. *European Management Review* 17: 835–55. [\[CrossRef\]](#)
- Cabrilo, Sladjana, Aino Kianto, and Bojana Milic. 2018. The Effect of IC Components on Innovation Performance in Serbian Companies. *VINE Journal of Information and Knowledge Management Systems* 48: 448–66. [\[CrossRef\]](#)
- Cahyaningrum, Anastasia Dian, and Apriani Dorkas Rambu Atahau. 2020. Intellectual Capital and Financial Performance: Banks' Risk As the Mediating Variable. *Jurnal Manajemen Dan Kewirausahaan* 22: 21–32. [\[CrossRef\]](#)
- Carnahan, Seth, Rajshree Agarwal, and Benjamin Campbell. 2010. The Effect of Firm Compensation Structures on the Mobility and Entrepreneurship of Extreme Performers. *Business* 964: 1–43. [\[CrossRef\]](#)
- Carroll, Christopher D., Robert E. Hall, and Stephen P. Zeldes. 1992. The Buffer-Stock Theory of Saving: Some Macroeconomic Evidence. *Brookings Papers on Economic Activity* 1992: 61–156. [\[CrossRef\]](#)
- Černe, Ksenija, and Darko Etinger. 2017. IT as a Part of Intellectual Capital and Its Impact on the Performance of Business Entities. *Croatian Operational Research Review* 7: 389–408. [\[CrossRef\]](#)
- Chahal, Hardeep, and Purnima Bakshi. 2015. Examining Intellectual Capital and Competitive Advantage Relationship: Role of Innovation and Organizational Learning. *Marketing Intelligence and Planning* 33: 376–99. [\[CrossRef\]](#)
- Chen, Shaoling, and Susheng Wang. 2015. A Contingency Theory of Internal Reorganization: Risk and Output Management. *SSRN Electronic Journal* 13: 24–37. [\[CrossRef\]](#)
- Cheng, Yuan, Zhongsheng Wu, Vineeta D. Sharma, Divesh S. Sharma, Umopathy Ananthanarayanan, Edy Suprianto, and Suwarno Suwarno. 2020. Client Importance and Earnings Management: The Moderating Role of Audit Committees. *Iranian Journal of Finance* 30: 125–56. [\[CrossRef\]](#)
- Choi, Seokjin, Insu Cho, Seung Heon Han, Young Hoon Kwak, and Ying Yi Chih. 2018. Dynamic Capabilities of Project-Based Organization in Global Operations. *Journal of Management in Engineering* 34: 1–12. [\[CrossRef\]](#)
- Chow, Wing S., and Lai Sheung Chan. 2008. Social Network, Social Trust and Shared Goals in Organizational Knowledge Sharing. *Information & Management* 45: 458–65.
- Chowdhury, Leena Afroz Mostofa, Tarek Rana, Mahmuda Akter, and Mahfuzul Hoque. 2018. Impact of Intellectual Capital on Financial Performance: Evidence from the Bangladeshi Textile Sector. *Journal of Accounting and Organizational Change* 14: 429–54. [\[CrossRef\]](#)
- Christensen, Bent Jesper, and Carsten Kowalczyk. 2017. Globalization: Strategies and Effects. *Globalization: Strategies and Effects* 4: 1–617. [\[CrossRef\]](#)
- Cleary, Peter. 2015. An Empirical Investigation of the Impact of Management Accounting on Structural Capital and Business Performance. *Journal of Intellectual Capital* 16: 566–86. [\[CrossRef\]](#)
- Collins, Christopher J. 2021. Expanding the Resource Based View Model of Strategic Human Resource Management. *The International Journal of Human Resource Management* 32: 331–58. [\[CrossRef\]](#)
- Cuozzo, Benedetta, John Dumay, Matteo Palmaccio, and Rosa Lombardi. 2017. Intellectual Capital Disclosure: A Structured Literature Review. *Journal of Intellectual Capital* 18: 9–28. [\[CrossRef\]](#)
- Daou, Alain, Egide Karuranga, and Zhan Su. 2014. Towards a Better Understanding of Intellectual Capital in Mexican SMEs. *Journal of Intellectual Capital* 15: 316–32. [\[CrossRef\]](#)
- Darroch, Jenny. 2005. Knowledge Management, Innovation and Firm Performance. *Journal of Knowledge Management* 9: 101–15. [\[CrossRef\]](#)
- Deltorn, Jean-Marc. 2017. Deep Creations: Intellectual Property and the Automata. *Frontiers in Digital Humanities* 4: 3. [\[CrossRef\]](#)
- Denford, James S. 2013. Building Knowledge: Developing a Knowledge-based Dynamic Capabilities Typology. *Journal of Knowledge Management* 17: 175–94. [\[CrossRef\]](#)
- Dikova, Desislava, and Anna Veselova. 2021. Performance Effects of Internationalization: Contingency Theory Analysis of Russian Internationalized Firms. *Management and Organization Review* 17: 173–97. [\[CrossRef\]](#)
- Dombrowski, Caroline, Jeffrey Y. Kim, Kevin C. Desouza, Ashley Braganza, Sridhar Papagari, Peter Baloh, and Sanjeev Jha. 2007. Elements of Innovative Cultures. *Knowledge and Process Management* 14: 190–202. [\[CrossRef\]](#)
- Donaldson, Lex. 2001. *The Contingency Theory of Organizations*. New York: Sage.
- Drucker, Peter Ferdinand. 1993. *Managing in Turbulent Times*. Chicago: Routledge.
- Dumay, John, Matteo La Torre, and Federica Farneti. 2019. Developing Trust through Stewardship. *Journal of Intellectual Capital* 5: 1–17. [\[CrossRef\]](#)
- Dženopoljac, Vladimir, Stevo Janošević, and Nick Bontis. 2016. Intellectual Capital and Financial Performance in the Serbian ICT Industry. *Journal of Intellectual Capital* 17: 373–96. [\[CrossRef\]](#)
- Edvinsson, Leif, and Michael Shawn Malone. 1997. *Intellectual Capital: The Proven Way to Establish Your Company's Real Value by Finding Its Hidden Brainpower*. Cambridge: Piatkus.
- Elsetouhi, Ahmed, Ibrahim Elbeltagi, and Mohamed Yacine Haddoud. 2015. Intellectual Capital and Innovations: Is Organisational Capital a Missing Link in the Service Sector? *International Journal of Innovation Management* 19: 1550020. [\[CrossRef\]](#)

- Engelman, Raquel Machado, and Edi Madalena Fracasso. 2017. Intellectual Capital, Absorptive Capacity and Product Innovation. *Management Decision* 55: 474–90. [CrossRef]
- Enkel, Ellen, and Veronika Sagmeister. 2020. External Corporate Venturing Modes as New Way to Develop Dynamic Capabilities. *Technovation* 2018: 102128. [CrossRef]
- Ferreira, Jorge, Arnaldo Coelho, and Luiz Moutinho. 2020. Dynamic Capabilities, Creativity and Innovation Capability and Their Impact on Competitive Advantage and Firm Performance: The Moderating Role of Entrepreneurial Orientation. *Technovation* 92: 102061. [CrossRef]
- Fiedler, Fred E. 1964. A Contingency Model of Leadership Effectiveness. In *Advances in Experimental Social Psychology*. Amsterdam: Elsevier, vol. 1, pp. 149–90.
- Fincham, Robin, and Robin Roslender. 2003. Intellectual Capital Accounting as Management Fashion: A Review and Critique. *European Accounting Review* 12: 781–95. [CrossRef]
- Fischer, Thomas, Heiko Gebauer, Mike Gregory, Guangjie Ren, and Elgar Fleisch. 2010. Exploitation or Exploration in Service Business Development? Insights from a Dynamic Capabilities Perspective. *Journal of Service Management* 21: 591–624. [CrossRef]
- Fisher, Joseph G. 1998. Contingency Theory, Management Control Systems and Firm Outcomes: Past Results and Future Directions. *Behavioral Research in Accounting* 10: 47.
- Fitri Ande, Diin, Rolan Mauludy Dahlan, and Samudra Sukardi. 2018. From Penrose to Sirmon: The Evolution of Resource Based Theory. *Journal of Management and Leadership* 1: 1–13.
- de Frutos-Belizón, Jesús, Fernando Martín-Alcázar, and Gonzalo Sánchez-Gardey. 2019. Conceptualizing Academic Intellectual Capital: Definition and Proposal of a Measurement Scale. *Journal of Intellectual Capital* 20: 306–34. [CrossRef]
- Furnival, Joy, Ruth Boaden, and Kieran Walshe. 2019. A Dynamic Capabilities View of Improvement Capability. *Journal of Health Organization and Management* 33: 821–34. [CrossRef]
- Gallagher, Kevin P., and Vickie Coleman Gallagher. 2012. Organizing for Post-Implementation ERP: A Contingency Theory Perspective. *Journal of Enterprise Information Management* 25: 170–85. [CrossRef]
- García Lirios, Cruz. 2020. Specification a Model for Study of Intellectual Capital. *Behavior Studies in Organizations* 3: 1–4. [CrossRef]
- Garrido, Ivan Lapuente, Caroline Kretschmer, and Silvio Luis De Vasconcellos. 2020. Dynamic Capabilities: A Measurement Proposal and Its Relationship with Performance. *Brazilian Business Review* 17: 46–65. [CrossRef]
- Gimenez-Fernandez, Elena M., Francesco D. Sandulli, and Marcel Bogers. 2020. Unpacking Liabilities of Newness and Smallness in Innovative Start-Ups: Investigating the Differences in Innovation Performance between New and Older Small Firms. *Research Policy* 49: 104049. [CrossRef]
- Globocnik, Dietfried, Romana Rauter, and Rupert J. Baumgartner. 2020. Synergy or Conflict? The Relationships among Organisational Culture, Sustainability-Related Innovation Performance, and Economic Innovation Performance. *International Journal of Innovation Management* 24: 2050004. [CrossRef]
- Gonzalez, Rodrigo Valio Dominguez, and Tatiana Massaroli Melo. 2017. Linkage between Dynamics Capability and Knowledge Management Factors: A Structural Equation Model. *Management Decision* 55: 2256–76. [CrossRef]
- Gordon, Lawrence A., and Danny Miller. 1976. A Contingency Framework for the Design of Accounting Information Systems. In *Readings in Accounting for Management Control*. Brighton: Springer, pp. 569–85.
- Gough, David. 2007. Weight of Evidence: A Framework for the Appraisal of the Quality and Relevance of Evidence. *Research Papers in Education* 22: 213–28. [CrossRef]
- Grant, Robert M. 2009. The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation. *Knowledge and Strategy* 33: 3–24. [CrossRef]
- Gu, L., J. Wang, and B. Sun. 2014. Trust Management Mechanism for Internet of Things. *China Communications* 11: 148–56. [CrossRef]
- Guo, Man, and Carsten Herrmann-Pillath. 2017. Knowledge Coordination, Distributed Cognition and Transactional Innovation in Creating National Competitive Advantage: A Theory-Grounded Case Study of Chinese Drone Industry. In *Distributed Cognition and Transactional Innovation in Creating National Competitive Advantage: A Theory-Grounded Case Study of Chinese Drone Industry* (23 August 2017). Philadelphia: Elsevier.
- Hammad Ahmad Khan, Hafizah, Mahazril Aini Yaacob, Hussin Abdullah, and Siti Hajar Abu Bakar Ah. 2016. Factors Affecting Performance of Co-Operatives in Malaysia. *International Journal of Productivity and Performance Management* 65: 641–71. [CrossRef]
- Han, Yuqian, and Dayuan Li. 2015. Effects of Intellectual Capital on Innovative Performance. *Management Decision* 53: 40–56. [CrossRef]
- Hasan, Md, József Popp, and Judit Oláh. 2020. Current Landscape and Influence of Big Data on Finance. *Journal of Big Data* 7: 1–17. [CrossRef]
- Hayes, David C. 1977. The Contingency Theory of Managerial Accounting. *Accounting Review* 52: 22–39.
- Heaton, Sohvi, Donald S. Siegel, and David J. Teece. 2019. Universities and Innovation Ecosystems: A Dynamic Capabilities Perspective. *Industrial and Corporate Change* 28: 921–39. [CrossRef]
- Helfat, Constance E., S. Finkelstein, W. Mitchell, M. A. Peteraf, H. Singh, D. J. Teece, and S. G. Winter. 2007. Dynamic Capabilities: Foundations. In *Dynamic Capabilities: Understanding Strategic Change in Organizations*. Houston: Wiley, pp. 30–45.
- Henri, Jean-Francois François. 2006. Organizational Culture and Performance Measurement Systems. *Accounting, Organizations and Society* 31: 77–103. [CrossRef]

- Hernández-linares, Remedios, Franz W. Kellermanns, Concepción López-fernández, and María Concepción López-Fernández. 2018. Dynamic Capabilities and SME Performance: The Moderating Effect of Market Orientation. *Journal of Small Business Management* 59: 1–34. [CrossRef]
- Higgins, Julian P. T., and Sally Green. 2009. Cochrane Handbook for Systematic Reviews of Interventions Version 5.0. 2 (Updated September 2009). The Cochrane Collaboration. Available online: <http://www.cochrane-handbook.org> (accessed on 22 October 2022).
- Hsu, Li Chang, and Chao Hung Wang. 2012. Clarifying the Effect of Intellectual Capital on Performance: The Mediating Role of Dynamic Capability. *British Journal of Management* 23: 179–205. [CrossRef]
- Huang, Ching, Michael Tayles, and Robert Luther. 2010. Contingency Factors Influencing the Availability of Internal Intellectual Capital Information. *Journal of Financial Reporting and Accounting* 8: 4–21. [CrossRef]
- Ibrahim, Sardar S. H. H. 2019. The Impacts of Capital Structure on Bank Performance. *Koya University Journal of Humanities and Social Sciences* 2: 118. [CrossRef]
- Inkinen, Henri. 2015. Review of Empirical Research on Intellectual Capital and Firm Performance. *Journal of Intellectual Capital* 16: 518–65. [CrossRef]
- Isanzu, Janeth N. 2017. The Relationship Between Intellectual Capital and Financial Performance of Banks in Tanzania. *Journal on Innovation and Sustainability* 7: 28. [CrossRef]
- Jabbouri, Nada Ismael, Rusinah Siron, Ibrahim Zahari, and Mahmoud Khalid. 2016. Impact of Information Technology Infrastructure on Innovation Performance: An Empirical Study on Private Universities in Iraq. *Procedia Economics and Finance* 39: 861–69. [CrossRef]
- Jordão, Ricardo Vinícius Dias, and Vander Ribeiro de Almeida. 2017. Performance Measurement, Intellectual Capital and Financial Sustainability. *Journal of Intellectual Capital* 18: 643–66. [CrossRef]
- Jørgensen, Claus, Ole Uhrskov Friis, and Christian Koch. 2015. Transforming Capabilities in Offshoring Processes Longitudinal Development of Organizational Resources and Routines in Four Danish Offshoring Enterprises. *Strategic Outsourcing* 8: 53–75. [CrossRef]
- Kalkan, Adnan, Özlem Çetinkaya Bozkurt, and Mutlu Arman. 2014. The Impacts of Intellectual Capital, Innovation and Organizational Strategy on Firm Performance. *Procedia Social and Behavioral Sciences* 150: 700–7. [CrossRef]
- Kamau, Daniel Mwangi, and Josphat Oluoch. 2016. Relationship between Financial Innovation and Commercial Bank Performance in Kenya. *International Journal of Social Sciences and Information Technology* 2: 34–47.
- Karim, Samina, and Laurence Capron. 2016. Reconfiguration: Adding, Redeploying, Recombining and Divesting Resources and Business Units. *Strategic Management Journal* 37: E54–E62. [CrossRef]
- Kaya, Tugberk, and Burak Erkut. 2017. Tacit Knowledge for Strategic Advantage: Social Media Use of Employees in the Financial Sector. Paper present at the European Conference on Knowledge Management, ECKM 1, Barcelona, Spain, September 7–8; pp. 516–23.
- Khalique, Muhammad, Nick Bontis, Jamal Abdul Nassir Bin Shaari, Mohd Rafi Yaacob, and Rohana Ngah. 2018. Intellectual Capital and Organisational Performance in Malaysian Knowledge-Intensive SMEs. *International Journal of Learning and Intellectual Capital* 15: 20–36. [CrossRef]
- Khan, Owais, Tiberio Daddi, and Fabio Iraldo. 2021. Sensing, Seizing, and Reconfiguring: Key Capabilities and Organizational Routines for Circular Economy Implementation. *Journal of Cleaner Production* 287: 125565. [CrossRef]
- Khourouh, Umu, Achmad Sudiro, Mintarti Rahayu, and Nur Khusniyah Indrawati. 2020. The Mediating Effect of Entrepreneurial Marketing in the Relationship between Environmental Turbulence and Dynamic Capability with Sustainable Competitive Advantage: An Empirical Study in Indonesian MSMEs. *Management Science Letters* 10: 709–20. [CrossRef]
- Kim, Taesung, and Jihyun Chang. 2019. Organizational Culture and Performance: A Macro-Level Longitudinal Study. *Leadership & Organization Development Journal* 40: 65–84.
- Koryak, Oksana, Kevin F. Mole, Andy Lockett, James C. Hayton, Deniz Ucbasaran, and Gerard P. Hodgkinson. 2015. Entrepreneurial Leadership, Capabilities and Firm Growth. *International Small Business Journal* 33: 89–105. [CrossRef]
- Kozlenkova, Irina V., Stephen A. Samaha, and Robert W. Palmatier. 2014. Resource-Based Theory in Marketing. *Journal of the Academy of Marketing Science* 42: 1–21. [CrossRef]
- Kraaijenbrink, Jeroen, J. C. Spender, and Aard J. Groen. 2010. The Resource-Based View: A Review and Assessment of Its Critiques. *Journal of Management* 36: 349–72. [CrossRef]
- Lamond, David, Yi-Chun Huang, and Yen-Chun Jim Wu. 2010. Intellectual Capital and Knowledge Productivity: The Taiwan Biotech Industry. *Management Decision* 48: 580–99. [CrossRef]
- Lardo, Alessandra, John Dumay, Raffaele Trequatrini, and Giuseppe Russo. 2017. Social Media Networks as Drivers for Intellectual Capital Disclosure: Evidence from Professional Football Clubs. *Journal of Intellectual Capital* 18: 63–80. [CrossRef]
- Lawrence, Paul R., and Jay W. Lorsch. 1967. Differentiation and Integration in Complex Organizations. *Administrative Science Quarterly* 12: 1–47. [CrossRef]
- Levitas, Edward, and Hermann Achidi Ndofor. 2006. What to Do with the Resource-Based View: A Few Suggestions for What Ails the RBV That Supporters and Opponents Might Accept. *Journal of Management Inquiry* 15: 135–44. [CrossRef]
- Li, Yongfu, Yu Song, Jinxin Wang, and Chengwei Li. 2019. Intellectual Capital, Knowledge Sharing, and Innovation Performance: Evidence from the Chinese Construction Industry. *Sustainability* 11: 2713. [CrossRef]

- Lin, Yini, and Lei Yu Wu. 2014. Exploring the Role of Dynamic Capabilities in Firm Performance under the Resource-Based View Framework. *Journal of Business Research* 67: 407–13. [CrossRef]
- Lucianetti, Lorenzo, Charbel Jose Chiappetta Jabbour, Angappa Gunasekaran, and Hengky Latan. 2018. Contingency Factors and Complementary Effects of Adopting Advanced Manufacturing Tools and Managerial Practices: Effects on Organizational Measurement Systems and Firms' Performance. *International Journal of Production Economics* 200: 318–28. [CrossRef]
- Madhani, Pankaj M. 2009. Resource Based View (RBV) of Competitive Advantages: Importance, Issues and Implications. *KHOJ Journal of Indian Management Research and Practices* 1: 2–12.
- Madhani, Pankaj. 2010. Resource Based View (RBV) of Competitive Advantage: An Overview. Based View: Concepts and Practices, Pankaj. Available online: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1578704 (accessed on 1 January 2020).
- Makkonen, Hannu, Mikko Pohjola, Rami Olkkonen, and Aki Koponen. 2014. Dynamic Capabilities and Firm Performance in a Financial Crisis. *Journal of Business Research* 67: 2707–19. [CrossRef]
- Manes Rossi, Francesca, Francesca Citro, and Marco Bisogno. 2016. Intellectual Capital in Action: Evidence from Italian Local Governments. *Journal of Intellectual Capital* 17: 696–713. [CrossRef]
- Massaro, Maurizio, John Dumay, and Carlo Bagnoli. 2015. Where There Is a Will There Is a Way: IC, Strategic Intent, Diversification and Firm Performance. *Journal of Intellectual Capital* 16: 490–517. [CrossRef]
- Massaro, Maurizio, Francesca Dal Mas, Nick Bontis, and Bill Gerrard. 2019. Intellectual Capital and Performance in Temporary Teams. *Management Decision* 58: 410–27. [CrossRef]
- McAdam, Rodney, Kristel Miller, and Carmel McSorley. 2019. Towards a Contingency Theory Perspective of Quality Management in Enabling Strategic Alignment. *International Journal of Production Economics* 207: 195–209. [CrossRef]
- McDowell, William C., Whitney O. Peake, Le Anne Coder, and Michael L. Harris. 2018. Building Small Firm Performance through Intellectual Capital Development: Exploring Innovation as the 'Black Box'. *Journal of Business Research* 88: 321–27. [CrossRef]
- Moon, Yun Ji, and Hyo Gun Kym. 2006. A Model for the Value of Intellectual Capital. *Canadian Journal of Administrative Sciences/Revue Canadienne Des Sciences de l'Administration* 23: 253–69. [CrossRef]
- Murschetz, Paul Clemens, Afshin Omid, John J. Oliver, Mahyar Kamali Saraji, and Sameera Javed. 2020. Dynamic Capabilities in Media Management Research. A Literature Review. *Journal of Strategy and Management* 13: 278–96. [CrossRef]
- Nahapiet, Janine, and Sumantra Ghoshal. 1998. Social Capital, Intellectual Capital, and the Organizational Advantage. *Academy of Management Review* 23: 242–66. [CrossRef]
- Nevado, Bruno, Natalia Contreras-Ortiz, Colin Hughes, and Dmitry A. Filatov. 2018. Pleistocene Glacial Cycles Drive Isolation, Gene Flow and Speciation in the High-elevation Andes. *New Phytologist* 219: 779–93. [CrossRef] [PubMed]
- Nielsen, Mark. 2006. Copying Actions and Copying Outcomes: Social Learning through the Second Year. *Developmental Psychology* 42: 555. [CrossRef] [PubMed]
- Nkundabanyanga, Stephen Korutaro. 2016. Board Governance, Intellectual Capital and Firm Performance. *Journal of Economic and Administrative Sciences* 32: 20–45. [CrossRef]
- Oliveira, Mírian, Carla Curado, Andrea Raymundo Balle, and Aino Kianto. 2020. Knowledge Sharing, Intellectual Capital and Organizational Results in SMES: Are They Related? *Journal of Intellectual Capital* 21: 893–911. [CrossRef]
- Opresnik, David, and Marco Taisch. 2015. The Value of Big Data in Servitization. *International Journal of Production Economics* 165: 174–84. [CrossRef]
- Osorio, Arturo E., Banu Ozkazanc-Pan, and Paul F. Donnelly. 2015. An Entrepreneurial Context for the Theory of the Firm: Exploring Assumptions and Consequences. *New England Journal of Entrepreneurship* 18: 71–85. [CrossRef]
- Otley, David T. 1980. The Contingency Theory of Management Accounting: Achievement and Prognosis. In *Readings in Accounting for Management Control*. Berlin: Springer, pp. 83–106.
- Padgett, John F., Organizations By, and Arthur L. Stinchcombe. 1992. The Alchemist of Contingency Theory. *American Journal of Sociology* 97: 1462–70. [CrossRef]
- Palazzi, Federica, Francesca Sgrò, Massimo Ciambotti, and Nick Bontis. 2020. Technological Intensity as a Moderating Variable for the Intellectual Capital–Performance Relationship. *Knowledge and Process Management* 27: 3–14. [CrossRef]
- Paliszkievicz, Joanna, and Alex Koohang. 2013. Organizational Trust as a Foundation for Knowledge Sharing and Its Influence on Organizational Performance. *Online Journal of Applied Knowledge Management* 1: 116–27.
- Passaro, Renato, Ivana Quinto, and Antonio Thomas. 2018. The Impact of Higher Education on Entrepreneurial Intention and Human Capital. *Journal of Intellectual Capital* 19: 135–56. [CrossRef]
- Pavlov, Alexander, Dmitry Ivanov, Dmitry Pavlov, and Alexey Slinko. 2019. Optimization of Network Redundancy and Contingency Planning in Sustainable and Resilient Supply Chain Resource Management under Conditions of Structural Dynamics. *Annals of Operations Research* 3: 1–30. [CrossRef]
- Pedro, Eugénia, João Leitão, and Helena Alves. 2018. Back to the Future of Intellectual Capital Research: A Systematic Literature Review. *Management Decision* 56: 2502–83. [CrossRef]
- Peñalba-Aguirrezabalaga, Carmela, Josune Sáenz, and Paavo Ritala. 2020. Marketing-Specific Intellectual Capital: Conceptualization, Scale Development and Empirical Illustration. *Journal of Intellectual Capital* 21: 947–84. [CrossRef]
- Peters, Thomas J., and Robert H. Waterman. 1982. In Search of Excellence: Lessons from America's Best-Run Companies. *Journal of Accountancy* 156: 150.

- Raman, Aparna, and Sangeeta Shah Bharadwaj. 2017. Dynamic Service Capabilities Enabling Agile Services: Scale Development and Initial Validation in Indian Services Industry. *Journal of Enterprise Information Management* 30: 166–87. [\[CrossRef\]](#)
- Rehman, Wasim Ul, Ayaz Ahmad, and Sana Azeem. 2017. Intellectual Capital Driven Performance: Role of Innovative Performance and Business Process Capabilities. *Pakistan Economic and Social Review* 55: 223–46.
- Roos, Goran, and Johan Roos. 1997. Measuring Your Company's Intellectual Performance. *Long Range Planning* 30: 413–26. [\[CrossRef\]](#)
- Rosenbusch, Nina, Michael Gusenbauer, Isabella Hatak, Matthias Fink, and Klaus E. Meyer. 2019. Innovation Offshoring, Institutional Context and Innovation Performance: A Meta-analysis. *Journal of Management Studies* 56: 203–33. [\[CrossRef\]](#)
- Sadq, Zana Majed, Brwa Sardar Ahmad, V. S. Saeed, Bestoon Othman, and H. O. Mohammed. 2020. The Relationship between Intellectual Capital and Organizational Trust and Its Impact on Achieving the Requirements of Entrepreneurship Strategy (The Case of Korek Telecom Company, Iraq). *International Journal of Advanced Science and Technology* 29: 2639–53.
- Sahibzada, Umar Farooq, Jianfeng Cai, Khawaja Fawad Latif, and Hassam Farooq Sahibzada. 2019. Knowledge Management Processes, Knowledge Worker Satisfaction, and Organizational Performance. *Aslib Journal of Information Management* 72: 112–29. [\[CrossRef\]](#)
- Salicru, Sebastian, and Chris Perryer. 2007. Intellectual Capital and Company Performance—Literature Review and Research Opportunities in Australia. Paper present at the 21st Annual Australian and New Zealand Academy of Management Conference, Sydney, Australia, January 1–19.
- Sanchez, Ron. 2008. A Scientific Critique of the Resource-Based View (RBV) in Strategy Theory, with Competence-Based Remedies for the RBV's Conceptual Deficiencies and Logic Problems. *Research in Competence-Based Management* 4: 3–78.
- Scafarto, Vincenzo, Federica Ricci, and Francesco Scafarto. 2016. Intellectual Capital and Firm Performance in the Global Agribusiness Industry. *Journal of Intellectual Capital* 17: 530–52. [\[CrossRef\]](#)
- Schreyögg, Georg, and Horst Steinmann. 1987. Strategic Control: A New Perspective. *Academy of Management Review* 12: 91–103. [\[CrossRef\]](#)
- Selto, Frank H., Celia J. Renner, and S. Mark Young. 1995. Assessing the Organizational Fit of a Just-in-Time Manufacturing System: Testing Selection, Interaction and Systems Models of Contingency Theory. *Accounting, Organizations and Society* 20: 665–84. [\[CrossRef\]](#)
- Shahzad, Khuram, Pia Arenius, Alan Muller, Muhammad Athar Rasheed, and Sami Ullah Bajwa. 2019. Unpacking the Relationship between High-Performance Work Systems and Innovation Performance in SMEs. *Personnel Review* 48: 977–1000. [\[CrossRef\]](#)
- Shipilov, Andrew, and Wade Danis. 2006. TMG Social Capital, Strategic Choice and Firm Performance. *European Management Journal* 24: 16–27. [\[CrossRef\]](#)
- Shuen, Amy, Paul F. Feiler, and David J. Teece. 2014. Dynamic Capabilities in the Upstream Oil and Gas Sector: Managing next Generation Competition. *Energy Strategy Reviews* 3: 5–13. [\[CrossRef\]](#)
- Siegel, Lawrence R. 2004. *Measuring and Managing Intellectual Capital in the US Aerospace Industry*. Cambridge: Massachusetts Institute of Technology.
- Souza, Carla Patricia da Silva, and Adriana Roseli Wunsch Takahashi. 2019. Dynamic Capabilities, Organizational Learning and Ambidexterity in a Higher Education Institution. *Learning Organization* 26: 397–411. [\[CrossRef\]](#)
- Spender, J. C. 1996. Making Knowledge the Basis of a Dynamic Theory of the Firm. *Strategic Management Journal* 17: 45–62. [\[CrossRef\]](#)
- Stacchezzini, Riccardo, Cristina Florio, Alice Francesca Sproviero, and Silvano Corbella. 2019. An Intellectual Capital Ontology in an Integrated Reporting Context. *Journal of Intellectual Capital* 20: 83–99. [\[CrossRef\]](#)
- Stewart, Thomas A. 1997. *Intellectual Capital: The New Wealth of Organizations*. New York: Bantam Doubleday Dell Publishing Group, Inc.
- Tayles, Mike, Richard H. Pike, and Saudah Sofian. 2007. Intellectual Capital, Management Accounting Practices and Corporate Performance. *Accounting, Auditing & Accountability Journal* 20: 522–48.
- Teece, David J. 2014. A Dynamic Capabilities-Based Entrepreneurial Theory of the Multinational Enterprise. *Journal of International Business Studies* 45: 8–37. [\[CrossRef\]](#)
- Teece, David J. 2018. Business Models and Dynamic Capabilities. *Long Range Planning* 51: 40–49. [\[CrossRef\]](#)
- Teece, David J., Gary Pisano, and Amy Shuen. 1997. Dynamic Capabilities and Strategic Management. *Strategic Management Journal* 18: 509–33. [\[CrossRef\]](#)
- Torres, Russell, Anna Sidorova, and Mary C Jones. 2018. Enabling Firm Performance through Business Intelligence and Analytics: A Dynamic Capabilities Perspective. *Information and Management* 55: 822–39. [\[CrossRef\]](#)
- Turner, N., J. Swart, and H. Maylor. 2013. Mechanisms for Managing Ambidexterity: A Review and Research Agenda. *International Journal of Management Reviews* 15: 317–32. [\[CrossRef\]](#)
- Vézina, Martine, Majdi Ben Selma, Marie Claire Malo, Majdi Ben Selma, and Marie Claire Malo. 2019. Exploring the Social Innovation Process in a Large Market Based Social Enterprise: A Dynamic Capabilities Approach. *Management Decision* 57: 1399–414. [\[CrossRef\]](#)
- Vladu, Alina Beatrice, Oriol Amat, and Dan Dacian Cuzdriorean. 2017. Truthfulness in Accounting: How to Discriminate Accounting Manipulators from Non-Manipulators. *Journal of Business Ethics* 140: 633–48. [\[CrossRef\]](#)
- Wade, Michael, and John Hulland. 2004. Review: The Resource-Based View and Information Systems Research: Review, Extension, and Suggestions for Future Research. *MIS Quarterly: Management Information Systems* 28: 107–42. [\[CrossRef\]](#)
- Wagner, David, Matthias Wenzel, Heinz Theo Wagner, and Jochen Koch. 2017. Sense, Seize, Reconfigure: Online Communities as Strategic Assets. *Journal of Business Strategy* 38: 27–34. [\[CrossRef\]](#)
- Wendra, Wendra, Ernie Tisnawati Sule, Joeliaty Joeliaty, and Yudi Azis. 2019. Exploring Dynamic Capabilities, Intellectual Capital and Innovation Performance Relationship: Evidence from the Garment Manufacturing. *Business: Theory and Practice* 20: 123–36. [\[CrossRef\]](#)

- Williams, Paul, Nicholas Ashill, and Earl Naumann. 2017. Toward a Contingency Theory of CRM Adoption. *Journal of Strategic Marketing* 25: 454–74. [[CrossRef](#)]
- Wright, Patrick M., Benjamin B. Dunford, and Scott A. Snell. 2001. Human Resources and the Resource Based View of the Firm. *Journal of Management* 27: 701–21. [[CrossRef](#)]
- Xu, Jian, and Bingham Wang. 2018. Intellectual Capital, Financial Performance and Companies' Sustainable Growth: Evidence from the Korean Manufacturing Industry. *Sustainability* 10: 4651. [[CrossRef](#)]
- Zhang, Min, and Zhiqiang Wang. 2017. How Does Intellectual Capital Affect Product Innovation Performance? Evidence from China and India. *International Journal of Operations & Production Management* 38: 895–914. [[CrossRef](#)]
- Zhou, Steven S., Abby J. Zhou, Junzheng Feng, and Shisong Jiang. 2019. Dynamic Capabilities and Organizational Performance: The Mediating Role of Innovation. *Journal of Management and Organization* 25: 731–47. [[CrossRef](#)]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.