Innovation and Intellectual Capital Competency Factors Influencing SMEs Competitive Advantage in South Africa. A Conceptual Framework

Godknows GOMWE^{1*} and Dinko Herman BOIKANYO²

¹University of Johannesburg, ORCID: 0000-0001-8409-5913 ²University of Johannesburg, ORCID: 0000-0003-0047-6079

This paper examines the innovative intellectual capital variables of SMEs, such as business culture, knowledge intelligence, business communication, and digital business, using the intellectual capital theory as a frame of reference for SMEs in South Africa. The phenomenal rise of SMEs and a gap in the existing literature on innovative intellectual capital served as the driving forces behind this study. Lack of innovative skills brought on by low levels of intellectual capital are seen as the driving force behind this unwelcome phenomenon. This conceptual paper aims to bring a broader understanding innovative competencies which are crucial for businesses to sustain themselves, grow, and perform well SMEs will be helped in the development of platforms to enhance their operations and advance the South African economy. A detailed evaluation of secondary sources of information provided by the University of Johannesburg was used in this paper. This paper analyses the relevant conceptualization of key concepts and the literature on intellectual capital implementation. Based on the conceptualization and literature, this study found that the performance of SMEs is significantly influenced by innovative intellectual capital variables and that for SMEs to have a competitive advantage in the long-run the SMEs should embrace the intellectual capital variables covered in this paper. Adequate knowledge of intellectual capital by SMEs operating in South Africa can be use to improve their capacity for innovation and expand their operations. The literature from the study revealed that intellectual capital contributes to the development of competitiveness in SMEs through the use of business culture, knowledge intelligence, business communication, and digital business processes.

Keywords: innovation, intellectual capital, business culture, knowledge intelligence, business communication, digital business, competitive advantage, SMEs

JEL Classification: M41, M10

1. Introduction

Digital intellectual capital signifies the transition to innovation and strengthens competitive advantage within the 4IR evolution (Alvino et al., 2021; Abbas et al., 2022). Small and medium-sized businesses (SMEs)

Godknows Gomwe, University of Johannesburg, Department of Business Management, South Africa, ORCID 0000-0001-8409-5913

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^{*}Corresponding Author:

must believe that, regardless of size, having the right knowledge accessible to the right people is essential for competitive advantage in many organisations (Matekenya and Moyo, 2022). In the value creation process that directs toward obtaining competitive advantage, intellectual capital is considered an intangible activity and non-physical in nature (Wang, 2018; Maya et al., 2021). Therefore, SMEs organisations require knowledge of their intellectual capital.

In support of this, Niwash et al. (2022) pointed out that intellectual capital is a concept that has proven to be very dynamic, adaptable, and current, able to generate growing scholarly interest year after year and to renew itself. From the preceding, it is plausible to infer that intellectual capital enables SMEs to integrate a variety of skills, knowledge, and experiences held by an organisation's staff in order to generate information with a degree of dependability and the potential for a competitive advantage (Joshi et al., 2013).

Despite all of the government support, numerous research studies have been undertaken to understand the failure rate of SMEs. However, according to several studies (Wang, 2018; Maya et al., 2021; Matekenya and Moyo, 2022; Phont et al., 2023), SMEs lack the ability to effectively incorporate new intellectual capital. The purpose of this paper is to help SMEs understand the value of intellectual capital. What is intellectual capital, and how will it affect SMEs' ability to succeed and expand? An organisations resources-based perspective emphasizes competitive advantage methods that make use of organisational resources (Smriti and Das 2018). These assets are seen as intangible assets and/or intellectual capital, which includes those strategic resources, and have a high value to increase competitive advantage. It is commonly acknowledged that these assets play a significant role in the achievement of organisational goals (Chahal and Baskshi, 2016; Niwash et al., 2022).

The development of SMEs organisations can benefit from the use of intellectual capital skills such as the art of creation and learning (human capital), networking abilities with the outside world (relational capital), and technical knowledge culture (structural capital). There are several components that need to be accomplished by SMEs in order to advance their aim that have been tested and examined by numerous academics. These components include skills, knowledge, experiences, training, culture, intellectual property, processes, and connections. The four elements that make up the intellectual capital cluster were chosen for this paper. The variables that would affect the competitive advantage of SMEs were organisational culture, knowledge intelligence, business communication, and digital business. These four variables were discovered by the authors to be connected to innovative competencies in the context of South African SMEs' success.

Alvino et al. (2021) note that while notable papers have independently examined the impact of innovation and intellectual capital on business performance, previous researchers have rarely combined the two. Increasing the variables of intellectual capital and the impact in the SMEs sector is the goal of this article. The influence of innovative intellectual capital as a competitive advantage for SMEs in South Africa is really explored in the current study. Additionally, a conceptual framework for this investigation will be outlined.

2. Conceptualization of Key Concepts

Theories supporting intellectual capital, the motivations for intellectual capital, as well as the factors that influencing competitive advantage are all covered in the study's research review.

2.1 Small Medium Enterprises in South Africa (SMEs)

According to Chinomona (2019), SMEs play a critical role in fostering inclusive organisational growth and the long-term sustainability of economies. They also help to create jobs and innovate. The protection of SMEs and providing them with the tools they need to gain a competitive edge are crucial since their long-term survival and expansion will likely serve as a barometer for the health of the South African economy as a whole. According to Maome (2018), SMEs are both the most at danger and the lifeblood of developing economies like South Africa's economy, which is why this paper was created.

In South Africa, SMEs account for more than 98 percent of businesses, 50 to 60 percent of the workforce in both the public and private sectors, and a quarter of new jobs created in the private sector. In the USA, during the first three years, 50 percent of SMEs fail. Approximately 75 percent of SMEs in South Africa fail during the first five years of existence (SEDA, 2015; USA Small Business Administration, 2016; Maome, 2018; Matekenya and Moyo, 2022). According to the OECD (2017), governments in numerous countries

struggle with issues like high unemployment rates, slow economic development, rising income inequality, and substandard living standards. SME activity has a tremendous impact on the economies of several nations. According to the Department of Trade and Industry (DTI), SMEs come in a highly diverse array of forms, including nominally and informally registered organisations, non-VAT-registered organisations, and more. According to the Small Enterprise Development Agency (SEDA, 2016), it varies from informal microenterprises through medium-sized businesses, family businesses with 100 or more employees.

2.2 Innovation Competency

SMEs sometimes struggle to put innovative ideas into practice due to a lack of resources, problems embracing new technologies, a lack of technical expertise, and weak management abilities (Wilkhamn et al., 2018). According to Cheng and Chen (2013), innovation is the implementation of creative ideas into an existing or new good or service, resulting in greater opportunities for employment as well as generating profit for the innovative organisation.

Innovation has a significant impact on an organisation's ability to compete, its ability to survive and expand, as well as its intended impact on customer happiness, service quality, staff productivity, market value, market share, and customer retention (Varadarajan, 2018). The adoption of innovation also has the ability to benefit the organisation financially, thereby boosting and improving its growth via increasing sales (Martinez-Perez et al., 2016; Matekenya and Moyo, 2022).

According to Varadarajan (2018), innovative intellectual capital is essential for SMEs in South Africa to survive. Innovative intellectual capital is widely recognised in today's 4IR evolution as enhancing competitive advantage in organisational environments characterised by uncertainties. According to Wikhamn et al. (2018), innovation contributes to better issue solving and higher performance, which increases value creation for organisations. Therefore, organisations ought to embrace the application of "innovative intellectual capital" in both their daily operations and management decision-making (Obeidat et al., 2017).

Instead, innovation is essential for all SMEs organisations. In this regard, organisations must devise strategies for maintaining the required level of renewal and develop innovation skills to become more inventive. All SMEs organisations today place a high priority on innovation (Buenechea-Elberdin, 2017; Matekenya and Moyo, 2022). In an effort to apply innovation, this paper then suggested a number of strategies. These suggested drivers include knowledge intelligence, digital business, internal and external business communication, and the organisational business culture, particularly with regard to intellectual capital, which seems to be a strong foundation for innovation implementation. The ability of many organisations to innovate, grow, and function economically is enhanced by their intellectual capital. Employees must therefore be aware of how to use intellectual capital characteristics in order to improve their innovation skills and organisational success (Sivalogathasan and Wu, 2015 and Matekenya and Moyo, 2022).

2.3 Theoretical Perspective

2.3.1 Intellectual Capital Theory

According to Stewart (1997), the idea of intellectual capital refers to the accumulation of all the skills, information, and expertise that employees possess and which significantly aid in the acquisition of competitive advantages. According to Abualoush et al. (2018), the concept of intellectual capital is viewed as a nontangible but extremely the most valuable asset significant for competitive advantage tool which influencing the performance of organisational innovative intellectual capital. To support this, Phont et al. (2023) defined intellectual capital as the whole knowledge resources of the organisation, both internal and external. Smriti and Das (2017) highlighted that intellectual capital is seen as comprising the proficiency, knowledge, and dedication displayed by the workforce of an organisation, which lends validity to this concept.

Intellectual capital is a typical strategic tool for organisations' intangible assets, such as priceless talents, knowledge, and experience to their organisation that strengthens competitive advantage. According to Maya et al. (2021), it may also apply to an organisation's culture, business communications, digital business, and knowledge intelligence information assets. Organisational skills, talented employees, and well-trained staff with good business communication both internally and externally can all benefit from intellectual capital,

which can improve an organisation's capacity to innovate, carry out operations efficiently, and solve difficult problems (Niwash et al., 2022).

A strong network of suppliers, investors, distributors, and partners can provide SMEs with access to cash and guarantee that they have the materials they need to carry out their daily operations. Finally, organisations can increase their market share and competitive advantage by being visible, having strong business communications, and being kind to one another (Obeidat et al., 2018; Abbas et al., 2022).

According to Bontis (1998), there are three different types of intellectual capital: human capital (HC), relational capital (RC) and structural capital (SC). The knowledge that workers take home with them after their workday is complete makes up human capital. According to Obeidat et al. (2018) and Zawaideh et al. (2018), human capital includes knowledge, experience, teamwork, motivation, tolerance, satisfaction, loyalty, employee flexibility, education, formal training, and the capacity to learn.

Structural capital is the information that an organisation retains after its personnel have left, which typically includes all organisational knowledge that is not taken by employees. Organisational practices, corporate cultures, databases, procedures, explicit knowledge, creativity, product innovation, process optimization, and systems information technology are all examples of structural capital (Kamukama and Sulait, 2017; Abualoush et al., 2018; Abbas et al., 2022).

According to Han and Li (2015), relationship capital refers to the connections an organisation has with its external environment, which includes its customers, partners, and suppliers. Similar to structural capital, relational capital is an intangible asset that depends on the maintaining, development, and promotion of positive relationships with any organisations, people, or groups that are recognised to have an impact on the business of the organisation (Kamukama and Sulait, 2017; Abualoush et al., 2018).

2.3.2 Human Capital

The intangible assets that managers and employees provide for an organisation are referred to as human capital. It consists of components including education and training, abilities, collective staff experience, employee physical and mental welfare, and working style (Zawaideh et al., 2018). Human capital, according to Galabova et al. (2013), also comprises the organisational capacity to establish effective business communication with its stakeholders on both an internal and external level. Employee satisfaction, employee retention and turnover, productivity, and rate of promotion are some indicators of an organisation's human capital. By increasing human capital, SMEs can strengthen their competitive advantage. They can do this by hiring more educated and qualified staff members and, when possible, thinking about promoting experienced staff members from inside their organisation.

Subramanian et al. (2016), made a contribution to this discussion by pointing out that through interactions with other leaders, employees, and organisational resources technological, material, and other these people continue to learn and expand their knowledge through interactions and learning experiences while carrying out their duties and social networking with various people both inside and outside the organisation. Employee skills, knowledge, innovation, and talents of SMEs and organisational personnel can impact the growth of human capital in terms of intellectual assets and rights (Hsu and Sablerwall 2018).

The components of human capital skills, knowledge, talents, and experiences are what lead to new ideas and effective knowledge intelligence, which are the outcomes of innovative intellectual capital (Han and Li, 2015). Obeidat et al. (2016) recognised that because of their specialised knowledge and skills, which contribute to the development of new ideas, products, and services that are challenging for other organisations to replicate and imitate, human capital is one of the distinctive and special assets that give the organisation a competitive advantage.

An organisation's inability to hire experienced and skilled workers may deprive it of future innovations, well-trained employees with unique talents, skills, and experience in support of the development of new products and services. The diversity of human capital skills, ideas, expertise and experiences is a great source of innovative intellectual capital. Since management, support with well-trained human capital for generating and implementing new ideas as well as enhancing innovative intellectual capital, human capital with high knowledge and skills is crucial. (Varadarajan, 2018).

2.3.3 Structural Capital

Many of the intangible assets and non-physical infrastructure that support organisational operations and enable growth are included in structural capital. Intellectual property, values, data, media, and principles are a few of the components of structural capital that are frequently used. Along with its organisational culture and leadership structure, it can also encompass the processes and methods the organisation employs in its day-to-day operations (Kamukama and Sulait, 2017).

When it comes to innovation, organisational knowledge is crucial. This knowledge intelligence is available in information technology, patents, and databases, and it may be found throughout many different parts of the organisation. According to Obeidat et al. (2017), this organisational knowledge is referred to as the structural capital of the organisation. The structural components of learning, procedures, and practices that show the organisation's capacity to gather, exchange, and use outside knowledge are referred to as structural capital. Bontis (1998) emphasized that organisational capital includes employee knowledge, enabling the conversion of concepts into innovations. Through the formation of organisational infrastructure, structural capital enables human capital to generate innovation. In support of this, Mohammad et al. (2013), organisation cannot separate human capital from structural capital if it hopes to accomplish its goals and strategy.

2.3.4 Relational Capital

According to Nascimento et al. (2020), relation capital or social connection refers to the intangible assets an organisation acquires through the corporate business communication it uses to construct a successful business network. This can include effective communication with partners, distributors, partners, and suppliers as well as the organisation's position of strength in the competitive marketplace. Organisational communication with its consumers is a key component of relational capital. This could include reputation, visibility, and brand loyalty. According to Khavandkar et al. (2016), relationship capital refers to the creation and development of relationships with partners or external parties connected to the organisation. As a result, according to Muhammad et al. (2013), it comprises collaboration, a variety of aspects with outside partners, and marketing capability.

An organisation with strong human capital is better able to gather and store market information through relationships with customers and outside parties because the efficiency of information exchange and the process of combining producers and customers depends on the knowledge and skills of organisational employees in the process of innovative intellectual capital (Khavandkar et al., 2016). Contact with customers for research and development is essential for innovation effectiveness more direct human capital. Additionally, the ability of organisations to produce new information and innovative new ideas is changing and being exploited, such as suppliers, customers, and competitors (Kumari et al., 2015). An organisation's capacity to scan its environment for new, innovative technologies to foster innovation is increased by improved corporate communication methods, which also help consumers and suppliers manage the risks associated with the development of new innovation (Mention and Bontis, 2013).

2.4 Intellectual Capital Factors that Influencing Competitive Advantage

2.4.1 Business Culture

The importance of business culture has historically gone largely unnoticed by researchers as well as practitioners. Therefore, SMEs must become aware of their organisation's business culture and gain a solid understanding of the concept of business culture and how it affects enhancing competitive advantage (Biewendt et al., 2021). The beliefs, conventions, and assumptions of an organisation's business culture have a major impact on that organisation's capacity for innovation (Abdi and Senin 2014). An organisation benefits very little from the development of innovative ideas if it lacks the tools necessary to put them into action. Aziz and Marcos (2013) emphasize a favourable association between innovation and business culture, saying that business culture is an antecedent for innovation, despite the fact that past studies have shown quite different things about how business culture will increase creativity.

To increase their innovative intellectual capital, SMEs might embrace one of four prevalent organisational culture types: the hierarchical, market, adhocracy, or clan cultures (Sun and Xu 2012; Acar and Acar, 2014; Rosidah and Gustomo 2014; Badawy et al., 2017; Biewendt et al., 2021).

- Bureaucratic values and conventions are reflected in hierarchal culture. It is distinguished by a formalised and structured work environment, which could lead to a reduced sense of autonomy (Acar and Acar, 2014).
- A market culture emphasizes competition. By focusing a lot of emphasis on externally control and placement, the goal is to encourage competition. Delivering outstanding customer value is the market culture's top priority. (Badawy et al., 2017).
- Yildiz and Gul (2016) assert that members of adhocracy cultures focus on the organisation's external positioning with a high level of adaptability, inventiveness, and risk-taking.
- SMEs with a clan culture have a high level of collaboration and participation. The organisation's members believe themselves responsible to the organisation, and they strongly identify with the organisation (Sun and Xu 2012).

Business culture has a beneficial effect on innovative intellectual capital, so SMEs must thoroughly examine their current business cultures and, if necessary, make management changes to close any gaps between the two. The most important organisational factors that SMEs should take into account are strategy, structure, management and leadership, resources, cooperation and collaboration, trust, and employee behaviour towards business culture (Aziz and Marcos 2013; Biewendt et al., 2021).

2.4.2. Knowledge Intelligence

Vayrynen et al. (2018) regard knowledge intelligence as a crucial resource for modern organisations that enables them to gain a competitive advantage. Developing the knowledge intelligence of SMEs through education is undoubtedly a strategic way to organisational growth (Hassan, 2020). The culture of open innovation is made feasible when an organisation promotes knowledge intelligence, ideas collaborations, and experiences among the organisation's people. Knowledge intelligence gaining and sharing is the foundation of innovative intellectual capital for business development (Lita et al, 2020).

Effective knowledge intelligence is essential to the development of innovative ideas with added value, which in turn increases the competitive advantage of an organisation's products and services (Chen et al., 2014; Kim, 2014; Andreia et al., 2022). According to An et al. (2014), knowledge intelligence creates the organisational capacities necessary for the formation of organisational performance and management. Most organisations now consider the creation of a stronger competitive advantage to be a strategic concern. The emphasis is increasingly on knowledge intelligence as a factor of organisational performance and competitiveness because SMEs are battling in intense competition.

The organisational capability is decreased when strategic people exit or depart from an organisation for any reason. As a result, organisations work to manage information more effectively in order to boost their financial results (Adolphus et al., 2019). Knowledge intelligence helps the organisation's performance and innovative intellectual capital (Cerchione et al., 2017; Andreia et al., 2022). Openness to innovation or innovativeness is positively impacted by knowledge intelligence. Additionally, efficient management of knowledge intelligence raises the stock of information within an organisation, creates a foundation for innovative intellectual capital, and boosts an organisation's innovativeness (Adolphus et al., 2019).

2.4.3 Business Communication

Business communication is a vital tool for managing conflict mechanisms to be adopted, implemented and processed to achieve resolutions and communication within an organisation (Falkheimer and Mats 2014). Business communication, as defined by Qin et al. (2023), is a process since it involves the transmission of information from one location to another via a designated channel. The benefits of good communication between customer and supplier is a crucial intangible organisational performance differentiator, which can be seen as a great business communication competitive advantage driver (Wallace, 2017). According to the constructive theory of communication, stakeholders in an organisation must be included, and communication must be coordinated with management initiatives (Mazzei, 2010).

In order to have an in-depth understanding of the political, economic, social, and technological aspects of the organisation's targeted goals, a competent business communication process looks at the PEST Political, Economic, Social, and Technological analysis. The drivers of both internal and external business communication are organisational complexities, supervisory imperatives, and the need to increase reliability.

Because corporations have numerous components and their communication, approach should be accommodating of them in order to satisfy the organisation's overall strategy, Vuori (2012) considered that communication should be in line with strategic goals for the effectiveness of information flow. They can also increase human capital by improving training processes and by fostering effective business communication and creating feedback mechanisms a two-way communication channel (Qin et al., 2023).

2.4.4 Digital Business

According to Arabiyat et al. (2019), the adoption of various types of information technology strategies is a key component of today's business strategy, and it is not overstated to say that SMEs cannot succeed without embracing digital business. This causes investments in digital business to rise to the level of a significant competitive advantage for SMEs. The commercialisation of goods and services through the use of a digital medium, frequently the internet, and the exploration of new prospects through the use of digital media are both considered to be components of digital business strategy (Farani et al., 2017).

Digital businesses help to lower asset management and location-specificity costs. Many SMEs still do not know how to implement their search for digital business or where to start. In South Africa, especially with SMEs, the implementation of digital business operations is still in its early stages and premature. However, if properly directed with the right assistance and improved government support, it would undoubtedly help to improve corporate performance. One of the key elements affecting the overall business performance of SMEs is the delay in enabling digital business in SMEs. Consequently, it is challenging to get a firm conclusion on program design for SMEs with a growth mind-set.

2.4.5 Conceptual Framework

For SMEs organisations to successfully adopt innovative intangible assets, including their intellectual capital, they must pay close attention to how they manage intangible asset resources. An organisation's capacity to generate, innovate, and maintain performance are all attributed to its intellectual capital, which is seen as a critical resource for gaining a competitive advantage (Cabrilo and Dahms, 2018).

Therefore, innovation includes the knowledge output that enables an organisation to develop competencies with high competitive value. In the current context, organisations that want to keep their competitive advantage must constantly strengthen their intellectual capital and implement the variables of intellectual capital as shown in the conceptual framework in figure 1. Additionally, when innovation is accelerated by the growth of intellectual capital, employees of the organisation's workforce will have an improved capacity for learning.



Figure 1: Conceptual framework

3. Method

In order to better understand problem description, literature evaluation, and formation of the conceptual framework for the study, a variety of secondary literature sources of data were examined and analysed. The majority of the secondary data used in this study was gathered from a number of sources, including online databases provided by the University of Johannesburg and government publications, journals, books, and periodical reports.

Additionally, secondary data was also acquired by means of speaking with industry stakeholders, particularly those working in South Africa's SME sector. To gain insight into the scenario that may strengthen and support the claims, data and perceptions from SMEs conferences were gathered and synthesized. Therefore, 53 articles related to intellectual capital are included in this analysis. We determine the connections made between the cited journals. It was vital to identify key groups of documents in order to lay the groundwork for and future research trajectories. These links grew stronger the more similar the journals were to one another.

4. Findings

This section focuses on the qualitative evaluation of particular papers. The most frequently seen words in the abstracts of the publications that were similar to the study's key words intellectual capital, innovation, SMEs, and competitive advantage were used to analyse the papers that were chosen. In fact, during the course of the investigation, these phrases continued to appear frequently in our data collection. The summary of each article's content found that the majority of the researchers examined the general effects that intellectual capital may have on an organisation's competitive advantage (Rossi *et al.*, 2017). While the relationship between innovative business intelligence and competitiveness has emerged as a key factor in the success of SMEs, some researchers have focused on the consequences that intellectual capital has on business performance and the generation of new ideas. Innovative intellectual capital is a long-term source of wealth and has a significant impact on the development of SMEs organisations (Ousama *et al.*, 2012; Santoro *et al.*, 2019; Abbas *et al.*, 2022).

Since it expresses how the application of innovative intellectual capital toward competitive advantage works with the intermediate variables business culture, knowledge intelligence, business communication, and digital business for SMEs, the concept of intellectual capital is valuable when connected to the business model in Figure 1. This explains why some researchers have eschewed using a strictly quantitative method to study innovative intellectual capital in favour of analysing the competitiveness that results from processes (Kianto *et al.*, 2014). According to Maya *et al.* (2021), intellectual capital provides firms with a real benefit by encouraging innovation, which when combined with organisational structural relational capital can support processes of development and expansion.

Innovative intellectual capital actually has a huge influence and limitless potential for SMEs organisations, and it must be used to strengthen their competitive advantage. By following the factors suggested in this study to make the most of the resources they have, SMEs organisations can enhance their innovative intellectual capital and support the NDP's goals to end poverty and reduce inequality by 2030 (NDP report, 2013). The finest tool to support SMEs' sustainable growth performance, particularly for SMEs with precious and rare resources, might be intellectual capital because intangible resources are less expensive than the tangible assets that organisations own (Xu and Wang 2018). The use of business culture and communication in the contemporary knowledge economy through networking that facilitates the transnational exchange of contacts and information for business sustainability increases organisations' competitive advantage (Niwash *et al.*, 2022). The knowledge intelligence can be facilitated by contemporary digital business supports, increasing the return to organisations in terms of company expansion and technical knowledge.

Innovative intellectual capital may improve the alliance of civil society, institutions, and economic organisations in accordance with the NDP report's 2030 agenda by creating a shared vision centred on the values of nature, people, and peace. De Leaniz (2013) makes the claim that proactively adopting contemporary technologies and maintaining goals in order to gain a competitive advantage and results in a reputable advantage. SMEs will increase their competitive advantage in this manner. Additionally, according to Bhasin *et al.* (2013), disclosure of intangible assets and corporate governance can reduce the knowledge gap between SMEs and interested parties. Particularly, stakeholders can learn about the state of business performance and obtain a sense of the future course chosen. Innovation and intellectual capital have a beneficial link because organisations that accept and use creative intellectual capital boost their knowledge intelligence and enhance business communication, culture, and digitalization. This skill is crucial for SMEs to develop new systems that can fully utilise intangible resources to ensure long-term success and reach higher levels of competitive advantage.

5. Discussion

Starting with an analysis of the study's findings, it becomes clear from the significance given to intellectual capital that further research is required to determine how innovative intellectual capital can be used as a business strategy to build long-term value and guide SMEs in the direction of sustainability. The majority of studies have looked into the effects of such innovation. They failed to consider the importance of intellectual capital factors like business culture, business communication, knowledge intelligence, and digital business, which when combined with innovation can enhance processes, transmit information, and foster relationships, with favourable effects on the long-term performance of SMEs organisations (Xu and Wang 2018). This is accomplished by integrating intellectual capital and innovation characteristics to strengthen a competitive advantage (Chan *et al.*, 2018; Abbas *et al.*, 2022). Khan *et al.* (2018) claim that this is because an increasing number of organisations are utilizing innovation to improve performance and gain a competitive advantage. These organisations are recognising the potential of intellectual capital.

In order to end poverty and reduce inequality, the 2030 agenda of the National Development Plan has established an ambitious shared prosperity program. All sectors will be involved in this program's efforts to understand how they contribute to implementation and, in particular, to identify any obstacles that might stand in their way. The development of knowledge and skills toward a forward-looking and proactive approach to create long-term value for the SMEs organisations is a crucial function of innovative intellectual capital in this context. The effective use of intellectual capital has an impact on the financial performance of organisations that achieve sustainable performance (Xu and Wang (2018). To increase a competitive advantage, this effort must result in the adoption of intellectual capital using a mix of the four factors company culture, business communication, knowledge intelligence, and digital business and innovation.

6. Conclusions

This study, presented the much needed knowledge for SMES to better understand the development of intellectual capital affected its capacity for innovation. The findings of this study indicate that just a few aspects of innovation through intellectual capital have been explored in the literature. It has unquestionably been acknowledged as a critical resource for enhancing the operations and performance of SMEs. However, less consideration has been given to the variables related to intellectual capital and its application in relation to the objectives established by the NDP 2030 agenda and the establishment guidelines for each sector, nevertheless. The goal is to provide insight into components of intellectual capital that might help SMEs in South Africa increase their capacity for innovation and achieve a competitive edge.

Numerous elements, such as cultural standards in the fields of culture, business, social interaction, and psychology, have a major impact on the presence of SMEs in a society. However, they also rely on characteristics that emphasize intellectual capital, like business culture, knowledge intelligence, business communication, and the capacity to adjust to the digital economy. The latent forms of the aforementioned unique intellectual capital qualities are, nonetheless, present in numerous SMEs organisations in the industry. The steps needed to get such creative intellectual capital qualities ready and stronger could turn the tide for a quick economic expansion. To secure the long-term viability of SMEs, it is crucial to develop projects and programs that can change their staff (Rossi *et al.*, 2017).

Planning and promotion of the adoption of innovative intellectual capital factors among current and potential SMEs should be done by authorities and business stakeholders in South Africa. The effective utilisation of intellectual capital can result in significant innovation decisions in the fourth industrial revolution (4IR) of technology and knowledge development because an organisation's capacity for innovation depends directly on the intellectual resources at its disposal.

6.1. Managerial Implications

Discussion supported by conceptualization of key concepts and literature reviews indicates that implementing intellectual capital measures is essential for SMEs to be competitive. The potential of intellectual capital and the exponential prospects it presents for the business are discussed in this paper along with some reasonable perspectives and supporting data. SMEs, government organisations, private sector organisations, and researchers from various backgrounds would benefit from a general understanding of intellectual capital and how it interacts with other aspects of daily life, which will encourage others to investigate it further.

6.2. Future Research

Therefore, it could be useful to do more research of a similar kind using relevant elements. Additionally, the South African economy wants to transform the country into a 4IR evolution, a better technology knowledge-based economy, will grow concurrently with the digitalisation, it should continue to support the necessary organisational development initiative for SMEs to enhance competitive advantage as well as to benefit from a sustainable and economic growth (Januskaite and Uziene, 2018; Li *et al.*, 2019).

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References

- Abbas, M.G., Wang, Z., Ullah, H., Mohsin, M., Abbas, H. and Mahmood, M.R., 2022. Do entrepreneurial orientation and intellectual capital influence SMEs' growth? Evidence from Pakistan. *Environmental Science and Pollution Research*, pp.1-16.
- Abdi, K. and Senin, A. A., 2014. Investigation on the impact of organizational culture on organization innovation. *Journal of Management Policies and Practises* 2(2), pp.1-10.
- Abualoush, S., Masa'deh, R., Bataineh, K. and Alrowwad, A., 2018. The role of knowledge management process and intellectual capital as intermediary variables between knowledge management infrastructure and organization performance. *Interdisciplinary Journal of Information, Knowledge, and Management*, 13(3), pp.279-309.
- Acar, A. Z. and Acar, P., 2014. Organisational culture types and their effects of organisational performance in Turkish hospitals. *Emerging Markets Journal* 3(3), pp.18-31.
- Adolphus Chibuzor, A., Uju Jovita, O. and Onyemachi, U.C., 2019. Knowledge management, organizational innovation. *Strategic Journal of Business and Social Science* (SJBSS), 2(2), pp.89-97.
- Alvino, F., Di Vaio, A., Hassan, R. and Palladino, R., 2021. Intellectual capital and sustainable development: A systematic literature review. *Journal of Intellectual Capital*, 22(1), pp.76-94.
- An, X., Deng, H., Chao, L. and Bai, W., 2014. Knowledge management in supporting collaborative innovation community capacity building. *Journal of Knowledge Management*, 18(3), pp. 574-590.
- De Bem Machado, A., Secinaro, S., Calandra, D. and Lanzalonga, F., 2022. Knowledge management and digital transformation for Industry 4.0: a structured literature review. *Knowledge Management Research and Practice*, 20(2), pp.320-338. doi:10.1080/14778238.2021.2015261
- Arabiyat, T. S., Mdanat, M., Ha Ar, M., Ghoneim, A. and Arabiyat, O., 2019. The influence of institutional and conductive aspects on entrepreneurial innovation: Evidence from GEM data. 3(2), pp.366-389. http://hdl.handle.net/10454/16850
- Aziz, H. A. and Marcos, S., 2013. Examining the determinants of innovation culture in Egyptian organisations. *European conference on innovation and entrepreneurship*. [online] Available at: https://0-search-proquestcom.ujlink.uj.ac.za/docview/13425.
- Bhasin, M., 2011. Disclosure of intellectual capital in the annual reports by the IT companies:an exploratory study of India. *International Journal of Managerial and Financial Accounting*, 3 (3), pp.255-278.
- Bhasin, M.L., Shaikh, D. and Hanif, J.M., 2013. Voluntary corporate governance disclosures in the annual reports: an empirical study. *International Journal of Managerial and Financial Accounting*, 5(1), pp.79-105.
- Biewendt, M., Blaschke, F., Böhnert, A., 2021. A Review of Contemporary Challenges in Business Culture. *International Journal of Applied Research in Business and Management*, 2(1), pp.1–12. https://doi.org/10.51137/ijarbm.2021.2.1.1
- Bontis, N. and Serenko, A., 2009. A causal model of human capital antecedents and consequents in the financial services industry. *Journal of Intellectual Capital*, 10(1), pp.53-69.
- Cabrilo, S. and Dahms, S., 2018. How strategic knowledge management drives intellectual capital to superior innovation and market performance. *Journal of Knowledge Management*, 22(3), pp.621-648.

- Carrillo, F.J., Mohamed, M., Stankosky, M. and Mohamed, M., 2009. An empirical assessment of knowledge management criticality for sustainable development. *Journal of Knowledge Management*, 13(5), pp.271-286.
- Cerchione, R., Esposito, E. and Spadaro, M.R., 2017. A literature review on knowledge management in SMEs. *Knowledge Management Research and Practice*, 14(2), pp.169-177.
- Chahal, H. and Bakshi, P., 2016. Measurement of intellectual capital in the Indian banking sector. *The Journal of Decision Makers*, 4(1), pp.61-73.
- Chen, C.-J., Liu, T.-C., Chu, M.-A. and Hsiao, Y.-C., 2014. Intellectual capital and new product development. *Journal of Engineering and Technology Management*, 3(3), pp.154-173.
- Cheng, C. and Chen, J.S., 2013. Breakthrough innovation: the roles of dynamic innovation capabilities and open innovation activities. *Journal of Business and Industrial Marketing*, 28(5), pp.444-454.
- De Leaniz, P.M.G. and del Bosque, I.R., 2013. Intellectual capital and relational capital: the role of sustainability in developing corporate reputation. *Intangible Capital*, 9 (1), pp.262-280.
- Farani, A. Y., Karimi, S. and Motaghed, M., 2017. The role of entrepreneurial knowledge as a competence in shaping Iranian student's career intentions to start a new digital business. *European Journal of Training and Development*, 41(1), pp.83-100. doi:10.1108/ejtd-07-2016-0054
- Galabova, L.; McKie, L., 2013. The five fingers of my hand: human capital and well-being in SMEs. *Personnel Review*, 42(6), pp. 662–683. http://dx.doi.org/10.1108/PR-01-2012-0017
- Guarda, T., Santos, M.F., Augusto, M.F., Silva, C. and Pinto, F., 2013. Process mining: a framework proposal for pervasive business intelligence. *In 2013 8th Iberian Conference on Information Systems and Technologies*, Portugal.
- Hassan, H. M. K., 2020. Intention towards social entrepreneurship of university students in an emerging economy: The influence of entrepreneurial self-efficacy and entrepreneurship education. *On the Horizon*, 28(3), pp.133-151. https://doi.org/10.1108/OTH-04-2020-0012
- Hsu, I.C. and Sabherwal, R., 2011. From intellectual capital to firm performance: the mediating role of knowledge management capabilities. *IEEE Transactions on Engineering Management*, 58(4), pp.626-642.
- Januskaite, V. and Uziene, L., 2018. Intellectual capital as a factor of sustainable regional competitiveness. *Sustainability*, 2(10), 4848.
- Joshi, M., Cahill, D., Sidhu, J. and Kansal, M., 2013. Intellectual capital and financial performance: an evaluation of the Australian financial sector. *Journal of Intellectual Capital*, 14(2), pp.264-285.
- Kamukama, N. and Sulait, T., 2017. Intellectual capital and competitive advantage I Uganda's microfinance industry. *African Journal of Economic and Management Studies*, 8(4), pp.498-514.
- Khan, M., Hussain, M., Papastathopoulos, A. and Manikas, I., 2018. Trust, information sharing and uncertainty: an empirical investigation into their impact on sustainability in service supply chains in the United Arab Emirates. Sustainable Development, 26(6), pp.870-878.
- Khavandkar, Ehsan, Theodorakopoulos, Nicholas, Hart, Mark and Preston, Jude 2016. Leading the Diffusion of Intellectual Capital Management Practices in Science Parks a chapter in a book H. Shipton, P. Budhwar, P. Sparrow and A. Brown (Eds.), *Human Resource Management, Innovation and Performance* 4(5), pp.213–231. London: Palgrave Macmillan
- Kianto, A., Ritala, P., Spender, J.C. and Vanhala, M., 2014. The interaction of intellectual capital assets and knowledge management practices in organizational value creation. *Journal of Intellectual capital*, 15(3), pp.362-375.
- Kianto, A., Saenz, J. and Aramburu, N., 2017. Knowledge-based human resource management practices, intellectual capital and innovation. *Journal of Business Research*, 8(1), pp.11-20.
- Kim, S., 2014. Systematic analyses on knowledge implementation steps and themes at the organizational level. *KSCE Journal of Civil Engineering*, 18(2), pp.444-453.
- Li, Y., Song, Wang, Y.J. and Li, C., 2019. Intellectual Capital, knowledge sharing, and innovation performance: evidence from the Chinese construction industry. *Sustainability*, 11(9), pp.27-33
- Lita, R.P.; Faisal, R.F.; Meuthia, M., 2020. Enhancing Small and Medium Enterprises Performance through Innovation in Indonesia: *A Framework for Creative Industries Supporting Tourism. J. Hosp. Tour. Technology*, 1(1), pp.155-176. https://dx.doi.org/10.1108/JHTT-11-2017-0124
- Liu, C.H., 2017. The relationships among intellectual capital, social capital, and performance-The moderating role of business ties and environmental uncertainty. Tourism Management, 4 (61), pp.553-561.
- Martinez-Perez, A., Garcia-Villaverde, P.M. and Elche, D., 2016. The mediating effect of ambidextrous knowledge strategy between social capital and innovation of cultural tourism clusters firms. *International Journal of Contemporary Hospitality Management*, 28(7), pp.1484-1507.

- Matekenya, W. and Moyo, C., 2022. Innovation as a driver of SMME performance in South Africa: a quantile regression approach. *African Journal of Economic and Management Studies*, 13(3), pp.452-467. https://doi.org/10.1108/AJEMS-06-2021-0306
- Maya, S., Atikah, A. and Rusmardiana, A., 2021. Improvement of Firm Performance and Intellectual Capital Through Innovation and Competitive Advantage. *Journal of Applied Business and Economic*, 7(4), pp.482-493.
- Nascimento, L.D.S. and Salazar, V.S., 2020. On social enterprises and social entrepreneurship: An extension. *BARBrazilian Administration Review*, 17(2), pp.47-58.
- Niwash, M.N.K. Cek, K. Eyupoglu, S.Z., 2022. Intellectual Capital and Competitive Advantage and the Mediation Effect of Innovation Quality and Speed, and Business Intelligence. *Sustainability*, *14*, 3497.
- Obeidat, B.Y., Tarhini, A., Masa'deh, R. and Aqqad, N.A., 2017. The impact of intellectual capital on innovation via the mediating role of knowledge management: a structural equation modelling approach. *International Journal of Knowledge Management Studies*, 8(3/4), pp.273-298.
- Ousama, A.A. and Fatima, A.H., 2012. Extent and trend of intellectual capital reporting in Malaysia: empirical evidence. *International Journal of Managerial and Financial Accounting*, 4 (2), pp.159-176
- Phonthanukitithaworn, C. Srisathan, W.A. Ketkaew, C. Naruetharadhol, P., 2023. Sustainable Development towards Openness SME Innovation: Taking Advantage of Intellectual Capital, Sustainable Initiatives, and Open Innovation. *Sustainability*, (15), 2126. https://doi.org/10.3390/su15032126
- Rosidah, S. and Gustomo, A., 2014. Analysis of organisational culture and leadership style in RST Company. *Journal of Business Management* 3(8), pp.913-924.
- Rossi, M., Festa, G., Solima, L. and Popa, S., 2017. Financing knowledge-intensive enterprises: evidence from CVCs in the US. *The Journal of Technology Transfer*, 42(2), pp.338-353.
- Santoro, G., Thrassou, A., Bresciani, S. and Del Giudice, M., 2019. Do knowledge management and dynamic capabilities affect ambidextrous entrepreneurial intensity and firms' performance. *IEEE Transactions on Engineering Management*.
- Smriti, N. and Das, N., 2018. The impact of intellectual capital on firm performance: a study of Indian firms listed in COSPI. *Journal of Intellectual Capital*, 19(5), pp.935-964.
- Stewart, T.A., 1997. *Intellectual Capital: The New Wealth of Organizations*. Bantam Doubleday Dell Publishing Group, London.
- Subramanian, A.M., Choi, Y.R., Lee, S.-H. and Hang, C.-C., 2016. Linking technological and educational level diversities to innovation performance. *The Journal of Technology Transfer*, 41(2), pp.182-204.
- Sun, S. and Xu, Z., 2012. Cultural values and their challenges for enterprises. International Journal of Business Administration 3(2)68-73 value creation. *Journal of Intellectual Capital*: 15(3), pp.362-375.
- Varadarajan, R., 2018. Innovation, innovation strategy, and strategic innovation, innovation and strategy. *Review of Marketing Research*, 1(5), pp.143-166.
- Vayrynen, H., Helander, N. and Vasell, T., 2018. Knowledge management for open innovation: Comparing research results between SMEs and large companies. *International Journal of Innovation Management*, 21(5), pp.49-67: https://doi.org/10.1142/S1363919617400047
- Wikhamn, W., Armbrecht, J. and Wikhamn, B.R., 2018. Innovation in Swedish hotels. *International Journal of Contemporary Hospitality Management*, 30(6), pp.2481-2498.
- Xu, J. and Wang, B., 2018. Intellectual capital, financial performance and companies' sustainable growth: evidence from the Korean manufacturing industry. *Sustainability*, 10(12), 4651.
- Qin, Y. S., DiStaso, M. W., Fitzsimmons, A. B. and Heffron, E., 2023. Communicating the Big Picture With Employees: The Impacts of CEO Vision Communication on Employee Engagement. *International Journal of Business Communication*. https://doi.org/10.1177/23294884231190387
- Yildiz, S. and Gul, R., 2016. The effect of leadership style on the organisational culture: Evidence from Turkey. *European Journal of Business Management* 8(9), pp.51-58.
- Zawaideh, F.H., Al-Zoubi, M.I., Abualoush, S.H., Kanaan, R.K. and Masa'deh, R., 2018. The impact of knowledge documentation process as an intermediary variable among knowledge acquisition process, organizational culture and human capital. *Modern Applied Science*,12 (11), pp.151-168.
- Zelbst, P.J., Green, K.W., Sower, V.E. and Bond, P.L., 2019, The impact of RFID, IIoT, and Blockchain technologies on supply chain transparency. *Journal of Manufacturing Technology Management*, 31(3), pp.441-457.

