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Uncovering the Relationship between Intellectual Capital and Financial Management Practices: A Conceptual Framework

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Abstract: *The contemporary business environment has superseded the retail and industrial economy due to the information-age economy's existence. The combination of knowledge and information provide practical benefits to the technology-driven and knowledge-intensive businesses. In this context, the firms heavily rely on efficient management practices such as financial management and knowledge capabilities like intellectual capital. The poor financial management practices and weak intellectual capital may result in business failure. Previous studies mainly focused on the relationship between intellectual capital and firm performance. However, intellectual capital as a predictor of financial management practices is a missing concept in the existing literature. Therefore, this study focuses on building a framework between intellectual capital (human capital, structural capital and relational capital) and financial management practices (working capital management, accounting information systems, financial reporting, financing, and investment decisions). This study left space for future studies to test the proposed model according to their study settings.*

Keywords: Intellectual capital, financial management, firm performance, knowledge, business.

Introduction

In the 20th century, the retail economy's effectiveness and industrial economy had been replaced by the information-age economy in the business world. The information and knowledge play a successful role to overcome the challenges of new and old businesses (Davenport, Prusak, et al., 1998). The argument is that these businesses required updated technology and intense knowledge to sustain in the market. In this regard, successful firms are dependent on efficient management decisions and knowledge capabilities to feature business-related challenges. Huang and Wu (2010) argued that financial organisations' traditional decisions are insufficient for the current business environment. This

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signifies that firms demand efficient financial management practices and updated intellectual capital for business success. The organizations keep monitoring their management decisions to channelize their resources, such as financial management practices and intellectual capital. [Toorchi, Asiaei, and Dehghan \(2015\)](#) consider a firm's intellectual capital and financial resources as essential components of gaining competitive advantage. In essence, intellectual capital and financial management are perceived as the cornerstone for value creation of an organization.

Moreover, a stable financial management system provides right directions to business operations and act as the lifeblood of a firm. The successful businesses utilize their financial resources efficiently to gain profits and meet their financial obligations. This situation reflects sustainable financial management practices which distinguish an organization itself among the competitors. [Fraser, Bhaumik, and Wright \(2015\)](#) explain financial management practices as a process that deals with planning, organizing, direct, and controlling financial activities to use the optimal resources of a firm. The financial management process involved a systematic and structured way of doing business transactions ([Zada, Yukun, & Zada, 2021](#)). A business's success is also determined by an efficient financial management system, while the business failure of a firm is due to poor financial management practices. Ineffective and improper financial practices include lack of funds for long-term investment, financial complexity, poor management of capital expenditure, mishandling of operational cost and the miss management of overall financial resources ([Pais & Gama, 2015](#)). On a macro level, fair financial management practices support economic growth through quality products to the masses at a minimum cost. The efficient financial policies also minimize the organizational investment cost, generate employment, reduce poverty, and improve society's welfare ([Zada et al., 2021](#); [Badini, Hajjar, & Kozak, 2018](#); [Adam & Pettenella, 2013](#)). It is also a well-known fact that each firm has a different financial management system to manage firm resources and make strategic decisions. However, there is a common concern among the business organizations related to capital structure, dividend policies, working capital, quality of financial information, capital budgeting and effective financial approaches. Business entities with less focused or poor management policies may have greater chances to expose business failure. Thus, businesses need to understand the sensitivity of financial management practices that influence an enterprise's performance.

On the other hand, emerging businesses are more focused on intangible assets such as intellectual capital. Unlikely, some organizations ignored to disclose intellectual capital in their financial reports. As a result, organizations with higher intellectual capital regarded as undervalued firms; instead, they are known as valuable business. In finance, the term "capital" generally reflects the concept of cash flow generation in the business ([Fathi, Farahmand, & Khorasani, 2013](#)). The explanation of capital is mostly perceived as a tangible form of financial resource. However, both tangible and intangible resources explain the concept of capital for a business. In this regard, the intangible asset of a firm includes employee's association with the organization and their mental capability to contribute to the company's overall performance. Intangible assets are equally important as tangible assets because the global business environment has changed its direction from production to knowledge-based operation.

Similarly, [Kalkan, Bozkurt, and Arman \(2014\)](#) believe that scholarly capital or intellectual capital is a form of strategic resources that create knowledge-based business and competitive advantage for a company. [Cenciarelli, Greco, and Allegrini \(2018\)](#) explain that intellectual capital is based on the knowledge within the organization in terms of networking and organizational relationships. More precisely, intellectual capital has three main components, namely, human capital (HC), capital employed (CE) and structural capital (SC). [Anuonye \(2015\)](#) suggest that HC is a familiar concept that belongs to human competence, commitment, capabilities and training. Barathi-Kamath (2007) explains CE as a combination of financial and non-financial resources of a firm. Following [Anuonye \(2015\)](#)'s explanations, [Amin and Aslam \(2017\)](#) extended the intellectual capital concept by considering intellectual capital as a value creation factor of a business organization. Accordingly, one study of [Firer and Williams \(2003\)](#) already presented a framework that relates intellectual capital as a value-added intellectual coefficient (VAIC).

The study contributions are manifold. First, this study distinguishes itself from previously conducted research by suggesting a new framework explaining the relationship between intellectual capital and financial management practices. Second, the study is equally beneficial for each organization where intellectual capital and financial management practices are performed. Third, this study offers a venue for future researchers to test the proposed model empirically. Forth, the finance managers, policymakers and business experts can gain new insights when performing financial management policies. Fifth, the proposed conceptual model helps strategists formulate organizational policies in terms of intangible assets and financial management system. Finally, this study adds new knowledge to the existing literature of intellectual capital and financial management practices.

Literature Review

Intellectual capital (IC)

[Klein and Prusak \(1994\)](#) defined intellectual capital as “packaged useful knowledge”. However, there exists a consensus among the authors that IC is a composite of three main factors, namely, human capital (HC), relational capital (RC) and structural capital (SC). This argument is further supported by [Toorchi et al. \(2015\)](#) and suggests that HC, RC and SC are the main components of IC. In the past few years, IC's idea in business organizations has attained a considerable amount of attention among the academicians and policymakers. The argument is justified by the plethora of researches conducted on IC. The IC idea has provided some useful benefits to the several industries by converting from industrialized to a knowledge-based economy. Foray (2006) stated that business organizations had understood the importance of the knowledge economy and their transition is underway by creating and disseminating the knowledge. The process to reach a knowledge-based economy has brought human capital development and strategic value to the business. The information-age economy's influence enabled business organizations to measure IC and receive practical benefits ([Cabrita & Bontis, 2008](#)). Earlier studies also benefit from IC in budgetary control and performance management techniques. They

studied that IC has two major components: intangible or intellectual assets and human capital. The organizations cannot own human capital, while intellectual assets can be enriched through human capital innovations. However, the management of this process is quite complicated and challenging to manage. The fact was supported by Danish contribution to the Meritum Project, where it was recognized that human capital provides customer relations and business competence to ensure competitive advantage and develop innovations. In financial management, the implications of IC factors (HC, RC and SC) may assist the firms when considering performance measures. [Fijałkowska \(2008\)](#) highlighted that IC without physical existence is meaningless, but it has specific economic value. [Kalkan et al. \(2014\)](#) found that IC has a different meaning in this new world where human capital will be used for mental work rather than physical activities. This implies that IC has broadened the definition and it required significant attention to control future challenges. This study explains the key components of IC (HC, RC and SC) in the following section. These factors are derived from past studies where a consensus among the authors has already developed on IC's composition. Due to this reason, this study emphasized IC factors and their relation to financial management.

Components of IC

Human capital

[Dinda \(2008\)](#) defined human capital as a combination of knowledge and abilities on an individual that helps and support to perform innovatively. Additionally, HC consists of various attributes such as collective information, individual skills, capability and innovative ability of employees. These human skills are supported by the environment and prevailed culture of a business. HC abilities are associated with employee ability that accomplishes organizational objectives and eventually attains their jobs requirement ([Brooks & Nafukho, 2006](#)). Similarly, three essential aspects of HC such as; (1) innovation and learning; (2) motivation and commitment; (3) capability and potential. Their study explained innovation and knowledge as an employee characteristic to be flexible and adapt the change. The motivation and commitment refer to the relationship between employee interests and business interests. Lastly, employee's experience, professional abilities, morals, personal relations and personal qualifications are an integral part of capability and potential. This suggests that human skills such as potential, mental ability and behavior can be transformed to achieve business goals. [Cabrita and Bontis \(2008\)](#) believe that HC is directly associated with information, aptitudes, expertise, and abilities that help a good business performance. [Hsu and Fang \(2009\)](#) also supported this argument and suggested that HC is a set of information, knowledge, commitment, attitude, behavior, and executive's capability. However, these characteristics are available to the business but owned by the employees. In sum, it can be concluded that HC includes professional abilities, individual behavior, commitment, qualification, knowledge, information and willingness to perform business operations.

Relational capital

Kale (2009) connect relational capital with networking and personal association with other individuals. Initially, Dewhurst and Navarro (2004) study somehow identified the concept of relational capital. Muchran (2020) criticized (Dewhurst & Navarro, 2004) work by arguing that their research ignored other relational resources that are essential for the external environment. Hsu and Fang (2009) extended (Dewhurst & Navarro, 2004) concept of RC and included various relational values such as stakeholders, suppliers and customer relations. Hosseini and Owlia (2016) indicate that RC can be used to develop strong relationships with supplier, government agencies, trade partners, individual clients and contractors. This means that relational resources provide support in the process of sharing information and knowledge creation between an organization and its partners. Recently, Muchran (2020) shed light on the importance of relational resources and business performance. The study indicates that RC creates business opportunities in the market by developing new knowledge to gain competitive advantage.

Structural capital

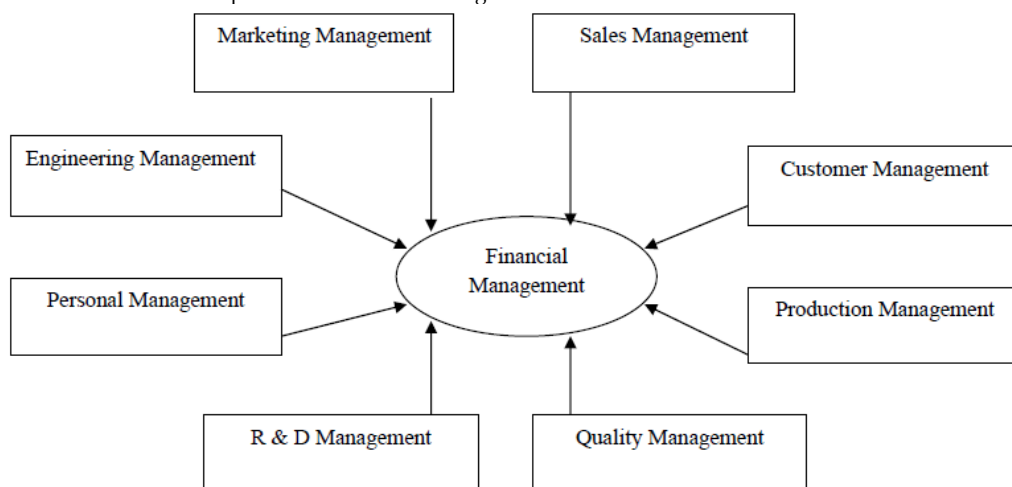
Cleary (2009) stated that structural capital or organizational capital is different from HC and RC where emotional competence is embedded instead a component capability. SC consists of organizational procedures, supportive infrastructure, information and databases where humans play a role to function in the organization. On the other side, Cleary (2015) explain SC as a business process and operations with the combination of knowledge and information where the human role is apart. Muchran (2020) consider SC as a combination of the firm's architectural and technological ability. Architectural ability is a component of the organizational capability to channelize employee competencies and attain quality business performance (Ortiz, Donate, & Guadamillas, 2017). At the same time, technological ability is determined through information and internal skills of business. Additionally, SC helps a company use an advanced version of infrastructure and generate new products/ services. This support further extends its benefits to the business where innovative manufacturing process and business knowledge can be improved. The architectural competency is another form of intangible resource where an organization develops its business operations more effectively. Overall, SC includes business structure, organizational culture, information, customs, communication and information. Therefore, it is concluded that SC is a supportive and competent business infrastructure to perform in the market (Cleary, 2015).

Financial management practices

Financial management comes under the functional area of a business organization. It is one of a few management functions which determine the development and success of any business. McMahon (2001) explains financial management as a set of key management activities that aim to achieve financial objectives through efficient management. García-Teruel and Martínez-Solano (2007) relate financial management with the use and mobilization of funding sources. They further added that financial management is essential

to raise funds and efficiently allocate those funds to finance business activities. This process of fundraising and its management helps enterprises to achieve organizational goals. Meredith (1986) posits that financial management is among those management functions that establish business success. This explanation of financial management indicates the central role of financial management in the business organization. Figure 1 illustrates the position and central part of financial management concerning other functional areas of a business.

Figure 1
The central role and position of financial management



Source: Meredith (1986)

The financial management required extra knowledge and careful decision-making process due to the involvement of financial resources. In business organizations, the continuous improvement and monitoring of financial decisions may protect organizations from business failure. Carpenter and Petersen (2002) suggest that business organizations must implement effective financial management policies to evaluate performance, interpret financial results, forecast future information and bring positive change in the decisions. Zada et al. (2021) also supported this argument and suggested enterprises to implement effective financial management practices. The successful financial management planning ensures long-term benefits to the firm. This is more important when financial management decisions reflect in financial reports for the stakeholders. In this way, the management decisions are evaluated by the external parties and their overall financial performance.

Moreover, effective financial practices required high-quality information. Business decisions are dependent on the availability of relevant information. This includes various dimensions of quality information that are useful for investigating the past and future trends (Olawale & Garwe, 2010). According to Karadag (2015), high-quality information can be attributed in four parts; (1) timeliness information, (2) accurate information,

(3) consistent information and (4) completeness information. To ensure the usefulness of financial management practices, reliable and relevant information is the essential component of quality information. The enterprises having poor information quality have greater chances to expose business failure. Recently, [Zada et al. \(2021\)](#) suggest that business organisations' growth required effective financial management practices. With this notion, the managers/ policymakers can take better decisions, and the uncertainty in financial management practices can be reduced. The essential components of financial management practices include financing, working capital management, investment, financial reporting/analysis and accounting information ([Gabrielsson, Sasi, & Darling, 2004](#)). The financial management decisions are mainly related to investment decisions, financial reporting, financing decisions and dividend decisions ([Jindrichovska, 2013](#)). Earlier studies have reported several financial management decisions; however, the following are the essential financial management practices that are essential for business enterprises and their sustainable performance ([Suriyankietkaew & Avery, 2016](#)).

Working capital management

In financial management, working capital is based on current assets and current liabilities ([Hardi, 2009](#)). It also includes investment in short-term assets, short-term securities, accounts receivable and inventories ([Zada et al., 2021](#)). Working capital is also referred to as networking capital, where it depicts the excess of current assets over current liabilities. It also reflects how much a firm is capable of paying its short-term obligations. [Bouazza, Ardjouman, and Abada \(2015\)](#) argued that working capital could be seen in two broader contexts. First, the short-term investment in assets like accounts receivable, cash, inventories, and related current assets are listed in the company's balance sheet. Second, the long-term investment in assets such as plants, land, buildings, machinery and other items that are listed on the balance sheet of a business. Working capital determines business success and demands efficient management process. The organizations expect managers to maintain an adequate level of decision making to ensure smooth business operations. The insufficient amount of working capital generates negative influence on firm financial position ([Mazzarol, 2014](#)). The low level of working capital damages a business's creditworthiness and becomes difficult for a firm to prosper and survive in the market ([Dong & Su, 2010](#)). Along with the efficient management of working capital, an organization required a sufficient working capital to sustain and perform business operations smoothly ([Demir & Ersan, 2017](#)).

Financial reporting and analysis

Financial reporting and its analysis have several aspects: reporting financial numbers, auditing, bridging the gap in management, reports analysis, etc. The term financial reporting is well explained by [Zada et al. \(2021\)](#), stated that financial reports are an integral part of expediting managerial decisions. [D'Amboise and Gasse \(1980\)](#) found that managerial decisions are based on financial statements. [DeThomas and Fredenberger \(1985\)](#) revealed that most small enterprises made policy decisions based on the summary of financial re-

ports. Their study highlighted the importance of different financial statements such as cash flow, balance sheets and income statement. The research further indicates that financial reports are useful for managerial planning, evaluation and decision making. Financial reports mainly provide quantitative highlights of business performance. This information mostly presented annually; however, the frequency of financial statements varies from firm to firm. Some organizations publish financial reports more frequently than other companies. Nevertheless, business organizations are restricted to maintain standards of financial reports. It is essential to present financial highlights to the readers to understand and analyze the report in an effortless manner. Past literature also guided us that financial reporting and its analysis have a strong link from managerial decisions (Demir & Ersan, 2017). This implies that a structure and appropriate financial reporting/ analysis system must adapt to ensure firm corporate image and growth. In sum, the transparency and standardized procedure in financial reporting/analysis provide effective financial management practice in the organization.

Accounting information system

The term accounting information system is one of the essential components of a financial management system. It includes bookkeeping, financial records, data collection, data processing of accounting data to use managerial decisions. Nowadays, accounting information systems are integrated with a computer-based management system to track company accounts' information. The use of information technology resources are directly linked with the accounting information process. The use of computer applications provides reliable information about a business. Similarly, Palmer (1994) also highlighted the importance of accounting management systems for effective financial management. Moreover, the accounting information system combines the accounting concepts and principles used to plan and record business activities. The system also helps users to read and understand the accounting data provided by the organization. Mole, North, and Baldock (2017) argued that accounting information system is an essential part of strategic decisions where managers rely on the information related to customer service, production outcomes, costs and profits. Other studies such as Harash (2015); Zada et al. (2021); Fagbemi and Olaoye (2016) also consider accounting information system as a key factor of financial management practice.

Financing

Financing in financial management is associated with decisions to raise finance for the organization. It mainly involved in the identification of financial resources to increase the assets of a company. Generally, business firms raise their finance through borrowed capital or shareholders' funds. Unlikely, some enterprises have restrictions to access the equity market due to regulatory obligations. According to Brigham and Houston (1995), organizations with difficulties in raising finance took advantage of modern capital structure theory proposed by Modigliani and Miller (1958). The theoretical assumptions of M & M theory explain the importance of capital structure and a firm's overall value. On

the other side, [Myers \(1984\)](#) viewpoint that it is difficult to answer how a firm selects its capital structure. The argument is that a firm may use equity, debt or hybrid arrangement to form a capital structure. Similarly, the Pecking Order Theory (POT) posits no benchmarking to define a well-organized capital structure. Furthermore, financing decisions are complicated due to the involvement of risk of business failure. Efficient financing decisions help managerial decisions and protect the business from loss. The sub-optimal financial choices are the basis of financial distress for a company. [Sindani et al. \(2018\)](#) stated that financial decisions aim to claim quality decisions and maximize a company's wealth. Managerial decisions are also influenced by financial leverage. It explains how the debt proportion in capital structure impacts capital structure in the long-run ([Pais & Gama, 2015](#)). An enterprise has two main options to get funds in the capital structure either through external or internal sources. The external source of funds includes issuing loan stock, loans from financial institutions and equity shares. The internal source of funds is generally associated with reserved income. [Yazdanfar and Öhman \(2015\)](#) stated that the creation of capital structure harms governance structure, resulting in a change in strategic choices by the managers. Therefore, it is concluded that financial decisions required effective planning and management to finance company assets and achieve organizational goals.

Investment and capital budgeting

Capital budgeting refers to analysing which proposal for the purchase of a fixed asset to be accepted or rejected. The process is based on quantitative techniques for each proposed investment in a fixed asset, giving a rationale for judgment. Capital budgeting and investment appraisal include planning for the possible investment in long-term projects such as replacement or purchase of new machinery, research development projects, new plants and products. Generally, it is believed that capital budgeting decisions are made for more than a year and portray a company's strategic position in the market ([Gupta, Gregoriou, & Healy, 2015](#)). Past literature proposed several approaches such as net present value, accounting rate of return, payback period, internal rate of return and profitability index to apply capital budgeting techniques. Practically, capital budgeting techniques can be divided into traditional (average rate of return, payback period) and modern approaches (net present value, profitability index, internal rate of return, modified internal rate of return). The process of capital budgeting involves screening and selecting investment projects and extending support to complete an organizational audit ([Zada et al., 2021](#)). The estimation procedures of capital budgeting give an in-depth analysis of the initial investment and future cash flows related to the proposal. [Uwonda and Okello \(2015\)](#) presented an idea that capital budgeting decisions should estimate the initial cost to analyze a project's future cash flows. [Bilal, Khan, and Akoorie \(2016\)](#) stated that capital decisions determined a company's financial well-being where efficient decision-making plays its role for future planning. Similarly, capital budgeting and investment plans are essential for business survival and its growth in the industry. [Wolff, Pett, and Ring \(2015\)](#) posit that decision-makers should appropriately handle capital planning and make the right decisions for the discarded and accepted investment projects. Earlier studies also devel-

oped a consensus that capital budgeting decisions are the significant predictors of firm's sustainable growth (Zada et al., 2021). Hence, it can be concluded that investment and capital planning required extra skills before admitting or refusing investment proposals.

Linking Intellectual Capital and Financial Management Practices

In past studies, it is evident that intellectual capital has a strong bonding with business organizations' performance. However, the concept of the relationship between intellectual capital and financial management practices is a missing component. The intellectual capital literature in the financial system is varied and mostly addressed management accounting and financial performance aspect (Hamdan, 2018; Maji & Goswami, 2020). The past literature also highlighted the importance of intellectual capital in several study contexts such as the banking sector, pharmaceutical, financial, and manufacturing sectors. This signifies that the researches on intellectual capital within the business organization is relevant and demand new dimensions. Additionally, organizations are experiencing a great shift from blue-collar jobs to white-collar jobs due to the demand for intellectual capital in the business firms. Similarly, business performance is interlinked with the best management practices that include knowledge management, utilization of financial resources, cost management and continuous research on sustainable policies (Kamal, Rahim, Husin, Mat, & Ismail, 2012). When evaluating business performance, intellectual capital and financial management systems play a significant role in taking corrective measures. The fact is also supported by Muchran (2020), argued that a business organization must be evaluated on the basis of multiple performance standards such as financial practices and intellectual capital. This means that a higher level of intellectual capital produces a higher level of productivity, while effective financial policies acknowledge the competitive advantage. For this reason, a firm's intangible assets should be linked with its financial management policies to present an accurate picture of business among the stakeholders and investors. In a nutshell, intellectual capital laid a foundation for organizational goals achievement while financial management policies promote its stakeholders' best value. This study aims to combine the concepts of intellectual capital and financial management practices based on the above discussion. For this purpose, the study proposed a conceptual model that discusses intellectual capital's influence on financial management practices.

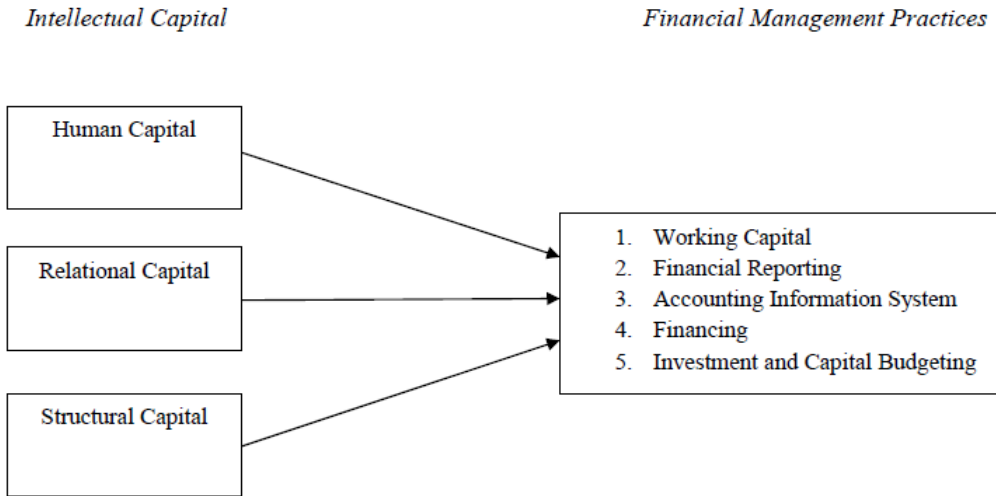
Proposed framework

Figure 2 illustrates the conceptual framework of this study. The model reflects the relationship between IC and financial management practices. As mentioned above, this study mainly aims to suggest a model that explains how an organization with a higher level of IC influence best financial management practices. Following Toorchi et al. (2015) recommendations, the hypothesized model underpinning the theoretical assumptions of "fit as mediation" theory of contingency view (Venkatraman, 1989) and resource-based

view theory (Barney, 1991). The fit as mediation theory postulates that knowledge characteristics (such as intangible assets) predict a particular mechanism (such as financial management practices) which is designed and implemented for the successful processing of organizational information (Galbraith, 1973). However, the resource-based view theory suggests that management decisions are responsible for using strategic resources to achieve sustainable competitive advantages.

Figure 2

Proposed model for intellectual capital and financial management practices



Source: Author's creation

Hypotheses

For empirical testing, this study formulates the following hypotheses;

H₁: Human capital will have a significant positive impact on financial management practices.

H₂: Relational capital will have a significant positive impact on financial management practices.

H₃: Structural capital will have a significant positive impact on financial management practices.

Conclusion

This study aims to propose a conceptual framework to assess the possible relationship between intellectual capital and financial management practices. In particular, the hy-

pothesized model required empirical testing to establish a consensus on whether a higher level of IC predicts financial management practices in business organizations. This study borrowed assumptions from two well-established theoretical frameworks, namely, “fit as mediation” premise of contingency theory and “resource-based view” theory. Both approaches were relevant and acceptable to build a potential association between IC factors and financial management practices in the contemporary business world. This study provides guidelines for future empirical studies and expects practical evidence according to their study settings. At the same time, this study also contributes to the existing body of knowledge, given the fact that intellectual capital in business may influence financial management practices. The study also expects empirical testing on industry and country-wise analysis to fill the research gap. In this context, IC’s role on financial management practices will contribute to understanding the phenomena in business organizations. Additionally, empirical studies would highlight how each component of intellectual capital enhances financial management practices. This will help practitioners and enterprises apply more innovative and systematic approaches based on knowledge to achieve sustainable goals.

References

- Adam, Y. O., & Pettenella, D. (2013). The contribution of small-scale forestry-based enterprises to the rural economy in the developing world: The case of the informal carpentry sector, Sudan. *Small-scale Forestry*, 12(3), 461–474.
- Amin, S., & Aslam, S. (2017). Intellectual capital, innovation and firm performance of pharmaceuticals: A study of the London Stock Exchange. *Journal of Information & Knowledge Management*, 16(02), 1750017.
- Anuonye, N. B. (2015). Intellectual capital measurement: using the earnings per share model of quoted insurance companies in Nigeria. *International Business and Management*, 10(1), 88–98.
- Badini, O. S., Hajjar, R., & Kozak, R. (2018). Critical success factors for small and medium forest enterprises: A review. *Forest Policy and Economics*, 94, 35–45.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Bilal, A. R., Khan, A. A., & Akoorie, M. E. M. (2016). Constraints to growth: a cross country analysis of Chinese, Indian and Pakistani SMEs. *Chinese Management Studies*, 10(2), 365–386.
- Bouazza, A. B., Ardjouman, D., & Abada, O. (2015). Establishing the factors affecting the growth of small and medium-sized enterprises in Algeria. *American International Journal of Social Science*, 4(2), 101–115.
- Brigham, E., & Houston, J. (1995). *Fundamentals of corporate finance*. Orlando, FL: The Dryden Press.
- Brooks, K., & Nafukho, F. M. (2006). Human resource development, social capital, emotional intelligence: Any link to productivity? *Journal of European industrial training*.

- Cabrita, M. d. R., & Bontis, N. (2008). Intellectual capital and business performance in the portuguese banking industry. *International Journal of Technology Management*, 43(1-3), 212–237.
- Carpenter, R. E., & Petersen, B. C. (2002). Is the growth of small firms constrained by internal finance? *Review of Economics and statistics*, 84(2), 298–309.
- Cenciarelli, V. G., Greco, G., & Allegrini, M. (2018). Does intellectual capital help predict bankruptcy? *Journal of Intellectual Capital*, 19(2), 321–337.
- Cleary, P. (2009). Exploring the relationship between management accounting and structural capital in a knowledge-intensive sector. *Journal of Intellectual Capital*, 10(1), 37–52.
- Cleary, P. (2015). An empirical investigation of the impact of management accounting on structural capital and business performance. *Journal of Intellectual Capital*, 16(3), 566–586.
- D’Amboise, G., & Gasse, Y. (1980). Performance in small firms and the utilization of formal management techniques. In *Proceeding of the joint national meeting tims/orsa, washington*.
- Davenport, T. H., Prusak, L., et al. (1998). *Working knowledge: How organizations manage what they know*. Harvard Business Press.
- Demir, E., & Ersan, O. (2017). Economic policy uncertainty and cash holdings: Evidence from BRIC countries. *Emerging Markets Review*, 33, 189–200.
- DeThomas, A. R., & Fredenberger, W. B. (1985). Accounting needs of very small business. *The CPA Journal (pre-1986)*, 55(000010), 14.
- Dewhurst, F. W., & Navarro, J. G. C. (2004). External communities of practice and relational capital. *The Learning Organization*, 11(6), 322–331.
- Dinda, S. (2008). Social capital in the creation of human capital and economic growth: A productive consumption approach. *The Journal of Socio-Economics*, 37(5), 2020–2033.
- Dong, H. P., & Su, J.-t. (2010). The relationship between working capital management and profitability: a Vietnam case. *International Research Journal of Finance and Economics*, 49(1), 59–67.
- Fagbemi, T. O., & Olaoye, J. A. (2016). An evaluation of accounting information system and performance of small scale enterprises in Kwara State, Nigeria. *DBA Africa Management Review*, 6(1).
- Fathi, S., Farahmand, S., & Khorasani, M. (2013). Impact of intellectual capital on financial performance. *International Journal of Academic Research in Economics and Management Sciences*, 2(1), 6–17.
- Fijalkowska, J. (2008). Review of guidelines for the intellectual capital statement: how to manage and communicate the company’s knowledge. *Portuguese Journal of Management Studies*, 13(3), 327–340.
- Firer, S., & Williams, S. M. (2003). Intellectual capital and traditional measures of corporate performance. *Journal of Intellectual Capital*.
- Fraser, S., Bhaumik, S. K., & Wright, M. (2015). What do we know about entrepreneurial finance and its relationship with growth? *International Small Business Journal*, 33(1), 70–88.
- Gabrielsson, M., Sasi, V., & Darling, J. (2004). Finance strategies of rapidly-growing

- finnish SMEs: born internationals and born globals. *European Business Review*, 16(6), 590-604.
- Galbraith, J. (1973). Designing complex organizations. Reading, Mass.
- García-Teruel, P. J., & Martínez-Solano, P. (2007). Effects of working capital management on SME profitability. *International Journal of managerial finance*, 3(2), 164-177.
- Gupta, J., Gregoriou, A., & Healy, J. (2015). Forecasting bankruptcy for smes using hazard function: To what extent does size matter? *Review of Quantitative Finance and Accounting*, 45(4), 845-869.
- Hamdan, A. (2018). Intellectual capital and firm performance: Differentiating between accounting-based and market-based performance. *International Journal of Islamic and Middle Eastern Finance and Management*, 11(1), 139-151.
- Harash, E. (2015). The role of environmental uncertainty in the link between accounting information system and performance small and medium enterprises in Iraq. *Journal of Business and Management*, 3, 48-57.
- Hardi, P. (2009). *Making sustainability work: Best practices in managing and measuring corporate social, environmental, and economic impacts*, mj epstein, greenleaf publishing, sheffield, uk (2008), 288 pp. Elsevier.
- Hosseini, M., & Owlia, M. S. (2016). Designing a model for measuring and analyzing the relational capital using factor analysis: Case study, Ansar bank. *Journal of Intellectual Capital*.
- Hsu, Y.-H., & Fang, W. (2009). Intellectual capital and new product development performance: The mediating role of organizational learning capability. *Technological Forecasting and Social Change*, 76(5), 664-677.
- Huang, Y.-C., & Wu, Y.-C. J. (2010). Intellectual capital and knowledge productivity: The Taiwan biotech industry. *Management Decision*, 48(4), 580-599.
- Jindrichovska, I. (2013). Financial management in SMEs. , 16, 79-95.
- Kale, S. (2009). Fuzzy intellectual capital index for construction firms. *Journal of Construction Engineering and Management*, 135(6), 508-517.
- Kalkan, A., Bozkurt, Ö. Ç., & Arman, M. (2014). The impacts of intellectual capital, innovation and organizational strategy on firm performance. *Procedia-social and Behavioral Sciences*, 150, 700-707.
- Kamal, M. H. M., Rahim, N. A., Husin, N., Mat, R. C., & Ismail, I. (2012). The role of price fairness, cleanliness and physical environment on customer retention in family restaurants. *Current Issues in Hospitality and Tourism: Research and Innovations*, 291.
- Karadag, H. (2015). Financial management challenges in small and medium-sized enterprises: A strategic management approach. *EMAJ: Emerging Markets Journal*, 5(1), 26-40.
- Klein, D. A., & Prusak, L. (1994). Characterizing intellectual capital. *Center for Business Innovation, Ernst & Young LLP*.
- Maji, S. G., & Goswami, M. (2020). Is the influence of intellectual capital on firm performance homogeneous? evidence from india employing quantile regression model. *International Journal of Learning and Intellectual Capital*, 17(2), 187-211.
- Mazzarol, T. (2014). Research review: A review of the latest research in the field of small business and entrepreneurship: Financial management in SMEs. *Small Enterprise*

- Research*, 21(1), 2–13.
- Mcmahon, R. G. (2001). Growth and performance of manufacturing SMEs: The influence of financial management characteristics. *International Small Business Journal*, 19(3), 10–28.
- Meredith, G. G. (1986). *Financial management of the small enterprise*. McGraw-Hill.
- Mole, K., North, D., & Baldock, R. (2017). Which smes seek external support? business characteristics, management behaviour and external influences in a contingency approach. *Environment and Planning C: Politics and Space*, 35(3), 476–499.
- Muchran. (2020). Effect of intellectual capital on sustainable financial performance of indonesian pharmaceutical firms with moderating role knowledge management. *Sys Rev Pharm*, 11(1), 203–212.
- Myers, S. C. (1984). *Capital structure puzzle*. National Bureau of Economic Research Cambridge, Mass., USA.
- Olawale, F., & Garwe, D. (2010). Obstacles to the growth of new SMEs in South Africa: a principal component analysis approach. *African Journal of Business Management*, 4(5), 729–738.
- Ortiz, B., Donate, M. J., & Guadamillas, F. (2017). Relationships between structural social capital, knowledge identification capability and external knowledge acquisition. *European Journal of Management and Business Economics*, 26(1), 48–66.
- Pais, M. A., & Gama, P. M. (2015). Working capital management and smes profitability: Portuguese evidence. *International Journal of Managerial Finance*, 11(3), 341–358.
- Palmer, K. N. (1994). Financial information used by small independent retailers. *The CPA Journal*, 64(4), 70–85.
- Sindani, M. N. L., et al. (2018). Effects of accounts receivable financing practices on growth of SMEs in Kakamega County, Kenya. *Expert Journal of Finance*, 6, 1–11.
- Suriyankietkaew, S., & Avery, G. (2016). Sustainable leadership practices driving financial performance: Empirical evidence from Thai SMEs. *Sustainability*, 8(4), 327.
- Toorchi, M., Asiaei, K., & Dehghan, M. (2015). Intellectual capital and management accounting practices: evidence from Iran. *Procedia Economics and Finance*, 31, 775–788.
- Uwonda, G., & Okello, N. (2015). Cash flow management and sustainability of small medium enterprises (SMEs) in Northern Uganda. *International Journal of Social Science and Economics Invention*, 1(03), 153–157.
- Venkatraman, N. (1989). The concept of fit in strategy research: Toward verbal and statistical correspondence. *Academy of Management Review*, 14(3), 423–444.
- Wolff, J. A., Pett, T. L., & Ring, J. K. (2015). Small firm growth as a function of both learning orientation and entrepreneurial orientation: An empirical analysis. *International Journal of Entrepreneurial Behavior & Research*, 21(5), 709–730.
- Yazdanfar, D., & Öhman, P. (2015). The growth-profitability nexus among swedish smes. *International Journal of Managerial Finance*, 11(4), 531–547.
- Zada, M., Yukun, C., & Zada, S. (2021). Effect of financial management practices on the development of small-to-medium size forest enterprises: Insight from Pakistan. *GeoJournal*, 86(3), 1073–1088.