

THE RELEVANCE OF INTELLECTUAL CAPITAL IN SMALL AND MEDIUM-SIZED ENTERPRISES

VINÍCIUS FIGUEIREDO DE FARIA
UNIVERSIDADE FUMEC (FUMEC)

FÁBIO CORRÊA
UNIVERSIDADE FUMEC (FUMEC)

THE RELEVANCE OF INTELLECTUAL CAPITAL IN SMALL AND MEDIUM-SIZED ENTERPRISES

ABSTRACT

The business environment of the 21st century is progressively being considered by uncertainty, hypercompetition and rapid technological change, which has made survival, the primary challenge faced by business firms. Therefore, developing and sustaining superior competitive advantage under such conditions has proven to be a serious task and seem to rely on innovation to achieve its success. Due to those aspects, over the last two decades, matters involving Intellectual Capital have acquired space, being considered a subject of great interest in academic communities and in the business environment. In this scenario, understand the small and medium-sized enterprises environment is indeed relevant, once they are considered to be a driver to economic and social environmental development, due to their capacity to generate employment and because they represent more than 90% of the world's companies. However, curiously and paradoxically, even considering the strategic importance of small and medium-sized enterprises for the economy, society and governments, the challenge to understand the peculiarities of Intellectual Capital dimensions in small and medium-sized enterprises is still something to be explored in depth. So, the present study is conducted to empirically examine the use and value creation of Intellectual Capital dimensions on small and medium-sized enterprises and simultaneously provide a clear view of the strategic role of the Intellectual Capital on effective management of the knowledge assets. Through a quantitative approach, this research made use of an online survey as a method for treating the ambitioned, and the findings show that all Intellectual Capital dimensions have significant effects on small and medium-sized enterprises value creation. However, it also reveals that the lack of investment capacity seems to be a hurdle to sustainability. The current study has a number of respondents limitations and future studies may not only be performed on a larger sample, but also contemplate the social and environmental aspects of Intellectual Capital.

Keywords: intellectual capital; intellectual capital dimensions; small and medium-sized enterprises

1. INTRODUCTION

The success of economic development in the past depended greatly on the use of tangible assets such as, among others, land, natural resources, and equipment, to be able to create added value to the well-being. Nevertheless, in the present era of information economics, success of economic development depends on the ability to apply knowledge (Nuryaman, 2015). Notably, the value of physical and financial assets is disclosed periodically and can be easily found on the balance sheet and other company's financial records. In contrast, intangible assets such as the skills of the workforce and its organization are becoming increasingly important in determining the expected corporate profits and sustainability. However, these types of assets remain largely invisible to the external world (Sherif & Elsayed, 2016).

Mainly in the past two decades, academics as well as corporate management have put great effort in studying the importance of Intellectual Capital, due to the fact that it may be considered a driver of corporate performance, competitiveness, success, value creation and financial sustainability (Kogut & Zander, 1992; Bierly & Chakrabarti, 1996;

Brennan & Connell, 2000; Bontis & Fitz-enz, 2002; Cronje & Moolman, 2013; Bontis et al., 2015; Xu & Wang, 2018). However, even though few authors have devoted themselves to study the influence of Intellectual Capital on small and medium-sized enterprises value creation, previous studies (Yaacob et al., 2014) have demonstrated a strong correlation among those variables, which justifies the intent of the study.

In any country, but more especially in developing countries, small and medium-sized enterprises are well-thought-out to be engine of growth because of their contribution to economic growth, employment generation, and reduction of poverty (Ayyagari, Beck & Demircuc-Kunt, 2007). In fact, small and medium-sized enterprises are often flexible, creative (Konsti-Laakso et al., 2012) and diligent in establishing, solidifying, and defending strategies for sustained competitive advantage. On the other hand, their difficulties in realizing gains of scale (Patel & Jayaram, 2014; Wales et al., 2013), may be the reason why failure rates remain high.

In this context, the purpose of the present study is to empirically examine the use and value creation of Intellectual Capital dimensions in small and medium-sized enterprises. It takes a broad analytical perspective on Intellectual Capital valuation by using an online survey, and it is based on a practical and relevant problem that aims to identify the important role of intellectual capital in creating value for small and medium-sized enterprises. Therefore, this research is justified by dedicating itself to contribute to academic and scientific progress, aiming at improving the understanding of the referred research problem through the relationship between scientific theory and empirical market practice.

For its operationalization, this paper is subdivided into subsections. In addition to this introduction (subsection 1), the theoretical foundations (subsection 2) that support the discussion among Intellectual Capital value creation in small and medium-sized enterprises are presented. In sequence, the methodological procedures that describes the problem statement (subsection 3) are elucidated so that, subsequently, the analysis of the results (subsection 4) is evidenced by the methods outlined. Then, the final considerations (subsection 5) are made and the references used in the course of this investigation are listed.

2. THEORETICAL BACKGROUND

2.1 Intellectual Capital

The resource-based theory of the firm suggests that firms can be seen as a unique bundle of dynamic, complex, and intangible resources (Barney, 1991). This set of physical and intangible assets is at the core of the firm's competitive advantage (Grant, 1991). Aiming to contribute to a universal Intellectual Capital definition, Klein and Prusak (1994) defined it as the intellectual material that can be formalized, captured, and leveraged to produce a higher value asset. Years later, Edvinsson (1997) defined Intellectual Capital as the possession of knowledge, applied experience, organizational technology, customer relationships, and professional skills that provide competitive edge in the market. Miller (1999) and Roos et al. (2001) expanded this definition, including the organization's relationships and community influence.

Prior research suggests that three basic dimensions of Intellectual Capital (table 1) can be distinguished as human capital; structural capital; and relational capital (Sveiby, 1997; Bontis et al., 1999). That definition suggests that the management of knowledge creates Intellectual Capital (Kanchana & Mohan, 2017). In this context, human capital is typically recognized as a firm's most valuable asset as it underlies the organization's

capability to make decisions and allocate resources. This enables human capital to become a source of innovation and strategic renewal (Edvinsson & Malone, 1997; Bontis, 1998; Bozzolan et al., 2003; Curado, 2008).

Table 1 - Selected definitions on human, structural and relational capital

Author	Definition	Dimension
Ricceri (2008)	knowledge, skills, learning capacity, experience and know-how of employees. Learning capacity, teamwork capacity, innovation capacity, know-how, experience, flexibility, motivation, satisfaction, loyalty, formal training, and education.	Human Capital
Morris (2015)	Sum of employee's knowledge, competence, innovativeness, commitment and wisdom.	Human Capital
Curado (2008)	Stock of knowledge that stays in the organization at the end of the day, after the employees go home. knowledge contained in documents, routines and organizational culture.	Structural Capital
Denicolai et al. (2015)	Organizational capabilities, culture, processes, patents, copyrights, trademarks, databases, and so on.	Structural Capital
Chang and Tseng (2005)	Sum of all the relations which an organization develops through the course of conducting business with customers and different marketing channels.	Relational Capital
Yu et al. (2015)	Knowledge obtained through the establishment of relationships with external stakeholders.	Relational Capital

Source: Author, 2021.

Regarding the structural capital, it is commonly defined as being the capability of an organization to transform human capital knowledge into tangible assets such as software, databases, computer systems, routines, procedures, and strategies to create value for the organization (Bontis, 1998; Cikrikci & Dastan, 2002; Petty & Guthrie, 2000). At last, the relational capital is considered to be an asset that resides in the social relationships and networks among individuals, communities, or society. Including brands, customers, customer loyalty, distribution channels, business alliances, joint research efforts and licensing agreements (Tsai & Ghosal, 1998; Leana & Buren, 1999; Bozzolan et al., 2003).

Despite the great effort applied by scholars and practitioners along the last two decades, no universal definition was achieved to address Intellectual Capital and its dimensions.

2.2 Intellectual Capital and small and medium-sized enterprises

Studies suggest that the modern economy is based on knowledge, on knowledge-based assets, new strategies, and techniques for managing knowledge-based assets (Sullivan, 2000; Demediuk, 2002). In this context, the management of knowledge figures as a key resource for firm value creation (Bontis, 2001; Sveiby, 2000; Sveiby, 2010; Kanchana & Mohan, 2017). Therefore, the sustainable growth of a company is grounded on establishing know-how and transforming it into capitalization (Wang, 2011).

It is a common sense that small and medium-sized enterprises work in close contact with customers and suppliers, using a personal form of control and having a long-term view of business relations. Its success is considered to be associated with a clear

focus and strong values like independence, flexibility, entrepreneurship, and innovation (Wolff & Pett, 2006). On the other hand, they suffer from informal structures, insufficient resources, erratic decision making, and poor administrative and accounting procedures.

As aforementioned, measure and manage Intellectual Capital is indeed important to small and medium-sized enterprises, once it reveals hidden assets that can have a major impact on the profitability and even the core existence of the company in the future (Nghah et al., 2009; Xu & Li, 2019). It expresses, in addition to financial statements, the value and continuous benefit of managing intangible assets (Fincham & Roslender, 2003; Tayles et al., 2006; Mårtensson, 2009; Velmurugan, 2010; Andrikopoulos, 2010; Guthrie et al., 2012; Derun, 2013; Novas et al., 2017; La torre et al., 2018; Abhayawansa et al., 2019; Dumay et al., 2020).

Taking into consideration the already exposed, this study endeavours a quest into a deeper comprehension of the use of Intellectual Capital dimensions by small and medium sized enterprises. Therefore, a systematic literature review was performed, aiming to bring academic historical relevance regarded to the researched issue. However, the conduction of an online survey is the main objective of this study, that aims to obtain workforce opinion regarding the above mentioned.

3. METHODOLOGICAL PROCEDURES

The aforementioned characterize the value of Intellectual Capital as a representative for small and medium-sized enterprises performance. Therefore, keeping research objective in observance, the study proposes to investigate the use and value creation of Intellectual Capital in those organizations. Through a quantitative approach, this research made use of an online survey, that provides the ability to conduct large-scale data collection (Couper, 2000). All questions were directed to private small and medium-sized enterprises personnel.

During the twentieth century, there were great advances in the techniques and technologies utilized in survey research, from systematic sampling methods to enhanced questionnaire design and computerized data analysis. The field of survey research has become much more scientific (Evans & Mathur, 2005). As a result, more and more researchers are conducting online surveys. In order to reach the best possible results, the study used SurveyMonkey. It provides a survey completion progress bar so that the total number of survey questionnaires completed can be easily tracked and read (Waclawski, 2012).

Additionally, the online survey was oriented according to the statistical theory which defined the sample size needed in relation to the observed population. The sample size was determined by the formula whose population is not known, nor the population distribution of these individuals (Triola, 1999).

$$n = \frac{Z_{\alpha/2}^2 \cdot 0,25}{E^2}$$

Source: Triola, 1999.

The Likert Scale was used to assist data collection and analysis of the sample. This scale is commonly used in opinion polls. In general, four or five ordinal categories are used in the Likert Scale (Vieira & Dalmoro, 2008). The scale is subdivided into five categories: 1 = strongly disagree; 2= disagree; 3 = neither agree nor disagree; 4 = agree;

and 5 = strongly agree. Finally, the research intended to meet the needs aforementioned, aiming to identify and measure Intellectual Capital dimensions, their use and value creation in different small and medium-sized enterprises, by employing descriptive statistics and correlation analysis. So, the online survey presented 22 questions. The first 4 questions requested to characterize the respondents and companies. The other 18 questions aimed to classify and subdivide the dimensions of Intellectual Capital as defined by Petrash (1996) and Sveiby (1997).

The human capital dimension highlighted the items that are related to the human being. The objective was to explain issues related to the development of skill levels in employees. Yet, in order to identify the structural capital dimension, the study sought to understand how much the organization is focused on defending its intellectual property rights, targeting at developing the quality of its products and encouraging employees to continue to create innovative ideas. Ultimately, to measure of the relational capital line, the questions focused on the organization's strategic procedures and indicated how much it is determined to involve customers in its processes (table 2).

Table 2 – Human, structural and relational capital value measure

Dimension	Question	Value added
Human capital (HC)	The organization depends entirely on the experience and skill of the employees in carrying out their work.	Dependence on human skills
	The organization has great confidence in the performance of its employees in relation to alignment with its business.	Strategic adherence
	Employees have a high level of developed skills.	Employee autonomy
	Vacancies in work teams are filled by experienced and qualified employees.	Employee skills
	The organization stresses that the continuous efforts to qualify and develop employees would be dedicated to those who offer better performance and would not be applied to those with inferior performance.	Employee incentive programs
	The organization is struggling to provide workers with skills and practices with intensive training programs.	Adherence to development of skills
	The organization pays due attention to reducing rework in carrying out activities.	Adherence to quality process
Structural capital (SC)	The processes are for guaranteeing the quality of products easily accessible and understood by the entire organization.	Customer focus
	The organization is concerned with its trademark and pays special attention to disseminating this concern both internally and to customers.	Assimilation of brand value
	The internal and external communication system is efficient and provides the necessary information to those who are due at the moment.	Adherence to communication management
	The organization invests in the acquisition of systems that aim to improve the processing and publication of information.	Adherence to innovation management

Dimension	Question	Value added
Relational capital (RC)	Internal processes are supporting and leveraging innovation.	Adherence to research and innovation
	The organization operates with its full potential at full capacity to satisfy customers.	R&D processes aimed at technology transfer
	The organization conducts dialogues with customers, to identify their needs and desires, sometimes not even of their own knowledge.	Co-design processes in partnership with customers
	The organization intensively works with the exchange of information that contributes to the opening of new horizons for mutual cooperation with customers.	Co-design processes with suppliers
	The organization seeks to reduce problems, offering solutions to customers.	Complaints management processes developed
	The organization is seeking the participation of customers in its operations, in order to find development opportunities.	Knowledge development processes in partnerships
	The organization has programs to increase the customer portfolio in the short/medium term.	Development initiatives for market gain

Source: Author, 2021.

The four initial questions, classify respondents according to the market segment in which the company operates, the area in which respondents works, their positions in the company and the number of employees in the organization.

4. RESULTS AND DISCUSSION

The online survey was answered by 183 respondents. Empirical results of the study are presented in three parts, namely characterization of respondents (table 3), descriptive statistics (table 4) and correlation results (table 5), as follows. A margin of error of 8% was considered, for the convenience of the study, with a 95% confidence interval for the mean, which required a sample greater than 150 respondents.

Table 3 - Characterization of respondents in small and medium-sized enterprises

Variables	Categories	Respondents	%
Sector	Industry	22	12%
	Commerce	49	27%
	Service	112	61%
Area	Administrative and Human resources	13	7%
	Sales and marketing	22	12%
	Finance and purchasing	9	5%
	Operations and logistics	11	6%
	Company board	86	47%
	Other	42	23%
Position	Shareholder	95	52%
	Manager	37	20%
	Coordinator	11	6%

Variables	Categories	Respondents	%
	Analyst	18	10%
	Assistant	22	12%
Number of employees	1 to 10	95	52%
	11 to 20	15	8%
	21 to 30	9	5%
	31 to 40	9	5%
	Above 40	55	30%
Total		183	100%

Source: Author, 2021.

By analysing table 1, service companies are predominant among the others (61%). The majority of respondents are shareholders (52%) and work as company directors (47%). There is also an important number of managers that answered the questionnaire (20%). Ninety-five respondents (52%) work for enterprises that operate with workforce of ten or less employees. On the other hand, fifty-five respondents (30%) work for enterprises that operate with workforce of over 40 employees.

The descriptive statistics (table 4) findings, retrieved from all the answers of the 18 survey questions, enable us to put forward some preliminary arguments about the use and value creation of Intellectual Capital in small and medium-sized enterprises.

Table 4 – Descriptive statistics of Intellectual Capital dimension value creation

Dimension	n	Minimum	Maximum	Median	Variance	Std. Deviation
HC	6	0.58	0.83	0.74	0.0096	0.0978
SC	6	0.68	0.81	0.74	0.0021	0.0461
RC	6	0.66	0.83	0.77	0.0040	0.0633

Source: Author, 2020.

Results show strong dependence on human skills by the small and medium sized enterprises (83%). Human capital, regarded as “skills” or “know-how”, is well supported by prior studies (Colombo & Grilli, 2005; Unger et al., 2011; Staniewski, 2016). In addition, human capital contributes to maintaining and enhancing the profitability of small and medium sized enterprises (McDowell et al., 2018). However, a fragility on employee incentive programs (58%) is observed by this and by other studies (Hartati & Hadiwidjaja, 2019), in contrast to the need of those employees’ skills. Investment readiness in human resources seems to be the issue here.

Structural capital dimension achievements shows that the respondents are concerned with the company’s trademark and pay special attention to disseminating this concern both internally and to customers (81%). On the other hand, lack of investments in the acquisition of systems to manage innovation (68%) shows that the ability to innovate may be a challenge to small and medium sized enterprises. Al-Jinini et al. (2019) noted that entrepreneurial orientation had a particularly strong effect on the relationship between structural capital and technical innovation, and suggests that organizational knowledge needs to be connected with prevailing market needs in order to support organization's innovation endeavours. Which seems to corroborate to the study findings.

As mentioned by Xu and Li (2019), relational capital was the least influential contributor to the small and medium sized enterprises’ performance. Table 4 shows that the small and medium sized enterprises studied are concerned about offering solutions to

customers and reducing problems (83%). On the contrary, the development of opportunities via customers' participation in its operations (66%), may demonstrate one of the strong small and medium sized enterprises' weak points.

The correlation analysis shows that human capital, structural capital and relational capital are positively correlated (table 5).

Table 5 – Dimension value creation correlation analysis

	HC	SC	RC
HC	1.00		
SC	0.70*	1.00	
RC	0.78*	0.48*	1.00

Here, * denotes significance at 5% level

Firstly, findings suggest that the Intellectual Capital dimensions adhere to small and medium-sized enterprises in a positive way. Indicating that the use of Intellectual Capital dimensions may positively enhance value creation in small and medium-sized enterprises. The relationship among all variables is considered high and significant. Specially the one between human capital and relational capital. The result indicates that efficient and effective use of Intellectual Capital dimensions will lead small and medium-sized enterprises to achieve higher value creation. The results are corroborated by the previous findings obtained by other researchers (Maji & Goswami, 2016; Venugopal & Subha, 2015).

5. FINAL CONSIDERATIONS

In the knowledge economy Intellectual Capital is considered as important strategic assets to large as well as small companies. Researchers have long argued that Intellectual Capital is a critical factor in firm performance, particularly for small and medium-sized enterprises. This research was guided by the intent to identify determining factors for achieving a basic structure for the field of Intellectual Capital and empirically examine the use and value creation of Intellectual Capital on small and medium-sized enterprises, by using an online survey.

The results of the online survey, in which the aim was obtain important information on the characteristics and/or opinions of small and medium-sized enterprises' personnel, related to the use and value creation of the Intellectual Capital components. Empirical findings show that human capital is, undoubtedly, the key element to maintain and enhance the profitability of small and medium sized enterprises, however, the lack of investment readiness in human resources seems to be threat to value creation.

Regarding structural capital, the findings describe a trademark concern, but also reveals a lack of system acquisition and processes supporting innovation, showing that the ability to innovate is certainly a challenge to small and medium sized enterprises. Concerning relational capital, enterprises are aware of the need to offer solutions to customers and reduce problems. On the other hand, the answers reveal a fragility in customers' participation in companies' operations.

Under the scientific aegis, it is noteworthy that the reports of this research, as well as its conclusions, not only aim to identify the drivers to value creation in the analysed sample, but indeed, to announce limitations that small and medium-sized enterprises face, while conducting the use of Intellectual Capital. The current study has a respondent size limitations and future studies may not only be performed on a larger sample, but also contemplate the social and environmental aspects of Intellectual Capital.

6. REFERENCES

- Abhayawansa, S. A., Guthrie, J., & Bernardi, C. (2019). Intellectual capital accounting in the age of integrated reporting: A commentary. *Journal of Intellectual Capital*, 20(1), 2-10. <https://doi.org/10.1108/JIC-12-2018-0222>.
- Al-Jinini, D. K.; Dahiyat, S. E., & Bontis, N. (2019). Intellectual capital, entrepreneurial orientation, and technical innovation in small and medium-sized enterprises. *Knowledge and Process Management*, 1-17.
- Andrikopoulos, A. (2010). Accounting for intellectual capital: On the elusive path from theory to practice: Accounting for Intellectual Capital. *Knowledge and Process Management*, 1(4), 180–187. <https://doi.org/10.2139/ssrn.1399333>.
- Ayyagari, M., Beck, T., & Demirguc-Kunt, A. (2007) Small and medium enterprises across the globe. *Small Business Economics*. 29, 415-434.
- Barney, J. (1991) Firm resources and sustained competitive advantage. *Journal of Management*. 17(1), 99-120.
- Bierly, P., & Chakrabarti, A. (1996). Generic knowledge strategies in the US pharmaceutical industry. *Strategic Management Journal*, 17, 123–135.
- Bontis, N. (1998). Intellectual capital: an exploratory study that develops measures and models. *Management Decision*, 36(2), 63-76.
- Bontis, N. (2001). Assessing knowledge assets: a review of the models used to measure intellectual capital. *International Journal of Management Reviews*, 3(1), 41-60.
- Bontis, N., & Fitz-Enz, J. (2002). Intellectual capital ROI: a causal map of human capital antecedents and consequents. *Journal of Intellectual Capital*, 3(3), 223-47.
- Bontis, N., Dragonetti, N., Jacobsen, K., & Roos, G. (1999). The knowledge toolbox: a review of the tools available to measure and manage intangible resources. *European Management Journal*, 17(4), 391-402.
- Bontis, N., Janosevic, S., & Dzenopoljac, V. (2015). Intellectual capital in Serbia's hotel industry. *International Journal of Contemporary Hospitality Management*, 27(6), 1365-1384.
- Bozzolan, S., Favotto, F., & Ricceri, F. (2003). Italian annual intellectual capital disclosure: An empirical analysis. *Journal of Intellectual Capital*, 4(4), 543-558.
- Brennan, N., & Connell, B. (2000). Intellectual capital: current issues and policy Implications. *Journal of Intellectual Capital*, 1, 206–240.
- Chang, A., & Tseng, C. (2005). Building customer capital through relationship marketing activities: the case of Taiwanese multilevel marketing companies. *Journal of Intellectual Capital*, 6(2), 253-266.

- Cikrikci, M., & Dastan, A. (2002). Entelektüel sermayenin temel finansal tablolar aracılığıyla sunulması-. *Presentation of intellectual capital by main financial tables, Banks Journal*, 43, 18-32.
- Colombo, M. G., & Grilli, L. (2005). Founders' human capital and the growth of new technology-based firms: a competence-based view. *Research Policy*. 34(6), 795–816.
- Couper, M. (2000). Review: web surveys: a review of issues and approaches. *The Public Opinion Quarterly*. 64(4), 464-494.
- Cronje, C., & Moolman, S. (2013). Intellectual capital: measurement, recognition and reporting. *South African Journal of Economic and Management Sciences*, 16, 1-12.
- Curado, C. (2008). Perceptions of knowledge management and intellectual capital in the banking industry. *Journal of Knowledge Management*, 12(3), 141–155.
- Demediuk, P. (2002) Intellectual capital reporting: new accounting for the new economy. *Asian Academy of Management Journal*. 7(1), 57-74.
- Derun, I. (2013). The essence of intellectual capital in economics and accounting. *Management Theory and Studies for Rural Business and Infrastructure Development*, 35(4), 498-511.
- Dumay, J., Guthrie, J., & Rooney, J. (2020). Being critical about intellectual capital accounting in 2020: An overview. *Critical Perspectives on Accounting*, 70, 102-185. <https://doi.org/10.1016/j.cpa.2020.102185>.
- Edvinsson, L. (1997). Developing intellectual capital at Skandia. *Long Range Plann*, 30(3), 320–331.
- Edvinsson, L., & Malone, M. (1997). *Intellectual capital: realizing your company's true value by finding its hidden roots*. New York: Harper Collins.
- Evans, R., & Mathur, A. (2005). The value of online surveys. *Internet Research*. 15(2), 195-219.
- Fincham, R., & Roslender, R. (2003). The management of intellectual capital and its implications for business reporting. Edinburgh. *The Institute of Chartered Accountants of Scotland*, ISBN 1 871250 98 6.
- Grant, R. M. (1991, spring). The resource-based theory of competitive advantage: implications for strategy. *California Management Review*, 33(3), 11.
- Guthrie, J., Ricceri, F., & Dumay, J. (2012). Reflections and projections: A decade of Intellectual Capital Accounting Research. *The British Accounting Review*, 44(2), 68-82. <https://doi.org/10.1016/j.bar.2012.03.004>.

- Hartati, N., & Hadiwidjaja, R. D. (2019). The value relevance of intellectual capital and ownership structure on the SMEs performance. *Jurnal Organisasi Dan Manajemen*, 15(2), 194-205.
- Kanchana, N., & Mohan, R. R. (2017). A review of empirical studies in intellectual capital and firm performance. *Indian Journal of Commerce and Management Studies*, 8(1), 52-58.
- Klein, D. A., & Prusak, L. (1994). *Characterizing intellectual capital*. Cambridge: Ernst & Young.
- Kogut, B., & Zunder, U. (1992) Knowledge of the firm, combinative capabilities and the replication of technology. *Organization Science*, 3, 383–397.
- Konsti-Laakso, S., Pihkala, T., & Kraus, S. (2012). Facilitating SME innovation capability through business networking. *Creativity and Innovation Management*, 21(1), 93–105.
- La Torre, M., Botes, V., Dumay, J.; Rea, M. A., & Odendaal, E. (2018). The fall and rise of intellectual capital accounting: New prospects from the Big Data revolution. *Meditari Accountancy Research*, 26(3), 381–399. <https://doi.org/10.1108/MEDAR-05-2018-0344>.
- Leana, C., & Buren, H. (1999). Organizational social capital and employment practices. *Academy of Management Review*, 24, 538-555.
- Maji, S. G., Goswami, M., (2016). Intellectual capital and firm performance in emerging economies: The case of India. *Review of International Business and Strategy*, 26(3), 410-430. <https://doi.org/10.1108/RIBS-03-2015-0019>.
- Mårtensson, M. (2009). Recounting counting and accounting. *Critical Perspectives on Accounting*, 20(7), 835–846. <https://doi.org/10.1016/j.cpa.2008.09.006>.
- McDowell, W., Peake, W., Coder, L., & Harris, M. (2018). Building small firm performance through intellectual capital development: exploring innovation as the “black box”. *Journal of Business Research*, 88, 321-327.
- Miller, W. (1999). Building the ultimate resource, *Management Review*, 88(1), 42-45.
- Morris, C. (2015). An industry analysis of the power of human capital for corporate performance: evidence from South Africa. *South African Journal of Economic and Management Sciences*, 18(4), 486-499.
- Ngah, R., Hoo, C., & Ibrahim, A. (2009). The Relationship between knowledge management and trust: Malaysian perspective. *International Journal of Management Innovation Systems*, 1(1), 1-11.
- Novas, J. C., Alves, M. G., Sousa, A. (2017). The role of management accounting systems in the development of intellectual capital. *Journal of Intellectual Capital*, 18(2), 286–315. <https://doi.org/10.1108/JIC-08-2016-0079>.

- Nuryaman, N. (2015, September 17-18). The influence of intellectual capital on the firm's value with the financial performance as intervening variable. 2nd Global Conference on Business and Social Science-2015, GCBSS-2015, Bali, Indonesia. *Procedia - Social and Behavioral Sciences*, 211, 292 – 298.
- Patel, P., & Jayaram, J. (2014). The antecedents and consequences of product variety in new ventures: an empirical study. *Journal of Operations Management*, 32, 34-50.
- Petrash, G. (1996). Dow's journey to a knowledge value management culture. *European Management Journal*, 14(4), 365-373.
- Petty, R., & Guthrie, J. (2000). Intellectual capital literature review: measurement, reporting and management. *Journal of Intellectual Capital*, 1, 155–176.
- Ricceri, F. (2008). Intellectual capital and knowledge management: strategic management of knowledge resources. *Intellectual Capital and Knowledge Management: Strategic Management of Knowledge Resources*. 1-204.
- Roos, G., Bainbridge, A., & Jacobsen, K. (2001). Intellectual capital analysis as a strategic tool. *Strategy & Leadership*, 29(4), 21-26.
- Sherif, M., & Elsayed, M. (2016) The impact of intellectual capital on corporate performance: evidence from the Egyptian insurance market. *International Journal of Innovation Management*, 20(3), 1-47.
- Staniewski, M. W. (2016). The contribution of business experience and knowledge to successful entrepreneurship. *Journal of Business Research*. 69(11), 5147–5152.
- Sullivan, P. H. (2000). *Value-driven intellectual capital: how to convert intangible corporate assets into market value*. New York: John Wiley.
- Sveiby, K. (2000). Intellectual capital and knowledge management. Retrieved from: <<http://www.sveiby.com.au/BookContents.html>>. Access: June 2nd, 2021.
- Sveiby, K. (2010). *Methods for Measuring Intangible Assets*. Helsinki: Karl-Erik Sveiby.
- Sveiby, K. E. (1997) *The new organizational wealth: managing and measuring knowledge based assets*. New York: Berrett-Koehler.
- Tayles, M., Pike, R., & Sofian, S. (2006). Intellectual capital, management accounting practices and corporate performance: Perceptions of managers. *Accounting, Auditing & Accountability Journal*, 20, 522-548.
- Triola, F. (1999). *Introdução à estatística* (7th ed.). Rio de Janeiro: LTC.
- Tsai, W., & Ghoshal, S. (1998). Social capital and value creation: the role of intra firm networks. *Academy of Management Journal*, 41, 464–478.

- Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2011). Human capital and entrepreneurial success: a meta-analytical review. *Journal of Business Venturing*, 26(3), 341–358.
- Velmurugan, M. S. (2010). Revisiting Accounting in the Knowledge-Based Economy. *Journal of the Knowledge Economy*, 1(4), 318–332. <https://doi.org/10.1007/s13132-010-0017-4>.
- Venugopal, D., & Subha, M. (2015). Impact of intellectual capital on corporate performance. *Managing Intellectual Capital and Innovation for Sustainable and Inclusive Society: Managing Intellectual Capital and Innovation; Proceedings of the Make Learn and TIIM Joint International Conference 2015*, 675-687.
- Vieira, K., & Dalmoro, M. (2008). Dilemas na construção de escalas tipo Likert: o número de itens e a disposição influenciam nos resultados? *EnANPAD*.
- Waclawski, E. (2012). How I use it: Survey Monkey. *Occupational Medicine*, 62, 477.
- Wales, W. J., Gupta, V. K., & Mousa, F. T. (2013). Empirical research on entrepreneurial orientation: an assessment and suggestions for future research. *International Small Business Journal*, 31(4), 357–383. <https://doi.org/10.1177/0266242611418261>.
- Wang, M. (2011). Measuring intellectual capital and its effect on financial performance: evidence from the capital market in Taiwan. *Front. Bus. Res. China*, 5, 243–265. <https://doi.org/10.1007/s11782-011-0130-7>.
- Wolff, J., & Pett, T. (2006). Small-firm performance: modeling the role of product and process improvements. *Journal of Small Business Management*, 44(2), 268-284.
- Xu, J., & Li, J. (2019). The impact of intellectual capital on SMEs' performance in China: empirical evidence from non-high-tech vs. high-tech SMEs. *Journal of Intellectual Capital*, 20, 488-509.
- Xu, J., & Wang, B. (2018). Intellectual capital, financial performance and companies' sustainable growth: evidence from the Korean manufacturing industry. *Sustainability*, 10, 4651. Retrieved from: https://www.researchgate.net/publication/329479777_Intellectual_Capital_Financial_Performance_and_Companies'_Sustainable_Growth_Evidence_from_the_Korean_Manufacturing_Industry.
- Yaacob, N. M., Mahmood, R., Zin, S. M., & Puteh, M. (2014). An Investigation of the Small Business Start-ups' Performance. *Journal of Basic and Applied Research International*, 4, 10-17.
- Yu, H. C., Wang, W. Y., & Chang, C. (2015). The stock market valuation of intellectual capital in the IT industry. *Review of Quantitative Finance and Accounting*, 45(2), 279-304.

7. FINAL NOTES

SurveyMonkey is a website that enables the researcher to develop and direct the survey to respondents through the internet. It can be found at - <https://www.surveymonkey.com>