



Bank Specific as Moderator Between Intellectual Capital and The Performance of Malaysian Microfinance Institutions

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ABSTRACT

This study aimed to investigate whether intellectual capital (IC) impacts the performance of microfinance institutions (MFIs). This study also attempted to uncover the effect of microfinance institution specification (banks or non-banks) as a moderating variable in the association between intellectual capital and MFIs performance. There were 300 respondents, however, only 156 managers answered the structured questionnaires that were sent out using the purposive sample technique. The partial least square structural equation modeling (PLS-SEM) was used to analyze the research model in this study. The findings show that human capital and structural capital have a favorable impact on MFI performance. This influence, however, does not extend to the MFIs' customer capital and social capital. Furthermore, the research model can explain 59.9 percent of the significant variance in MFI performance. This study contributes to the theoretical expansion of the resource-based view (RBV) in forecasting the MFIs success. The framework suggested in this study can be used as a reference to assist MFIs management in selecting relevant intellectual capital aspects to improve Malaysian MFIs.

JEL Classification: L16, M14

Keywords: Intellectual Capital; MFI Specific; Microfinance Institutions; Performance; PLS-SEM

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INTRODUCTION

Throughout the world, experience has resulted in a major reorientation of companies' innovation and creativity patterns, resulting in a change in firm valuation away from tangible assets and intangible assets. According to Buallay et al. (2019), intellectual capital (IC) is a multidimensional term used to characterize intangible assets that constitute the firm's expertise. Thus, IC is a significant factor in the growth of a knowledge-based economy and enhanced competition in both profits- and non-profit-oriented businesses (Adnan et al., 2014). Companies are currently facing significant obstacles to remain competitive in the current economic climate. In this vein, market dynamism drives an enormous demand for information (intangible asset) (Mahdi et al., 2019). Not only are businesses struggling to add value, but the critical role of intellectual capital as a significant factor in determining a nation's economic and financial success has been ignored (Martin et al., 2019). In a rising economy, resources are scarce. They cannot be replaced and provide a competitive advantage, contribute to value creation, and act as growth drivers, ultimately improving the company's performance; both of these traits are found in intellectual capital (Ousama et al., 2019; Ting et al., 2020; Soewarno and Tjahjadi, 2020). Regrettably, senior management is dubious about whether the firm's valuable resources will contribute to the success of new plans. As a result, disregarding IC will place the business in ineffective employees, substandard service, a lack of knowledge, and poor client relations.

IC has developed into a valuable asset in today's financial world. To thrive in today's economy, managers must compete in an increasingly competitive environment. One of the aspects that the organization must examine to continue to exist is its IC. By investing in IC, a business can increase its productivity and efficiency (Forte et al., 2017). Within the realm of the connection between a firm's performance and IC, several researchers discovered a set of distinctive findings. According to Arsawan et al. (2020), Bayraktaroglu et al. (2019), and Obeidat et al. (2016), despite the beneficial impact of intellectual capital on a company's success, the negative impact on the performance of the firm should also be acknowledged. Several researchers (e.g., Appuhami, 2007; Chu et al., 2011; Hamdan, 2018) have found that there is little effect of intellectual capital on the performance of the firm. Hence, a research gap was found in corroborating the connection between the performance of microfinance institutions (MFIs) and intellectual capital. Therefore, to fill this gap, the current research included a moderator, which is the type of MFI known as MFI specific variable, to find out its moderating effect on the relationship between intellectual capital and microfinance institutions' performance. Consequently, microfinance institutions (MFIs) should prioritize their IC, enabling institutions to function effectively and stay sustainable in the long run. Banks and non-bank microfinance institutions (MFIs) are both types of microfinance providers (Mokhtar, 2011). Both providers were assessed in this study to serve as an excellent illustration of how the industry's demand and supply sides interact to support its rapid expansion. Thus, the objective of the study was divided into two parts. In its first part, the current research examined the importance of IC in microfinance institutions (MFIs) performance. The second part of the study looked into the effects of MFI specific (banks versus non-banks) as a moderating variable on the relationship between IC and MFI performance. The study was aimed to raise MFIs' awareness of the necessity of focusing on human resources, such as staff and customer perspectives, in addition to financial and commercial factors (Prawiranata, 2013). The economy will profit from this employee-customer strategy since it will increase customer motivation to repay a loan as a result of the high-quality service provided by employees, resulting in a greater revenue output. The researchers believe that this study will contribute to and improve the awareness about MFIs, among human resource managers in particular, and microfinance policymakers, government officials, and non-governmental organizations (NGOs) in general, as well as recommended areas for future research.

REVIEW OF LITERATURE

Resource Base Theory

Academic scholars have increasingly accepted the resource-based view (RBV) (Barney, 1991). Strategic management, human capital management, and economics are used to develop this theory (Galbreath, 2004). The fundamental concept of the RBV is that company resources are heterogeneous, not completely transportable, and robust. A company's resources are considered as the basic building elements of its operation

and success. These assets, which comprise both tangible and intangible assets like financial capital, qualified people, and machinery, would influence a company's production quality. The RBV theory is relevant to this study since it explains the optimal strategy for improving firm efficiency by using readily available assets and capabilities to achieve or increase sustainable competitive advantage (Liu, 2017). According to the RBV, a firm's productivity and effectiveness are highly dependent on its capital (Savino and Shafiq, 2018). Thus, applying the RBV perspective to a business, can aid in identifying its critical capabilities, depict their potential development, and their relationship to explicit indicators of the firm's competitive advantage (Sardo et al., 2018). As a result, it is argued that the RBV theory provides the best way for the company to gain a competitive edge over its competitors, resulting in increased profit opportunities (Adnan et al., 2018). In addition, in the context of Malaysia, the RBV theory illuminates the significance of strategic assets in attaining better financial performance and gaining a competitive edge for MFIs (Ekaningrum, 2021; Ying et al., 2019). The theoretical framework of this study is depicted in Figure 1.

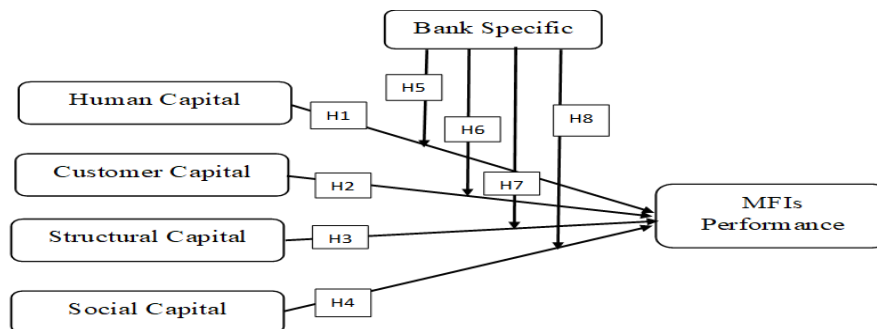


Figure 1 Theoretical Framework

Performance of Malaysian Microfinance Institutions

In Malaysia, microfinance refers to small-scale business loans with the amount below RM 50,000 with a loan term of seven years at the maximum. As stated by Shu-Teng et al. (2015), the three biggest microfinance institutions in Malaysia are Yayasan Usaha Maju Sabah, Amanah Ikhtiar Malaysia (AIM), and National Entrepreneur Group Economic Fund (TEKUN). Beginning in 2006, the government of Malaysia has been working with Bank Negara Malaysia (BNM), the national bank, in encouraging more financial institutions, especially banks, to provide their customers with microfinance loan services. A microfinance institution (MFI) is a 'social enterprise' with a principal mission to assist the poor by improving their lives through the means of financial services provision (Ahmed et al., 2013). Kamaluddin et al. (2018) describe MFIs as genuinely small-scale, and commercial, and have the potential as informal financial institutions serving the poor (e.g., informal transfer systems, pawnshops, and village moneylenders) and also from large, likely to be schemes that are government-sponsored that operate on small accounts as by-products of their primary business (e.g., post office savings banks and national savings schemes). As posited by Ahmed (2002), the MFIs' growth and sustainability are substantially dependent on not only external funds that are available to them but also on the efficiency of their operations. Ahmed further added that if MFIs train their employees regularly to acquire and hone relevant skills, MFIs are highly likely to operate efficiently. Furthermore, the ability to counsel and train are simultaneously important in assuring that microfinance institutions have a solid business performance (Ahmad Nazrie and Senthil, 2019). According to Kahaso (2012), MFIs must identify the primary issues in order to maintain their operations and remain sustainable. Due to the knowledge-based economy, a complete transformation has taken place in the current business. The determination of the MFIs' wealth and also its sustainability are very crucial indeed. Thus, the practice by firms in recognizing its intangible assets, particularly the capabilities and expertise of the employees must be encouraged and nurtured (Maryam et al., 2018).

Intellectual Capital

Intellectual capital (IC) is essential to a knowledge-based economy's success (Khaliq et al., 2013). To maintain the firm's competitiveness, a move from a labor-based to a knowledge-based business model is required (Naimah and Mukti, 2019). IC is important, and it significantly impacts a company's financial results (Dzenopoljac et al., 2016). According to the accounting principle – Intangible Asset Standard (IAS 38),

intangible assets are described as patents and copyrights. However, the IAS 38 does not recognise the capitalization of a company's human capital, structural capital, or consumer capital, all of which are components of IC and can obscure the company's overall value (Duho and Onumah, 2019).

Additionally, Kamasak (2017) demonstrated that intangible assets and capacities contributed significantly more to firm success than tangible assets. Confronted with the rise of the "information-based economy" in the twentieth century, it drew attention to the importance of knowledge. IC is transforming into a significant generation factor, displacing conventional forces. It is directly responsible for nations' economic and financial growth and core drivers of businesses' ability to maintain competitive advantages (Martin et al., 2019). Early research (e.g., Alhassan and Asare, 2016; Rehman et al., 2012; Syah and Kurniasih, 2015) stresses on the significance of structural capital and human capital in the process of creating the value of business. Over the past two decades, numerous researchers have achieved a consensus that structural capital (SC), relational capital (RC), and human capital (HC) are the components of intellectual capital (IC) of high significance (e.g., Aslam et al., 2018; Haris et al., 2019; Jamei, 2017; Jetmiko, 2018; Khairiyansyah and Vebtasvili, 2018; Nawaz, 2019; Rehman et al., 2012; Rochmadhona et al., 2018; Singh and Narwal, 2015; Tahir et al., 2018; Widowati and Pradono, 2017). However, recently, Khalique et al. (2018) claim that IC is composed of four components: Human capital, structural capital, customer capital, and social capital. Hence, combining all four dimensions strengthens the MFIs' ability to compete in a competitive market, as opposed to those that depend on a single source of IC (Kamaluddin and Rahman, 2013). MFIs will benefit from a longer-term competitive advantage as a result of this. In addition, MFIs can also demonstrate prudence toward their institutions by preserving intangible assets and fostering the practise of acknowledging intangible assets, especially their personnel's skills and competence (Maryam et al., 2018).

Human Capital

Human capital (HC) includes the knowledge, skills, education, experience, and attitude of hired people and their capacity to do their duties, which ultimately results in the attainment of organisational objectives (Nimtrakoon, 2014; Roos et al., 1997). In other words, HC is a composite of the experience and talents of a firm's personnel (Vidotto et al., 2017). Additionally, having skilled and knowledgeable human capital will have a greater impact on a company's production (Dartanto and Taufiq, 2020). As a result, human resources are frequently regarded as a firm's most valuable asset. However, it is frequently overlooked (Hashim et al., 2018). MFIs must retain their employees' competency while also respecting their work by identifying and maintaining their degree of happiness, since this will increase their satisfaction and encourage them to stay with the company. According to Khan et al. (2010), humans can be either a burden or a valued asset within a business. As such, MFIs must retain and value their expertise. Therefore, MFIs ensure that their staff feel more at ease and are more likely to remain loyal to the institution. MFIs should conduct satisfaction surveys to maintain the employees' loyalty to the institution. Furthermore, according to Ling (2012), organisations must invest in developing entrepreneurial leadership (human capital), improving management procedures (structure capital), and expanding ties with other enterprises to compete in the global market (customer capital). According to Ozkan et al. (2016), HC has the most significant impact on the IC of the Turkish banking sector. The OECD (Organization for Economic Cooperation and Development) (1996) states that the most vital engine of national competitiveness, economic activity, and prosperity is human capital. Dotzel et al. (2013) perceive human capital as being closely linked to the inclination for innovativeness in services to meet customers' wants, while concurrently increasing the value of the company. In lieu of these notions, Alhassan and Asare (2016) arrived at a conclusion that the company's investment in training the employees can result in the creativity and productivity in the workplace to increase. A number of past studies has identified HC as an organisation's main source of growth (Haris et al., 2019; Nawaz, 2019; Opong and Pattanayak, 2019; Syah and Kurniasih, 2015; Widowati and Pradono, 2017). Within the Malaysian context, Jetmiko (2018) and Hashim et al. (2018) found a positive connection between firm performance and HC, while Widowati and Pradono (2017) found a positive link between firm performance and HC in Indonesia. Further, a positive connection between firm performance and HC was also found in Pakistan (Rehman et al., 2012) and in Africa, the same finding was obtained by Alhassan and Asare (2016). In addition, Widowati and Pradono (2017) assert that bankers who have solid capabilities and skills in business may assist their institutions' growth in value. In MFIs, HC includes the senior management, such as CEOs, managers, executives, and other staff. Therefore, MFIs should seize opportunities to hire efficient and effective personnel or enhance their ability to

play a substantial and successful role in the sector. As so, based on the relationship between HC and the performance of MFIs, the following hypothesis was formulated:

H1: Human capital (HC) has a positive influence on the performance of MFIs.

Customer Capital

Customer capital (CC), also known as relational capital, is composed of two components: capability and alliance, the latter of which refers to an organization's intermediation with internal and external forces like as employees, suppliers, customers, and competitors (Ling, 2012; Bontis et al., 2000; and Roos et al., 1997). The embedded knowledge in the communications with stakeholders, shareholders, industry associations, and suppliers (Oppong and Pattanayak, 2019), tend to influence the firm indirectly and directly in producing the firm's value within the marketplace. Nonetheless, Basyith (2016) reported that CC does not have a strong association with financial performance among Iranian enterprises. On the other hand, according to Aslam et al. (2018), Rochmadhona et al. (2018), and Singh and Narwal (2015), amongst the components of IC, the most influential is CC that, in a competitive context, it leads to the generation of a high firm value. In addition, Rochmadhona et al. (2018) state that a corporation's ability to develop organisational intelligence, innovate, and provide outstanding customer service are critical to the survival of the corporation. Rochmadhona et al. (2018) added that in the business world today, the banking business heavily focuses on building long-lasting and strong relationships with the customers, of which this can only be made possible through the company hiring a huge number of employees. Businesses must improve their interactions with stakeholders, particularly their clients (Dzenopoljac et al., 2017). Recent evidence confirms the considerable positive association between customer and Malaysian MFIs, which results in increased performance of their small and micro companies. According to Al-Shami et al. (2013), this relationship also benefits customer at the household level, not just in terms of asset purchase, but also in income generation. According to Hashim et al. (2018), customer, supplier, and local community support is critical for MFIs' performance and, in the long run, this support enables MFIs to remain sustainable. As a result, the following hypothesis was developed:

H2: Customer capital (CC) has a positive influence on the performance of MFIs.

Structural Capital

According to Ling (2012) and Nimtrakoon (2014), structural capital (SC) refers to knowledge that is contained within a business but is not owned by its employees, such as systems, norms, structure, culture, strategy, trademarks, and patents, all of which contribute to the organization's innovative capability. In a nutshell, an MFI is made up of its internal structure and personnel. When an MFIs' technology is strengthened, its processes are developed, and other internal initiatives are launched, structural capital is improved. Thus, structural capital can be defined as the capacity of a business to meet client needs. Poh et al. (2018) define SC as the knowledge of an employee that continues to stay in a company despite the employee being no longer attached to the company. In their analysis, Aslam and Haron (2020c) conclude that SC is the product of human capital past performance. On the other hand, Nawaz (2017) refers to SC as non-human knowledge that includes databases, organisational charts, process manuals, strategies, and routines as well as other items that have a value surpassing their material value. Aslam et al. (2018) carried out a study on Australian banks, and found that the other predictors of IC are more influential than SC. Nonetheless, Joshi et al. (2010) discovered a positive association between SC and returns on stock investments, financial, and operational. A number of renown past studies also found that performance is highly related to SC (e.g., Haris et al., 2019; Jetmiko, 2018; Khalique et al., 2011; Nawaz, 2017; Poh et al., 2018; Rochmadhona et al., 2018). Kamaluddin and Kasim (2013) argue that a microfinance institution with a strong organisational structure will perform better, provided the institution has skilled personnel who deliver high-quality service. Hence, Khalique et al. (2015) claim that even if an institution has competent and knowledgeable people, ineffective SC will prevent the firm's IC from being stretched to its full potential. As a result, the following hypothesis was developed:

H3: Structural capital (SC) has a positive influence on the performance of MFIs.

Social Capital

Social capital (SO) is defined as the relationships and the norms that produce the quality and quantity of social interaction of a society with people. According to Khalique et al. (2018), SO is one of the crucial components of IC. Hassan (2014) explained that the critical roles of SO are that they enable adoption and disables human, natural capital, and financial constraints. Furthermore, SO is the institutions' sum that underpins society and a crucial adhesive agent that holds them together. Additionally, it is believed that investors and customers favour companies with so much more social practises than those that have less (Ismail et al., 2022). According to Kamaluddin et al. (2018), as financial institutions with the social capital, such as commitment, MFIs typically assist impoverished small businesses and households in securing financial services. The creation of microfinance is believed to assist those who are poor. Nonetheless, the determination of poverty is frequently based on the social instead of financial factor (Rahman and Dean, 2013). Such a determination is due to socioeconomic factors concerned with customers. For example, language differences, lack of numerical skills, borrowers' locations, accounting practices, customers being unfamiliar with documentation, and ethnicity are the contributing factors to unproductive operations. Santosa et al. (2020) emphasize on the critical need in building social capital for the improvement of performance considering that social capital is able to combine structural and human capital in generating intellectual capital. Liu (2017) states that the confluence of the three types of capitals will improve innovative capacities, increase mutual trust within the firm, and expand the network of connections, of which all these enable the firm to financially perform better and grow. Other studies, such as Syed and Kamel (2018) and Kaltenbrunner and Renzl (2019) have found a relationship between firm performance and social capital. Therefore, the hypothesis was:

H4: Social capital (SO) has a positive influence on the performance of MFIs.

MFIs Specific

MFIs-specific refers to two types of institutions namely, bank-based and non-bank based MFIs (Nawai and Shariff, 2012). The non-bank MFIs, are regarded as government agencies and non-governmental organisations. They provided outstanding microcredit programs for microenterprises. These MFIs have offered development assistance to entrepreneurs, which is critical for young and inexperienced entrepreneurs. The non-bank MFIs required the fewest supplemental documentation for loan applications, resulting in a reduced cost and more efficient resource allocation (Abate et al., 2014). Regarding bank-based MFIs, they continue to request specific documentation to back loan applications, which are frequently impossible for consumers to produce. This suggests that the latter MFIs are more selective in their customer selection and operate similarly to traditional commercial banks. Hence, evidence suggests that IC's effects on company performance vary per firm (Ling, 2012). Furthermore, it was discovered that the banking industry has the least impact on IC (intellectual capital), insurance companies, and brokerage firms compared to non-financial institutions whose IC has a favourable correlation with their success (Muhammad and Ismail, 2009; Zehri et al., 2012). As so, the hypothesis is:

H5: Bank Specifics as moderator has a positive influence on HC and MFIs' performance.

H6: Bank Specifics as moderator has a positive influence on CC and MFIs performance.

H7: Bank Specifics as moderator has a positive influence on SC and MFIs performance.

H8: Bank Specifics as moderator has a positive influence on SO and MFIs performance.

METHODOLOGY

The current study explored MFIs in the setting of Malaysia. The study collected data through the use of a standardised questionnaire administered to respondents. The questionnaire is divided into three pieces, the first of which contains questions on IC components (human capital, structural capital, social capital, and customer capital). The second portion of the questionnaire includes questions about the performance of MFIs. The third segment includes things that delve into the respondents' profiles. The items in the questionnaire's first and second parts are graded on a seven-point Likert scale. The scale is between 1 and 7, with 1 indicating strongly disagree and 7 indicating strongly agree. The exogenous variable, IC, that represent four dimensions: human capital, structural capital, customer capital, and social capital was quantified using 29 items.

On the other hand, the endogenous variable, MFIs' performance, was evaluated using 11 items. The questionnaire was distributed to 300 managers of Malaysian MFIs. Purposive sampling was used to choose the sample for this study. The researcher retains the right to select suitable respondents to represent their companies (Awang et al., 2015). The data gathering period for this study was October to December 2017.

The target group for the current study comprised of managers and senior executives from Malaysian MFIs responsible for the institution's internal management and played a role in its development. The G-power software was used to establish the required minimum sample size. The research model was built with a maximum of five predictors for the performance of MFIs, and the effect size was assessed to be moderate (0.15), while the required power was set at 0.80. According to Gefen et al. (2011), the acceptable minimum in social science is established at 80%. Because the needed sample size was 114, the obtained data were slightly larger than the required number. Only 156 managers answered the questionnaire out of 300 eligible respondents. This sample size represents a response rate of 52%, which Sekaran and Bougie (2010) consider to be satisfactory. The model shown in Figure 2 was calculated employing SmartPLS 3.2.8 and is focused on path modelling and bootstrapping (Chin, 2010; Tenenhaus and Esposito, 2005; Wetzels et al., 2009). The PLS analysis consists of two stages: the measurement model and the structural model. It is necessary to conduct a reliability and validity analysis on the measurement model. Convergent and discriminant validity are used to assess the measurement model's validity, while the Composite Reliability Index is used to assess the model's reliability (CR). Following the development of the measurement model, a structural model testing with 500 resamples was done to examine the hypothesis regarding the links between important success variables and MFIs performance.

FINDINGS AND RESULTS

Although 300 surveys were given, only 156 respondents (52 percent) returned the questionnaires in a useable condition. According to Table 1, 71 respondents (45.5 percent) indicated they were in a senior management role, 52 respondents (33.3 percent) indicated they were in a middle management position, and 33 respondents (21.2 percent) claimed they were in a top management position. One hundred and forty three (143) or 91.7 percent of the 156 responders were male, while the remaining (8.3 percent) were female. The majority of respondents (83) or 53.2 percent are between the ages of 26 and 35, fifty (50) or 32.1 percent are between the ages of 36 and 45, fifteen (15) or 9.6 percent are between the ages of 46 and 55, six (6) or 3.8 percent are between the ages of 20 and 25, and only two (2) or 1.3 percent are over the age of 56. Regarding the managers of MFIs who answered, one hundred and thirty two (132) or 84.6 percent were employees of bank-based MFIs and twenty four (24) or 15.4 percent were workers of non-bank-based MFIs.

Table 1: Respondent's Profile

		Frequency	%
Gender	Male	143	91.7
	Female	13	8.3
Age Group	20-25	6	3.8
	26-35	83	53.2
	36-45	50	32.1
	46-55	15	9.6
	Above 56	2	1.3
		Top management	33
Designation	Senior management	71	45.5
	Middle management	52	33.3
		1-5	35
Working experience	6-10	57	36.5
	11-15	34	21.8
	Above 15	30	19.2
MFIs Specifications	Bank-based	132	84.6
	Non-bank-based	24	15.4

Partial Least Square – Structural Equation Modeling (Measurement Model)

To determine the reliability, discriminant validity, and convergent validity measures, the confirmatory factor analysis (CFA) was conducted. As suggested by Hair, Black, Babin, and Anderson (2010), factor loadings should be used in assessing the convergent validity. On the other hand, to assess convergent validity,

Composite Reliability (CR) and Average Variance Extracted (AVE) could be used. Table 2 shows that most item loadings are higher than 0.5 (significant at $p < 0.01$), and all Average Variance Extracted (AVE) exceed 0.5, while the Composite Reliability (CR) for all the variables are more than 0.7 (Ramayah et al., 2018).

Table 2 Discriminant Validity

Construct	Items	Loading	CR	AVE		
Human Capital	HCS1 Employees possess relevant academic qualifications and vocational training.	0.736	0.876	0.587		
	HCS2 Employees are competent in handling matters about microfinance transactions.	0.726				
	HCS3 Employees are highly motivated self-learners.	0.831				
	HCS4 Employees focus on the quality of service provided.	0.791				
	HCS6 Our employees are committed to achieving the organization's vision and mission.	0.742				
Customer Capital	CC1 Our organization is aware of customer's complaints.	0.720	0.929	0.620		
	CC2 Our customers select a broader range of our products or services.	0.794				
	CC3 Our customers show loyalty towards our organization.	0.737				
	CC4 Our organization cares about customer expectations.	0.838				
	CC5 Our customers are satisfied with the delivery of our services.	0.829				
	CC6 Our customers have trust in our staff capability.	0.818				
	CC7 Our products or services are market-driven.	0.753				
	CC8 Our organization keep track of customers' feedback survey.	0.801				
Structural Capital	SC1 Efficient and integrated management system for customers.	0.750	0.945	0.659		
	SC2 Organization's knowledge contains in manuals, databases, etc.	0.781				
	SC3 Knowledge and information are transferred in structures, systems, and processes.	0.867				
	SC4 Our organizational system and procedures support innovation.	0.879				
	SC5 Our organization system supports continuous improvements including quality time in problem solving.	0.805				
	SC6 IT systems and their usage are enablers to higher productive performance.	0.790				
	SC7 Our organizations establish a networking system which engages customers, financial contributors, databases, etc.	0.788				
	SC8 Our organization has organizational control system and procedures.	0.843				
	SC9 Our organization has an effective internal communication system.	0.792				
Social Capital	SO1 Organizational culture is nurtured to attain social outreach acceptance.	0.796			0.921	0.624
	SO2 Environmental health and public social benefits are considered in any planning, development, and implementation of projects.	0.792				
	SO3 Organizations establish trust with clients.	0.747				
	SO4 Clients establish a strong network among group members with the assistance of the organization.	0.849				
	SO5 Clients of the organization have a good and trustworthy relationship among the group members.	0.825				
	SO6 Our organization mobilizes resources for the poor/needly through easy access to the microfinance program.	0.774				
	SO7 Organization plays a vital role for creating positive social interaction.	0.740				
MFI's Performance	MP1 Our organization's revenue is continuously increasing growth.	0.806	0.960	0.687		
	MP2 Our organization's return on assets has been increasing.	0.849				
	MP3 Our organization's return on sales has been increasing.	0.821				
	MP4 Our organization's return on capital employed/allocated grant has been increasing.	0.821				
	MP5 Our organization's product image has improved.	0.862				
	MP6 Management performance has been increasing.	0.829				
	MP7 Workers performance has been increasing	0.847				
	MP8 Shareholder value has been increasing	0.809				
	MP9 Our market share/social outreach is continuously increasing.	0.808				
	MP10 Practices 'On Time Delivery' to customers	0.794				
	MP11 Our organization has good overall performance and success.	0.865				

Note: HCS 5 was deleted due to low loading.

Additionally, as indicated by Henseler et al. (2015), the current study used the Heterotrait Monotrait (HTMT) as the discriminant criterion for validating discriminant validity. According to Henseler et al. (2015), a correlation value of less than one between constructs shows the achievement of discriminant validity. Nonetheless, we used a more cautious criterion of 0.85 to imply a much stronger distinction between the conceptions, as suggested by Clark and Watson (1995) and Kline (2011). Correlation estimates for HTMT evaluations are shown in Table 3. Correlation coefficients between the tested constructs were less than 0.85. As a result, this finding demonstrates that the requisite degree of discriminant validity was attained through the evaluation of HTMT.

Table 3 Heterotrait Monotrait (HTMT)

Constructs	CC	HC	MFI Perf	SO	SC
Customer Capital (CC)					
Human Capital (HC)	0.744				
MFI Performance (MFI Perf)	0.705	0.624			
Social Capital (SO)	0.818	0.741	0.719		
Structural Capital (SC)	0.826	0.689	0.750	0.833	

Partial Least Square – Structural Equation Modeling (Structural Model)

The R² value of the endogenous variable is used to calculate the explained variance. According to Sandin et al. (2015), an R² value greater than 0.60 indicates a high value, 0.30 to 0.60 indicates a moderate value, and less than 0.30 indicates a low value. The R² value reported in Figure 2 indicates that all exogenous factors (HC, CC, SC, and SO) could account for 59.9 percent of the MFI performance.

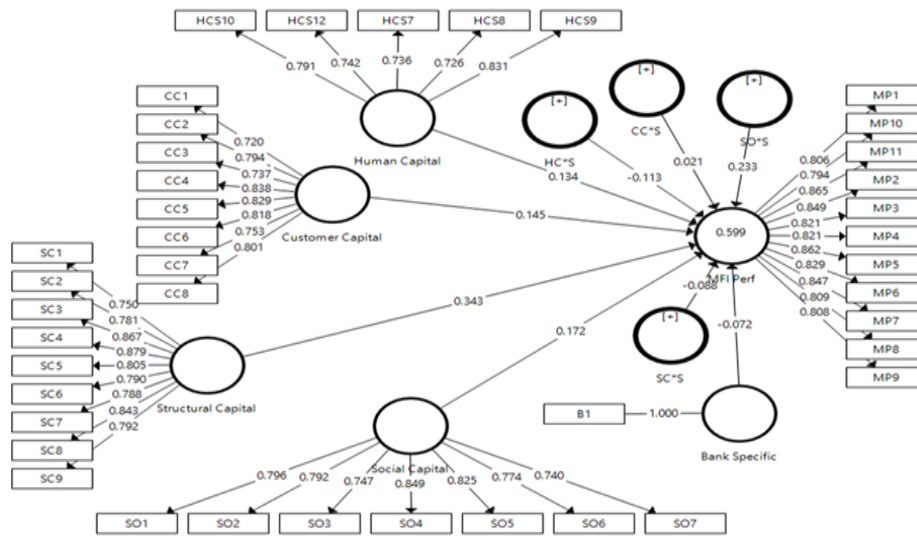


Figure 2 Measurement Model

Table 4 summarizes the hypothesis testing results and illustrates the routes for each hypothesis in terms of their coefficients, observed t-statistics, and significance levels. According to previous research (Hair et al., 2014; Henseler et al., 2009), the appropriate t-values for a one-tailed test are 1.28 (10 percent significance level at $p < 0.10$), 1.645 (5 percent significance level at $p < 0.05$), and 2.33 (1 percent significant level at $p < 0.01$). The study's findings indicate that four of the eight hypotheses evaluated strongly connected with the endogenous variable. In terms of MFI performance as an endogenous variable, HC ($\beta = 0.134$, $t = 1.764$, $p < 0.05$) and SC ($\beta = 0.343$, $t = 3.965$, $p < 0.05$) exhibit positive and statistically significant correlations with MFI performance. Consequently, H1 (HC has a significant positive effect on the performance of MFIs) and H3 (SC has a considerable positive effect on the performance of MFIs) are supported. The findings of the HC and SC corroborate those of prior investigations (Vidotto et al., 2017; Ozkan et al., 2016; Hashim et al., 2018; Kamaluddin and Kasim, 2013; Khalique et al., 2015; and Maryam et al., 2018). However, CC ($\beta = 0.145$, $t = 1.447$, non-significant) and SO ($\beta = 0.172$, $t = 1.632$, non-significant) have no discernible effect on the performance of MFIs. As a result, H2 (CC has a significant positive effect on the performance of MFIs) and H4 (SO has a significant positive effect on the performance of MFIs) are not supported.

Table 4 Path Coefficient and Hypothesis Testing

Hypothesis	Relationship	Std Beta	Std Error	T Values	P Values	LL	UL	Decision
H1	Human Capital -> MFI Perf	0.134	0.076	1.764	0.039	0.016	0.26	Supported
H2	Customer Capital -> MFI Perf	0.145	0.100	1.447	0.074	-0.029	0.298	Not Supported
H3	Structural Capital -> MFI Perf	0.343	0.086	3.965	0.001	0.21	0.486	Supported
H4	Social Capital -> MFI Perf	0.172	0.105	1.632	0.052	-0.023	0.325	Not Supported

The moderating effect is explored in Table 5 using a t-statistic with pooled standard errors. According to Henseler (2016), this is a strategy known as a parametric approach. The findings indicated that investing in human capital (HC) in non-bank MFIs will improve performance. Additionally, the data revealed that increased social capital (SO) of bank-based MFIs results in improved MFI performance. Shad et al. (2018)

claim that the level of social capital varies significantly between nations. In general, there is an effect of HC and SO on the performance of banks and non-bank MFIs. As a result, H5 (MFI Specific as moderator has a positive influence on HC and MFIs performance) and H8 (MFI Specific as moderator has a positive influence on SO and MFIs performance) are supported.

Table 5 Indirect Effect of MFIs Specific

Hypothesis	Relationship	Beta	Std Error	T Values	P Values	LL	UL	Decision
H5	HC*S -> MFI Perf	-0.113	0.067	1.686	0.046	-0.235	-0.018	Supported
H6	CC*S -> MFI Perf	0.021	0.095	0.225	0.411	-0.129	0.183	Not Supported
H7	SC*S -> MFI Perf	-0.088	0.071	1.242	0.107	-0.200	0.031	Not Supported
H8	SO*S -> MFI Perf	0.233	0.095	2.458	0.007	0.081	0.391	Supported

DISCUSSION AND CONCLUSION

Examining the effects of IC dimensions and the moderating role of bank-specific factors on the performance of Malaysian MFIs allowed the current study to achieve its research goals. The conclusion was made as a result of the study's findings, which were derived during the study's methodology. Numerous studies have indicated that IC dimensions can be used to evaluate the performance of an organization (Abdullah and Sofian, 2012; Amin et al., 2014; Andreeva and Garanina, 2016; Ariawan et al., 2016). Irsyahma and Nikmah (2017) also discovered a positive association between intellectual capital and firm performance in the Indonesian banking sector, implying that banks with a higher degree of intellectual capital efficiency would perform better. Tiwari et al. (2018) found a positive correlation between intellectual capital efficiency and firm performance in Indian public and private banks, indicating that banks with higher intellectual capital efficiency often perform better. As for Tran and Vo's (2018) study on Thailand's listed banks, Ousama et al. (2019) research on Islamic banks in the Gulf, and Soewarno et al. (2020) investigation on Indonesian banks, all indicated a positive and statistical significant correlation between intellectual capital and corporate success. IC dimensions can be used to compare the performance of MFIs, and human capital and structural capital are the most predictive of MFI success among the four IC dimensions. RBV theory is predicated on the relationship between resources (Bromiley and Rau, 2016). The results show that IC elements' associations with financial success were strengthened as a result of these improvements. The results of the present investigation support those of earlier studies (Ozkan et al., 2016; Hashim et al., 2018; Khalique et al., 2018; Hassan, 2014). The overall results of this study show that the financial success of MFIs in Malaysia is significantly influenced by all four of the components of IC (HC, CC, SC, and SO). These results are in line with the research of academics such Asghar et al. (2013), who contend that using resources that are both distinctive and unique to the firm is a firm's main criteria for success in a competitive market. MFIs also promote entrepreneurship-related education and training, skill development, asset accumulation, self-sufficiency, and community services, all of which enhance firm performance (Uddin et al., 2020). Therefore, it may be inferred that an organization no longer has to have physical assets or financial resources to retain a prolonged competitive edge; instead, it depends on the institution's capacity to efficiently channel its unique intellectual assets. A study of sector banks in Pakistan indicated that public sector banks performed worse than private sector banks due to insufficient capital utilisation or ineffective intellectual capital management in earlier research, which highlighted distinctions between various types of organizations (Zia et al., 2014). Thus, regardless of whether an MFI is bank-based or not, management should address organizational difficulties quickly. However, managers must use good judgment on behalf of their organizations by highlighting intellectual capital and acknowledging intangible assets, most notably the skills and knowledge of their staff.

The study has its drawbacks. To commence, the current study focuses particularly on microfinance organizations in the setting of Malaysia. Future studies could broaden the analysis to include other types of financial institutions, such as commercial banks and insurance firms, to make comparisons. Second, the current study assessed how well MFIs performed in Malaysia in relation to IC. Future studies should examine the link with additional variables, such government intervention, and incorporate the location of MFIs (urban or rural) as a variable to determine its impact on the effectiveness of microfinance institutions in the Malaysian context.

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