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Structural Analysis of Micro-Entrepreneurs' Performance in Islamic Microfinance Institution: A Moderating Effect of Geographical Location

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Abstract

Micro-entrepreneurs have contributed significantly to the socio-economic development of low-income households, which ensures long-term economic prosperity. Despite this, financial constraint is one of the primary challenges that micro-entrepreneurs face. Formal financial institutions regard them as a high-risk and high-cost market segment. Acknowledging their financial constraints, Islamic microfinance institutions, such as Amanah Ikhtiar Malaysia (AIM), are essential in providing the necessary financial assistance based on the Shari'ah concept. As evident from a growing body of research, entrepreneurial success is also dependent on other entrepreneur attributes such as social capital, human capital, and ICT usage. Thus, this study aimed to examine effect of Islamic microfinancing, social capital, human capital, and ICT usage on micro-entrepreneurs' performance, focusing on Islamic microfinance institution in Malaysia. This study also aimed to identify whether a geographical location moderated for ICT usage that may influence micro-entrepreneurs' performance. A total of 416 micro-entrepreneurs as clients of AIM were involved and selected from the states of Selangor and Pahang, representing urban and rural regions. The partial least squares – structural equation model (PLS-SEM) investigated the relationship among the variables. The study found that Islamic microfinancing, social capital, human capital, and ICT usage significantly influenced the micro-entrepreneurs' performance. Geographical location has a moderating effect on ICT usage and the micro-entrepreneurs' performance. This study can provide a theoretical contribution to the extension of the resource-based view (RBV) as a fundamental theory in predicting performance. In terms of practical contribution, the findings would be beneficial for Islamic microfinance institutions to develop a more effective action plan for achieving their objectives, such as improving infrastructure, increasing knowledge and awareness about ICT usage, and shifting business strategies to the digital economy. However, this study is limited to the selected respondents, specifically micro-entrepreneurs from AIM. Thus, future research could expand on a different set of data collection.

Keywords: Islamic Microfinancing, Social Capital, ICT Usage, Micro-Entrepreneurs' Performance, Geographical Location

Introduction

The importance of micro, small, and medium-sized enterprises (MSMEs) in national economies and their worldwide reach is widely recognised, given their volume dominance on the global market stage (ICSB Annual Global Micro Small and Medium Sized Enterprises Report, 2020). Micro-enterprises, combined with small and medium enterprises (SMEs), comprise the leading business group. In certain nations, micro-enterprises account for more than 90% of overall business establishments, as shown by India's 99.4 %, Indonesia's 98 %, and Thailand's 99.54 % in 2019 (OECD, 2020). Since micro-enterprises account for the majority of total business establishment in several countries, micro-enterprises' operations contribute significantly to economic development in these countries.

Similarly, in Malaysia, micro-enterprises have emerged as a key driver of economic development. According to the National Economic Census (2016), Malaysia has 920,624 registered business entities, including 907,065 (98.5 %) micro, small and medium-sized enterprises. Micro-enterprises accounted for 693,670 (76.5%), small businesses for 192,783 (21.2%), and medium businesses for 20,612 (2.3%). As a result, micro-enterprises, together with small and medium-sized businesses, make up a large portion of the economy's sectors. However, in the midst of the global community's current health crisis and COVID-19's influence on many sectors, there is a glimmer of hope of flourishing of adoption of new standards, including growth on e-commerce platforms (Fabeil et al., 2020; Hamdan et al., 2021).

In the National Entrepreneurship Policy (2030), one of the Strategic Trust's objectives is to strengthen MSMEs' entrepreneurial capabilities and performances. This strategy outlines Malaysia's long-term goal of becoming a world-class entrepreneurial nation by 2030 (Ministry of Entrepreneur Development and Cooperatives, MEDAC). Various ministries and agencies play their respective roles in collaborating and synergising to conduct 153 entrepreneurial development programs costing RM13.7 billion, benefitting 637,808 participants (SME Integrated Action Plan Report, 2019). Accordingly, Malaysia's trend and pattern are gearing towards entrepreneurship development.

Despite the broad acknowledgement of the importance of micro-enterprises to national economies, they continue to pose challenges to entrepreneurship development that need to be addressed. Numerous studies have shown that significant problems confronting micro-enterprises in their operations are related to financial access (Civelek et al., 2019; Ismail, 2014; Sabli & Joney, 2020; Muda & Lonik, 2020)

Many micro-enterprises owners or micro-entrepreneurs face barriers to financing access, mostly from formal financial institutions, due to their perception as a high-risk and high-cost service market sector (Duasa & Mohd Thas Thaker, 2016; Duc et al., 2008). Among the factors that preclude them from obtaining financial assistance are a collateral requirement, high financial cost, difficulty in providing business information, unavailability of business transactions records, and lastly, non-present of future business planning (S. Hassan et al., 2015; Thambiah et al., 2016). Indeed, these challenges are exacerbated for micro-entrepreneurs from low-income groups and the impoverished segment. These groups associated with poverty have remained a significant problem for a vast proportion of the population globally (Mohamed & Fauziyyah, 2020; Zainol et al., 2018).

In Malaysia, several MFIs and non-banking government agencies, including the Economic Fund for National Entrepreneurs Group (TEKUN), Permodalan Usahawan Nasional Berhad (PUNB), Yayasan Usaha Maju (YUM), and Amanah Ikhtiar Malaysia (AIM), have

administered microfinance programmes. AIM is one of the non-governmental organisations (NGOs) and Islamic microfinance institutions (IMFIs) in Malaysia that replicated Grameen Bank's group lending strategy (Bakar, 2016; Mohamed Isa, 2017). It was founded in 1988 as an IMFI focused on poverty, providing finance to the needy in accordance with the Trustee Incorporation Act 258 (updated 1981) (Haque et al., 2018). AIM is currently Malaysia's pioneer and leading Islamic microfinance institution. It has been named "Best Islamic microfinance institution" for six consecutive years from 2013 to 2019 at the Global Islamic Finance Awards (GIFA) (AIM, 2019).

It is well recognised that IMFIs play a critical role in providing financial support to low-income groups and serving the "unbankable" sector of society, as well as being a valuable weapon in the battle against poverty (Elbasir, 2015; Hassan et al., 2015). Micro-entrepreneurs who acquire Islamic microfinancing will contribute to the country's economic growth. This involves raising the poor's quality of life, guaranteeing equitable income distribution, creating new businesses, and increasing the poor's well-being (Nordin et al., 2019). Indeed, sustaining and promoting the development of micro-entrepreneurs benefits IMFIs as it closely correlates with planned financing repayment being made on time, thus reducing financing defaults. This achievement will contribute to the long-term viability of IMFIs. This is critical considering IMFIs must be financially self-sufficient and not rely on government support (Nor & Kumar, 2019).

Nonetheless, entrepreneurial success is not contingent on Islamic microfinancing but micro-entrepreneurs have a range of complex needs that extend beyond credit. Nordin et al. (2019) argued that additional aspects of facilitating the instillation of entrepreneur resources must be addressed. Among the impediments that micro-entrepreneurs have in sustaining and growing their businesses include a low level of literacy, a lack of managerial skills and expertise, a low level of IT use, and a limited social network (AlBar & Hoque, 2017; Nugroho & O Hara, 2015). According to Thaker & Mohammed (2015) many micro-entrepreneurs have a low level of education, expertise, and skills, especially in business management. This component of human capital is critical for the development and sustainability of micro-entrepreneurs' businesses. Furthermore, failing to provide enough training to micro-entrepreneurs would lock them in persistent poverty due to business failure and a mountain of debt (Yostrakul, 2018).

Additionally, as technology advances at a breakneck pace, micro-entrepreneurs who use information and communication technology (ICT) offer their businesses an edge over the competition and increase their chances of success and profit (Anwar et al., 2019). ICT may be regarded as a catalyst for the effectiveness of any firm, even micro-businesses, by increasing business advantages and building skills (Werber et al., 2015; Ong et al., 2020). Njau and Njuga (2015) said that ICT provides business owners with direct access to marketing possibilities, increasing customer value and industry competition. Moreover, NEP 2030 emphasised that technology is unquestionably a focal point of different entrepreneurship development programmes that foster entrepreneurs' growth via resilient and profitable businesses. On the other hand, small-entrepreneurs and ICT studies are uncommon compared to their larger counterparts. Many studies have focused on entrepreneurship as an urban phenomenon, leaving rural regions unresearched (Islam et al., 2018).

Accordingly, understanding the above issues would contribute to assist IMFIs and government agencies involved in microfinance and microentrepreneurial in developing design their financing programmes more effectively. Thus, the objectives of this study is to investigate the factors (Islamic microfinancing, social capital, human capital and ICT usage)

affecting micro-entrepreneurs' performance and the role of geographical location affecting micro-entrepreneurs' performance in an Islamic microfinance institution in Malaysia. Additionally, this study emphasizes the need to focus on micro-entrepreneurs, as they deserve dedicated attention for their significant contributions to socio-economic development and the unique challenges they encounter, requiring research and support specifically tailored to address their distinct needs.

Literature Review

Resource-Based View Theory

Following the resource-based view (RBV) theory, companies that are competent and efficient in managing and leveraging their resources are more likely to acquire a competitive advantage than those not (Barney, 1991). As per Karimi et al (2016), the RBV relates to the idea that the availability of crucial raw materials for capacity development impacts a company's ability to create such competencies. If entrepreneurs can maintain this efficiency momentum, then it is not impossible if these domains are capable of becoming significant drivers that accelerate firm performance. Furthermore, due to the fact that all organizations essentially have the relatively same set of resources in order to run their operations, then, it is critical for the sake of the firm's increased competitive advantage by increasing efforts to ensure that resources are extremely unique, not easily substituted, and not readily imitated by competitors.

Previous Studies

Micro-entrepreneurs' Performance

Entrepreneur is an individual who has the ability to organize, manage, and take on risks while establishing a business (Stenross, 2007). Micro-entrepreneurs in Malaysia are a powerful instrument for economic development; they commit and contribute markedly to the global economy, and their numbers have increased over time (Niethammer, 2013). They often engage in commercial operations such as food stalls, mobile groceries moved by vehicles, and many more, among others. The proportion of micro-entrepreneurs in Malaysia has risen significantly over the past three decades, owing to the country's attention on industrialization and a rising interest in privatization, self-employment, and business-oriented employment (Ismail, 2018).

However, in recent legislative and scholarly discussions, particularly in Malaysia, the performance of micro-entrepreneurs has come to the forefront due to its significant importance (Nadzri, 2018; Nordin et al., 2019). Performance can be defined as a complex, multi-faceted phenomenon with many dimensions that is difficult to manage without combining objective and subjective measures (Dharmaratne, 2012). Numerous researches on the performance of micro-entrepreneurs utilize business growth as a metric for performance (Atmadja et al., 2016; Hammawa & Hashim, 2016; Hussain et al., 2018; Nordin et al., 2019). For this study, the dimensions of sales, profit, property value, business ownership, the satisfaction of the business, number of clients, and the need to hire more staff were adopted from Nadzri (2018) to assess the performance of micro-entrepreneurs.

Islamic Microfinancing

The shortage of funds and limited finance at the extremity of the pyramid generates a vicious cycle of poverty (Rao et al., 2018). This is due to the availability of finance ensures the profitability of businesses for fixed assets, manage working capital, and finance preliminary

activities (Alene, 2020). Thus, initial invested capital strongly correlates with growth and venture survival (Alene, 2020; Danga et al., 2019).

Similarly, micro-entrepreneurs from poor and low-income groups depend on capital to start their businesses. As a result, the convenience and obtainability of credit financing and supportive government policies that promote the establishment and development of micro-entrepreneurs have aided in establishing and expanding their businesses (Al Mamun et al., 2019). However, funding these groups is difficult as they often lack collateral to back up their loans and lack comprehensive financial reporting evidence as well as information to support their loan and credit applications (Thaker & Mohammed, 2015). As a result, the contribution of MFIs in promoting financial inclusion and empowering micro-entrepreneurs is fundamental and critical.

The primary objective of the microfinance program is to alleviate poverty via microcredit, enabling company start-up and growth. The study found that financial access from microfinance programmes has a substantial impact on client business development compared to conventional banks. This was because the majority of conventional banks enforced stringent loan application criteria and charged higher interest rates. Thus, in the context of this study, the provision of Islamic microfinancing has effects on the micro-entrepreneurs' performance. The following study hypothesis was developed based on the literature mentioned above.

H1: Islamic microfinancing has a significant positive relationship with the performance of micro-entrepreneurs.

Social Capital

Social capital is considered an intangible resource that influences micro-entrepreneurs' performance (Amit & Schoemaker, 1993; Kim & Shim, 2018; Nordin et al., 2019; Pitt & Khandker, 1996). According to Coleman (1988), social capital is a notion embedded in the relationship structure that explains how the group could act as a resource for the social structure. Past studies revealed that social capital offered many advantages, including networking opportunities for new ideas and solutions, potential entrance into new markets, as well as ability to compete with other market players (Naala et al., 2019; Nordin et al., 2019).

Social capital as intangible resource was found as essential factor to influence micro-entrepreneurs' performance (Nordin et al., 2019; Olamide & Ogbechie, 2021; Roomi, 2009; Wang et al., 2020). However, past studied yielded mixed findings with regards to the association between social capital and business performance. For instance, Manesh (2011) found a positive relationship between social networks and a company's international performance. This supported by Nordin et al (2019) that carried out a study on women micro-entrepreneurs' performance in Islamic microfinance has been influence by social capital. From the studied, social capital from internal ties such as family, relatives and friends are among the backbone for the women micro-entrepreneurs' business growth. However, Littunen (2003) find that not all measures of social capital enhance business performance. Nevertheless, Ekpe et al (2015) that exposing micro-entrepreneurs to a broader social network exposes them to new markets via internal and external sources. As a result, businesses cannot ignore this kind of social capital while obtaining the resources necessary for survival and growth. As a result, the following was hypothesized

H2: Social capital has a significant positive relationship with the performance of micro-entrepreneurs.

Human Capital

In line with RBV theory, human capital is considered one of the firm's resources (Amit & Schoemaker, 1993). RBV emphasizes the importance of capital with distinct characteristics for businesses to maintain a competitive advantage and achieve success (Wernerfelt, 1984). Prior research has shown a correlation between human resources and micro-entrepreneurs' performance (Absah et al., 2018; Ayob et al., 2016; El Shoubaki et al., 2020; Md Saad et al., 2018; Qamariah & Muchtar, 2019; Rafiki et al., 2014). For instance, Rafiki et al (2014) discovered that the Islamic concept of human capital substantially impacted the development of 140 Muslim small and medium business owners and managers in Bahrain with three variables were discovered to positively affect company success: Islamic business training, industry knowledge, and Islamic enthusiasm.

Qamariah and Muchtar (2019) discovered a strong relationship between human capital, fundraising, and investment efficiency. It was acknowledged that a company established on a foundation of outstanding human capital might readily acquire and utilize additional resources. However, some studies such as Zin and Ibrahim (2020); Blattman et al (2014) found no significant relationship between human capital and micro-entrepreneurs' performance. Nonetheless, human capital is a critical component of business growth and sustainability. Without training, micro-entrepreneurs from low-income groups and the poor, who have a low level of education, knowledge, and competency, may be trapped in deeper poverty by unmanageable loans obtained (Yusuff & Andrew, 2012). As a result of the above discussions, the following hypothesis for this research was developed as follows:

H3: Human capital has positive effects on the micro-entrepreneurs' performance in an Islamic microfinance institution in Malaysia.

ICT Usage

Technology creates new possibilities in today's globalizing world by propelling the new global economy forward via innovation and entrepreneurial initiatives founded on novel concepts, perspectives, and business strategies (Ong et al., 2020). As resources under RBV theory, information and communication technology (ICT) are critical components of business strategy, promoting competitive advantage and providing distinctiveness that adds value to the business (Amit & Schoemaker, 1993; Penrose, 1959).

Malaysia is experiencing an increase in the utilization of the internet and mobile technologies. According to the Malaysian Communications and Multimedia Commission (2015), 66.6 per cent of Malaysians use the internet, while 87.9 per cent of Malaysians own a smartphone. This demonstrates an upsurge in internet usage among Malaysians. As a result, this may provide another avenue for micro-entrepreneurs to reach out to customers.

According to Ong et al (2016), modern women micro-entrepreneurs should embrace ICT to overcome business constraints. As exerted by Radzi et al (2017), ICT usage can help decrease the transaction costs associated with information sharing, particularly the time required to acquire market information (e.g., pricing) and conduct and agree on transactions. Additionally, Islam et al (2018) stated that ICT usage could lower expenses, increase revenue, and reduce uncertainty and risk, all of which were regarded indicators of business success. Compared to the landline platform, the mobile phone has been acknowledged as the primary mode of communication for businesses in the modern days. The fast proliferation of mobile phones has resulted in substantially increased communication access and usage (Verkijika,

2018). Ong (2019) researched the significance of ICT usage for women entrepreneurs in Malaysia and Indonesia, concluding that ICT usage improved profitability.

According to prior research, using technology as a resource increases business performance (Budiarto & Pramudiati, 2018; Hamdan & Kassim, 2020; Kim et al., 2020; Yong et al., 2020). Therefore, this study has emphasized using ICT and mobile device technologies for micro-entrepreneurs' business management to sustain their businesses in the market. As a result, the following was hypothesized

H4. ICT usage has a significant positive relationship with the performance of micro-entrepreneurs.

The Role of Geographical Location

The majority of studies on micro-entrepreneurs' performance appeared to be confined to a particular area or state (Nadzri, 2016; Atmadja et al., 2018; Nordin et al., 2019). These studies appeared to overlook the distinctions in geographical location between rural and urban areas as equally significant and deserving of attention (Adi et al., 2019; Islam et al., 2018).

Previous research has revealed disparities in income, employee growth, as well as asset and profit growth between rural and urban micro-entrepreneurs (Atmadja et al., 2018; Garba et al., 2019; Joo, 2011; Mohiuddin et al., 2020; Phillipson et al., 2018; Sharma et al., 2012). For instance, Garba et al (2019) conducted a study on the growth potential of micro-enterprises in Nigeria's urban and rural areas. The findings of the study, based on data from 761 micro-entrepreneurs, indicated that urban enterprises had higher mean ratings for their employees' growth potential than rural micro-entrepreneurs. This indicated that the growth potential of businesses varies significantly between the two areas.

According to Phillipson et al (2018), the performance of micro-entrepreneurs has a significant effect owing to the rural-urban difference. The revenue produced by micro-entrepreneur operations in small-scale trade was more remarkable in urban regions than in rural ones. Numerous factors contributed to the plausibility of these findings. They included the uneven distribution of infrastructural facilities, their operating environment, and their use of resources to expand their business. As a result, future research should focus on particular industries and regions to ascertain their unique characteristics and commonalities.

The majority of data indicate that rural regions consistently have a lower rate of entrepreneurship than urban regions (Acs, 2017; Eurobarometer, 2007; Stenberg, 2015). According to Acs (2017), entrepreneurship rates are higher in urban areas due to population density, growth, and size. Wang et al (2020) suggested that one possible explanation is that urban areas provide more social and economic resources, fostering entrepreneurial intentions and actions. Meanwhile, Joo (2011) explained that economic inequality between rural and urban areas resulted from cultural differences with geographically specific identities and most likely contributed to the rural-urban disparity in entrepreneurial rates.

As discussed previously, several studies on micro-entrepreneurs' performance used geographical location as a variable (AlBar & Hoque, 2017; Freire-Gibb & Nielsen, 2014; Garba et al., 2019). Nevertheless, a few previous studies examined geographical location as a moderating variable. Thus, this research examined the effect of factors (Islamic microfinancing, social capital, human capital, and ICT usage) on the performance of micro-entrepreneurs in Islamic microfinance institutions using geographical location as a moderating variable and hypothesised as below:

H5: Geographical location moderates the relationship between ICT usage and micro-entrepreneurs' performance in an Islamic microfinance institution in Malaysia.

Methodology

Data

The data used in this study were derived from primary data, and the population concentrated on IMFI in Malaysia, namely Amanah Ikhtiar Malaysia (AIM). In this study, the institution was selected as the research population because the role of AIM is consistent with the government's objectives to alleviate poverty in Malaysia through nurturing entrepreneurs among the poor and low-income groups.

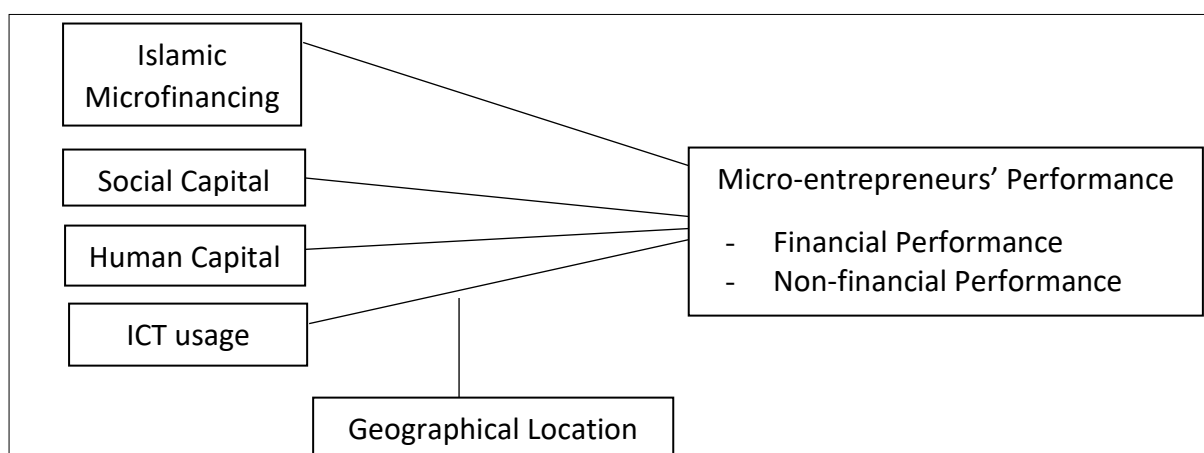
The sampling used in this study was purposive sampling as the data collecting period coincided with the COVID-19 pandemic. Two state were chosen namely Selangor and Pahang as represent a geographical location factor that classified Selangor as an urban region while Pahang was classified as a rural area. This inline with the report from DOSM (2019), found that Selangor has the most significant level of urbanisation (94.5 %), while Pahang has the lowest degree (62.7 %).

For sample size, this study implemented the calculation proposed by Hair et al (2010) via power analysis (G*Power) version 3.1, as it is compatible with the PLS-SEM technique employed. With a confidence level of 0.95, an effect size of 0.15, and five predictors, the minimum sample size required for the study was 150 respondents. It was determined to gather a total of 250 data sets from each micro-entrepreneurs for Pahang and Selangor respectively.

Concerning the construct's assessment, the performance of micro-entrepreneurs was assessed using ten items adapted from (Nadzri, 2018). In addition, this study adopted six-item questionnaire on Islamic microfinancing from Ismail (2014), six items for social capital from

Naala et al (2019), five items for human capital from Nadzri (2016) and five items for ICT usage from (Ong, 2019). Furthermore, as suggested by Garba et al (2019), the geographical location between two groups of urban and rural areas had a moderating effect on the performance of micro-entrepreneurs, thus it was incorporated in this study. The evaluation of variables in this study was using a 7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree.

Conceptual Framework



Source: Authors' developed for the study

Figure 1: Proposed Conceptual Framework

Method

This study used a quantitative method and employed a cross-sectional survey, which involved only one point in time being observed throughout the study period (Sedgwick, 2014). For preliminary analysis (descriptive analysis), the data were analyzed using IBM SPSS. In contrast, for analyzing the research model, Partial Least Squares-Structural Equation Modeling (PLS-SEM) analysis was performed, employing SmartPLS 3.2 software (Hair et al., 2011). The benefit of this statistical technique is that it does not need the assumption of normality, which is often not the case in survey research (Chin, 2010). As Anderson and Gerbing (1988) recommended, this research tested the constructed model in two steps. Firstly, evaluate the measurement model for validity and reliability. This was followed by a measurement model for four exogenous variables (Islamic microfinancing, social capital, human capital, and ICT usage) and one endogenous variable (micro-entrepreneurs' performance) in order to test the hypothesis established in this study using bootstrapping method (5000 re-samples) (Hair et al., 2014).

Results

Demographic Characteristics

Table 1 summarises the demographic characteristics of the sample used. This study included business profiles of micro-entrepreneurs, including the gender, age, education, business period, the number of employees, and involvement in microfinance programmes. The majority of respondents were female with age between the ages of 41 and 50 (36.1%). Micro-entrepreneurs mainly were married (86.1%), followed by 8.2 per cent as widowed and 5.8% being single. In addition, 73.1 per cent of respondents have completed secondary school. Three to four (40.9 %) women micro-entrepreneurs have dependents or children, with the majority working in the food industry (53.4 %). The food industry has historically been a preferred business sector for women micro-entrepreneurs, as it is an immense market opportunity. Additionally, when the COVID-19 epidemic struck, the food industry was less damaged; thus, entrepreneurs continued to increase their reliance on the food industry.

Table 1

Demographic Characteristics of the Respondents

Categories	Frequency (N=416)	Percentage (%)
Gender		
<i>Male</i>	1	0.2
<i>Female</i>	415	99.8
Age		
<i>20-30 years</i>	42	10.1
<i>31-40 years</i>	121	29.1
<i>41-50 years</i>	150	36.1
<i>51-60 years</i>	87	20.9
<i>61 years and above</i>	16	3.8
State		
<i>Pahang</i>	201	48.3
<i>Selangor</i>	215	51.7
Education		
<i>No Formal Education</i>	0	0
<i>Primary School</i>	13	3.1

Categories	Frequency (N=416)	Percentage (%)
<i>Secondary School</i>	304	73.1
<i>College</i>	49	11.8
<i>University</i>	40	9.6
<i>Other</i>	10	2.4
Marital Status		
<i>Single</i>	24	5.8
<i>Married</i>	358	86.1
<i>Divorced</i>	34	8.2
No of Dependents		
<i>None</i>	50	12.0
<i>1-2</i>	96	23.1
<i>3-4</i>	170	40.9
<i>5-6</i>	81	19.5
<i>7-8</i>	15	3.6
<i>More than 8</i>	4	1.0
Type of Business		
<i>Food</i>	222	53.4
<i>Groceries</i>	40	9.6
<i>Agriculture</i>	36	8.7
<i>Fisheries</i>	5	1.2
<i>Craft</i>	31	7.5
<i>Services</i>	86	20.7
<i>Manufacturing</i>	33	7.9
<i>Others</i>	50	12.0
Number of Staffs Employed		
<i>None</i>	190	45.7
<i>1</i>	87	20.9
<i>2</i>	80	19.2
<i>3</i>	27	6.5
<i>4</i>	25	6.0
<i>5</i>	7	1.6
Year of Participation with AIM		
<i>1-2 years</i>	19	4.6
<i>3-5 years</i>	193	46.4
<i>6-10 years</i>	168	40.4
<i>11-15 years</i>	30	7.2
<i>More than 15 years</i>	6	1.4

Data Analysis

Common Method Variance

The data were gathered in this research utilizing a single source. Thus, Kock and Lynn (2012) and Kock (2015) recommended testing standard method variance to address the problem of Common Method Bias and examine complete collinearity. The cutoff value for VIF 3.3, when regressed against variable, indicated that the data had no serious issue with single-source bias. As shown in Table 2, all variables in this study met the cutoff value of less than 3.3.

Table 2

Lateral Collinearity Assessment

Construct	Micro-entrepreneurs' Performance (VIF)
Islamic Microfinancing	1.001
Social Capital	1.245
Human Capital	1.282
ICT Usage	1.339

Measurement Model

The researchers evaluated the loadings, cronbach's alpha (CA), composite reliability (CR) and average variance extracted (AVE) in the measurement model for both order constructs. According to Hair et al (2019), loadings should be more than 0.5, AVE should be more than 0.5, and CR should be more than 0.7. As shown in Table 3 and 4 for both constructs, all AVEs are more than 0.5, and all CRs are greater than 0.7. Additionally, the loadings were appropriate, as they were all greater than 0.5.

Table 3

Measurement Model for the First Order Constructs

Construct	Items	Indicator Reliability	Convergent Validity	Internal Consistency Reliability
		Outer Loading	AVE	CR
Financial Performance	FP1	0.841	0.603	0.883
	FP2	0.801		
	FP3	0.860		
	FP4	0.765		
	FP5	0.773		
Non-financial Performance	NFP1	0.810	0.654	0.904
	NFP2	0.753		
	NFP3	0.793		
	NFP4	0.770		
	NFP5	0.755		

Table 4

Measurement Model for the Second Order Constructs

Construct	Items	Indicator Reliability	Convergent Validity	Internal Consistency Reliability
		Outer Loading	AVE	CR
Islamic Microfinancing	IMFI1	0.775	0.618	0.906
	IMFI2	0.831		
	IMFI3	0.818		
	IMFI4	0.684		
	IMFI5	0.822		
	IMFI6	0.779		
Social Capital	SC1	0.763	0.576	0.890

	SC2	0.698		
	SC3	0.812		
	SC4	0.710		
	SC5	0.813		
	SC6	0.748		
Human Capital	HC1	0.715	0.528	0.848
	HC2	0.721		
	HC3	0.789		
	HC4	0.752		
	HC5	0.647		
ICT Usage	ICTU1	0.711	0.563	0.885
	ICTU2	0.820		
	ICTU3	0.815		
	ICTU4	0.741		
	ICTU5	0.769		
	ICTU6	0.630		
Micro-entrepreneurs' Performance	FP	0.900	0.819	0.9011
	NFP	0.911		

Notes: CR=composite reliability, AVE= average variance extracted

Then, as Henseler et al (2015) recommended, the discriminant validity was evaluated using the HTMT criteria. In order to meet the stricter criteria, HTMT values should be ≤ 0.85 or ≤ 0.90 for the more lenient criterion (Franke & Sarstedt, 2019). According to the results in Table 4, the HTMT values were lower than the stricter criteria indicating that respondents perceived the four constructs differently. Thus, a combination of these validity tests resulted in valid and reliable measurement items.

Table 5

Discriminant Validity (HTMT)

Variable	IM	HC	ICTU	SC	MEP
IM					
HC	0.069				
ICTU	0.059	0.517			
SC	0.073	0.419	0.455		
MEP	0.120	0.625	0.542	0.374	

Note: MEP = Micro-entrepreneurs' performance, IM= Islamic microfinancing, HC=Human Capital, SC = Social capital, ICTU = ICT usage

Structural Model

According to the recommendations of Hair et al (2017); Chin et al (2013), the researcher evaluated the multivariate skewness and kurtosis. The results indicated that the data were not normal multivariate; Mardia's multivariate skewness ($\beta = 3.05$, $p < 0.01$) and Mardia's multivariate kurtosis ($\beta = 31.07$, $p < 0.01$) were not present. Thus, in accordance with Hair et al (2019), the researcher reported the path coefficients, standard errors, t-values, and p-values for the structural model using a 5,000-sample re-sample bootstrapping procedure.

Additionally, based on the argument of Hahn and Ang (2017) that p-values are an inadequate criterion for determining the significance of a hypothesis, they proposed a combination of p-values, confidence intervals, and effect sizes. The criteria for testing the developed hypotheses were listed in Table 5.

To begin with, the researcher tested the effects of the four predictors on micro-entrepreneurs' performance. The coefficient of determination, R^2 , was 0.382 ($Q^2 = 0.251$), indicating that the Islamic microfinancing, social capital, human capital and ICT usage explained 38.2% of the variance in micro-entrepreneurs' performance, indicating a moderate level of predictive accuracy as a guideline by (Hait et al., 2017). Islamic microfinancing ($\beta = 0.096$, $p < 0.01$), social capital ($\beta = 0.091$, $p < 0.01$), human capital ($\beta = 0.374$, $p < 0.001$), and ICT usage ($\beta = 0.292$, $p < 0.001$) were all positively related to micro-entrepreneurs' performance, indicating that H1, H2, H3 and H4 are supported. Further support for this is presented by evaluating confidence intervals bias corrected 95% upper limit and 5% for the lower limit, which revealed no intervals straddling a value of 0, hence providing significant support for the research findings.

Table 6

Hypothesis Testing

	Relationship	Path Coefficient β	Std Dev	BCI LL	BCI UL	T-Value	P-Value	Result	R^2
H1	IM \rightarrow MEP	0.096	0.045	0.106	0.138	2.134	0.016	S	
H2	SC \rightarrow MEP	0.091	0.045	0.012	0.158	2.021	0.022	S	0.382
H3	HC \rightarrow MEP	0.374	0.045	0.301	0.448	8.308	$P < 0.01$	S	
H4	ICTU \rightarrow MEP	0.292	0.041	0.223	0.355	7.163	$P < 0.01$	S	

Note: IM=Islamic microfinancing MEP = Micro-entrepreneurs' performance, Islamic microfinancing, SC = Social capital, HC= Human Capital ICTU = ICT usage

Moderation Analysis

The moderating effect of geographical location was incorporated into the model, and categorical data types were used. The interaction effect of geographical location on ICT usage and micro-entrepreneurs performance is presented in Table 6. The findings indicated that Hypothesis 5 was significant ($\beta = 0.183$, $t = 3.722$, $P < 0.00$), which proposed that geographical location moderated the relationship between ICT usage and micro-entrepreneurs' performance. Therefore, Hypothesis 5 was supported.

Table 7

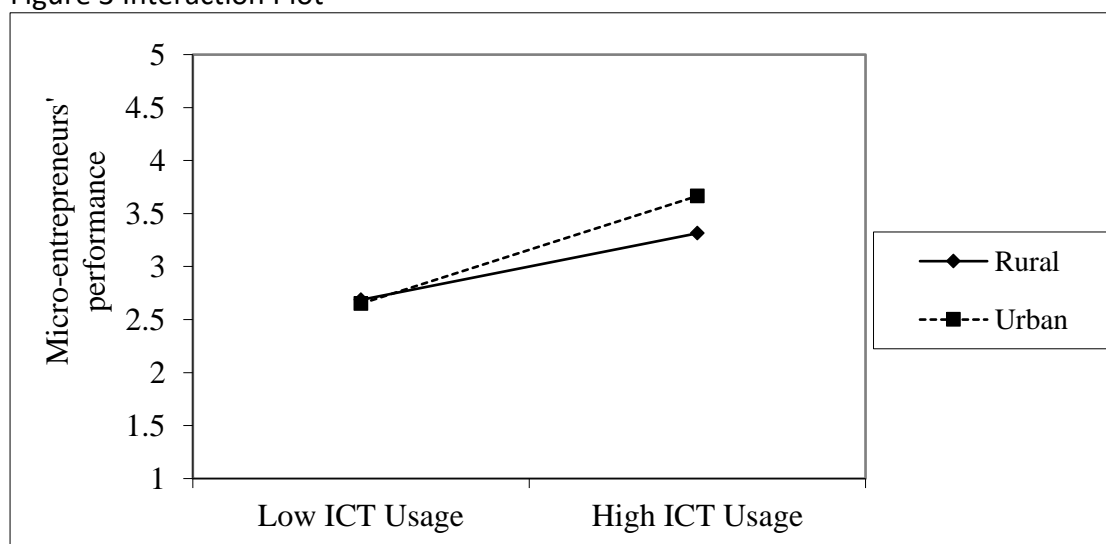
Result of the Moderating Effect of Geographical Location

	Relationship	Path Coefficient (β)	Std Error	T-value	P-value	Result
	Location \rightarrow MEP	0.156	0.042	3.710	$P < 0.01$	-
H ₅	ICT Usage \rightarrow MEP * Location	0.184	0.049	3.722	$P < 0.01$	S

Note: One-tailed: $p < 0.05$ ($t > 1.645$)

Dawson (2014) proposed that in order to elucidate the moderating phenomenon further, the interaction effect pattern should be plotted to see how the moderator changes the relationship. The geographical location significantly affected the relationship between ICT usage and micro-entrepreneurs' performance in this study. As illustrated in Figure 3, the line denoting urban areas has a higher gradient than the line denoting rural areas. Thus, based on the hypothesis, it can be concluded that micro-entrepreneurs in urban areas will benefit from increased ICT usage.

Figure 3 Interaction Plot



Analysis and Discussion

In general, this research supported and expanded the usage of RBV in the current context. It has been determined that at least four aspects can be added to the existing body of work to boost the performance of micro-entrepreneurs in the context of Islamic microfinance's clients.

To begin with, the significant association between Islamic microfinancing and the performance of micro-entrepreneurs suggested that financing provided by AIM has benefited a large number of micro-entrepreneurs in earning income and escaping poverty. However, as previously stated, the primary restraint on the success of most of women micro-entrepreneurs is financial constraints, which limit their capacity to grow their operations in a competitive market in order to meet the business objective. Additionally, it is congruent with the RBV theory, which claims that entrepreneurs aiming to create and expand their enterprises need finance in the form of tangible resources (Amit & Schoemaker, 1993). This is crucial for small and microbusiness owners to sustain operations and contribute directly to their performance. This finding corroborated those of (Nadzri, 2018; Alene, 2020; Mohamad Radzi et al., 2017; Nordin et al., 2019).

Second, the significant association between social capital and the performance of micro-entrepreneurs demonstrated the crucial importance of social capital as an intangible resource. In this study, respondents who were AIM clients perceived social capital as a critical factor in their business's growth. Social capital is developed via networking, enabling new ideas and solutions and the potential entry into new markets while remaining competitive with existing market players (Naala et al., 2019). The positive and supportive social capital derived from internal relationships such as family and friends and external relationships such

as customers, suppliers, and competitors can help business owners boost their entrepreneurial spirit, thereby increasing their business performance. Additionally, as far as AIM's group lending approach is concerned, a support group of five individuals collectively accountable for all members. This would develop significant social capital in the community and encourage the entrepreneurial spirit among business owners due to others' success stories. This result was consistent with previous research on the impact of social capital on business development, primarily micro-entrepreneurs (Nadzri, 2016; Akintimehin et al., 2019; Hamdan & Kassim, 2022; Nordin et al., 2019).

Thirdly, there is critical role of human capital in determining the performance of micro-entrepreneurs. According to the respondents in this study, prior experience and the learning process were critical facets of human capital that allowed the acquisition of diverse business possibilities. This result was consistent with the findings of qualitative research conducted by Ayob et al (2016), which showed that although micro-entrepreneurs initially did not know how many stocks to purchase, they have learned through experience how to create products that their customers preferred.

Next, the significant association between ICT usage and the performance of micro-entrepreneurs revealed that company owners who effectively incorporated IT into their business operations and practises would see their development accelerate. According to the present research, micro-entrepreneurs would benefit from using an e-marketplace to venture into new markets and identify suppliers providing affordable services and goods. Additionally, AIM offers a digital platform and is proactive in training customers about digital marketing techniques to assist them in growing their companies. This result corroborated past studies suggesting a favourable correlation between ICT use and firm growth performance (Budiarto & Pramudiati, 2018; Radzi et al., 2017; Bahri et al., 2016).

For moderating effect shown the relationship between ICT usage and micro-entrepreneurs supported the hypothesis. One possible explanation for this finding is that micro-entrepreneurs in urban areas made greater use of ICT. This was bolstered by ICT capabilities such as widespread coverage, stable internet connections, and ease of access to the internet. This finding corroborated prior research (Golding et al., 2008; Hashim, 2018; Mohiuddin et al., 2020). According to Hashim (2018), micro-entrepreneurs in urban areas have a more significant opportunity to explore ICT for business development due to the availability of amenities such as an internet connection and banking services. AlBar and Hoque (2017) found that rural Saudi Arabia's micro, small, and medium-sized businesses have been unable to keep up with the rapid pace of digital transformation, falling behind metropolitan firms in terms of development. As a result, this study confirms that geographical location exerted a moderating effect on the relationship between ICT usage and micro-entrepreneurs' performance.

Conclusion

Micro-entrepreneurs have contributed significantly to the socio-economic development of low-income households, which ensures long-term economic prosperity. The findings of this research indicated that the provision of microfinancing from IMFI, social capital, human capital and ICT usage had a substantial influence on the performance of micro-entrepreneurs as well as the role of geographical location. The empirical evidence in this study extended and strengthened the entrepreneurship theory of resource-based view (RBV), emphasizing the critical nature of comprehending how a firm's competitive advantage in terms of performance and growth was achieved via its resources and capabilities. This study is essential for

microfinance institutions and policymakers to develop policies that would benefit micro-entrepreneurs in the long run.

Recommendations

This study's findings provide theoretical and managerial implications in comprehending the determinants of micro-entrepreneurs' performance in the context of IMFIs' clients. Furthermore, the respondents' response may assist researchers in determining the needs of entrepreneurship and assist other institutions providing different programmes and assistance to help micro-entrepreneurs perform better.

This research demonstrated that Islamic microfinancing influenced the business progression of micro-entrepreneurs. Moreover, the utilization of social capital, human capital and ICT usage have a beneficial influence on the performance of micro-entrepreneurs. Additionally, by including geographical location as a moderator, the relationship between ICT usage and micro-entrepreneurs' performance was significantly influenced. This finding enables policymakers, such as microfinance institutions and governments, to develop more effective action plans for achieving their objectives, including improving infrastructure facilities, raising awareness about ICT adoption, and shifting business strategies toward the digital economy.

For micro-entrepreneurs will better understand the critical aspects that should be promoted to boost business success and those that should be avoided. All factors in this study had a significant effect on micro-entrepreneurs' performance. Geographical differences discovered that ICT usage among urban micro-entrepreneurs outperformed rural micro-entrepreneurs; thus, they should arm themselves with technical knowledge and skills to help them grow their businesses.

However, there were some limitations in this research. First, it was limited to the state of Selangor and Pahang for AIM's clients, owing to the fact that the researcher collected data during the ongoing COVID-19 pandemic. Therefore, it is suggested that future research focus on several states in Malaysia and expand the sample size of micro-entrepreneurs in other microfinance institutions across the nation. Moreover, given that unanticipated crises such as the COVID-19 pandemic substantially influence business performance, future research should evaluate the crisis's impact on the performance of micro-entrepreneurs both before and after the crisis. Finally, it is recommended that future research examine the effectiveness of micro-entrepreneurs across various demographic profiles in relation to the nation's economic growth and achievement of sustainable development goals (SDGs).

Reference

- Absah, Y., Muchtar, Y. C., & Qamariah, I. (2018). The effect of intellectual capital on business performance in Micro-, Small-, and Medium Enterprise (MSME) in Medan City. *KnE Social Sciences*, 3(10), 177–186. <https://doi.org/10.18502/kss.v3i10.3371>
- Acs, Z. (2017). Entrepreneurship in Developing Countries. *Foundations and Trends® in Entrepreneurship*, 6(1), 1–68. 10.1561/03000000031
- Adi, O. S., Ngutor, S., & Ubi, I. C. (2019). Comparative analysis of difference in women entrepreneurship in rural and urban communities in cross river state. *International Journal of Sociology and Anthropology Research*, 5(2), 14–15.
- Nadzri, A. F. A. (2016). *Critical success factors of micro entrepreneurs under the AIM and Asnaf's Economic Development Programme* (Issue December). [Unpublished doctoral dissertation]. Universiti Teknologi Mara.

- Nadzri, A. N. (2018). *Microfinance factors and religiosity influencing business performance on Micro and Small Entrepreneurs (MSE) among TEKUN borrowers*. [Unpublished doctoral dissertation]. University Utara Malaysia (UUM).
- AIM. (2019). *Repayment rate*, *Buletin AIM*. <https://www.aim.gov.my/>
- Akintimehin, O. O., Eniola, A. A., Alabi, O. J., Eluyela, D. F., Okere, W., & Ozordi, E. (2019). Social capital and its effect on business performance in the Nigeria informal sector. *Heliyon*, 5(7), e02024. <https://doi.org/10.1016/j.heliyon.2019.e02024>
- Al Mamun, A., Fazal, S. A., & Muniady, R. (2019). Entrepreneurial knowledge, skills, competencies and performance. *Asia Pacific Journal of Innovation and Entrepreneurship*, 13(1), 29–48. <https://doi.org/10.1108/apjie-11-2018-0067>
- AlBar, A. M., & Hoque, M. R. (2017). Factors affecting the adoption of information and communication technology in small and medium enterprises: A perspective from rural Saudi Arabia. *Information Technology for Development*, 25(4), 715–738. <https://doi.org/10.1080/02681102.2017.1390437>
- Alene, E. T. (2020). Determinants that influence the performance of women entrepreneurs in micro and small enterprises in Ethiopia. *Journal of Innovation and Entrepreneurship*, 9(1). <https://doi.org/10.1186/s13731-020-00132-6>
- Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33–46. <https://doi.org/10.1002/smj.4250140105>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Anwar, M., Djawad, Y. A., & Ridwansyah. (2019). ICT strategy and micro-entrepreneurs growth: The Indonesian case. *Journal of Physics: Conference Series*, 1244(1). <https://doi.org/10.1088/1742-6596/1244/1/012038>
- Atmadja, A. S., Sharma, P., & Su, J. J. (2018). Microfinance and microenterprise performance in Indonesia: An extended and updated survey. *International Journal of Social Economics*, 45(6), 957–972. <https://doi.org/10.1108/IJSE-02-2017-0031>
- Atmadja, A. S., Su, J. J., & Sharma, P. (2016). Examining the impact of microfinance on microenterprise performance (implications for women-owned microenterprises in Indonesia). *International Journal of Social Economics*, 43(10), 962–981. <https://doi.org/10.1108/IJSE-08-2014-0158>
- Ayob, N. A., Daud, S., & Ismail, M. T. (2016). Modal insan, daya saing dan prestasi usahawan wanita di Malaysia: Analisis kualitatif usahawan wanita bumiputera di Melaka. *Geografia: Malaysian Journal of Society & Space*, 12(10), 56–67.
- Bakar, N. M. (2016). *Client protection and sustainability of Islamic Microfinance Institutions: Evidence from Amanah Ikhtiar Malaysia*. [Unpublished doctoral dissertation]. Universiti Teknologi Mara.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Blattman, C., Fiala, N., & Martinez, S. (2014). Generating skilled self-employment in developing countries: Experimental evidence from Uganda. *The Quarterly Journal of Economics*, 129(2), 697–752.
- Budiarto, D. S., & Pramudiyati, N. (2018). Does technology improve SMEs business success? Empirical research on Indonesian SMEs. *Journal of Economics and Management Sciences*, 1(2), p115. <https://doi.org/10.30560/jems.v1n2p115>
- Chin, W. W. (2010). Handbook of partial least squares. In *Handbook of Partial Least Squares*.

- <https://doi.org/10.1007/978-3-540-32827-8>
- Chin, W. W., Jin Kim, Y., & Lee, G. (2013). Paths in PLS Analysis: A Bootstrapping Approach. In *New Perspectives in Partial Least Squares and Related Methods* (Vol. 56).
- Civelek, M., Kljucnikov, A., Kristofik, P., & Rozsa, Z. (2019). Barriers in financing microenterprises from the perspective of czech and slovak microentrepreneurs. *Journal of Business Economics and Management*, 20(2), 244–267. <https://doi.org/10.3846/jbem.2019.8114>
- Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 95-120.
- Danga, M., Chongela, J., & Kaudunde, I. (2019). Factors affecting the performance of rural small and medium enterprises (SMEs): A case study of Tanzania. *International Journal of Academic Accounting, Finance & Management Research (IJA AFMR)*, 3(5), 35–47. www.ijeais.org/ijaafmr
- Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. *Journal of Business and Psychology*, 29(1), 1–19. <https://doi.org/10.1007/s10869-013-9308-7>
- Dharmaratne, K. L. B. G. (2012). Impact of individual factors on the business performance of women entrepreneurs in Sri Lanka. *Sabaragamuwa University Journal*, 11(1), 139–165. <https://doi.org/10.4038/suslj.v11i1.5977>
- Duasa, J., & Thaker, M. T. M. A. (2016). A cash waqf investment model: An alternative model for financing micro-enterprises in Malaysia. *Journal of Islamic Monetary Economics and Finance*, 1(2), 161–188.
- Duc, D. S., Marriott, N., & Marriott, P. (2008). The bank's uses of smaller companies' financial information in the emerging economy of Vietnam: A user's-oriented model, corporate governance in less developed and emerging economies. *Research in Accounting in Emerging Economies*, 8, 519–548.
- Ekpe, I., Mat, N., & Ekpe, M. I. (2015). Social networks and women micro-enterprise performance: A conceptual framework. *Mediterranean Journal of Social Sciences*, 6(4S3), 360–366. <https://doi.org/10.5901/mjss.2015.v6n4s3p360>
- El Shoubaki, A., Laguir, I., & Besten, D. M. (2020). Human capital and SME growth: The mediating role of reasons to start a business. *Small Business Economics*, 54(4), 1107–1121. <https://doi.org/10.1007/s11187-018-0129-y>
- Elbasir, M. H. (2015). *An Investigation of Factors Affecting the Adoption of E-payment System in Libya*.
- Eurobarometer. (2007). *Entrepreneurship-Survey of the EU25. Secondary Analysis. Denmark Technical report*.
- Fabeil, N. F., Pazim, K. H., & Langgat, J. (2020). The Impact of Covid-19 pandemic crisis on micro-enterprises: Entrepreneurs' perspective on business continuity and recovery strategy. *Journal of Economics and Business*, 3(2). <https://doi.org/10.31014/aior.1992.03.02.241>
- Garba, A. S., Kabir, I., & Mahmoud, M. A. (2019). Growth potentials of microenterprises in urban and rural areas of Northwest, Nigeria. *Unilag Journal of Business*, 5(2), 1–11.
- Golding, P., Donaldson, O., Tennant, V., & Black, K. (2008). An analysis of factors affecting the adoption of ICT by MSMEs in rural and urban Jamaica. *European Conference on Information Systems*, 237. <http://aisel.aisnet.org/ecis2008/237>
- Hahn, E. D., & Ang, S. H. (2017). From the editors: New directions in the reporting of statistical results in the Journal of World Business. *Journal of World Business*, 52(2), 125–126.

- <https://doi.org/10.1016/j.jwb.2016.12.003>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A primer on partial least squares structural equation modeling (PLS-SEM). In *SAGE Publications, Inc.*
- <https://doi.org/10.1080/1743727x.2015.1005806>
- Hair, J. F., Hult, T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. SAGE Publications, Inc.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.
- <https://doi.org/10.1108/EBR-11-2018-0203>
- Hamdan, N. H. B., & Kassim, S. H. (2022). the Effects of Islamic Microfinancing, Human Capital and Ict Usage on Women Microentrepreneurs' Performance in Malaysia. *Journal of Islamic Monetary Economics and Finance*, 8, 125–152.
- <https://doi.org/10.21098/jimf.v8i0.1421>
- Hamdan, N. H., & Kassim, S. (2020). Critical factors affecting micro-entrepreneur's adoption of digital financial services offered by Islamic microfinance institution. *International Journal of Academic Research in Business and Social Sciences*, 10(6), 1084–1097.
- Hamdan, N. H., Kassim, S., & Lai, P. C. (2021). The Covid-19 Pandemic Crisis on Micro-Entrepreneurs in Malaysia : Impact and mitigation approaches. *Journal of Global Business and Social Entrepreneurship (GBSE)*, 7(20), 52–64.
- Hammawa, Y. M., & Hashim, N. B. (2016). Women-Micro Entrepreneurs and Sustainable Economic Development in Nigeria. *IOSR Journal of Business and Management Ver. I*, 18(1), 2319–7668. <https://doi.org/10.9790/487X-18112736>
- Haque, T., Siwar, C., Ghazali, R., & Bhuiyan, A. B. (2018). The microfinance contributions on the household income of the borrowers of Amanah Ikhtiar Malaysia (AIM) in Malaysia. *Selangor Business Review*, 3(1), 1–14.
- Hassan, I., Salleh, A., Saad, M. N., Krauss, S., & Mohammed, M. (2015). Exploring the Lived Experiences of High-Performance Micro Entrepreneurs in Malaysia: A Hermeneutic Approach. *Asia Business and Economics Journal*, 60–72.
- Hassan, S., Alam, M. M., & Rahman, R. A. (2015). An estimation of market size for microfinance: Study on the urban microentrepreneurs in Selangor, Malaysia. *Asian Social Science*, 11(27), 269–274. <https://doi.org/10.5539/ass.v11n27p269>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hussain, J., Mahmood, S., & Scott, J. (2018). Gender, microcredit and poverty alleviation in a developing country: The case of women entrepreneurs in Pakistan. *Journal of International Development*, 31(3), 247–270. <https://doi.org/10.1002/jid.3403>
- ICSB Annual Global Micro Small and Medium Sized Enterprises Report. (2020). *ICSB annual global micro-,small and medium-sized enterprises report.*
- <file:///C:/Users/user/Desktop/REPORT/2020ICSBGlobalMSMEsReport.pdf>
- Islam, M. M., Habes, E. M., & Alam, M. M. (2018a). The usage and social capital of mobile phones and their effect on the performance of microenterprise: An empirical study. *Technological Forecasting and Social Change*, 132(March 2017), 156–164.
- <https://doi.org/10.1016/j.techfore.2018.01.029>
- Islam, M. M., Habes, E. M., & Alam, M. M. (2018b). The usage and social capital of mobile

- phones and their effect on the performance of microenterprise: An empirical study. *Technological Forecasting and Social Change*, 132(January), 156–164. <https://doi.org/10.1016/j.techfore.2018.01.029>
- Ismail, R. (2014). *Factors influencing the business performance of Amanah Ikhtiar Malaysia (AIM) business owners*. [Unpublished doctoral dissertation]. Universiti Utara Malaysia.
- Karimi, S., Biemans, H. J. A., Lans, T., Chizari, M., & Mulder, M. (2016). The Impact of Entrepreneurship Education: A Study of Iranian Students' Entrepreneurial Intentions and Opportunity Identification. *Journal of Small Business Management*, 54(1), 187–209. <https://doi.org/10.1111/jsbm.12137>
- Kim, M., Abdullah, S. C., Bich, N. T., & Boey, I. (2020). Female entrepreneurship in the ICT sector: Success factors and challenges. In *Asian Women* (Vol. 36, Issue 2, pp. 43–72). <https://doi.org/10.14431/aw.2020.6.36.2.43>
- Kim, N., & Shim, C. (2018). Social capital, knowledge sharing and innovation of small- and medium-sized enterprises in a tourism cluster. *International Journal of Contemporary Hospitality Management*, 30(6), 2417–2437. <https://doi.org/10.1108/IJCHM-07-2016-0392>
- Kock, N., & Lynn, G. S. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems*, 13(7), 546–580. <https://doi.org/10.17705/1jais.00302>
- Littunen, H. (2003). Management capabilities and environmental characteristics in the critical operational phase of entrepreneurship: A comparison of Finnish family and nonfamily firms. *Family Business Review*, 16(3), 183–197.
- Malaysian Communications And Multimedia Commission. (2015). Hand phone users survey 2014. *Malaysian Communication and Multimedia Commission*, 48. <https://doi.org/ISSN1823-2523>
- Saad, M. A., Ali, M. H., & Guza, M. G. (2018). The influence of human and financial capital on the performance of woman entrepreneurs in micro and small enterprises in State of Perak, Malaysia. *Global Journal of Management and Business*, 5(1), 65–70.
- Radzi, M. K., Nor, M. N., & Ali, M. S. (2017). The impact of internal factors on small business success: A case of small enterprises under the felda scheme. *Asian Academy of Management Journal*, 22(1), 27–55. <https://doi.org/10.21315/aamj2017.22.1.2>
- Sabli, M. H., & Joney, S. K. (2020). The interactions between financial inclusion with microentrepreneurs firm performance in Malaysia. *UNIMAS Review of Accounting and Finance*, 1–10.
- Mohamed, E. F., & Fauziyyah, N. E. (2020). Islamic microfinance for poverty alleviation: A systematic literature review. *International Journal of Economics, Management and Accounting*, 28(1), 141–163.
- Isa, M. Z. (2017). *Assessing the impact of Amanah Ikhtiar Malaysia's Microcredit Programme on Participants Quality of Life*. Universiti Utara Malaysia (UUM).
- Hashim, M. J. (2018). *Influence of Intellectual Capital Dimensions and Government Support on the Performance of Islamic Microfinance Institutions in Malaysia*. [Unpublished doctoral dissertation]. International Islamic University Malaysia.
- Nor, M. A. N., & Kumar, S. T. (2019). The chronology of microfinance development in Malaysia: A review. *FGIC 2nd Conference on Governance and Integrity 2019, 2019*, 1271–1284. <https://doi.org/10.18502/kss.v3i22.5124>
- Thaker, M. T. M. A., & Mohammed, M. O. (2015). The challenges of micro enterprises in Malaysia and the prospect for integrated cash waqf micro enterprise investment (

- ICWME-I) model. In *Small and Medium Enterprises (SMEs) in some Selected Muslim Countries* (pp. 203–222).
- Zin, M. L., & Ibrahim, H. (2020). The influence of entrepreneurial supports on business performance among rural entrepreneurs. *Annals of Contemporary Developments in Management & HR*, 2(1), 31–41. <https://doi.org/10.33166/acdmhr.2020.01.004>
- Mohiuddin, M., Mazumder, M. N. H., Al Mamun, A., & Su, Z. (2020). Evolution of social microenterprises from rural to the urban area: A study on income-generating micro-entrepreneurs in an urban context. *Strategic Change*, 29(4), 435–446. <https://doi.org/10.1002/jsc.2355>
- Muda, N. S., & Lonik, T. K. A. (2020). Assessing economic impact of microcredit scheme: A review of past studies on Amanah Ikhtiar Malaysia (AIM). *Journal of Nusantara Studies (JONUS)*, 5(1), 124–142. <https://doi.org/10.24200/jonus.vol5iss1pp124-142>
- Naala, M. N. I., Gorondutse, A. H., Abdullah, H. H., & Abdullah, S. (2019). Exploring the effect of entrepreneurial social network on human capital and the performance of small and medium enterprises. *International Journal of Business and Technopreneurship*, 9(1), 1–14.
- National Economic Census. (2016). *n*.
- National Entrepreneurship Policy (2030). (n.d.). *Malaysia: An outstanding entrepreneurial nation 2030*.
- Niethammer. (2013). *Women, entrepreneurship and the opportunity to promote development and business*.
- Njau, J. E., & Njuga, G. O. (2015). Mobile phones usage in micro enterprise in Tanzania and its impact on their performance: A case of micro enterprises in Moshi Municipality, Tanzania. *International Journal of Economics, Commerce and Management United Kingdom*, III(6), 1047–1057. <http://ijecm.co.uk/>
- Nordin, N., Abdul Khalid, S. N., & Kamalia, Z. (2019). Microfinancing influence on micro-entrepreneurs business growth: Mediating role of psychological and social capital. *Journal of Entrepreneurship, Business and Economics*, 7(2), 130–161.
- OECD. (2020). *OECD Outlook*. <https://www.oecd.org/economic-outlook/#global-outlook>
- Olamide, A., & Ogbechie, R. (2021). Social capital and business performance: A study of female-owned SMEs in the Nigerian informal sector. *Small Enterprise Research*, 28(2), 190–205. <https://doi.org/10.1080/13215906.2021.1901140>
- Ong, S. Y. Y., Habidin, N. F., Salleh, M. I., & Fuzi, N. M. (2016). Relationship of Entrepreneurship Practice and Business Performance of Women Entrepreneur in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 6(11). <https://doi.org/10.6007/ijarbss/v6-i11/2376>
- Penrose, E. T. (1959). *The theory of growth of the firm*. Basil Blackwell and Mott Ltd.
- Phillipson, J., Tiwasing, P., Gorton, M., Maioli, S., Newbery, R., & Turner, R. (2018). Shining a spotlight on small rural businesses: How does their performance compare with urban? *Journal of Rural Studies*, 68(December 2017), 230–239. <https://doi.org/10.1016/j.jrurstud.2018.09.017>
- Pitt, M., & Khandker, S. R. (1996). *Household and intra-household impact of the Grameen Bank and similar targeted credit programs in Bangladesh* (No. 320).
- Qamariah, I., & Muchtar, Y. C. (2019). Analyzing business performance of small and medium enterprises (SMEs) based on human capital, social capital and competitive advantage. *Ecoforum*, 8(2).

- Rafiki, A., Al Khalifa, K. M., & Buchari, I. (2014). Islamic human capital and firm performance: An evidence of small and medium enterprises in Bahrain. *International Journal of Business and Management*, 9(4), 173–181. <https://doi.org/10.5539/ijbm.v9n4p173>
- Rao, S., Nilakantan, R., Iyengar, D., & Lee, K. B. (2018). On the viability of fixing leaky supply chains for the poor through benefit transfers: A call for joint distribution. *Journal of Business Logistics*, 40(2), 145–160.
- Roomi, M. A. (2009). Impact of social capital development and use in the growth process of women-owned firms. *Journal of Enterprising Culture*, 17(04), 473–495. <https://doi.org/10.1142/s0218495809000436>
- Bahri, S. I., Mohtar, S., & Ariffin, A. S. (2016). Relationship between technological capability towards business performance moderated by managerial skill: A study of broiler contract farming industry in Malaysia. *Sains Humanika*, 8(4–2), 111–115. <https://doi.org/10.11113/sh.v8n4-2.1070>
- Sedgwick, P. (2014). Cross sectional studies: Advantages and disadvantages. *BMJ*, 348(February). <https://doi.org/10.1136/bmj.g2276>
- Stenberg, R. (2015). Successful intelligence as a basis for entrepreneurship. *Journal of Business Venturing*, 19(2), 189–201.
- Thambiah, S., Muthaiyah, S., & Jun, K. J. (2016). *Islamic microfinance participation among women entrepreneurs in Malaysia: A conceptual framework*. 23(9), 2016–2022. <https://doi.org/10.5829/idosi.mejsr.2015.23.09.22588>
- Verkijika, S. F. (2018). Factors influencing the adoption of mobile commerce applications in Cameroon. *Telematics and Informatics*, 35(6), 1665–1674. <https://doi.org/10.1016/j.tele.2018.04.012>
- Wang, X., Cai, L., Zhu, X., & Deng, S. (2020). Female entrepreneurs' gender roles, social capital and willingness to choose external financing. *Asian Business and Management*, 0123456789. <https://doi.org/10.1057/s41291-020-00131-1>
- Werber, B., Rajkovic, U., Urh, M., & Znidarsic, A. (2015). Computer literacy and use of ICT as key factors of micro-enterprise success. *E a M: Ekonomije a Management*, 18(2), 165–182. <https://doi.org/10.15240/tul/001/2015-2-012>
- Wernerfelt, B. (1984). A Resource-Based View of the Firm. *Strategic Management Journal*, 5(2). <https://www.jstor.org/stable/2486175?seq=1>
- Yee Ong, S. Y., Habidin, N. F., Salleh, M. I., & Fuzi, N. M. (2020). The relationship between women's entrepreneurship practice, ICT adoption, and business performance in Malaysia and Indonesia. *International Journal of Entrepreneurship and Small Business*, 39(4), 548–563. <https://doi.org/10.1504/IJESB.2020.106470>
- Yong, J. Y., Yusliza, M. Y., Ramayah, T., Jabbour, C. J., Sehnem, S., & Mani, V. (2020). Pathways towards sustainability in manufacturing organizations: Empirical evidence on the role of green human resource management. *Business Strategy and the Environment*, 29(1), 212–228. <https://doi.org/10.1002/bse.2359>
- Yostrakul, W. (2018). *One size does not fit all: A case study of microfinance impact in rural Thailand* [[Unpublished doctoral dissertation]. University of Leicester]. <https://ira.le.ac.uk/handle/2381/42797>
- Yusuff, O. S., & Andrew, O. A. (2012). Human capital and women entrepreneurs in Tye and Dye Micro-Business in Ogun State, Nigeria. *Global Journal of Human Social Science*, 12(5), 33–42.
- Zainol, N. R., Al Mamun, A., Ahmad, G. Bin, & Simpong, D. B. (2018). Human capital and entrepreneurial competencies towards performance of informal microenterprises in

Kelantan, Malaysia. *Economics and Sociology*, 11(4), 31–50.
<https://doi.org/10.14254/2071-789X.2018/11-4/2>