

The Impact of Microfinance Services on Malaysian B40 Households' Socioeconomic Performance: A Moderated Mediation Analysis



W Muhammad Zainuddin B Wan Abdullah^{1*}, Wan Nur Rahini Aznie Bt Zainudin², Sarina Binti Ismail¹,
Hafiz Muhammad Zia-ul-haq¹

¹ Faculty of Business Economics and Social Development, Universiti Malaysia Terengganu, Kuala Nerus 21030, Terengganu, Malaysia

² Faculty of Science and Technology, Universiti Sains Islam Malaysia, Bandar Baru Nilai 71800, Negeri Sembilan, Malaysia

Corresponding Author Email: w.zainuddin@umt.edu.my

<https://doi.org/10.18280/ijstdp.170634>

ABSTRACT

Received: 5 August 2022

Accepted: 1 October 2022

Keywords:

microfinance services, entrepreneurial competencies, financial management, socioeconomic performance, household economic portfolio model

This research examines the influence of microfinance services on the socioeconomic performance of Malaysian B40 households, which are considered vulnerable communities in Malaysia. Mainly, it explores the mediating role of entrepreneurial competencies and financial management practices in the relationship of microfinance services with households' economic well-being, entrepreneurial success, and social wellbeing. Likewise, this research also examines the moderating role of microfinance institutions' service efficiency in the success of microfinance services to improve households' socioeconomic outcomes. The responses were collected from the participants of Amanah Ikhtiar Malaysia, the largest microfinance institution serving the low-income population of Malaysia. Employing the structural equation modelling approach, results show that microfinance financial services and non-financial services positively influence households' socioeconomic performance through entrepreneurial competencies and financial management practices. On the other hand, microfinance financial services are also found to have significant direct influence on households' socioeconomic performance. Further, results also indicate that microfinance institutions' service efficiency positively moderates the influence of financial services to improve households' socioeconomic performance. This is novel research that introduces human capital development as an underlying mechanism in the household economic portfolio model, suggesting that microfinance interventions develop human capabilities among their participants, which further assist them in the efficient management of financial and business affairs, thus, improving socioeconomic outcomes.

1. INTRODUCTION

Enhancing poor households' socio-economic performance is considered a crucial element in achieving sustainable development goals. Particularly, household socioeconomic performance is more volatile in the developing world because of the rising levels of population and unemployment [1]. Mainly, after the COVID-19 pandemic, households' financial performance and vulnerability have become an important issue for the authorities and researchers. Various development initiatives in the form of microfinance and microenterprise development programs are increasingly adopted across the globe to uplift the socioeconomic status of the poor. To help poor households, microfinance financial services are offered to provide financial capital and facilitate entrepreneurship whereas non-financial services are focused at developing essential skills and capabilities to enhance economic performance [2]. Hence, both forms of microfinance services result in improving entrepreneurial performance and achieving sustainable socio-economic development.

Malaysia is a developing nation that has achieved remarkable success in achieving socioeconomic development [3]. This socioeconomic achievement can be viewed as a result

of rapid economic growth and microenterprise development. The rapid economic development has caused socio-economic imbalance and increased the level of poverty among specific segments. Particularly, the low-income group known as the Bottom forty per cent income households (B40), are considered the more economically vulnerable and deprived society in Malaysia [4]. The estimated 2.91 million households in the B40 category have an average monthly income of less than RM4849 per household. Similarly, the Household Income and Basic Amenities Survey Report of 2019 states that total B40 income has declined from 16.4% in 2016 to 16% in 2019 [5]. Decreasing income levels and rising expenditures are the reason that most of the B40 households are still suffering from poor livelihood and a higher level of economic vulnerability. Therefore, the government of Malaysia always intends to help B40 households in uplifting their socioeconomic status.

Sustainable development has become a crucial goal for any economy; therefore, authorities are required to explore factors that improve individuals' economic status and enhance a country's economic growth [6]. Poverty alleviation as a part of sustainable development has always remained a prime agenda for the government of Malaysia, thus, resulting in the

formulation of several strategies to enhance poor households' economic performance and their quality of life. Most of the development plans of Malaysia incorporate these strategies to eradicate poverty. Considering the importance of microbusinesses, the government of Malaysia initiated various development programs to enhance the income-earning capacity of the poor through entrepreneurship [4]. Amanah Ikhityar Malaysia (AIM) is the largest development organization, and the first microfinance institution in Malaysia, established in 1987 to facilitate low-income households who are deprived of formal financial services [7]. Particularly, AIM was tasked to provide startup capital to low-income individuals and train them to enhance their entrepreneurial performance [2]. In this regard, AIM offers various microfinance financial and non-financial services to help their clients in enhancing socioeconomic outcomes [8].

The notion behind microfinance is to empower low-income individuals by providing financial services that help them in enhancing their income and wellbeing through entrepreneurship. However, the positive effect of microfinance on the empowerment of the poor and the reduction of poverty is neither conclusive nor widely acknowledged. There is a lot of disagreement among scholars over the evidence showing how microfinance affects households' socioeconomic outcomes. For instance, according to some researchers, microfinance makes the poor more vulnerable to debt rather than helping them [9]. Similarly, it has been indicated that microfinance institutions are unable to achieve their core objective of outreaching the extreme poor [10]. On the other hand, various researchers have demonstrated a positive effect of microfinance on the economic security of households and the empowerment of women [11]. Hence, it has been concluded from the literature that there is still some uncertainty on how microfinance would affect household socioeconomic welfare [12]. Additionally, there is a knowledge gap about how microfinance services enable poor households to achieve socioeconomic outcomes [13]. Since most of the literature has mainly emphasized impact evaluation, it has ignored the underlying mechanisms that may explain how to enhance socioeconomic performance [14]. Therefore, it has become crucial to examine how different forms of microfinance services might improve households' socioeconomic outcomes. Further, it is also important to explore the empowering capabilities that microfinance institutions develop among their clients to assist them in improving entrepreneurial performance and socioeconomic wellbeing.

Considering these gaps, this study primarily intends to analyze the influence of various microfinance services provided by AIM on the socioeconomic performance of B40 households in Malaysia. Generally, AIM offers a variety of financial services (FS) and non-financial services (NFS) such as microcredit, micro-savings, micro-insurance, training, and business coaching to its clients. Hence, this study identifies which microfinance services help B40 households in enhancing their socioeconomic performance. This study also explores various household factors that can mediate the relationship between microfinance services and household socioeconomic performance. For this purpose, households' human capital factors such as entrepreneurial competencies (EC) and financial management practices (FMP) are incorporated as mediating factors in this research. It is argued that various FS and NFS offered by microfinance institutions help in developing human capital capabilities among clients,

thus, assisting them in practicing financial management and enhancing their entrepreneurial competencies. This, in turn, can help them in achieving a competitive advantage over their competitors to achieve better entrepreneurial performance. Further, it is also implied that the effectiveness of microfinance services depends on how efficiently these services are delivered to the clients. Thus, microfinance institutions' service efficiency (MIE) is also introduced as a potential moderator in this research that can strengthen the influence of microfinance on poverty eradication and the socioeconomic performance of poor households.

The remainder of this research is arranged as follows. Theoretical background and hypothesis development are presented in the next section followed by the materials and method of the study. Whereas, results, discussion, and conclusion are discussed in the subsequent sections of this research.

2. LITERATURE REVIEW

2.1 Theoretical background

Microfinance helps low-income communities through entrepreneurship and serves as an effective strategy to achieve poverty eradication. Literature indicates that microfinance enables poor households in generating more income, thus, improving their livelihood and socioeconomic status [8]. Various existing theoretical works provide a significant foundation for this research and explain how microfinance interventions affect households' socioeconomic performance. For instance, the modern development theory indicates that a lack of access to financial services creates economic inequality in the world [15]. Hence, literature following modern development theory state that participating in microfinance programs helps low-income households to avail business opportunities and generate a higher level of income which ultimately result in their improved socioeconomic performance and reduction of economic inequality [11]. Furthermore, the human capital theory [16] postulates that improving an individual's capabilities through training and education strategies can significantly improve their socioeconomic wellbeing. Particularly, training programs provided by microfinance institutions could help micro-entrepreneurs effectively manage their business operations, thus, enhancing microenterprise profitability [17].

Although, microfinance is considered an effective tool against poverty, however, its impact assessment has created serious concerns among researchers. This is due to the inconclusive evidence relating to the role of microfinance strategy in improving households' well-being [18]. In terms of impact assessment, Chen and Dunn [19] developed the Household Economic Portfolio (HEP) model that explains how micro-financial services determine households' socioeconomic outcomes [20]. The HEP model describes households' economic portfolio as a combination of three main elements that are set of resources, set of activities, and circular flow between these resources and activities. It is argued that various households' resources are utilized through conducting certain activities such as investments, consumption, and production. Further, the HEP model also states that financial and social are the only two external factors that can enhance households' resource base, thus, ultimately influencing households' socioeconomic performance [19].

According to the HEP model, the resource allocation to the different economic activities is a crucial factor that requires efficient decision-making based on the variety of competencies and skills, determining households' socioeconomic outcomes [13].

In terms of limitation, the HEP model only considers two external factors (social and financial) as interventions that contribute to the resource base. Whereas, the HEP model itself argues that making decisions is the crucial factor that can enhance the effectiveness of the household economic mechanism. Thus, indicating the significance of human capital that determines the role of financial capital in achieving socioeconomic goals. Therefore, due to the lack of certain capabilities among low-income households, it is implied that such households require external assistance to enhance their skills and capabilities. This is the reason that training programs and business coaching are emerging as vital NFS offered under microfinancing. Hence, considering the importance of human capital in households' economic mechanisms, this research integrates theoretical opinions from the given literature to hypothesize relationships between various microfinance services and households' socioeconomic performance.

Specifically, this study introduces household human capital factors such as FMP and EC as indirect pathways through which microfinance services influence households' socioeconomic outcomes. Further, in light of contingency theory, which indicates that the relationship between two variables relies on a third factor [21], it is believed that integrating a moderator in the model could assist in minimizing misleading results and boosting the efficacy of microfinance interventions [13]. Thus, this study incorporates a potential moderator, MIE to explore its role in the effects of FS and NFS on households' socioeconomic outcome variables.

2.2. Hypothesis development

2.2.1 Microfinance financial services

Microfinance is generally viewed as an effective development tool to tackle poverty and enhance households' socioeconomic well-being [7]. It is argued that microfinance help households in establishing their micro-businesses by providing startup capital, thus enabling them to generate higher income [22]. Microfinance services also help poor households in smoothening their consumption which further assists them to deal with future vulnerabilities. Particularly, various types of FS such as microcredit, micro-savings, and micro-insurance play a crucial role in enhancing households' wellbeing. For example, microcredit is the key financial service that refers to the provision of a small amount of loan to poor individuals for improving their socioeconomic outcomes [23]. Hence, by providing adequate financial capital, poor households can avail themselves and utilize maximum economic opportunities which ultimately help them in improving their income-generating capacity.

Literature also indicates that microcredit plays a vital role in decreasing economic vulnerability and inequality [11]. Similarly, micro-savings also help households in strengthening their financing capacity, thus, enabling them to secure adequate financial resources. Further, managing saving accounts also assist households in securing large loans which enhances their capacity to tackle future uncertainties [24]. In addition to these, micro-insurance provides financial protection to poor households against future economic adversities [25]. This financial protection gives them the

confidence to avail more risky and profitable business opportunities. Hence, it is implied that microfinance financial facilities play a crucial role in enhancing households' socioeconomic performance.

In addition, financial interventions also influence multiple socio-economic outcomes through developing human capital among individuals. For instance, microcredit plays an important role in improving the educational level and developing various skills among individuals [23]. Further, an improved educational level positively influences individuals to adopt financial management behavior and develop essential entrepreneurship competencies [13]. Similarly, micro-savings also influence individuals to practice saving behavior and wealth accumulation, thus, encouraging them to adopt effective financial management behavior [25]. Hence, it is argued that FS helps poor households to improve their socioeconomic performance. Given, these arguments, this study hypothesizes that:

***Hypothesis 1:** Microfinance financial services positively affect households' socio-economic performance.*

2.2.2 Microfinance non-financial services

Microfinance institutions also offer non-financial facilities, particularly development training programs that are critical to achieving household socio-economic outcomes [26]. Literature indicates that training programs are an effective source of knowledge and these significantly influence business performance. Training programs help to develop human capital among microfinance clients to enhance their microenterprise performance. Particularly, these are designed to enhance the experience, skills, and knowledge required for entrepreneurship and better socio-economic outcomes [27]. It is argued that poor households usually lack knowledge and essential capabilities, therefore, they are unable to utilize their financial resources effectively. Hence, microfinance training programs target these human capabilities to enhance households' socioeconomic outcomes.

According to Hamzani and Achmad [28], training programs also assist clients in developing their learning capabilities and enhancing their educational performance, thus ultimately resulting in better socio-economic outcomes. Additionally, training programs are also important in boosting satisfaction and confidence level among households and micro-entrepreneurs [29]. Hence, microfinance training programs help individuals or households develop skills and capabilities to positively generate better economic outcomes, ultimately uplifting their socio-economic status [26].

It is argued that training programs also aim to increase financial awareness and encourage households to adopt financial management practices to effectively utilize their financial capital [13]. Likewise, training programs also help in developing business skills among households to enhance the management of their business operations [7]. Moreover, existing literature also reports the positive role of training programs in developing entrepreneurial competencies among low-income households which ultimately improve their business performance [30]. In addition to this, existing literature also indicates that training programs have a positive influence on an individual's awareness and decision-making, which also help in enhancing business performance [31].

Business coaching is another emerging non-financial facility that has become a crucial element in the process of microenterprise development. It helps in enhancing self-awareness and developing effective strategies through the

process of collaboration. It promotes personal and team development to achieve successful business outcomes [32]. Thus, microfinance institutions offer business coaching to their clients to bring productive change and enhance economic performance at both individual and enterprise levels. Generally, it is characterized as a collaboration between business owners and coaches. The latter seeks to bring positive change by emphasizing the entrepreneurs' commercial success and financial objectives [33]. Therefore, it can be viewed as an intervention that usually involves coaches collaborating with individuals, to assess their economic situation, with the aim to achieve better business performance [34].

Business coaching might be crucial for micro businesses run by poor households because these households typically lack the skills, knowledge, and strategy-building abilities. In light of this, microfinance institutions have started offering business coaching services to their clients to aid in the development of their abilities, which in turn improves their socioeconomic performance [13]. Furthermore, it also affects individuals' behavior through self-awareness and knowledge development, which ultimately enhance their economic performance. Despite the lack of empirical literature, few studies provide evidence supporting the positive role of business coaching in enhancing clients' socio-economic outcomes and particularly their business performance [33]. Business coaching has quickly become a potent instrument for economic success [35]. It improves people's areas of proficiency and helps them gain necessary skills, which improves their socioeconomic outcomes. Particularly, business coaches create collaborative relationships with clients to assist them in developing important competencies and adopt essential financial practices [13]. Developing such human capital factors help households in effective decision-making [36], which further improve entrepreneurs' managerial performance and ensure competitiveness among enterprises. Hence, it is argued that various types of NFS are vital to enhancing socioeconomic performance of poor households. Given these arguments, this study hypothesizes that:

Hypothesis 2: *Microfinance non-financial services positively affect households' socio-economic performance.*

2.2.3 Financial management practices

Researchers mostly consider financial literacy and behavior as an important element in determining the socio-economic outcomes of a household. According to French and Mckillop [37], poor financial management behavior could lead individuals to indebtedness and vulnerability. Similarly, the literature indicates that households are required to smartly manage their daily expenditures, especially in adverse financial situations else if they tend to spend beyond their financial capacity then they ultimately become more exposed to vulnerability and poverty [38]. The literature strongly indicates that financial awareness is related with the adoption of effective financial management, and improved wellbeing, thus uplifting the financial status of the household [39]. Similarly, literature also mentions that financial knowledge and behavior lead households towards saving behavior, building assets, and improving economic outcomes [40]. Despite such significance, the level of financial literacy is still unsatisfactory in many countries [37]. Authorities are required to formulate effective strategies to improve financial knowledge among households [39, 40]. Implying with this, microfinance institutions focus to enhance financial awareness among their clients and encourage them to adopt effective

financial management practices.

Further, the literature also states that financial management behavior helps households to maintain a better record of their income and expenditures, thus, improving their economic performance [41]. Financial management is an effective tool to control excessive spending and mismanagement of money, hence, helping individuals to reduce financial problems such as financial bankruptcies and over-indebtedness. It is argued that FMP significantly helps individuals in preparing against unforeseen future risks to achieve various socio-economic goals [38]. Additionally, literature also indicates that financial management awareness can play a crucial role in the success of financial interventions [42]. Despite such importance, financial management has gained less attention in the previous literature. Similarly, the empirical role of FMP in the households' socioeconomic performance has been overlooked by the researchers. Therefore, this study argues that FMP can significantly enhance the effect of microfinance services and improve clients' socioeconomic performance. Thus, it is hypothesized that:

Hypothesis 3: *Financial management practices positively mediate the effect of microfinance financial services on households' socio-economic performance.*

Hypothesis 4: *Financial management practices positively mediate the effect of microfinance non-financial services on households' socio-economic performance.*

2.2.4 Entrepreneurial competencies

Microfinance interventions consider entrepreneurship as a vital element in the socioeconomic empowerment of the poor against economic deprivation [43]. This is the reason, microfinance institutions specifically target the entrepreneurial capacity of their clients, thus, fostering their business performance [44]. Particularly, microfinance interventions can be viewed as a crucial source of enhancing entrepreneurship as it influences career selection and the human competencies of their clients [45]. Entrepreneurial competencies are generally defined as the set of skills or capabilities of an individual to successfully perform a job responsibility, which play a crucial role in successful entrepreneurship and improved economic performance [46]. Literature indicates that individuals with strong business skills are more capable to formulate effective strategies to avail economic opportunities, which help them in dealing with economic problems and generating better economic outcomes [47]. Entrepreneurial competencies also help entrepreneurs to achieve a competitive advantage over their competitors, thus resulting in improved enterprise performance [48].

Entrepreneurial competencies empower individuals with multiple capabilities that help them in achieving better socioeconomic outcomes. For example, conceptual competency refers to the cognitive ability that helps entrepreneurs to survive in vulnerable situations through effective decision-making [43]. Similarly, commitment competency ensures sustainability in socio-economic performance as it focuses on setting long-term goals [30]. According to Man et al. [44], opportunity recognition competency plays important role in analyzing and availing potential opportunities, thus, enhancing individuals' economic performance. Further, strategic competency helps in formulating effective strategies whereas organizing competency enhances the utilization of resources [49]. In addition to these, relationship competency enhances individuals' capability to develop social capital through

maintaining productive relationships [30]. Hence, it is argued that all kinds of entrepreneurial competencies assist entrepreneurs to conduct successful business activities, thus, fostering their socio-economic outcomes. Therefore, this study also hypothesizes that:

Hypothesis 5: *Entrepreneurial competencies positively mediate the effect of microfinance financial services on households' socio-economic performance.*

Hypothesis 6: *Entrepreneurial competencies positively mediate the effect of microfinance non-financial services on households' socio-economic performance.*

2.2.5 Microfinance institutions' service efficiency

Microfinance services play a crucial role in empowering poor households against socioeconomic deprivation, however, access to these services is a vital factor in the effectiveness of microfinance [50]. Likewise, service quality also plays important role in facilitating clients in the financial sector [51]. Considering the social objective of outreaching the poor, microfinance institutions require to deliver their services in the best possible manner [52]. As microfinance institutions only serve poor clients, therefore, they have to be more efficient in delivering services to significantly enhance clients' households' socioeconomic performance. Microfinance institutions design their programs and strategies to provide the most effective assistance to their low-income clients [13]. Existing literature has mostly focused on measuring microfinance institutions' technical efficiency [53], hence, overlooking the role of service efficiency in the effectiveness of microfinance.

Literature indicates that the service delivery mechanism plays important role in the effectiveness of microfinance. For example, it is indicated that the socioeconomic empowerment of the poor depends on the microfinance institutions' efficiency in terms of both operations and service delivery [54]. Hence, this study argues that efficient delivery of microfinance services is a critical element in the success of microfinance facilities to increase households' socioeconomic performance. However, there is a gap in the previous literature relating to the role of microfinance service efficiency in the households' socioeconomic framework. Only a few studies have measured service delivery efficiency and indicates its importance in the effectiveness of microfinance interventions [52]. This study argues that better utilization of microfinance services depends on the fact that how efficiently services are being delivered to the clients. Hence, it is implied that microfinance service efficiency plays a crucial role in boosting poor households' socioeconomic performance. Thus, it is hypothesized that:

Hypothesis 7: *Microfinance institutions' service efficiency positively moderates the effect of microfinance financial services on households' socio-economic performance.*

Hypothesis 8: *Microfinance institutions' service efficiency positively moderates the effect of microfinance non-financial services on households' socio-economic performance.*

3. RESEARCH METHOD

3.1 Conceptual framework

A conceptual framework is constructed in Figure 1 following the HEP model's theoretical work to comprehend and explore numerous factors that influence improving households' socioeconomic wellbeing (HEP) [19]. This conceptual framework consists of an outcome variable which

is households' socioeconomic performance, which is proxied by three different kinds of performance indicators for robustness. These outcome factors include households' economic wellbeing (EW), entrepreneurial success (ES), and social wellbeing (SW). Likewise, model includes two major independent variables which are FS and NFS. This framework also incorporates two human capital factors which are FMP and EC as mediators. Further, this research also includes MIE as a potential moderator in the relationship between microfinance services and households' socio-economic performance.

Figure 1, presented below, illustrates the conceptual relationships of this study. The direct arrows from microfinance services to the household socioeconomic performance indicate direct hypothesized relationships. Likewise, the indirect arrows through FMP and EC depict hypothesized relationships relating to the mediation of human capital development in the influence of microfinance services on household socioeconomic performance. Further, the arrows from MIE indicate moderating role of service efficiency in the influence of microfinance services on household socioeconomic performance indicators.

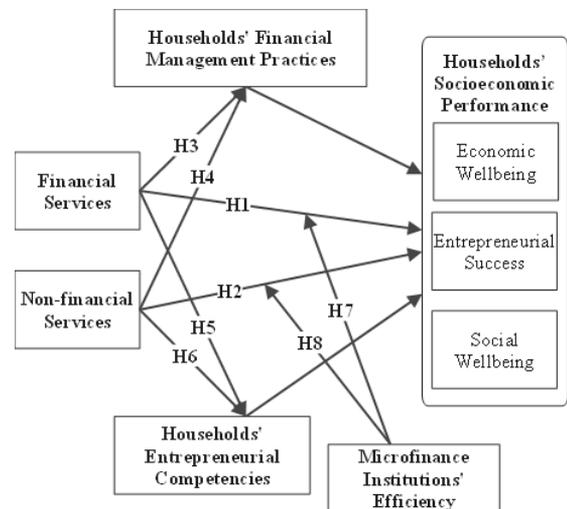


Figure 1. Conceptual framework

3.2 Measuring instrument

The measuring items for all the constructs were developed following the adoption and adaptation approaches from the existing literature. As, this study aims to examine the effect of microfinance services on the socioeconomic performance of B40 households in Malaysia. The detail of all measuring items is presented in the Appendix. The construct of FS is measured by six items adapted from the previous literature covering three key facilities, namely, micro-insurance (death-benefit fund), micro-savings, and microcredit [55]. Similarly, the construct of NFS is formed based on two key services, training programs and business coaching. A total of four items were adapted to measure NFS [55].

To measure FMP, a total of eight items were adapted from the previous studies [56]. These eight items cover the essential practices such as credit management, risk management, budgeting and cash management, basic finance practices, and opportunity awareness. Then, nine items were adapted from [44], to measure EC based on conceptual competency, commitment competency, organizing competency, strategic competency, relationship competency, and opportunity

recognition competency.

Next, this study used seven items from the previous literature to measure MIE [52]. These items cover two basic aspects of a service provider's efficiency that are credibility and responsiveness. Further, among households' socioeconomic performance indicators, this study used four items to measure EW based on the various economic outcomes [55]. Likewise, this study adapted five items each for SW and ES [56].

3.3 Data and sample selection

This research used a cross-sectional survey technique to examine the impact of various microfinance services on household socioeconomic performance. A questionnaire was developed using simple items which were adopted and adapted from the existing studies. The detail of each variable item is presented in the appendix. Responses for most of the items were recorded using a five-point Likert Scale where 1 presents "strongly disagree" to 5 which presents "strongly agree". The sample was selected from the B40 households of Malaysia who are receiving microfinance facilities from the AIM.

This research followed a non-probability sampling method due to the unknown population size. Specifically, the convenience sampling technique is employed to collect data from the respondents. Further, the stable factor structure (SFS) criteria are used for determining sample size. The SFS criteria suggest a minimum sample size of 100 to 200 or a respondent variable ratio of 1 to 2 for reliable results [57]. Hence, this study determined a sample size of 500 for the data analysis. The respondents were picked at convenience, and their responses were immediately recorded using questionnaires. This sample size is considered adequate for the representativeness of the results to the entire target population.

3.4 Statistical methods

This study has applied the Structural equation Modelling (SEM) technique to analyze the hypothesized relationships involving various factors such as FS, NFS, FMP, EC, MIE, EW, ES, and SW. The SEM is a second-generation multivariate statistical analysis method that combines multiple regression and factor analysis; therefore, it is considered more appropriate to investigate structural relationships involving measured indicators and latent variables.

Specifically, this research employed PLS-SEM (partial least square structural equation model), which is considered appropriate for the exploratory nature of objectives and complex model specification. Further, this research employed a measurement model and structural model within SEM to analyze specific research objectives. The measurement model exhibits the reliability and validity of each latent construct whereas the structural model estimates relationships among different latent variables of the model [58].

4. DATA ANALYSIS AND RESULTS

This research assessed the issue of common method biasness in the data before performing major data analysis. Then, the PLS-SEM approach is employed as a multivariate analysis to investigate and achieve research objectives. Specifically, Smart-PLS 3 is used to conduct two-stage analytical procedures of PLS-SEM. In this regard, the

measurement model is estimated to assess constructs' validity and reliability whereas the structural models are analyzed to assess the hypothesized relationships among specific variables of the model.

4.1 Common method bias

First and foremost, this research conducted full collinearity test suggested by Kock [59] for the assessment of common method bias. The problem of common method bias generally occurs due to measurement method followed in SEM related research. Notably, instrument may influence responses, which cause indicators to share a certain extent of common variation. In this regard, a random variable was generated and then regressed on the latent variables of this research to assess full collinearity coefficients. Results reported in Table 1, show that all values for full collinearity variance inflation factors (VIFs) are less than the threshold level of 3.3 [59]. Hence, this demonstrates that the model is free of common method bias.

4.2 Measurement model

Next, this research used a bootstrap technique to estimate factor loadings and their significance to analyze the measurement model. All latent variables are conceptualized as multi-item constructs as reflective models. The purpose was to estimate constructs that have strong internal consistency and are intercorrelated. This study assessed indicators' loadings and internal consistency to ensure the reliability of the constructs. Table 1 presents factor loadings and results from the internal consistency tests. Findings indicate that all items have a satisfactory level of outer loadings, ranging from 0.611 to 0.903. The estimated outer loadings for all items are found to be greater than the threshold level of 0.5, which indicate items' reliability [60].

Next, Composite reliability (CR) test is conducted to assess the internal consistency of the items. Results reported in Table 1, reveal that the CR values for all constructs are found within 0.829 to 0.95, which fulfils the minimum threshold level of 0.6 [61]. Hence, the measurement model results indicate that all the constructs are reliable to be used in the structural model analysis.

Under the measurement model, convergent validity is also assessed which refers to the degree to which indicators unanimously measure their constructs. In this regard, Average Variance Extracted (AVE) values are compared to the required cut-off level of 0.5 [62]. Results reported in Table 1, reveal that the AVE values for all constructs are greater than the threshold level of 0.5, thus, indicating that all constructs achieve the required level of convergent validity. Specifically, the estimated AVE values range from 50.05% to 73.4%, which proves the adequate level of convergent validity for all constructs.

Next, this research also assessed the discriminant validity of the model, which refers to the extent to which items predict their distinct concepts or differentiate among constructs. In general, discriminant reliability is assessed by calculating correlations among constructs that have potential overlapping in measurements. The basic purpose of testing discriminant validity is to ensure whether items unintentionally measure a different concept or not. Mainly, the Heterotrait-monotrait ratio of correlations (HTMT) approach is used to assess discriminant validity [63].

The HTMT ratio is calculated as the "ratio of the between

trait correlations divided by the within trait correlations” [62]. The HTMT values of less than 1, 0.9, and 0.85 are considered acceptable based on different research scenarios [64]. This research considers a moderate approach with a threshold level of 0.9 [65]. Results reported in Table 2, show that none of the constructs has HTMT value greater than 0.9, which proves discriminant validity in the measurement model. Overall, based on the measurement model findings, this study concludes that both constructs’ reliability and validity requirements are fulfilled, thus, the data is deemed suitable to be further analyzed to investigate hypothesized relationships in the structural model.

4.3. Structural model

In the next stage, this research evaluates the structural

model to investigate hypothesized relationships concerning research objectives. Collinearity is considered a crucial issue in the structural model assessment. The VIF values are generally used to determine the collinearity problem in the model. Literature suggests VIF values to be less than the threshold levels of 3.3 or 5 [62]. Results reported in Table 3, show that all VIF values are less than the threshold level of 3.3, thus, proving that collinearity is not a problem in this study.

Following the literature [63], this research employs 5000 samples using the bootstrapping procedure in SmartPLS. Then, different parameters including path coefficients and t-value are estimated to test the significance of the hypotheses. Results reported in Table 3 show that FS have highly significant and positive relationship with FMP ($\beta = 0.524, p < 0.01$), EC ($\beta = 0.361, p < 0.01$), EW ($\beta = 0.18, p < 0.01$), ES ($\beta = 0.269, p < 0.01$), and SW ($\beta = 0.224, p < 0.01$).

Table 1. Measurement model results

Constructs	Items	Indicator Reliability	Internal Consistency	Convergent Validity	Full Collinearity VIFs
		Outer Loadings > 0.5	Composite Reliability > 0.6	AVE > 0.5	VIF < 3.3
Financial Services	FS1	0.635	0.859	0.505	1.81
	FS2	0.687			
	FS3	0.769			
	FS4	0.727			
	FS5	0.673			
	FS6	0.764			
Non-financial Services	NFS1	0.744	0.871	0.630	1.30
	NFS2	0.861			
	NFS3	0.811			
	NFS4	0.753			
Financial Management Practices	FMP1	0.841	0.950	0.703	2.30
	FMP2	0.833			
	FMP3	0.829			
	FMP4	0.868			
	FMP5	0.863			
	FMP6	0.815			
	FMP7	0.797			
	FMP8	0.857			
Entrepreneurial Competencies	EC1	0.805	0.918	0.557	1.71
	EC2	0.722			
	EC3	0.658			
	EC4	0.822			
	EC5	0.744			
	EC6	0.737			
	EC7	0.689			
	EC8	0.741			
	EC9	0.781			
Microfinance Institutions' Service Efficiency	MIE1	0.659	0.885	0.526	1.01
	MIE2	0.773			
	MIE3	0.719			
	MIE4	0.767			
	MIE5	0.611			
	MIE6	0.796			
	MIE7	0.737			
Social Wellbeing	SW1	0.851	0.925	0.710	2.75
	SW2	0.889			
	SW3	0.823			
	SW4	0.838			
	SW5	0.811			
Economic Wellbeing	EW1	0.674	0.829	0.550	2.73
	EW2	0.683			
	EW3	0.801			
	EW4	0.799			
Entrepreneurial Success	ES1	0.903	0.932	0.734	2.78
	ES2	0.890			
	ES3	0.703			
	ES4	0.885			
	ES5	0.887			

Table 2. HTMT results

	EC	ES	EW	FMP	FS	MIE	NFS	SW
EC								
ES	0.512							
EW	0.678	0.889						
FMP	0.561	0.636	0.634					
FS	0.482	0.647	0.606	0.65				
MIE	0.064	0.077	0.095	0.063	0.073			
NFS	0.385	0.406	0.448	0.389	0.544	0.080		
SW	0.49	0.762	0.806	0.749	0.667	0.044	0.43	

Similarly, NFS is found to have positive relationship with FMP ($\beta = 0.113, p < 0.01$) and EC ($\beta = 0.185, p < 0.01$) at 1% level of significance. In contrast, NFS has positive association with EW ($\beta = 0.089, p = 0.011$) and SW ($\beta = 0.078, p = 0.033$) at 5% level of significance. Further, the relationship of NFS with ES is found to have relatively weaker significance ($\beta = 0.068, p = 0.06$).

In addition, FMP has positive and highly significant influence on EW ($\beta = 0.236, p < 0.01$), ES ($\beta = 0.322, p < 0.01$), and SW ($\beta = 0.495, p < 0.01$). On the other hand, EC is found to have positive influence on EW ($\beta = 0.321, p < 0.01$) and ES

($\beta = 0.168, p < 0.01$) at 1% level of significance, whereas it has positive influence on SW ($\beta = 0.07, p = 0.017$) at 5% level of significance.

Further, various researchers have criticized the p-value criteria and suggested considering other methods such as confidence intervals and effect size. Hence, this study has also reported F-square values to consider effect size in the analysis. Cohen [66] suggested threshold values of 0.35, 0.15, and 0.02, indicating large, medium, and small effects, respectively. The F-square values reported in Table 3, reveal that FS has a moderate effect on FMP, EW, ES, and SW, whereas it has a relatively smaller effect on EC. Likewise, NFS has small but significant effects on both FMP and EC. Results also reveal a moderate effect size of FMP on EW, ES, and SW. In contrast, EC also has a moderate effect on EW and ES. However, results indicate that EC does not affect SW.

On the other hand, results also reveal no effect for NFS on all three household performance variables. This indicates that the NFS does not have substantial direct effects on household EW, ES, and SW, which supports the existence of indirect effects between non-financial facilities and household performance. However, financial interventions are found to have both direct and indirect effects on EW, ES, and SW.

Table 3. Structural model results

Relationship	BETA	Confidence Interval (10%)	T-Value	P-Value	Decision	R-Sq	F-Sq	Effect Size	VIF	
FS -> FMP	0.524	0.478	0.580	12.645	P<0.01	Supported	0.339	0.34	Moderate	1.23
NFS -> FMP	0.113	0.057	0.169	2.582	P<0.01	Supported	0.339	0.02	Small	1.23
FS -> EC	0.361	0.311	0.424	8.268	P<0.01	Supported	0.223	0.14	Small	1.23
NFS -> EC	0.185	0.128	0.237	4.653	P<0.01	Supported	0.223	0.04	Small	1.23
FMP -> SW	0.495	0.421	0.562	9.275	P<0.01	Supported	0.530	0.29	Moderate	1.78
EC -> SW	0.066	0.020	0.111	2.116	0.017	Not Supported	0.530	0.01	None	1.51
FS -> SW	0.224	0.154	0.282	4.752	P<0.01	Supported	0.530	0.06	Moderate	1.68
NFS -> SW	0.078	0.025	0.132	1.84	0.033	Not Supported	0.530	0.01	None	1.28
FMP -> EW	0.236	0.482	0.583	4.474	P<0.01	Supported	0.429	0.06	Moderate	1.78
EC -> EW	0.321	0.262	0.367	7.963	P<0.01	Supported	0.429	0.12	Moderate	1.51
FS -> EW	0.175	0.107	0.231	3.838	P<0.01	Supported	0.429	0.03	Moderate	1.68
NFS -> EW	0.089	0.034	0.132	2.276	0.011	Not Supported	0.429	0.01	None	1.28
FMP -> ES	0.322	0.237	0.394	5.137	P<0.01	Supported	0.446	0.11	Moderate	1.78
EC -> ES	0.168	0.106	0.196	4.416	P<0.01	Supported	0.446	0.03	Moderate	1.51
FS -> ES	0.269	0.204	0.328	5.266	P<0.01	Supported	0.446	0.08	Moderate	1.68
NFS -> ES	0.068	0.010	0.119	1.555	0.060	Not Supported	0.446	0.01	None	1.28

Table 4. Mediation and moderation analyses

Mediation and Moderation Analysis						
Mediators	BETA	Confidence interval (10%)	T-Value	P-Value	Decision	
FS -> FMP -> SW	0.260	0.216	0.299	7.73	P<0.01	Supported
FS -> FMP -> EW	0.124	0.084	0.156	3.97	P<0.01	Supported
FS -> FMP -> ES	0.169	0.125	0.213	4.60	P<0.01	Supported
FS -> EC -> SW	0.025	0.008	0.040	2.03	0.021	Supported
FS -> EC -> EW	0.116	0.088	0.139	5.69	P<0.01	Supported
FS -> EC -> ES	0.061	0.037	0.075	3.81	P<0.01	Supported
NFS -> FMP -> SW	0.056	0.025	0.081	2.38	P<0.01	Supported
NFS -> FMP -> EW	0.027	0.010	0.038	2.20	0.014	Supported
NFS -> FMP -> ES	0.036	0.015	0.056	2.19	0.014	Supported
NFS -> EC -> SW	0.013	0.004	0.021	1.88	0.03	Supported
NFS -> EC -> EW	0.059	0.041	0.077	3.80	P<0.01	Supported
NFS -> EC -> ES	0.031	0.016	0.040	3.22	P<0.01	Supported
MIE*FS -> SW	0.051	0.036	0.132	1.296	0.098	Supported
MIE*FS -> EW	0.137	0.087	0.188	3.581	P<0.01	Supported
MIE*FS -> ES	0.127	0.094	0.186	3.907	P<0.01	Supported
MIE*NFS -> SW	0.049	0.020	0.127	0.807	0.21	Not supported
MIE*NFS -> EW	0.019	-0.023	0.109	0.083	0.47	Not supported
MIE*NFS -> ES	0.009	-0.043	0.111	0.098	0.46	Not supported

4.4 Mediation and moderation analyses

In addition to the direct effects, this study also examines mediating relationships by estimating specific indirect effects in the structural model. Results provided in Table 4, reveal that FS has significant and positive indirect effects through FMP on EW ($\beta = 0.124, p < 0.01$), ES ($\beta = 0.169, p < 0.01$), and SW ($\beta = 0.26, p < 0.01$). Likewise, EC also positively mediates the relationship of FS with EW ($\beta = 0.116, p < 0.01$), ES ($\beta = 0.061, p < 0.01$), and SW ($\beta = 0.025, p = 0.021$).

On the other hand, specific indirect coefficients also reveal that FMP positively mediates the influence of NFS on EW ($\beta = 0.027, p = 0.014$), ES ($\beta = 0.036, p = 0.014$), and SW ($\beta = 0.056, p < 0.01$). Similarly, the variable of EC is also found to play significant mediating role in the relationship of NFS with EW ($\beta = 0.06, p < 0.01$), ES ($\beta = 0.031, p < 0.01$), and SW ($\beta = 0.013, p = 0.03$). Hence, overall results indicate that households' FMP and EC play significant and positive mediating roles in the influence of both FS and NFS on households' socioeconomic performance.

Lastly, this study also examines hypothesized moderating relationships. Specifically, MIE is incorporated as moderating variable in the direct relationships of microfinance services with household socioeconomic performance. In this regard, moderating effects are created in SmartPLS as a product of independent and moderating variables [63]. Results presented in Table 4, reveal that MIE positively and significantly moderates the influence of FS on EW ($\beta = 0.137, p < 0.01$), ES ($\beta = 0.127, p < 0.01$), and SW ($\beta = 0.051, p = 0.098$). Contrarily, results reveal an insignificant moderating role of MIE in the influence of NFS on all three outcome variables. Hence, this study reports that MIE only plays a significant moderating role in the relationships of FS with households' performance indicators.

5. DISCUSSION

This research provides fresh insights into the HEP model that explains the role of microfinance interventions in households' economic framework. Although several existing studies have investigated the effect of microfinance in enhancing households' welfare, especially in Malaysia, a research gap exists regarding the underlying mechanism that how microfinance services influence clients' socioeconomic outcomes. Likewise, existing studies have also provided inconclusive evidence regarding the effect of microfinance services in helping needy households to uplift their socioeconomic status. Hence, current research aims to conceptualize microfinancing and provides answers to how microfinance services are related to improved households' socioeconomic performance via the development of human capabilities. Mainly, this research investigates the influence of different microfinance services (FS and NFS) on the Malaysian B40 households' socioeconomic well-being (EW, ES, and SW). In the meantime, it also investigates the indirect impacts of financial and non-financial facilities through FMP and EC. Further, this research also answers how service efficiency (MIE) affects the relationship of FS and NFS with households' socioeconomic performance.

In terms of the direct relationship between microfinance services and households' socioeconomic performance, results indicate a significant influence of financial interventions on households' socioeconomic well-being and business

performance. Whereas findings reveal that the non-financial interventions variable does not have a substantial influence in improving households' socioeconomic performance indicators. Hence, it is argued that financial facilities mainly assist clients to improve their economic outcomes such as income, assets, and wealth. The basic concept is that by providing financial services, low-income households will be better equipped to take advantage of available opportunities and achieve better economic outcomes. Similarly, a variety of financial services assist households in producing revenue and smoothing out their spending, allowing them to manage future unforeseen economic challenges. Existing literature supports this finding, demonstrating that financial services have a positive impact on household economic indicators [67]. Similarly, numerous studies have reported that financial services can be an important element in reducing poverty and increasing household income in Malaysia [11]. Financial capital is regarded as a requirement for corporate success. As a result, it is also inferred that financial services offer significant help to microbusiness owners by allowing them access to working capital and providing security against unanticipated events, allowing their businesses to perform better.

Next, findings reveal a significant and positive influence of both financial and non-financial facilities on households' socioeconomic performance through FMP and EC. Hence, this research reports significant mediating roles of human capabilities in the association of microfinance services with households' performance indicators. Although there is a lack of research on the mediating role of FMP in the household's socioeconomic mechanism, still, results of this study are consistent with prior studies. Several scholars, for example, have highlighted the importance of financial knowledge and behavior in improving households' socioeconomic status in Malaysia [39]. Likewise, various researchers view financial literacy as an important factor in determining a household's socioeconomic status [37, 40]. Mainly, financial management and behavior can play a critical role in reducing household debt and improving well-being [38]. Literature relating to microfinance also suggested that the efficacy of microfinance services can only be improved when they are combined with efficient financial management techniques [13, 42].

Further, Mohamad and Sidek [68] reported a mediating role of entrepreneurial competencies in the association of microfinance with clients' business performance. According to the literature, economic units have different capacities due to a diverse collection of resources; therefore, entrepreneurial competencies help them achieve commercial success and enhance economic performance [46]. Participating in development schemes has also been shown to have a positive impact on entrepreneurial competencies, which can assist clients to improve their micro-enterprise performance [30, 48]. Hence, this research argues that microfinance financial and non-financial services help clients adopt financial management practices and develop entrepreneurial competencies, which further assist them in the efficient management of financial and business affairs, thus, resulting in improved socioeconomic performance.

In addition, this study investigates the moderating role of MIE in the effectiveness of microfinance services to improve households' socioeconomic performance. Results reported in Table 4, reveal that service efficiency significantly and positively moderates the influence of financial services on households' performance indicators such as EW, ES, and SW. This study argues that successful utilization of financial

services strongly depends on the fact that how efficiently these services are being provided to the clients. Several existing studies highlight the importance of microfinance institutions' efficiency in empowering low-income households. It is believed that MIE plays a crucial role in achieving financial and social objectives [49]. Hence, the literature suggests microfinance institutions devise their operations and services in a manner that is most beneficial for the clients [39]. Likewise, Chowdhury and Mukhopadhyaya [52] specifically stated that microfinance institutions must efficiently deliver their services to help clients achieve better socioeconomic performance. Hence, this research argues that service efficiency is a critical factor for the successful utilization of facilities provided to low-income households which possess limited socioeconomic resources. It is further implied that timely and efficient provision of financial services is crucial for low-income households to grab and avail productive business opportunities. In contrast, with delayed and inefficient service delivery, microfinance clients are unable to meet their requirements and maximize their outcomes, which ultimately halt both their economic and social performance.

Overall, the findings of this study provide significant insights to the existing literature. It proves the positive role of microfinance interventions in empowering B40 households of Malaysia. Mainly, it highlights the underlying mechanism of the influence of microfinance financial and non-financial services on the households' socioeconomic performance through human capabilities. It specifically identifies two vital factors; financial management practices and entrepreneurial competencies, which mediate the relationship between microfinance services and households' socioeconomic performance. The fact that these two factors have been recognized as empowering abilities for improving households' socioeconomic success will have significant implications for future research. Furthermore, this study also contributes to the current literature by highlighting service efficiency factor as a significant moderator in the effectiveness of financial facilities to improve households' socioeconomic performance. As a result, this study creates several opportunities for future researchers to further investigate the relationship between microfinance development schemes and their effectiveness in empowering the poor.

6. CONCLUSIONS AND RECOMMENDATIONS

This research investigates the role of microfinance strategies in improving B40 households' socioeconomic performance in Malaysia. Mainly, it also explains the influencing channel of microfinancing facilities on households' socioeconomic performance. It is argued that both financial and non-financial programs influence various households' socioeconomic outcomes through human capabilities. Hence, this study also examines the mediating role of human capabilities such as entrepreneurial competencies and financial management practices in the success of microfinance services. Moreover, this paper also introduces service efficiency as a potential moderator in the influence of financial and non-financial services on socioeconomic performance.

Employing a variance-based structural equation modeling technique, this study conducted measurement and structural models to assess the reliability and validity of the constructs. Likewise, a structural model is conducted to investigate the hypothesized relationships of the model. Findings reveal that microfinance financial services positively influence

households' economic wellbeing, entrepreneurial success, and social well-being. Likewise, financial services and non-financial services are found to have significant indirect effects on households' socioeconomic performance through human capital development. Specifically, results indicate that entrepreneurial competencies and financial management practices positively mediate the effectiveness of microfinance services to improve households' socioeconomic performance indicators. Moreover, this study also reports that service efficiency positively moderates the impact of microfinance financial facilities to empower Malaysian B40 households.

This study explains the underlying mechanism of microfinance's influence channel to improve households' socioeconomic performance. It is argued that microfinance services help households to develop entrepreneurship skills and practice essential financial management, which help them manage their financial and business affairs, resulting in improved socioeconomic performance. It is also implied that the effectiveness of microfinance financial services strongly relies on service efficiency. Hence, this study recommends initiating similar schemes to support and empower poor households. This study also suggests that education-based provisions can also be useful for improving the human capital among B40 households. Particularly, human capabilities can be developed at the school level through proper training and educational strategies. Moreover, this human capital development would help to stimulate the effectiveness of development interventions to empower poor households against poverty. Lastly, microfinance service providers must also improve their service efficiency to ensure successful utilization of financial support.

6.1 Policy implication

Based on the findings, this research also suggests several policy implications for the stakeholders. Theoretically, this research contributes to the HEP model by suggesting an underlying mechanism of the influence of microfinance services through human capital development. The findings of this study implicate that microfinance services are thought to boost households' capital directly. Human capital, in particular, is important for effective decision-making, which aids them in increasing their socioeconomic performance. Furthermore, this research also discusses service efficiency as an external element that could considerably improve the utilization of financial services offered to poor clients. In general, it is argued that microfinance institutions help households in enhancing effective human capacities such as entrepreneurial skills and financial management. As a result, such capabilities assist clients to efficiently manage their financial capital. Similarly, such capabilities are also critical in increasing business efficiency and performance. However, this research further implicates that the success of microfinance interventions is highly dependent on the efficient service delivery mechanism.

Furthermore, this research also offers practical implications for the Malaysian authorities and B40 households. It is implicated that Malaysian authorities must implement effective educational initiatives to develop crucial human capabilities among B40 households. In particular, efforts should be undertaken to improve financial literacy, which would assist low-income households to efficiently managing their scarce financial capital. Similarly, authorities must also consider developing entrepreneurial skills in the basic educational curriculum, which would develop essential skills

among young individuals to motivate them to start their businesses. As a result, this would improve their economic outcomes and standard of living.

In addition, this research recommends that AIM as a major service provider should further improve its non-financial services, which are critical in building essential entrepreneurship skills among B40 clients and enabling them to practice effective financial management. As a result, improving such services would assist microfinance service providers to achieve their core objective of empowering the poor. Meanwhile, it is also recommended that microfinance institutions must strengthen their monitoring mechanisms to improve their staff efficiency in offering financial assistance to the clients. This would ultimately enable individuals to timely avail potential economic opportunities. Finally, it is also implicated that B40 households should focus on improving their financial knowledge and developing key business and managerial skills, which will ultimately assist them in uplifting their socioeconomic standing. Along with microfinance schemes, focusing on basic education could be an effective strategy for human capital development among B40 households.

6.2 Limitations and future research recommendations

There are a few limitations to this study that can be addressed in future research. First and foremost, the goal of this research is to examine the effectiveness of microfinance services in improving household socioeconomic performance. However, it particularly targets the Malaysian B40 households' community. Therefore, forthcoming studies can include a larger target population to present more general findings to Malaysian households. Although the B40 community is a distinct group, it encompasses a wide range of vulnerable communities. Therefore, future research should also focus on specific communities that face higher levels of vulnerability and economic deprivation. Likewise, this study is a specific case in Malaysia, future studies should include a larger sample of multiple countries to provide more general ramifications for the global community.

Furthermore, while this study follows a quantitative methodology, future studies can apply a qualitative approach to gain a better understanding of microfinance and its role in empowering low-income households. Applying qualitative methodologies would also aid in understanding the constraints and needs of poor households in a particular setting. In addition, this research incorporates entrepreneurial competencies and financial management practices as mediating factors that explain the underlying process involving the impact of microfinance services on socioeconomic performance. In this regard, future research should include and examine additional human capital factors that could significantly improve the efficacy of microfinance services. Similarly, the service efficiency is identified as a moderating factor in the effect of financial services on household socioeconomic outcomes. Therefore, future research might identify and investigate other institutional elements that could improve the performance of microfinance strategies.

ACKNOWLEDGMENT

This research was supported by Ministry of Higher

Education (MOHE) through Fundamental Research Grants Scheme FRGS/1/2019/SS01/UMT/02/5.

REFERENCES

- [1] Zainol, N.R., Al Mamun, A., Ahmad, G.B., Simpong, D.B. (2018). Human capital and entrepreneurial competencies towards performance of informal microenterprises in Kelantan, Malaysia. *Economics & Sociology*, 11(4): 31. <https://doi.org/10.14254/2071-789X.2018/11-4/2>
- [2] Mustapa, W.N.W., Ibrahim, M.D., Al Mamun, A. (2019). Evaluating the effectiveness of development initiatives on enterprise income, growth and assets in Peninsular Malaysia. *Journal of Scientific Papers Economics and Sociology*, 12(1): 39-60. <http://doi.org/10.14254/2071-789X.2019/12-1/2>
- [3] Usman, A.S., Tasmin, R., Ulum, Z.K.A.B., Abubakar, A.A. (2017). The role of Islamic micro-finance in enhancing the wellbeing of the clients: Exploratory factor analysis. *Journal on Innovation and Sustainability RISUS*, 8(3): 94-107. <https://doi.org/10.24212/2179-3565.2017v8i3p94-107>
- [4] Loke, K.H., Adebola, S.S., Ramasamy, S., Dahalan, J. (2020). The effects of services by microfinance institutions on the welfare of urban households in Malaysia. *Jurnal Pengurusan*, 58: 105-118. <https://doi.org/10.17576/pengurusan-2020-58-09>
- [5] Department of Statistics Malaysia. (2020). Household Income and Basic Amenities Survey Report 2019. https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=120&bul_id=TU00TmRhQ1N5TUxHVWN0T2VjbXJYZz09&menu_id=amVoWUT10a21NWmdhMjFMMWcyZz09, accessed on Sep. 1, 2021.
- [6] Abdullah, W.M.Z., Zainudin W.N.R., Ishak, W.W.M., Sulong, F., Zia-UI-Haq, H.M. (2021). Public participation of renewable energy (PPRED) model in Malaysia: An instrument development. *International Journal of Renewable Energy Development*, 10(1): 119-137. <https://doi.org/10.14710/ijred.2021.32311>
- [7] Samer, S., Majid, I., Rizal, S., Muhamad, M.R., Rashid, N. (2015). The impact of microfinance on poverty reduction: Empirical evidence from Malaysian perspective. *Procedia-Social and Behavioral Sciences*, 195: 721-728. <https://doi.org/10.1016/j.sbspro.2015.06.343>
- [8] Solarin, S.A., Loke, K.H., Ramasamy, S.A.P., Yen, Y.Y., Gan, G.G. (2022). Microfinance services and socioeconomic welfare of urban households in Sabah, Malaysia. *Journal of Public Affairs*, 22(3): e2528. <https://doi.org/10.1002/pa.2528>
- [9] Mader, P. (2013). Rise and fall of microfinance in India: The Andhra Pradesh crisis in perspective. *Strategic Change*, 22(1-2): 47-66. <http://dx.doi.org/10.1002/jsc.1921>
- [10] Nurmakanova, M., Kretschmar, G. Fedhila, H. (2015). Trade-off between financial sustainability and outreach of microfinance institutions. *Eurasian Econ Rev.*, 5: 231-250. <https://doi.org/10.1007/s40822-015-0016>
- [11] Al-Mamun, A., Ibrahim, M.A.H.B., Muniady, R., Ismail, M.B., Nawi, N.B.C., Nasir, N.A.B.M. (2018). Development programs, household income and economic vulnerability: A study among low-income

- households in Peninsular Malaysia. *World Journal of Entrepreneurship, Management and Sustainable Development*, 14(4): 353-366. <http://doi.org/10.1108/WJEMSD-01-2018-0008>
- [12] Ganle, J.K., Afriyie, K., Segbefia, A.Y. (2015). Microcredit: Empowerment and disempowerment of rural women in Ghana. *World Development*, 66: 335-345. <https://doi.org/10.1016/j.worlddev.2014.08.027>
- [13] Abdullah, W., Zainudin, W.N.R.A.B., Ismail, S.B., Haat, M.H.C., Zia-ul-haq, H.M. (2021). The Impact of Microfinance on Households' Socio-economic Performance: A Proposed Mediation Model. *The Journal of Asian Finance, Economics and Business*, 8(3): 821-832. <https://doi.org/10.13106/jafeb.2021.vol8.no3.0821>
- [14] Newman, A., Schwarz, S., Borgia, D. (2014). How does microfinance enhance entrepreneurial outcomes in emerging economies? The mediating mechanisms of psychological and social capital. *International Small Business Journal*, 32(2): 158-179. <https://doi.org/10.1177/0266242613485611>
- [15] Stiglitz, J., Hoff, K. (2001). Modern economic theory and development. *Frontiers of Development Economics: The Future in Perspective*, 389-459.
- [16] Becker, G.S. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy*, 70(5): 9-49.
- [17] McKenzie, D., Woodruff, C. (2014). What are we learning from business training and entrepreneurship evaluations around the developing world? *The World Bank Research Observer*, 29(1): 48-82. <https://doi.org/10.1093/wbro/lkt007>
- [18] Milana, C., Ashta, A. (2012). Developing microfinance: A survey of the literature. *Strategic Change*, 21(7-8): 299-330. <https://doi.org/10.1002/jsc.1911>
- [19] Chen, M.A., Dunn, E. (1996). Household Economic Portfolios. AIMS Project. Washington, D.C.: Management Systems International.
- [20] Dunn, E. (2002). Research Strategy for the AIMS Core Impact Assessments. Washington, DC: AIMS.
- [21] Alhniy, H., Mohamad, A., Ishak, A.K. (2016). Impact of entrepreneurial orientation on small business performance: Moderating role of government intervention. *International Review of Management and Marketing*, 6(7): 95-100. <https://dergipark.org.tr/en/pub/irmm/issue/32101/355624>.
- [22] Ukanwa, I., Xiong, L., Anderson, A. (2017). Experiencing microfinance: Effects on poor women entrepreneurs' livelihood strategies. *Journal of Small Business and Enterprise Development*, 25(3): 428-446. <https://doi.org/10.1108/JSBED-02-2017-0043>
- [23] Al-Shami, S.S.A., Majid, I.B.A., Rashid, N.A., Hamid, M.S.R.B.A. (2014). Conceptual framework: The role of microfinance on the well-being of poor people cases studies from Malaysia and Yemen. *Asian Social Science*, 10(1): 230. <https://doi.org/10.5539/ass.v10n1p230>
- [24] Rahman, R.A., Al Smady, A., Kazemian, S. (2015). Sustainability of Islamic microfinance institutions through community development. *International Business Research*, 8(6): 196. <http://dx.doi.org/10.5539/ibr.v8n6p196>
- [25] Cabraal, A. (2011). The impact of microfinance on the capabilities of participants. Doctoral Thesis, School of Economics, Finance and Marketing, RMIT University.
- [26] Mustapa, W.N.B.W., Al Mamun, A., Ibrahim, M.D. (2018). Economic impact of development initiatives on low-income households in Kelantan, Malaysia. *Social Sciences*, 7(7): 118. <https://doi.org/10.3390/socsci7070118>
- [27] Ul-Hameed, W., Mohammad, H., Shahar, H. (2018). Retracted: Microfinance institute's non-financial services and women-empowerment: The role of vulnerability. *Management Science Letters*, 8(10): 1103-1116. <https://doi.org/10.5267/j.msl.2018.7.001>
- [28] Hamzani, U., Achmad, D. (2017). Micro, small and medium enterprises (MSMEs) coaching program. *Journal of Business and Economics Review (JBER)*, 2(3): 20-25. <https://ssrn.com/abstract=3010037>.
- [29] Hussain, S., Rizwan, M., Nawaz, M.S., Hameed, W. (2013). Impact of effective training program, job satisfaction and reward management system on the employee motivation with mediating role of employee commitment. *Journal of Public Administration and Governance*, 3(3): 278-293. <https://doi.org/10.5296/jpag.v3i3.6222>
- [30] Al-Mamun, A., Muniady, R., Fazal, S.A., Malarvizhi, C.A. (2019). Micro-enterprise development training and entrepreneurial competencies among low-income households in Malaysia. *Asia Pacific Journal of Innovation and Entrepreneurship*, 13(3): 354-366. <https://doi.org/10.1108/APJIE-06-2019-0042>
- [31] Bischoff, K.E., Sudore, R., Miao, Y., Boscardin, W.J., Smith, A.K. (2013). Advance care planning and the quality of end-of-life care in older adults. *Journal of the American Geriatrics Society*, 61(2): 209-214. <https://doi.org/10.1111/jgs.12105>
- [32] Maritz, J.E., Poggenpoel, M., Myburgh, C.P. (2009). Core competencies necessary for a managerial psycho-educational training programme for business team coaches. *SA Journal of Human Resource Management*, 7(1): 1-8. <https://hdl.handle.net/10520/EJC95895>.
- [33] Dobrea, M., Maiorescu, I. (2015). Entrepreneurial outcomes and organizational performance through business coaching. *Amfiteatru Economic Journal*, 17(38): 247-260. <http://hdl.handle.net/10419/168914>.
- [34] Hauser, L.L. (2012). Shape-shifting: A conceptual framework for coaching work teams. Doctoral Dissertation, Fielding Graduate University.
- [35] Gray, C. (2006). Absorptive capacity, knowledge management and innovation in entrepreneurial small firms. *International Journal of Entrepreneurial Behavior & Research*, 12(6): 345-360. <https://doi.org/10.1108/13552550610710144>
- [36] Audet, J., Couteret, P. (2012). Coaching the entrepreneur: features and success factors. *Journal of Small Business and Enterprise Development*, 19(3): 515-531. <https://doi.org/10.1108/14626001211250207>
- [37] French, D., McKillop, D. (2016). Financial literacy and over-indebtedness in low-income households. *International Review of Financial Analysis*, 48: 1-11. <https://doi.org/10.1016/j.irfa.2016.08.004>
- [38] Loke, Y.J. (2016). Financial preparedness for income shock among Malaysians. *Malaysian Journal of Economic Studies*, 53(2): 279-295. <https://search.informit.org/doi/10.3316/informit.531168555883104>.
- [39] Mokhtar, N., Thinagaran, M.D., Sabri, M.F., Ho, C.S.F. (2018). A preliminary evaluation of financial literacy in

- Malaysia. *Journal of Wealth Management & Financial Planning*, 5(6): 3-16.
- [40] Lusardi, A. (2019). Financial literacy and the need for financial education: Evidence and implications. *Swiss Journal of Economics and Statistics*, 155(1): 1-8. <https://doi.org/10.1186/s41937-019-0027-5>
- [41] Pham, T.H., Yap, K., Dowling, N.A. (2012). The impact of financial management practices and financial attitudes on the relationship between materialism and compulsive buying. *Journal of Economic Psychology*, 33(3): 461-470. <https://doi.org/10.1016/j.joep.2011.12.007>
- [42] Nawaz, F. (2015). Microfinance, financial literacy, and household power configuration in rural Bangladesh: An empirical study on some credit borrowers. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 26(4): 1100-1121. <https://doi.org/10.1007/s11266-015-9585-z>
- [43] Al-Mamun, A., Muniady, R., Yukthamarani, P.P., Noor Raihani Binti, Z., Mohamad, M.R. (2016). Microenterprise development initiatives and entrepreneurial competencies, innovativeness, and social capital in Malaysia. *Development in Practice*, 26(8): 1094-1110. <https://doi.org/10.1080/09614524.2016.1228830>
- [44] Fayolle, A., Gailly, B., Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European Industrial Training*, 30(9): 701-720. <https://doi.org/10.1108/03090590610715022>
- [45] Thurik, A.R., Carree, M.A., Van Stel, A., Audretsch, D.B. (2008). Does self-employment reduce unemployment? *Journal of Business Venturing*, 23(6): 673-686. <https://doi.org/10.1016/j.jbusvent.2008.01.007>
- [46] Mitchelmore, S., Rowley, J. (2010). Entrepreneurial competencies: a literature review and development agenda. *International Journal of Entrepreneurial Behavior & Research*, 16(2): 92-111. <https://doi.org/10.1108/13552551011026995>
- [47] Suddaby, R., Bruton, G.D., Si, S.X. (2015). Entrepreneurship through a qualitative lens: Insights on the construction and/or discovery of entrepreneurial opportunity. *Journal of Business Venturing*, 30(1): 1-10. <https://doi.org/10.1016/j.jbusvent.2014.09.003>
- [48] Fazal, S.A., Mamun, A.A., Ahmad, G.B., Masud, M.M. (2022). Entrepreneurs' competencies and competitive advantages: A study on Malaysian microenterprises. *Global Business Review*, 23(1): 61-74. <https://doi.org/10.1177/0972150919854937>
- [49] Zainol, N.R., Al Mamun, A. (2018). Entrepreneurial competency, competitive advantage and performance of informal women micro-entrepreneurs in Kelantan, Malaysia. *Journal of Enterprising Communities: People and Places in the Global Economy*, 12(3): 299-321. <https://doi.org/10.1108/JEC-11-2017-0090>
- [50] Wijesiri, M., Viganò, L., Meoli, M. (2015). Efficiency of microfinance institutions in Sri Lanka: A two-stage double bootstrap DEA approach. *Economic Modelling*, 47: 74-83. <https://doi.org/10.1016/j.econmod.2015.02.016>
- [51] Abdullah, W.M.Z.W., Aziz, M.R.A., Zainuddin, W.N.R.A. (2019). The linkages effect of service quality, customer satisfaction and customer loyalty of automobile financing within the Malaysia Islamic banking industry. *The Journal of Muamalat and Islamic Finance Research*, 31-47. <https://doi.org/10.33102/jmifr.v16i2.221>
- [52] Chowdhury, T.A., Mukhopadhyaya, P. (2011). Poverty alleviation and service delivery: Government and non-government organizations in rural Bangladesh. *Oxford Development Studies*, 39(4): 427-452. <https://doi.org/10.1080/13600818.2011.620087>
- [53] Jaiyeoba, H.B., Adewale, A.A., Ibrahim, K. (2018). Measuring efficiencies of Bangladeshi and Indonesian microfinance institutions: A data envelopment analysis and latent growth curve modeling approach. *International Journal of Bank Marketing*, 36(2): 305-321. <https://doi.org/10.1108/IJBM-01-2017-0009>
- [54] Kwon, W.J. (2010). An analysis of organisational, market and socio-cultural factors affecting the supply of insurance and other financial services by microfinance institutions in developing economies. *The Geneva Papers on Risk and Insurance-Issues and Practice*, 35(1): 130-160. <https://doi.org/10.1057/gpp.2009.32>
- [55] Bernard, D.K., Kevin, L.L.T., Khin, A.A. (2016). Entrepreneurial success through microfinance services among women entrepreneurs in Sri Lanka: A pilot study and overview of the findings. *International Journal of Economics and Financial Issues*, 6(3): 1144-1150.
- [56] Abdullah, W.M.Z.B.W., Zainudin, W.N.R.A.B., Ismail, S.B., Nawai, N., Muhammad Zia-ul-haq, H. (2022). The scale assessment and validation of microfinance services and household socioeconomic model: Using parallel and exploratory factor analyses. *Planning*, 17(2): 459-475. <https://doi.org/10.18280/ijdsdp.170211>
- [57] MacCallum, R.C., Widaman, K.F., Zhang, S., Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, 4(1): 84. <https://doi.org/10.1037/1082-989X.4.1.84>
- [58] Sarstedt, M., Ringle, C.M., Hair, J.F. (2021). Partial least squares structural equation modeling. In *Handbook of Market Research*, Cham: Springer International Publishing, 587-632. https://doi.org/10.1007/978-3-319-57413-4_15
- [59] Kock, N. (2017). Common method bias: A full collinearity assessment method for PLS-SEM. In *Partial Least Squares Path Modeling*, Springer, Cham, 245-257. https://doi.org/10.1007/978-3-319-64069-3_11
- [60] Byrne, B.M. (2016). *Structural Equation Modelling with AMOS: Basic Concepts, Applications, and Programming* (3rd ed.). New York: Routledge. <https://doi.org/10.4324/9780203807644>
- [61] 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. <https://doi.org/10.2753/MTP1069-6679190202>
- [62] Hair, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M., Thiele, K.O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, 45(5): 616-632. <https://doi.org/10.1007/s11747-017-0517-x>
- [63] Ramayah, T.J.F.H., Cheah, J., Chuah, F., Ting, H., Memon, M.A. (2018). *Partial least Squares Structural Equation Modeling (PLS-SEM) Using smartPLS 3.0: An Updated Guide and Practical Guide to Statistical Analysis*. Edition: First Edition Publisher: Pearson Malaysia Sdn Bhd.
- [64] 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>

- [65] Teo, T.S., Srivastava, S.C., Jiang, L.I. (2008). Trust and electronic government success: An empirical study. *Journal of Management Information Systems*, 25(3): 99-132. <https://doi.org/10.2753/MIS0742-1222250303>
- [66] Cohen, J. (2013). *Statistical Power Analysis for the Behavioral Sciences*. Routledge.
- [67] Elhadidi, H.H. (2018). The impact of microfinance on

poverty reduction in Egypt: An empirical study. *Enterprise Development & Microfinance*, 29(2): 172-181.

- [68] Mohamad, M.R., Sidek, S. (2013). The role of entrepreneurial competencies as a mediator in the relationship between microfinance and small business growth. *Journal of Entrepreneurship and Business*, 1(1). <http://journal.umk.edu.my/index.php/jebindex.php?r=JE B.0101.03.pdf>.

APPENDIX

Table containing the details of the measuring items

Variable	Items/Statements
Financial Services	<p>“Management charges are reasonable”</p> <p>“The loan application procedure is simple”</p> <p>“The loan repayment procedure is easy”</p> <p>“The savings interest rate is reasonable”</p> <p>“The procedures for opening savings are simple”</p> <p>“TKK benefits are comprehensive”</p>
Non-financial Services	<p>“Motivational courses are useful in managing my business”</p> <p>“Basic digital marketing training is beneficial for my business”</p> <p>“Business transformation assistance is effective in helping my business to diversify products”</p> <p>“Digital marketing assistance is very important in helping my business keep pace with technological developments”</p>
Financial Management Practices	<p>“I was able to set short term financial goals”</p> <p>“I was able to make a business budget”</p> <p>“I was able to compare actual expenditures to the budget”</p> <p>“I was able to assess expense status effectively”</p> <p>“I was able to minimize risk impact to my business”</p> <p>“I was able to do risk assessment for business benefit”</p> <p>“I was able to create a safe project environment for all staff and clients”</p> <p>“I was regularly able to allocate money for savings”</p>
Entrepreneurial Competencies	<p>“I was able to monitor risk to achieve business goals”</p> <p>“I was able to use a variety of resources to plan a business”</p> <p>“I was able to organize resources”</p> <p>“I was able to provide products and services that provide real benefit to customers”</p> <p>“I was able to understand the use of new technological tools to improve business performance”</p> <p>“I was able to easily negotiate with others”</p> <p>“I was able to maintain good relationships with business partners”</p> <p>“I was able to monitor the progress of the business to achieve goals”</p> <p>“I was able to take action after considering all matters”</p>
Microfinance Institutions’ Efficiency	<p>“AIM provides all services in a timely manner (e.g. loan disbursement)”</p> <p>“AIM regularly shares information through fieldworkers”</p> <p>“AIM staff are responsive to any queries”</p> <p>“AIM maintains transparency in the transaction processes”</p> <p>“AIM listens to our suggestions”</p> <p>“AIM’s staff gives attention towards our problems”</p> <p>“AIM’s staff understand the needs of the individual beneficiary”</p>
Households’ Economic Wellbeing	<p>“My income keeps increasing”</p> <p>“My household expenditure keeps increasing”</p> <p>“My assets keep increasing”</p> <p>“My savings keep increasing”</p>
Households’ Entrepreneurial Success	<p>“The profits from my project keep increasing”</p> <p>“The sales from my project keep increasing”</p> <p>“The number of employees from my project starting to increase”</p> <p>“The total products from my project keep increasing”</p> <p>“The number of buyers from my project keeps increasing”</p>
Households’ Social Wellbeing	<p>“I was satisfied with my Family’s level of income”</p> <p>“I was satisfied with my family’s level of savings”</p> <p>“I was satisfied with my family’s standards of living”</p> <p>“I was satisfied with my family’s level of employment”</p> <p>“I was satisfied with my family’s health status”</p>