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The impact of microfinance services on household economic well-being with the moderating role of microfinance institutions' credibility

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ABSTRACT

The main purpose of this study is to investigate the impact of microfinance services on the economic well-being of clients in Malaysia and to explore how the credibility of microfinance institutions moderates the relationship between microfinance services and economic well-being. The data was collected from clients of Amanah Ikhtiar Malaysia, the largest microfinance organization catering to low-income households in Malaysia for this study. The research applied measurement and structural models to analyze the data and test the formulated research hypotheses comprehensively employing structural equation modeling. The analysis results demonstrated a significant and positive impact of financial and non-financial microfinance services on the economic well-being of clients. Furthermore, the findings also revealed that the credibility of microfinance institutions plays a crucial role in augmenting the effectiveness of financial services in fostering economic success. In essence, this research suggests that the credibility of microfinance institutions strengthens the impact of financial interventions aimed at improving clients' economic status. These outcomes have significant implications for the design and implementation of microfinance programs in Malaysia emphasizing the importance of financial and non-financial services and the credibility of the institutions delivering them in positively influencing clients' economic well-being.

Contribution/ Originality: The contribution of this research lies in the moderating role of microfinance institutions' credibility in enhancing the effectiveness of microfinance services to uplift clients' economic well-being in Malaysia.

1. INTRODUCTION

The economic well-being of impoverished households is an imperative component in the pursuit of sustainable development goals. Household economic stability has been impacted by factors including unemployment and population increase particularly in developing countries (Zhu, Bashir, & Marie, 2022). The advent of the COVID-19 pandemic has exacerbated concerns surrounding household financial stability and vulnerability drawing the attention of authorities and researchers alike. In response, various developmental initiatives, including microfinance and microenterprise programs have gained traction globally as a means to elevate the economic status of low-income populations. These initiatives deliver financial amenities to infuse financial capital and foster business startups while also offering non-financial amenities geared towards improving essential skills that enhance economic profitability (Jalil, 2021). Consequently, both forms of microfinance services have emerged as vehicles for bolstering economic well-being.

Malaysia is a developing country that has achieved impressive progress towards socioeconomic development (Perkins, Rasiah, & Woo, 2022). However, rapid economic growth and microenterprise development have also caused socio-economic disparities and an uptick in poverty levels among specific demographic segments. A vulnerable group in Malaysian society is the economically disadvantaged also known as the "bottom forty percent income households" (B40) (Loke, Adebola, Ramasamy, & Dahalan, 2020). According to the Department of Statistics Malaysia, the B40 group which has an average income of RM3401 is characterized by continuously low living standards and increased economic vulnerability as a result of dropping income levels and rising expenses (Malaysian Employers Federation (MEF), 2023). The Malaysian government has undertaken vigorous measures to enhance their economic well-being recognizing the dilemma of the B40 households.

Authorities must discover variables that can enhance individual economic status and stimulate a nation's economic growth in the pursuit of sustainable development (Qamruzzaman, 2023). Poverty alleviation, an integral facet of sustainable development has consistently ranked as a top priority for the Malaysian government leading to the formulation of numerous strategies aimed at enhancing the income and standard of living of impoverished households. Many of Malaysia's development schemes include these tactics to effectively address poverty. The Malaysian government has launched several initiatives to enhance the income-generating potential of less fortunate households through entrepreneurship recognizing the importance of micro-businesses (Loke et al., 2020). One of the initiatives is Amanah Ikhityar Malaysia (AIM) founded in 1987. AIM is the largest development organization and also the first microfinance institution.

AIM's mandate is to offer startup capital to poor clients while simultaneously equipping them with the skills needed to enhance their entrepreneurial performance (Abdullah, Zainudin, Ismail, & Zia-ul-haq, 2022). AIM offers various financial and non-financial services aimed at improving the economic outcomes of its clients (Solarin, Loke, Ramasamy, Yen, & Gan, 2022).

The fundamental premise of microfinance is to empower poor clients through the provision of financial services that augment their income and overall well-being through entrepreneurship. Yet, the beneficial influence of microfinance on the empowerment of the disadvantaged is neither explicit nor generally acknowledged. The relationship between microfinance and household economic outcomes remains contentious among researchers. Some argue that microfinance exacerbates the indebtedness and vulnerability of the poor (Sakai, 2022). Concurrently, there is an assertion that microfinance institutions (MFIs) fail to fulfill their primary mission of serving the extremely poor (Nurmakhanova, Kretzschmar, & Fedhila, 2015). In contrast, some studies have reported positive outcomes such as the empowerment of women and improved economic well-being (Hamdan, Kassim, Mustapha, & Seman, 2023; Hashim, Yusof, & Ramley, 2023). In addition , the effect of microfinance on poverty alleviation and household economic welfare remains uncertain (Ganle, Afriyie, & Segbefia, 2015; Ribeiro, Duarte, & Gama, 2022). Moreover, the existing literature primarily focuses on impact assessments disregarding the external factors that can strengthen the effectiveness of microfinance schemes to enhance economic outcomes.

This study aims to investigate the impact of various microfinance services provided by AIM on the economic welfare of clients in Malaysia emphasizing current research gaps. AIM extends an array of financial and non-financial facilities to its clients. Thus, this study aims to determine which particular services have a significant effect on improving clients' financial well-being. This research also investigates the potential moderating role of microfinance institutions' credibility that may strengthen the effect of microfinance services on household economic well-being. Furthermore, the study implies that the efficacy of microfinance services may be contingent on the credibility of microfinance institutions in efficiently offering their services to clients.

The remainder of this study is organized as follows: the subsequent section will provide a theoretical foundation and outline hypothesis development followed by an explanation of the research materials and methodology. The study's results, their discussion and the concluding remarks will be presented in subsequent sections.

2. LITERATURE REVIEW

2.1. Theoretical Foundation

Microfinance emerges as a powerful tool for uplifting impoverished communities through entrepreneurship representing an effective strategy in the ongoing battle against poverty. Existing literature highlights the transformative potential of microfinance empowering low-income clients to generate increased income, thereby elevating their standard of living and economic standing (Solarin et al., 2022). Numerous theoretical frameworks in the literature lay a robust foundation for this research elucidating the mechanisms through which microfinance services exert an effect on clients' economic goals. In this regard, modern development theory asserts that the absence of accessible financial services perpetuates global economic disparities (Claessens & Tzioumis, 2006). Consequently, there exists a compelling imperative to tackle this disparity and fill the development gap between developing and developed countries (Hoff & Stiglitz, 2000). Modern development theory-based literature suggests clients who participate in microfinance programs are better equipped to take advantage of business possibilities that increase their income and improve their overall financial health (Al-Shami, Razali, & Rashid, 2018; Al Mamun et al., 2018). Moreover, the human capital theory developed by Becker (1962) posits that cultivating human capital through education and training plays a pivotal role in elevating economic well-being. Notably, training programs offered by MFIs hold the potential to equip micro-entrepreneurs with the skills necessary for effective business management, thereby boosting the profitability of microenterprises (McKenzie & Woodruff, 2014).

However, the evaluation of microfinance's impact has stimulated an extensive debate within the research community despite its status as an effective instrument in the fight against poverty. This contention arises from inconclusive evidence concerning the influence of microfinance on clients' well-being (Milana & Ashta, 2012). In the context of impact evaluation, the Household Economic Portfolio (HEP) formulated by Chen and Dunn (1996) stands as the most widely recognized theoretical model explaining how micro-financial services shape household economic outcomes (Dunn, 2002). According to the HEP model, economic resources, economic activities and the circular flow that connects them are the three main components that make up a family's financial structure. According to the model, various household resources are deployed in the pursuit of distinct activities encompassing production, consumption and investments.

Furthermore, the model posits that only two external factors, financial and social hold the potential to augment a household's resource base ultimately impacting its economic performance (Chen & Dunn, 1996). According to the principles of the HEP model, the distribution of resources to various activities is a crucial factor in shaping the socio-economic results of households. Implicit in this argument is the notion that various external factors contribute to the households' decision-making and choices that ultimately determine their economic outcomes. In particular, the following is the contingency theory positing that the connection between two factors depends on a third variable (Alhnity, Mohamad, & Ishak, 2016). This research posits that the inclusion of any related external factor as a potential moderator can improve the effectiveness of microfinance support to empower low-income clients. Consequently, this research includes a potential moderator, namely, the credibility of MFIs in terms of service provision to examine its impact on the link between microfinance services and the economic well-being of clients.

2.2. Hypothesis Development

2.2.1. Microfinance Financial Services

Microfinance financial services are widely recognized as a potent tool for serving poor clients to recover their economic well-being (Cull & Hartarska, 2023). It is posited that microfinance financial services empower clients by providing the essential financial support required to establish micro-businesses, thereby enabling them to enhance their income (Ukanwa, Xiong, & Anderson, 2017). Moreover, financial services help poor clients' consumption patterns become more stable which increases their ability to deal with future economic uncertainty (Robinson, 2001). Several financial services such as microcredit, micro insurance and micro savings are especially important since they are essential for enhancing economic well-being.

For instance, microcredit is a fundamental financial service that includes providing modest loans to people with low incomes to better their socioeconomic situation (Nader, 2008). Consequently, microfinance enables impoverished clients to access and harness several economic opportunities, ultimately enhancing their income-generating capabilities by furnishing the requisite financial capital (Elhadidi, 2018).

Furthermore, existing literature highlights the instrumental role of microcredit in diminishing economic vulnerability (Zainol, Aidara, Yang, Al Mamun, & Mohd, 2021). Similarly, micro-savings empower households to fortify their financial reserves, thereby ensuring access to essential resources (Robinson, 2001). The management of savings accounts additionally equips households with the ability to secure larger loans strengthening their capacity to navigate unforeseen challenges (Rahman, Al Smady, & Kazemian, 2015). Additionally, micro-insurance extends financial safeguards to impoverish clients protecting them from future economic adversities (Gabrah, Mensah, & Yidana, 2020). This financial security encourages clients to explore riskier yet potentially more lucrative business ventures. Hence, it is evident that financial facilities exert considerable influence over clients' economic well-being.

Additionally, financial facilities also play a key role in elevating educational levels and honing various skills among recipients (Al-Shami, Majid, Rashid, & Hamid, 2014). Furthermore, enhanced educational level develops essential skills and competencies among clients (Chankseliani & McCowan, 2021). Similarly, micro-savings inspire clients to adopt prudent saving behaviors and accumulate wealth, thereby widening the financial base (Kalu & Nenbee, 2013). Henceforth, it is postulated that financial services empower microfinance clients to enhance their economic well-being. In light of these arguments, this research posits the following hypothesis:

Hypothesis 1: Financial services have positive impact on clients' economic well-being.

2.2.2. Microfinance Non-Financial Services

MFIs provide several non-financial services such as development training sessions which have a substantial impact on the financial outcomes of their clients and broaden their scope beyond financial services (Abdullah et al., 2022; Mustapa, Ibrahim, & Al Mamun, 2019). Scholarly literature confirms that training is an efficient way of acquiring knowledge that has a significant impact on financial success (Simpson, Tuck, & Bellamy, 2004). These programs serve to promote human capital among microfinance clients furnishing them with the knowledge, skills and experience requisite for entrepreneurship and enhanced economic achievements (Ul-Hameed, Mohammad, & Shahar, 2018). They target the knowledge and essential competencies often lacking in impoverished clients, thereby equipping them to make more effective use of their financial resources (Glaub & Frese, 2011).

Furthermore, Hamzani and Achmad (2017) posit that training schemes contribute to the development of learning capabilities and the enhancement of educational performance among individuals resulting in improved income. Moreover, these programs are instrumental in bolstering confidence and satisfaction levels among clients (Hussain, Rizwan, Nawaz, Hameed, & Rizwan, 2013). Thus, it can be deduced that training programs facilitate the development of skills and competencies that positively impact economic outcomes and uplift clients' status (Mustapa, Al Mamun, & Ibrahim, 2018). Furthermore, the additional goals of training programs are to introduce customers to financial management techniques and raise their level of financial awareness so they can use their financial capital effectively (Dalla, Di Maio, Landoni, & Rusinà, 2021). They also play a vital role in improving entrepreneurship competencies and enhancing the management of business operations among clients (Samer, Majid, Rizal, Muhamad, & Rashid, 2015). Extant literature highlights the positive influence of training programs on individuals' awareness and decision-making factors that further boost business performance (Bischoff, Sudore, Miao, Boscardin, & Smith, 2013).

Additionally, business coaching has also emerged as a transformative element in microenterprise development within the context of non-financial services. It fosters self-awareness and effective strategic development through collaborative processes promoting both team and personal development to attain improved business targets (Maritz, Poggenpoel, & Myburgh, 2009). Business coaching is a collaborative relationship between coaches and entrepreneurs that focuses on helping clients achieve their financial objectives and succeed in business by evaluating the present condition of the business and making necessary adjustments to improve business performance (Dobrea & Maiorescu, 2015). This approach is particularly valuable for micro-enterprises owned by microfinance clients as these often lack the requisite capabilities, knowledge and strategic judgment. MFIs have responded by implementing business coaching programs to enable their clients, enhancing their abilities and their financial condition (Darma & Handoyo, 2022).

Although empirical literature on the subject remains limited, previous research offers proof endorsing the positive impact of business coaching on improving clients' financial results particularly in terms of their business performance (Dobrea & Maiorescu, 2015). Over a relatively short period, business coaching has risen as a powerful instrument for attaining success in entrepreneurship and business. It strengthens proficiencies and develops the essential skills necessary for entrepreneurs (Gray, 2006) thereby enhancing their economic profitability. Specifically, business coaches forge collaborative relationships with clients to nurture financial and business skills (Abdullah, Zainudin, Ismail, Haat, & Zia-Ul-Haq, 2021). The development of these human capital factors empowers clients to make informed decisions, ultimately improving entrepreneurial management and ensuring competitiveness among enterprises (Audet & Couteret, 2012; Zeus & Skiffington, 2000). In general, it is posited that non-financial services play a pivotal role in improving clients' economic well-being and profitability. In light of these arguments, this research formulates the following hypothesis:

Hypothesis 2: Microfinance non-financial services have a positive impact on clients' economic well-being.

2.2.3. Microfinance Institutions' Credibility

Microfinance support is considered a critical tool for uplifting impoverished clients against economic deprivation. However, their accessibility stands as a pivotal determinant of their effectiveness (Wijesiri, Viganò, & Meoli, 2015). Service quality in the financial sector also looms large in its significance in facilitating clients in their financial endeavors (Mamman, Kayode, & Abdulrahaman, 2020). MFIs are responsible for developing their reputation with clients and providing their services as efficiently as possible considering their social objective of assisting the poor. As these institutions exclusively cater to poor clients, their credibility in terms of service delivery and operations becomes paramount in significantly helping the clients (Chowdhury & Mukhopadhaya, 2011). MFIs driven by their mission continually refine their services and operations to better serve the needs of their impoverished clients (Mokhtar, Nartea, & Gan, 2012). Extant literature has predominantly concentrated on measuring the technical efficiency of MFIs (Jaiyeoba, Adewale, & Ibrahim, 2018) inadvertently overseeing the role of institutions' credibility in the success of microfinance.

Scholarly literature highlights the indispensable role played by the operational mechanism in the efficacy of microfinance. For instance, clients' capability to take control of their finances depends on MFIs' ability to operate and provide services properly (Kwon, 2010). Consequently, this research contends that the efficient dispensation of microfinance facilities constitutes a key element in the efficacy of these services, ultimately enhancing the economic outcomes. However, a conspicuous gap exists in the current body of knowledge pertaining to the role of microfinance credibility in terms of service delivery within the framework of household socio-economic dynamics. Several research has attempted to quantify credibility in terms of service delivery emphasizing the significance of this factor in the accomplishment of microfinance initiatives (Abdullah et al., 2022; Chowdhury & Mukhopadhaya, 2011). This study hypothesizes that the most effective use of microfinance services depends on how well customers are served by these resources. It follows that the effectiveness and validity of microfinance institutions are crucial in promoting increased economic profitability. Hence, this research hypothesizes that

Hypothesis 3: MFIs' credibility moderates the impact of financial services on clients' economic well-being.

Hypothesis 4: MFIs' credibility moderates the impact of non-financial services on clients' economic well-being.

3. RESEARCH METHOD

3.1. Research Framework

This research has devised a research framework depicted in Figure 1 to gain insights into and investigate the hypotheses. This framework draws inspiration from the HEP model developed by Chen and Dunn (1996). This conceptual framework's main outcome variable is economic well-being. The two main independent factors that define this outcome variable are financial services and non-financial services. This framework introduces MFIs' credibility as a moderating variable influencing the relationship between microfinance facilities and clients' economic well-being.

This study framework deviates from the majority of the field's studies in contrast to earlier research findings (Koh, Solarin, Yuen, Ramasamy, & Goh, 2021; Loke et al., 2020; Solarin et al., 2022) that predominantly concentrated on examining the direct relationship between microfinance services and clients' socioeconomic outcomes, often neglecting to look into the factors that might strengthen the efficacy of these services. In contrast, extant literature has highlighted the necessity of identifying factors that could amplify the success of microfinance schemes in alleviating clients from economic hardships (Abdullah et al., 2021). Consequently, this study makes a significant contribution by examining the potential moderating impact of microfinance institutions' credibility on the effectiveness of microfinance services in enhancing the economic well-being of clients. This addresses a significant research gap and offers a sophisticated understanding of the variables affecting the overall effect of microfinance interventions.

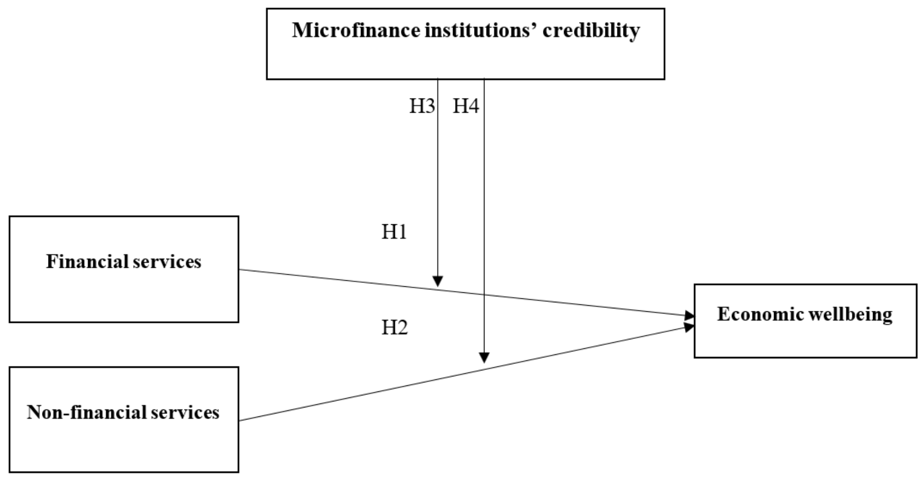

Figure 1. Research framework.

3.2. Instrument

This research formulated the measurement items for all the variables in alignment with established practices found in existing literature using a combination of adoption and adaptation approaches. This study is centered on the individual level as the unit of analysis given the focus on exploring the effect of microfinance services on clients' economic well-being. The list of all measurement items is presented in Appendix 1. The scale for financial services encompasses six items drawing from prior research which comprehensively covers three fundamental financial facilities: microcredit, micro-savings and death-benefit funds (Bernard, Kevin, & Khin, 2016). Similarly, the construct for microfinance non-financial services is composed of four items compiled from previous studies specifically that encompass two critical non-financial facilities: training programs and business coaching services (Abdullah et al., 2022; Bernard et al., 2016). In assessing MFIs' credibility, this study employed four items from prior research (Chowdhury & Mukhopadhaya, 2011). This study used nine items that look into economic outcomes and business performance to measure economic well-being (Abdullah et al., 2022; Bernard et al., 2016).

3.3. Sample and Data Collection

This study employed a cross-sectional survey approach to investigate the effect of various microfinance facilities on economic well-being. This study designed a questionnaire containing straightforward items drawing upon and adapting from existing literature. For most of the items, respondents provided their feedback using a 5-point Likert scale ranging from 1 representing "strongly disagree" to 5 indicating "strongly agree". The sample for this study was drawn from individuals who were recipients of microfinance services from AIM. This study used a non-probability sampling method using the convenience sampling technique to collect data from participants due to the unknown size of the population. Additionally, this study considered the Stable Factor Structure (SFS) criteria to determine an appropriate sample size. A minimum sample size of a respondent variable ratio of one to two ranging from 100 to 200 is suggested for authentic results in compliance with the SFS criterion (Field, 2013; MacCallum, Widaman, Zhang, & Hong, 1999). Consequently, this research employed a sample of 500 respondents for data analysis. Convenient methods were used to find participants and questionnaire responses were easily recorded. This sample size is considered adequate to ensure that the findings are a reliable reflection of the larger target population.

3.4. Statistical Method

This research has used Structural Equation Modeling (SEM) as the analytical technique to examine the proposed associations among variables concerning microfinance services, MFIs' credibility and clients' economic well-being. SEM represents a second generation multivariate statistical analysis tool effectively blending aspects of both factor analysis and multiple regressions. As a result, SEM is deemed particularly suitable for investigating complex structural relationships that encompass both measured indicators and latent variables.

To elaborate further, this study used the Partial Least Squares Structural Equation Model (PLS-SEM), a suitable approach for handling the exploratory nature of its objectives and the complexity of model specification. This study used measurement and structural models to investigate its objectives within the SEM framework. The measurement model precisely evaluates the reliability and validity of constructs by examining the relationships between each underlying construct and its observable indicators. On the other hand, the structural model is employed to estimate the relationships among latent variables (Sarstedt, Ringle, & Hair, 2021).

4. DATA ANALYSIS AND RESULTS

This research undertook an examination of potential common method bias in the data before conducting the primary data analysis. The PLS-SEM method was used as a data analysis tool to comprehensively explore and achieve specific research goals following this assessment. According to Anderson and Gerbing (1988) this research used Smart-PLS 4 which facilitates a two-stage approach to PLS-SEM. Hence, this research first estimated the measurement model to analyze the reliability and validity of the scales. Subsequently, researchers investigated the analysis of the structural models to analyze the proposed relationships.

4.1. Common Method Bias

According to Kock (2017) this study conducted the data analysis process by examining collinearity recommended to evaluate the problem of common method bias.

Common method bias is a typical issue that arises from the measurement techniques employed in SEM-related research. The measurement process can introduce an influence on respondents' answers leading to a shared component of variance among indicators. A random variable was created and then subjected to regression against the latent variables within this study allowing for an evaluation of the collinearity coefficients to tackle this issue. Table 1 presents the results which show that all of the variance inflation factors (VIFs) are below the critical value of 3.3 (Kock, 2017). Therefore, this analysis demonstrates that there is no issue of common method bias in the model.

4.2. Measurement Model

In this study, the PLS algorithm was used to evaluate the reliability and validity of constructs as a component of the measurement model analysis. All the latent variables in the model were conceived as composite constructs in a reflective manner. The aim was to measure variables that demonstrate robust internal consistency and interconnections. This research assessed the internal consistency of the items by employing both Cronbach's alpha and composite reliability indicators to ensure the constructs' reliability. The results in Table 1 indicate that all constructs have surpassed the threshold of 0.7 signifying the reliability of the items (Byrne, 2016). Subsequently, results also reveal that the composite reliability values for all constructs fall within the range of 0.859 to 0.923 exceeding the minimum threshold of 0.6 (Hair, Ringle, & Sarstedt, 2011). Hence, the measurement model results indicate that all the constructs exhibit the necessary reliability for use in the structural model analysis.

This study investigated convergent validity within the context of the measurement model which assesses how well the indicators jointly measure their associated constructs (Urbach & Ahlemann, 2010). Average Variance Extracted (AVE) values were compared against the established threshold of 0.5 (Hair, Hult, Ringle, Sarstedt, & Thiele, 2017). In Table 1, the AVE values for all constructs exceed the 0.5 threshold confirming that each construct attains the necessary level of convergent validity. To be more specific, the calculated AVE values range from 50.6% to 62.9% providing substantial evidence of an acceptable convergent validity for all variables. Moreover, this study also determined the issue of discriminant validity which measures how well items can forecast separate concepts or distinguishes among constructs. Researchers analyze the correlations among constructs that could potentially have some measurement overlap to check discriminant validity (Ramayah, Cheah, Chuah, Ting, & Memon, 2018). The primary aim of assessing discriminant validity is to guarantee that the items do not unintentionally measure different ideas (Urbach & Ahlemann, 2010). This study employed the Heterotrait-monotrait ratio of correlations (HTMT) approach to analyze discriminant validity (Henseler, Ringle, & Sarstedt, 2015).

The HTMT ratio is computed as the "ratio of between-trait correlations divided by within-trait correlations". HTMT values less than 0.85 are deemed acceptable (Henseler et al., 2015). The findings presented in Table 2 indicate that none of the constructs exhibits an HTMT value exceeding 0.85 affirming the achievement of discriminant validity in the model. In a nutshell, this study concludes that the requirements for construct reliability and validity have been satisfied based on the findings derived from the measurement model. This indicates that the data is appropriate for further examination to explore the proposed relationships in the structural model.

4.3. Structural Model

The structural model is analyzed in this study to investigate the predicted relationships that support our research objectives. We used a dataset of 5000 samples and the bootstrapping process in SmartPLS following the technique outlined in the literature (Ramayah et al., 2018). This allows us to estimate a range of parameters such as path coefficients and t-values to assess the significance of our hypotheses. The outcomes as depicted in Table 3 reveal notable results. To begin with, financial services display a notably significant and positive association with economic well-being ($\beta = 0.503$, $p < 0.01$). Similarly, non-financial services also display a positive relationship with economic well-being ($\beta = 0.137$, $p < 0.01$) at a 1% significance level.

Table 1. Measurement model and full collinearity results.

Variables	Items	Factor loadings	Internal consistency		Convergent validity	Full collinearity
			Cronbach's alpha>0.7	Composite reliability>0.6	AVE>0.5	VIF<3.3
FS	FS1	0.653	0.804	0.811	0.506	1.7
	FS2	0.684				
	FS3	0.779				
	FS4	0.716				
	FS5	0.663				
	FS6	0.762				
NFS	NFS1	0.741	0.803	0.871	0.629	1.2
	NFS2	0.866				
	NFS3	0.813				
	NFS4	0.747				
MIC	MIC1	0.726	0.811	0.863	0.614	1.4
	MIC2	0.872				
	MIC3	0.756				
	MIC4	0.794				
EW	EW1	0.886	0.932	0.946	0.714	1.9
	EW2	0.870				
	EW3	0.688				
	EW4	0.874				
	EW5	0.892				
	EW6	0.849				
	EW7	0.840				

Note: FS = Financial services; NFS = Non-financial services; MIC = Microfinance institutions' credibility; EW = Economic wellbeing.

Table 2. HTMT results.

Variables	EW	FS	MIC	NFS
EW				
FS	0.648			
MIC	0.065	0.06		
NFS	0.412	0.544	0.084	

Note: FS = Financial services; NFS = Non-financial services; MIC = Microfinance institutions' credibility; EW = Economic wellbeing.

Moreover, this study also investigated the examination of hypothesized moderating relationships. In particular, researchers introduce MFIs' credibility as a moderating variable within the direct relationships involving microfinance services and clients' economic well-being. According to the methodology outlined by Ramayah et al. (2018), moderating effects in SmartPLS are obtained by multiplying independent and moderating factors. Table 3 presents the results which bring to light a significant moderating effect of MFIs' credibility in the context of the impact of financial services on clients' economic well-being ($\beta = 0.125$, $p < 0.01$).

This suggests that a higher level of credibility strengthens the effectiveness of microfinance financial interventions in enhancing clients' economic status. However, in contrast, our results indicate that MFIs' credibility does not significantly moderate the effect of non-financial services on economic well-being. Therefore, it can be inferred that microfinance services play a vital role in helping impoverished clients improve their economic standing in Malaysia with the credibility of MFIs being particularly essential in facilitating the successful utilization of financial support and services.

Table 3. Structural model results.

Direct effect analysis						**Decision**
Moderators	**BETA**	**Confidence interval (5%)**		**T-Value**	**P-value**	
FS -> EW	0.503	0.441	0.565	13.37	0.000	Supported
NFS -> EW	0.137	0.067	0.208	3.331	0.000	Supported
Moderation analysis						
Moderators	BETA	Confidence interval (5%)		T-Value	P-value	
MIC*FS -> EW	0.125	0.060	0.186	3.184	0.001	Supported
MIC*NFS -> EW	0.003	-0.242	0.056	0.045	0.482	Rejected

Note: FS = Financial services; NFS = Non-financial services; MIC = Microfinance institutions' credibility; EW = Economic wellbeing; * indicates multiplication to create interaction terms

This study has also conducted slope analysis to provide a more in-depth understanding of the significant moderation effect of MFIs' credibility on the impact of financial services on borrowers' economic performance in addition to examine moderation coefficients. Existing literature suggests that only investigating coefficients is insufficient to fully comprehend the precise nature of the moderation effect. Therefore, it is recommended to perform an interaction plot or slope analysis to gain deeper insights as recommended by Ramayah et al. (2018) and Dawson (2014). In light of this, the slope chart presented in Figure 2 has been generated using SmartPLS to illustrate the significant moderation effects within the model. In the chart, three lines are depicted to represent the relationship between the independent variable (x-axis) and the dependent variable (y-axis). The middle line marked in red illustrates the association for an average level of the moderating variable while the blue and green lines represent relationships for lower and higher levels of the moderator, respectively. A clear observation from the chart in Figure 2 indicates that the green line which depicts the relationship for a higher level of MFIs' service credibility exhibits a steeper and positively sloped line in comparison to the blue line. Therefore, the slope analysis reinforces the conclusion that the credibility of service providers significantly strengthens the effect of financial facilities on clients' economic well-being.

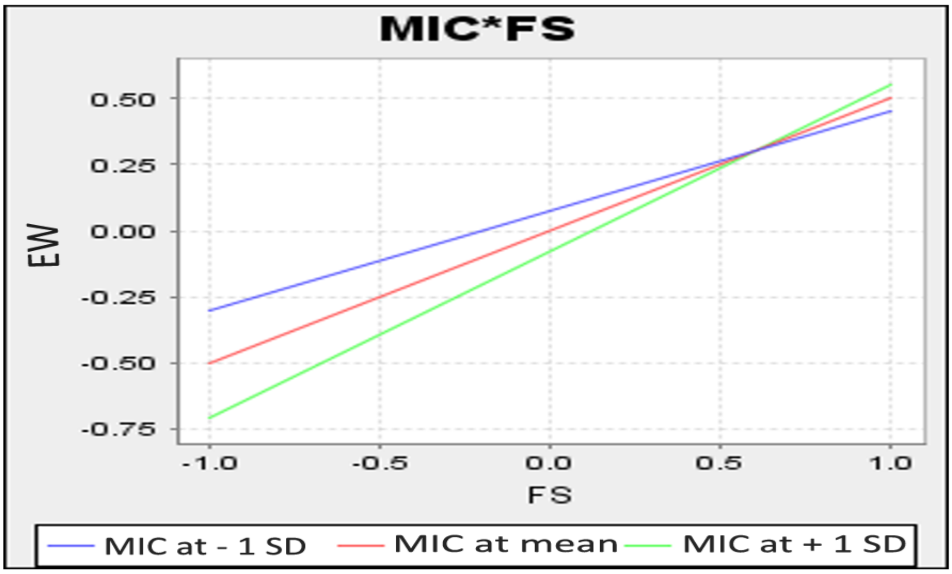

Figure 2. Slope chart.

Note: MIC*FS is the interaction term created as multiplication of microfinance institutions' credibility and financial services.

5. DISCUSSION

This research offers new insights into the HEP model by explaining how microfinance interventions impact clients' well-being. There is still a lack of information about the variables that may influence how well microfinance programs serve their less fortunate clients while earlier research has examined the contribution of microfinance to raising family income especially in Malaysia. Moreover, prior studies have produced conflicting results about the extent to which microfinance services improve the financial standing of low-income people. Thus, the current study attempts to offer insights into the relationship between microfinance services and economic performance.

Primarily, this research examines the effect of microfinance financial services and non-financial services on clients' economic well-being. Additionally, it also examines how the credibility of microfinance services affects the relationship between financial and non-financial facilities and clients' economic well-being. Regarding the direct effects of microfinance services on the socioeconomic performance of households, the results clearly show that both microfinance financial and non-financial facilities significantly contribute to economic well-being. Consequently, it can be argued that microfinance facilities play a crucial role in helping clients enhance their economic conditions encompassing factors like wealth, assets and income. The core concept is that by offering these services, financially deprived clients are more equipped to capitalize on existing opportunities and attain enhanced economic results. Similarly, a variety of microfinance services support individuals in generating income and managing their expenditures enabling them to effectively navigate unexpected economic challenges. Existing literature supports these findings underscoring the positive impact of microfinance services on economic indicators (Abdullah et al., 2022; Jalil, 2021; Solarin et al., 2022). Numerous studies have also reported that microfinance services play a pivotal role in poverty reduction and increasing household income in Malaysia (Al Mamun, Muniady, Fazal, & Malarvizhi, 2019; Koh et al., 2021; Loke et al., 2020). Financial capital is essential for business success. Consequently, it can be inferred that microfinance services significantly assist microenterprise owners by granting them accessibility to working capital and safeguarding against unexpected events, thereby enhancing their business performance.

Furthermore, this study examines the moderating influence of MFIs' service credibility on the efficacy of microfinance facilities in enhancing clients' economic performance. The results presented in Table 3 disclose that the credibility of MFIs significantly strengthens the impact of financial services on economic well-being. This research contends that the successful utilization of financial support is intricately tied to how professionally these facilities are delivered to clients. Existing literature underlines the significance of service providers' credibility in empowering individuals with limited resources. It is widely accepted that the credibility of MFIs plays a pivotal role in accomplishing both social and financial goals (Abdullah et al., 2021; Chowdhury & Mukhopadhaya, 2011). Consequently, the literature proposes that MFIs should tailor their services and operations to maximize benefits for their clients (Mokhtar et al., 2012). This study thus claims that credibility is a crucial factor for the effective use of services offered to individuals with limited resources. It also implies that the timely and efficient offering of financial facilities is essential for these individuals to seize profitable business opportunities.

In a nutshell, the results of this research make noteworthy contributions to the current knowledge by emphasizing the constructive impact of microfinance initiatives in strengthening the economic empowerment of microfinance clients in Malaysia. The results spotlight the essential role of MFIs' credibility in ensuring the effectiveness of financial assistance in improving the economic well-being of clients. Hence, this study paves the way for future researchers to look into various aspects of the connection between microfinance development programs and their ability to empower economically disadvantaged communities offering a multitude of investigative opportunities.

6. CONCLUSION

This research has used structural equation modeling techniques to achieve its objectives to understand the effect of microfinance interventions on clients' economic well-being. The findings reveal a compelling narrative both financial and non-financial services emerge as vital factors in elevating the economic prospects of deprived individuals. Furthermore, our study also reveals a crucial external facet in the context of the HEP model stating that MFIs' credibility acts as a positive moderator amplifying the efficacy of financial services in empowering Malaysia's microfinance clients. This study highlights the essential role of microfinance services in strengthening human capabilities among clients equipping them to seize profitable entrepreneurial opportunities and thereby helping them to achieve improved economic outcomes. It implies that microfinance is not just about financial transactions but is a gateway to socioeconomic empowerment potentially breaking the cycle of poverty. These findings strongly suggest creating more microfinance programs to help low-income communities in Malaysia. This shows that well-organized microfinance programs can be a crucial part of the country's plan to reduce economic gaps and encourage fair growth.

Moreover, this study serves as a strong call to microfinance institutions. It emphasizes the pressing need to prioritize their reputation and operational efficiency. Successful utilization of financial support depends not only on the provision of funds but also on the credibility and reliability of service delivery. Microfinance institutions must strive for excellence in their operations building a strong reputation that instills trust and confidence in their clients. In a nutshell, this research offers not just a piece of evidence but a compelling idea of the transformative power of microfinance. It suggests policymakers, institutions and advocates focus on financial inclusion, thereby forging a path towards a more equitable and prosperous Malaysia. It also emphasizes how important it is for the services to be credible. This trust amplifies the positive effects of financial services and can lead to a better economic future for those who have been underserved.

6.1. Limitations and Future Research Recommendations

The study has certain limitations that future research can address. It primarily focuses on the effectiveness of microfinance services within the Malaysian microfinance community which limits the generalizability of findings. Future studies should aim for a larger and more diverse participant group, specifically targeting communities facing greater economic challenges. Expanding the study to include multiple countries can provide broader global insights. Additionally, incorporating qualitative methods alongside quantitative approaches in future research can offer a deeper understanding of how microfinance empowers low-income households revealing specific constraints and needs. Furthermore, while the study considers microfinance institutions' service credibility as a moderating factor, there is room for exploring other institutional aspects that could further enhance the efficacy of microfinance interventions.

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Appendix 1. Measuring items.

Financial services
"Management charges are reasonable" "The loan application procedure is simple" "The loan repayment procedure is easy" "The savings interest rate is reasonable" "The procedures for opening savings are simple" "TKK benefits are comprehensive"
Non-financial services
"Motivational courses are useful in managing my business" "Basic digital marketing training is beneficial for my business" "Business transformation assistance is effective in helping my business to diversify products" "Digital marketing assistance is very important in helping my business keep pace with technological developments"
Microfinance institutions' credibility
"AIM provides all services in a timely manner (e.g. loan disbursement)" "AIM regularly shares information through fieldworkers" "AIM staff are responsive to any queries" "AIM maintains transparency in the transaction processes"
Economic wellbeing
"My income keeps increasing" "My household expenditure keeps increasing" "My assets keep increasing" "My savings keep increasing"
"The profits from my project keep increasing" "The sales from my project keep increasing" "The number of employees from my project starting to increase" "The total products from my project keep increasing" "The number of buyers from my project keeps increasing"