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Impact of Microcredit on the Performance of Micro and Small Enterprises (MSEs) in Yemen: With the Mediating Role of the Beneficiaries' Satisfaction

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ABSTRACT

This study examined the impact of microcredit on the performance of Micro and Small Enterprises (MSEs) in Yemen, with the mediating role of the beneficiaries' satisfaction. To accomplish the goal of this study, descriptive and analytical research methods are adopted. The study focused on the owners of MSEs in Yemen who have access to microcredit. The total number of active clients who get credit from MFIs was 90,946 active clients, and the sample size was 398. Data was examined by using SPSS to provide quantitative descriptive statistics measures, and to evaluate the theoretical model of this study. PLS-SEM route modeling was utilized using Smart PLS 3.2.9 software, because it replicates the standard regression approach. PLS path modeling was judged the most acceptable technique in this study. Further, the results show that microcredit has a significant impact on profitability, sales growth, and employment growth, while it has no significant impact on the increase in assets. Beneficiaries' satisfaction mediates the relationship only with profitability, sales growth, and increase in assets, while having no significant impact on employment growth.

Keywords: Microcredit, Performance, Micro and small enterprises (MSEs), Beneficiaries' satisfaction, Profitability, Sales growth, Employment, Assets.

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تأثير الائتمان الأصغر على أداء المشاريع الصغيرة ومتناهية الصغر في اليمن: الدور الوسيط لرضا المستفيدين

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ملخص

ناقشت هذه الدراسة تأثير الائتمان الأصغر على أداء المشاريع الصغيرة ومتناهية الصغر في اليمن، مع وساطة رضا المستفيدين. ولتحقيق هدف هذه الدراسة، تم اعتماد الأساليب البحثية الوصفية والتحليلية. وقد ركزت الدراسة على أصحاب المشاريع الصغيرة ومتناهية الصغر في اليمن الذين لديهم إمكانية الوصول إلى الائتمان الأصغر. كان إجمالي عدد العملاء النشطين الذين يحصلون على الائتمان من مؤسسات التمويل الأصغر 90946 عميلًا نشطًا، وكان حجم العينة 398. تم فحص البيانات باستخدام برنامج SPSS لتوفير قياسات وصفية كمية؛ ولتقييم النموذج النظري لهذه الدراسة، تم استخدام نمذجة مسار PLS-SEM للوصول إلى النتائج باستخدام برنامج Smart PLS 3.2.9 لأنه يستخدم النهج القياسي لتحليل الانحدار. وقد تم اعتبار نمذجة مسار PLS الأسلوب الأكثر ملاءمة في هذه الدراسة. وتظهر النتائج أن الائتمان الأصغر له تأثير كبير على الربحية ونمو المبيعات ونمو التوظيف، وليس له تأثير ملحوظ على زيادة الأصول. وبوساطة رضا المستفيدين للعلاقة، وجد أن هنالك تأثيراً على الربحية ونمو المبيعات وزيادة الأصول، مع انعدام أي تأثير ملحوظ على نمو التوظيف.

الكلمات الدالة: الائتمان الأصغر، الأداء، المشاريع الصغيرة ومتناهية الصغر، رضا المستفيدين، الربحية، نمو المبيعات، التوظيف، الأصول.

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1. INTRODUCTION

The creation of self-employment possibilities might be one of the answers to the issue of poverty. However, the formation of self-employment requires capital, which is usually scarce among the poor. Formal financial organizations, such as banks, offer credit in exchange for collateral security as a repayment guarantee to all segments of society, but it was found that they posed a threat when dealing with the poor (Paul, 2015). Primary obstacles preventing micro and small enterprises (MSEs) from obtaining credit facilities from banks are high payback costs, tight collateral requirements, not receiving the amount requested, a lack of guarantors, and a short payment time (Gichuki et al., 2014). According to Littlefield and Rosenberg (2004), the poor are often excluded from the financial services sector of the economy; hence, microfinance institutions (MFIs) have been formed to solve this market failure. By solving this market need in a financially viable way, MFIs may become part of a country's official financial system and access capital markets to finance their loan portfolios, enabling them to drastically expand the number of individuals, whom they can serve (Otero, 1999). MFI stakeholders, particularly managers and investors, as well as the general public, should be aware of MFIs' crucial purpose. The concept driving the rise of MFIs is that low-income/poor individuals are financially enabled to engage in economically productive endeavours that might create revenue and lift them out of poverty (Mecha, 2017). According to research, focused development programmes and socially responsible investments in MFIs may improve the growth of emerging economies and ultimately contribute to poverty reduction (Lopatta & Tchikov, 2016). So, in developing nations, MFIs are among the most important sources of capital for MSEs, which are often held by low-income people (or the economically active poor). Evidence from millions of microfinance beneficiaries worldwide demonstrates that access to easy financial services allows individuals living in poverty to improve their household income, create assets, and minimize their susceptibility to everyday crises (Littlefield et al., 2003). According to Robinson (2001) and Otero (1999), microcredit and microfinance are relatively recent in the development realm, gaining importance since the 1970s. For many years, they are overlapped. Microfinance refers to financial tools, such as loans, savings, insurance, and other financial products specifically designed for the poor. The economy creates microfinance for the economic advantage of the poor aiming to reduce poverty. Microcredit is the microfinance lending component. Microcredit loans enable individuals, particularly the poor, to engage in capital-accumulating and standard-of-living-improving activities that generate income (Mokhtar et al., 2012). Most economies are supported by MSEs, which are a vital source of economic development in developed, rising, and developing nations (Buyinza et al., 2018). Due to their number, size, and nature of operations, it has been acknowledged that the role of MSEs in promoting endogenous sources of growth and bolstering the infrastructure for accelerated economic expansion and development in certain developing nations has been established (Aris, 2007). Evidence indicates that microcredit programmes promote sustained growth in society, particularly among the participants. Therefore, microfinance institutions should focus on their financial metrics, such as profitability, repayment rate, self-sufficiency, outreach, and the mechanism for loan delivery to MSEs (Pratomo & Sugeng, 2019). Due to the problematic conditions that Yemen has been experiencing since 2011, and because government sector workers' payments have been interrupted, it was inevitable for them to find other ways to make ends meet. Therefore, MSEs have become the object of their attention. Traditional banks, which require guarantees before extending credit, made it difficult for them to get started. So, MFIs stepped in to fill the funding gap.

These MFIs helped MSEs because of their low-interest loans and advice to borrowers. This study's principal objective is to comprehend the impact of microcredit on the performance of MSEs in Yemen. Therefore, this research investigates the factors that affect the performance of MSEs. The specific aims of the present study, based on the aforementioned research topics, are as follows:

- To determine the impact of microcredit on the performance of MSEs in Yemen.
- To determine the effect of microcredit on the beneficiaries' satisfaction.
- To examine the role of beneficiaries' satisfaction as a mediating variable between microcredit and the performance of MSEs in Yemen.

2. Literature Review

2.1 Microcredit and MSEs

Some researchers opined that MSEs do not see meaningful growth even after getting credit from various sources (Atandi & Wabwoba, 2013), while many other studies have revealed that the performance of MSEs should increase due to financial intervention. Credit availability to MSEs is often seen as a significant element in their development (Waliaula, 2013). Access to credit provides MSEs with the cash that they need to finance their business development and working capital, particularly in cases where cash requirements exceed internal savings (Kisaka & Mwewa, 2014). The supply of microcredit should be accompanied by entrepreneurship training and management capacity development (Atiase et al., 2019). MSEs' sales, total assets, employment, and net profit improve significantly after receiving microcredit loans (Semegn & Bishnoi, 2021). MSEs act as an economic development engine and a breeding ground for entrepreneurship, creativity, and innovation (Al-Kasasbeh, 2014).

2.2 Microcredit and the Profitability of MSEs

Without loan quantities sufficient to affect productivity, access to credit has limited impact on revenues (Ibrahim & Bauer, 2013). Notably informal credit sources support MSEs much more than official credit sources. Informal microcredit sources have a significant and beneficial impact on the profitability of business cluster participants (Amakom & Amagwu, 2020). While loan cost impact is marginally high on profitability, loan volume and accessibility are statistically significant impacts on profitability growth for MSEs (Atiase et al., 2019). Therefore, microcredit favours the performance of MSEs and their profitability when it enables access to credit and human capital (McKernan, 2002); (Pratomo & Sugeng, 2019).

2.3 Microcredit and the Sales Growth of MSEs

Businesses are more active after gaining access to microcredit (Osa Ouma & Rambo, 2013). Participating in the microcredit programme improves its equity and expands its monthly sales (Johansson & Pettersson, 2014). In particular, MSEs with microcredit borrowing have greater sales than those without microcredit borrowing (Ruslan et al., 2020). It was found that MSE savings significantly and positively affect the business's sales performance (Semegn & Bishnoi, 2021; Kisaka & Mwewa, 2014).

2.4 Microcredit and the Employment Growth of MSEs

Even though the literature on entrepreneurship shows that MSEs contribute to job creation in emerging economies (Hamour & Alzoubi, **2020**), research on the function of microcredit in job creation among MSEs is limited. Since microcredit facilitates entrepreneurial activity among MSEs, there is a favourable correlation between microcredit given by MFIs and employment expansion (Atiase et al., 2019). Numerous individuals find it challenging to become self-employed and to engage in constructive employment-generating activities due to a lack of savings and money (Khandker, 1998). Microcredit

borrowing improves MSE sales, but has little impact on MSE employment development (Ruslan et al., 2020). Loan repayment flexibility and cost are major predictors of employment growth (Atiase et al., 2019).

2.5 Microcredit and Increasing Assets of MSEs

The rise of income and assets is the most significant financial result of microcredit, because income and assets serve as effective measures of poverty reduction (Loubere, 2018). The most significant percentage of respondents who owned business assets showed that many clients are engaged in small-scale business operations (Al Mamun et al., 2012). On the other hand, (Jiang et al., 2020) argued that credit alone has little effect on long-term or short-term assets. However, combining the loan with non-financial services, such as training, marketing, and education, may assist beneficiaries in generating more revenue and accumulating more assets.

2.6 Beneficiaries' Satisfaction Beneficiaries' satisfaction

It is a heuristic instrument through which managers, policymakers, and other stakeholders may learn the customers' perceptions of the services that they have gotten and acquire an indication of the quality of enterprises' operations. It provides organizations with the ability to assess their existing and future performance. In the microcredit area, beneficiaries seem pleased with the assistance that they get from MFIs (Koshy, 2014). However, research has shown that the interest rate is a crucial aspect of beneficiaries' satisfaction (Eddy, 2013; Murray et al., 2003). The factors of membership requirements, credit fees, family income, and religious restrictions would also affect the satisfaction variable (Ashraf & Noor 2010). Indeed, beneficiaries' satisfaction has a significant impact on the future of an organization and is seen as the foundation for securing market position and attaining other goals (Kanyurhi, 2013). Beneficiaries' satisfaction leads to improved performance, according to the literature on financial services (Morgan & Rego, 2006).

Customer satisfaction is a significant predictor of client retention, which substantially impacts profitability (Yazdanpanah et al., 2017). Similarly, the satisfaction of microcredit recipients is an essential element influencing the performance and profitability of MSEs.

It is evident from a literature study that research on the link between microcredit and sales growth in MSEs with beneficiaries' satisfaction as a mediator is lacking. Few studies have suggested that MFIs should give training on the quality of their services. The most significant advantage is enhanced beneficiaries' satisfaction, increasing purchase demand and client retention (Monge, 2016).

Conceptually, the performance assessment of MSEs should include financial and non-financial measures, such as owners' and beneficiaries' overall satisfaction, employee satisfaction, consumer loyalty, and brand awareness (Blackburn et al., 2013). Technically, the success of MSEs is measured using three metrics: employment growth, revenue growth, and profitability growth (Atiase et al., 2019). Accordingly, beneficiaries' satisfaction may play a significant role in the link between MSE microcredit and employment development.

Microcredit increases family assets and offers more control over family resources, empowering them economically (Islam, 2014). As a consequence, their satisfaction, if assessed, would reach a high level, since they had access to empowerment and a path out of poverty.

3. Hypotheses of the Study

H1: *There is a significant impact of microcredit on the profitability of MSEs in Yemen.*

H2: *There is a significant impact of microcredit on the sales growth of MSEs in Yemen.*

H3: *There is a significant impact of microcredit on the employment growth of MSEs in Yemen.*

H4: *There is a significant impact of microcredit on the increase in assets of MSEs in Yemen.*

H5: *There is a significant impact of microcredit provided by MFIs on the beneficiaries' satisfaction in Yemen.*

H6: *Beneficiaries' satisfaction mediates the relationship between microcredit and the profitability of MSEs in Yemen.*

H7: *Beneficiaries' satisfaction mediates the relationship between microcredit and the sales growth of MSEs in Yemen.*

H8: *Beneficiaries' satisfaction mediates the relationship between microcredit and the employment growth of MSEs in Yemen.*

H9: *Beneficiaries' satisfaction mediates the relationship between microcredit and the increase in assets of MSEs in Yemen.*

4. Methodology

This study employs both descriptive and analytical research methods. Whereas the descriptive method is used to understand the impact of microcredit on the performance of MSEs in Yemen, the analytical method is used to analyze the collected data and test the hypotheses proposed for the study.

The sample for this study was recruited from owners of MSEs who get a loan from MFIs in Yemen. Data was gathered through a questionnaire that was delivered to owners of MSEs. The sample size for this study was 398 respondents who submitted valid and complete questionnaires.

A questionnaire was used to collect data on all of the latent variables of the study. The questionnaire items were all adapted from earlier studies. The survey started with questions related to demographic questions regarding gender, age group, educational level, marital status, and years of business experience, followed by questions on business information and utilizing microfinance services, like questions about the type of business, years of business operation, the primary source of financing the business, the number of employees, times of taking a loan from MFIs, period of loan borrowings, reasons to take loans from MFIs, duration of taking services from MFIs (Arora & Meen, 2011; Ali et al., 2013; Monge, 2016; Mohamud & Awale, 2016; Geoffrey & Emenike, 2018; Atiase, 2018). The following section of the questionnaire covers questions about microcredit, which include questions about the loan amount, the microcredit application process, whether the loan is reasonable to run the business, the duration of the processing, approval, and receiving of the loans, loan collateral, loan interest rate, and repayment period (Atiase, 2018; Geoffrey & Emenike, 2018; Aladejebi, 2019).

The next section of the questionnaire is related to the performance of micro and small enterprises. It includes four elements: profitability, sales growth, employment growth, and increase in assets. The profitability element includes the next questions; the profitability of my business has increased as a result of getting services from MFIs; getting services from MFIs helped my business cover the costs and achieve convenient net profits; MFIs' services have helped my business increase income; my financial skills have improved as a result of getting services from MFIs (Arora & Meenu, 2011; Sayed & Trevesi, 2015; Kiflie Hayleeyesus, 2016; Mohamud & Awale, 2016; Aladejebi, 2019; Uusiku, 2019; Atiase, 2018). Sales growth includes the following questions: the market size of my business has increased as a result of getting services from MFIs; my sales efficiency has improved as a result of getting services from MFIs; the sale volume in my business has increased as a result of getting services from MFIs; MFIs have contributed to improving my sales revenue; my marketing skills have improved as a result of getting services from MFIs (Arora & Meenu, 2011; Alhammadi et al., 2014; Sayed & Trevedi, 2015; Geoffrey & Emenike, 2018; Uusiku, 2019). Employment growth includes questions to know whether the number of employees in the business has increased as a result of getting services from MFIs,

and whether the business has offered and created many jobs as a result of getting services from MFIs, as well as how getting services from MFIs helped the business train and develop the employees' skills, and how getting services from MFIs the business recruit skilled employees, and at the end how the business can manage employees very well (Arora & Meenu, 2011; Alhammadi et al., 2014; Kiflie Hayleeyesus, 2016; Geoffrey & Emenike, 2018; Uusiku, 2019). At the end, the following questions were asked to know how MFIs impact the increase in assets of MSEs; there is a substantial increase in the assets of my business as a result of getting services from MFIs; MFIs help my business get the required assets for my business as a result of getting services from MFIs; the amount and types of fixed assets (machines, furniture, vehicles) have increased my ability to handle machines and equipment as a result of getting services from MFIs; I can maintain the existing assets as a result of getting services from MFIs (Alhammadi et al., 2014; Sayed & Trevedi, 2015; Kiflie Hayleeyesus, 2016; Monge, 2016; Atiase 2018; Uusiku, 2019). The following section is related to the level of satisfaction. The responses for the items were measured on a five-point Likert scale, ranging from "Strongly disagree" (1) to "Strongly agree" (5), and the last section ranged from "strongly dissatisfied" (1) to "strongly satisfied" (5). Participants were asked to indicate the degree of their agreement or disagreement on each item using the scale and this section aimed to gather information about the level of satisfaction of respondents with the loan amount, loan duration, rate of interest on loans, repayment policy, demand collaterals, and consequences of non-repayment (Arora & Meenu, 2011).

To test the theoretical model of this study, Partial Least Squares Structural-equation Modeling (PLS-SEM) route was utilized (Wold, 1985) using Smart PLS 3.2.9 software. Because it mimics the traditional regression technique, PLS path modeling was deemed the most acceptable technique in this study. It has the advantage of simultaneously evaluating the associations between indicators and their related latent constructs, and the measurement model (outer model) and the structural model (inner model) may be used together to assess the correlations between indicators and the latent constructs to which they are connected (Chin et al., 2003; Duarte & Raposo, 2010; Lohmoller, 1989). Additionally, this technique is especially helpful when the model is complicated (Henseler et al., 2009; Wold, 1985).

Table 1

Variables of the study

Variable	Code	Variable Type
Microcredit	MC	Independent
Profitability	PR	Dependent
Sales Growth	SG	Dependent
Employment Growth	EM	Dependent
Increase in Assets	IA	Dependent
Beneficiaries' Satisfaction	SAT	Mediator

Source: By authors.

5. Data Analysis and Interpretation

5.1 Demographic Variables

- Of the 398 respondents, 333 (83.7 percent) were males who got services from MFIs. In comparison, 65 (16.3 percent) were females, indicating that MFIs should focus on empowering women by boosting women's involvement in MFI services. Regarding the age of respondents, the bulk of respondents, 198 (49.7%) belonged to the age group 26-33 years. Thus, it is concluded that these results are in concordance with the assumption that most of the respondents who began their own firms were young.
- 161 (40.5%) of respondents only have a high school diploma; 36 (9.0%) are illiterate; 81 (20.4%) have a vocational certificate; 107 (26.1%) have a bachelor degree. In addition, just 13 responders (3.3%) possessed degrees above a bachelor degree. Therefore, it can be seen that 161 respondents (40.5% of the total) had at least a high school

diploma, suggesting that high school graduates are more than those with a bachelor degree. This shows that the majority of young people in Yemen are unable to finish their college degrees as a result of the current circumstances and instead enter the labour market, either by working for others or by starting their own enterprises. Research shows that nearly a third of respondents (30.2%) have only one to three years of business experience, while the same number (120) have four to six years of experience. MFIs prefer to provide services to beneficiaries who have business experience, and the fact that the vast majority of respondents had between one and six years of experience supports this assumption.

- Only 28 (7.1%) of the sample run agricultural businesses, whereas 270 (67.8%) run trading businesses. Nonetheless, 56 participants (14.1%) work in the service sector. Only 14 (3.5%) of MFI clients are in the food-related industry, compared to 16 (4%) in the technological industry and 14 (3.5%) in the medical sector. Most of the firms who filled out the survey are trading businesses.
- The survey found that 178 (44.7%) of respondents have been in business for 1-3 years, while 34 (8.5%) have been in business for less than a year; 103 (24.9%) of respondents have been in business for 4-6 years, while 83 (20.9%) have been in business for more than 6 years. There is little doubt that the vast majority of MSE proprietors who are interested in MFI assistance have just been in business for one to three years. This suggests that the vast majority of these projects are new ventures launched in response to the crisis of 2015.
- 269 (67.3%) of respondents have less than two workers, while 78 (19.6%) have between three and five employees and 40 (10%) have between six and eight employees. Only 2.8% of the respondents in this study had more than eight workers. 347 (87.2%) of the respondents are from micro-enterprises, while 51 (12.8%) are from small businesses. Micro-enterprises in Yemen have five or less employees, whereas small businesses have between 5 and 10.

Table 2

Respondents' demographic information

Demographic Variables (N = 398)		**Frequency**	**Percent (%)**
Gender	Male	333	83.7
	Female	65	16.3
Age	18-25	46	11.6
	26-33	198	49.7
	34-41	125	31.4
	41 Above	29	7.3
Level of education	Illiterate	36	9.0
	High School	161	40.5
	Vocational	81	20.4
	University	107	26.9
	Postgraduate	13	3.3
Years of business experience	Less than one year	22	5.5
	1-3 years	120	30.2
	4-6 years	120	30.2

	7-9 years	46	11.6
	More than nine years	90	22.6
Type of business	Agricultural business	28	7.0
	Services	56	14.1
	Trading	270	67.8
	Food	14	3.5
	Technical	16	4.0
	Medical	14	3.5
Years of business operation	Less than one year	34	8.5
	1-3 years	178	44.7
	4-6 years	103	25.9
	More than six years	83	20.9
Number of employees	Less than 2	269	67.6
	3-5	78	19.6
	6-8	40	10.1
	More than 8	11	2.8
Times of taking a loan from MFIs	One time	247	62.1
	Two times	84	21.1
	Three times	45	11.3
	More than three times	22	5.5
Reasons to take a loan from MFIs	To start a new business	48	12.1
	To get a new machine	44	11.1
	To expand an ongoing business	251	63.1
	Others	55	13.8

Source: Survey data.

5.2 Descriptive Analysis

As seen in Table 3, the overall mean of the respondents' ratings of the microcredit offered by MFIs in Yemen is 3.993, which indicates a high level of consensus on the quality of this service (4-5). In addition, the standard deviation is (0.607), showing that people's views on microcredit are converging and becoming more homogenous.

Table 3 illustrates the respondents' views on the impact of services provided by microfinance institutions on the increase in profitability of MSEs. The overall mean of the respondents in this section is (3.936). This indicates that the respondents agreed on the impact of services provided by microfinance institutions on the increase in profitability of MSEs. Further, the standard deviation (0.615) explains the convergence and homogeneity of the opinions on the impact of services provided by microfinance institutions on the increase in profitability of MSEs. Table 3 illustrates the respondents' views on the impact of services provided by microfinance institutions on the sales growth of MSEs. The overall mean of the respondents in this section is (3.930). This indicates that the respondents agreed on the impact of services provided by

microfinance institutions on the sales growth of MSEs.

Further, the standard deviation (0.575) explains the convergence and homogeneity of the opinions on the impact of services provided by microfinance institutions on the sales growth of MSEs. Table 3 also illustrates the respondents' views on the impact of services provided by microfinance institutions on the employment growth of MSEs. The overall mean of the respondents in this section is (2.663), which indicates that the respondents disagreed on the impact of services provided by microfinance institutions on the employment growth of MSEs, being neutral, because the mean is in the 2.60-3.39 category, which means that this section had a moderate level. Further, the standard deviation was (0.892). At the end of Table 3, the respondents' views on the impact of services provided by microfinance institutions on the increase in assets of MSEs are shown. The overall mean of the respondents in this section is (3.345); this indicates that the respondents disagreed on the impact of services provided by microfinance institutions on the increase in assets of MSEs with a neutral degree, because the mean is in the 2.60-3.39 category, which means that this section had a moderate level. Further, the standard deviation was (0.929). According to the results presented in Table 3, the average level of satisfaction with microcredit given by MFIs in Yemen is 3.732. This indicates a high level of satisfaction with microcredit, because the mean falls inside the high end of the satisfaction scale (3.4.-5). In addition, the standard deviation is (0.588), which shows that people's views on microcredit satisfaction are converging and becoming more uniform.

Table 3
Descriptive statistics

Constructs	N	No. of items	Minimum	Maximum	Mean	Std. Deviation
Microcredit	398	7	1.00	5.00	3.993	0.607
Profitability	398	4	2.00	5.00	3.936	0.615
Sales Growth	398	5	2.00	5.00	3.930	0.575
Employment Growth	398	5	1.00	5.00	2.663	0.892
Increase in Assets	398	5	2.00	5.00	3.345	0.929
Beneficiaries' Satisfaction	398	6	2.00	5.00	3.732	0.588
Valid N	398					

Source: Survey data.

5.3 Assessment of Measurement Model/ Outer Model

To evaluate and assess the study data, two processes were required: evaluating the measurement model and evaluating the structural model.

The study's measuring approach extensively verified the instruments for both internal consistency and convergent validity. A first examination of the indicator loadings was done. According to the findings of this evaluation, a loading value of 0.70 or greater is desirable. Given that assumption, it is likely that the measured construct accounts for 50% of the variation in the indicator, exhibiting excellent dependability (Hair et al., 2019). Items with loading values less than 0.70 may be omitted, as doing so improves composite dependability. On the other side, the data should steer clear of anything with a loading value below 0.40 (Hair et al., 2011, 2017).

Furthermore, after reviewing the item loadings, this study assessed the composite reliability, which is the

second stage in the measurement paradigm for determining internal consistency dependability. In general, the greater the composite reliability value, the more consistent the research items. A dependability score of 60 to 70 is regarded satisfactory in general (Hair et al., 2017). The third stage was to establish the degree of convergent validity, or how effectively one item measures the same construct as another. The average variance extracted (AVE) was used in this phase. The constructs should explain more than a half of the variance in the constructs' item scores; hence, an AVE of 0.50 or more is preferable (Hair et al., 2011; Hair et al., 2019). Table 4 displays indicator factor loadings, modified variance estimates, and composite reliability values.

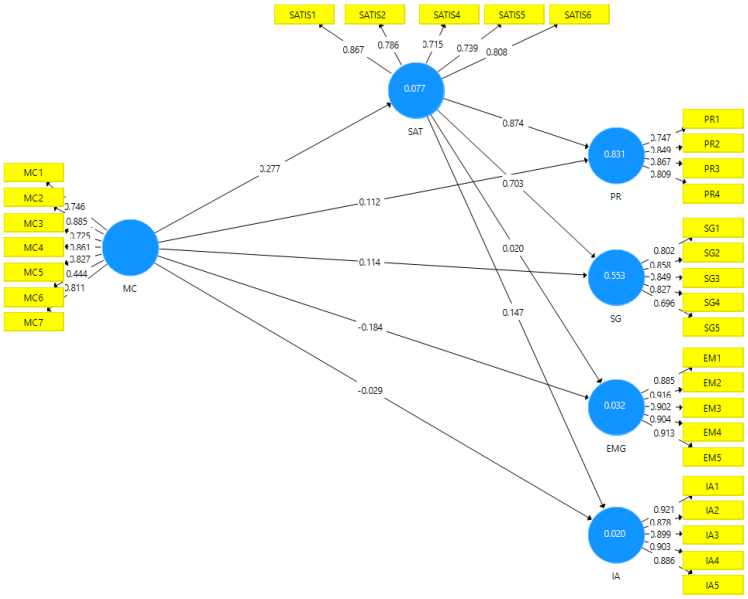

Figure (1)
The measurement model with factor loadings and beta values

Source: Authors' construct from Smart PLS, version 3.2.9.

Table 4
Reliability and convergent validity

Constructs	Items	Loadings	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Microcredit	MC1	0.746	0.878	0.898	0.908	0.592
	MC2	0.885				
	MC3	0.725				
	MC4	0.861				
	MC5	0.827				
	MC6	0.444				
	MC7	0.811				
Beneficiaries' Satisfaction	SAT1	0.867	0.843	0.849	0.889	0.616
	SAT2	0.786				
	SAT4	0.715				
	SAT5	0.739				

	SAT6	0.808				
Profitability	PR1	0.747	0.837	0.850	0.890	0.671
	PR2	0.849				
	PR3	0.867				
	PR4	0.809				
Sales Growth	SG1	0.802	0.870	0.887	0.904	0.654
	SG2	0.858				
	SG3	0.849				
	SG4	0.827				
	SG5	0.696				
Employment Growth	EM1	0.885	0.945	0.983	0.957	0.817
	EM2	0.916				
	EM3	0.902				
	EM4	0.904				
	EM5	0.913				
Increase in Assets	IA1	0.921	0.940	0.965	0.954	0.805
	IA2	0.878				
	IA3	0.899				
	IA4	0.903				
	IA5	0.886				

Source: Survey data.
MC= Microcredit, **PR**= Profitability, **SG**= Sales Growth, **EMG**= Employment Growth **IA**= Increase in Assets, **SAT**= Beneficiaries' Satisfaction.

The discriminant validity was determined using the Chin (1998) criterion by comparing the indicator loadings with other reflective indicators in the cross-loading table. For evaluating discriminant validity, Fornell and Larcker (1981) recommended using AVE with a score of 0.50 or higher as a rule of thumb. The square root of the AVE should be greater than the correlations among latent constructs in order to achieve adequate discriminant validity (Fornell & Larcker, 1981).

Table 5 demonstrates that the square root of the average variance extracted was larger than the correlations between latent components, demonstrating appropriate discriminant validity (Fornell & Larcker, 1981).

Table 5
Discriminant validity

Constructs	**EMG**	**IA**	**MC**	**PR**	**SAT**	**SG**
EMG	**0.904**					
IA	0.222	**0.897**				
MC	-0.179	0.011	**0.770**			
PR	-0.042	0.110	0.354	**0.819**		
SAT	-0.031	0.139	0.277	0.705	**0.785**	
SG	0.049	0.107	0.309	0.804	0.735	**0.818**

Source: Survey data.

Table 6
Cross Loadings

Constructs	**EMG**	**IA**	**MC**	**PR**	**SAT**	**SG**

EM1	**0.885**	0.205	-0.091	0.027	0.036	0.113
EM2	**0.916**	0.157	-0.186	-0.051	-0.026	0.033
EM3	**0.902**	0.220	-0.120	0.006	0.005	0.101
EM4	**0.904**	0.110	-0.154	-0.072	-0.073	0.012
EM5	**0.913**	0.298	-0.205	-0.058	-0.048	0.013
IA1	0.190	**0.921**	0.009	0.094	0.138	0.091
IA2	0.073	**0.878**	0.023	0.093	0.114	0.088
IA3	0.304	**0.899**	-0.013	0.125	0.150	0.135
IA4	0.156	**0.903**	0.085	0.122	0.123	0.105
IA5	0.247	**0.886**	-0.056	0.039	0.075	0.033
MC1	-0.198	0.052	**0.746**	0.266	0.205	0.224
MC2	-0.127	-0.056	**0.885**	0.313	0.260	0.286
MC3	-0.174	0.032	**0.725**	0.276	0.219	0.239
MC4	-0.100	-0.054	**0.861**	0.316	0.237	0.303
MC5	-0.111	0.040	**0.827**	0.267	0.212	0.215
MC6	-0.148	0.089	**0.444**	0.156	0.107	0.121
MC7	-0.124	0.010	**0.811**	0.280	0.219	0.235
PR1	-0.042	-0.059	0.293	**0.747**	0.570	0.635
PR2	-0.153	0.042	0.374	**0.849**	0.690	0.678
PR3	-0.017	0.123	0.311	**0.867**	0.813	0.692
PR4	0.054	0.204	0.200	**0.809**	0.845	0.635
SAT1	0.014	0.182	0.223	0.746	**0.867**	0.632
SAT2	-0.084	0.074	0.305	0.804	**0.786**	0.635
SAT4	-0.063	0.040	0.253	0.677	**0.715**	0.535
SAT5	0.006	0.145	0.127	0.626	**0.739**	0.505
SAT6	0.014	0.104	0.154	0.674	**0.808**	0.557
SG1	0.033	0.010	0.268	0.592	0.485	**0.802**
SG2	0.037	0.058	0.265	0.600	0.521	**0.858**
SG3	0.066	0.132	0.262	0.591	0.501	**0.849**
SG4	0.050	0.096	0.224	0.556	0.450	**0.827**
SG5	0.022	0.113	0.222	0.773	0.817	**0.696**

Source: Survey data.

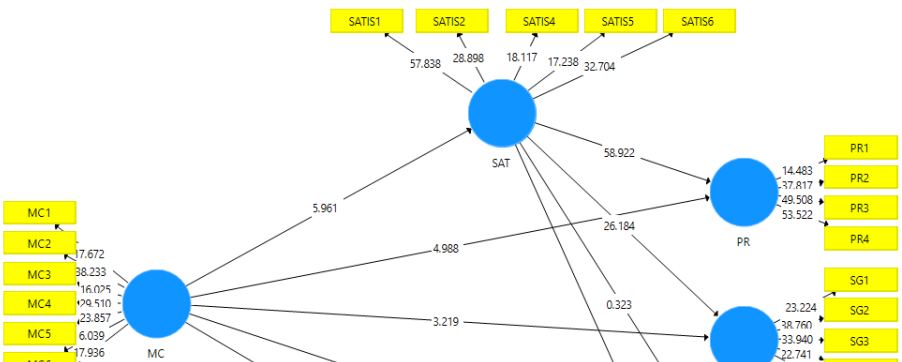

Figure (2)

The structural model

Source: Author's construct from Smart PLS, version 3.2.9.

5.4 Structural Model

Table 7

PLS-SEM results of the structural model

Constructs	**VIF**	**R^2**	**Adjusted R^2**	**Q^2**
Microcredit	1.083			
Profitability	-	0.833	0.832	0.542
Sales Growth	-	0.553	0.550	0.305
Employment Growth	-	0.032	0.027	0.021
Increase in Assets	-	0.020	0.015	0.014
Beneficiaries' Satisfaction	-	0.077	0.074	0.043

Source: Survey data.

To avoid skewed regression findings, collinearity needed to be addressed before investigating the structural correlations. In order to look into collinearity, this study used the variance inflation factor (VIF). It is likely that the research constructs are collinear if the VIF is greater than 5 (Kim et al.,2007). Table 7 summarizes the main results in terms of collinearity.

Table 7 displays how much of the total variance was explained by the research model: 83.3% for profitability, 55% for sales growth, 2.7% for employment growth, 1.5% for asset growth, and 7.4% for beneficiaries' satisfaction. R^2, and Adjusted R^2

values, which are used to evaluate the model's ability to explain the data, are displayed in Table 7.

This suggests that the four elements of exogenous variable and mediator variable (i.e., microcredit, and beneficiaries' satisfaction) collectively explained 83.3% of the variance in profitability; the effect is considered high, because it is more than 67%; 55% of the variane in sales growth; R^2 is considered moderate, because it's more than 33%; 2.7% of the total variance in employment growth; R^2 is considered weak, because it's less than 19%; and 1.5% of the total variance in the increase in assets being the same as in employment growth; R^2 is considered weak, because it's less than 19%. Also, the exogenous variable collectively explained only 7.4% of the variance in the beneficiaries' satisfaction. Therefore, all the endogenous variables showed acceptable levels of R^2 values in both profitability and sales growth, and the remaining variables; i.e., employment growth, increase in assets, and level of satisfaction, have low levels, because all R^2 values of these variables are less than 19%, which were considered low levels of adjusted R^2 (Falk & Miller, 1992; Chin, 1998).

In this study, the predictive value of the suggested model was evaluated using a blindfolding method. It was advised by Hair et al. (2017) that this method be used only with dependent variables that have reflecting measurements. If Q^2 is larger than zero, the suggested model may be used to predict several dependent variables (Hair et al.,1994; Fornell & Larcker, 1981; Cha, 1994) Table 7 shows that every Q^2 result is positive (ranging between 0.543 and 0.043). This shows that the model is sufficiently predictive. A Q^2 of 0.02, 0.15, or 0.35 indicates a low, medium, or high predictive importance of an exogenous measure for several endogenous factors.

5.5 Hypothesis Testing

As shown in Table 8, the structural model analysis offers the outcomes of the hypothesis testing. Microcredit services provided by MFIs affect the profitability of MSEs with the mediating role of beneficiaries' satisfaction. Concerning hypothesis 1, the result revealed that there is a significant positive bond between microcredit services and profitability of MSEs (β = 0.112, T-value = 4.988, P = 0.000), Hypothesis 2 in Table 8 predicted a significant impact of microcredit on the sales growth of MSEs in Yemen; the result indicated a significant relationship (β=0.114, T=3.219, P=0.001). Hence, this hypothesis was accepted. Hypothesis 3 predicted that there is a significant impact of microcredit on employment growth of MSEs in Yemen. As illustrated in Table 8, the result indicated a significant relationship
(β=-0.184, T= 4.006, P= 0.000). Hence, this hypothesis was accepted. Hypothesis 4 predicted that there is a significant impact of microcredit on the increase in assets of MSEs in Yemen. As illustrated in Table 8, a non-significant relationship between microcredit and the increase in assets of MSEs was found (β = -0.029, T = 0.462, P= 0.644). Therefore, this hypothesis was not accepted. Furthermore, hypothesis 5, which predicted that there is a significant impact of microcredit on the beneficiaries' satisfaction of MSEs, was accepted, because the estimations from the PLS model were significant (β=0.277, T= 5.961, P=0.000). Hypothesis 6 predicted that the beneficiaries' satisfaction mediates the relationship between microcredit and the profitability of MSEs. The finding in Table 8 indicates a mediating role of beneficiaries' satisfaction in the relationship between microcredit and profitability of MSEs (β = 0.242, T = 6.155, p = 0.000). Hence, this hypothesis was accepted. Hypothesis 7 predicted that beneficiaries' satisfaction mediates the relationship between microcredit and sales growth of MSEs, and the result indicated a significant relationship (β=0.195, T=5.953, P=0.000). Hence, this hypothesis was accepted. On the other hand, there is no mediating role of beneficiaries' satisfaction in the relationship between microcredit and employment growth of MSEs (H 8) (β = 0.006, T

= 0.306, P = 0.760). Hypothesis 9 predicted that there is a significant impact of beneficiaries' satisfaction which mediates the relationship between microcredit and the increase in assets of MSEs. As illustrated in Table 8, the result indicates that there is a mediating role of beneficiaries' satisfaction in the relationship between microcredit and the increases in assets of MSEs, (β = 0.041, T = 2.420, P = 0.016), hence accepting the hypothesis.

Table 8

Structural model assessment of direct and indirect relationships

Hyp.	Relationships	Std. Beta	Std. Error	T-value	P-value	Finding
H1	MC -> PR	0.112	0.022	4.988	0.000***	Accepted
H2	MC -> SG	0.114	0.036	3.219	0.001**	Accepted
H3	MC -> EMG	-0.184	0.046	4.006	0.000***	Accepted
H4	MC -> IA	-0.029	0.064	0.462	0.644	Not Accepted
H5	MC -> SAT	0.277	0.046	5.961	0.000***	Accepted
H6	MC -> SAT -> PR	0.242	0.039	6.155	0.000***	Accepted
H7	MC -> SAT -> SG	0.195	0.033	5.953	0.000***	Accepted
H8	MC -> SAT -> EMG	0.006	0.018	0.306	0.760	Not Accepted
H9	MC -> SAT -> IA	0.041	0.017	2.420	0.016*	Accepted

Source: Survey data.

Note. ***P< 0.001; **P<0.01; *P< 0.05.

6. Discussion

The primary goal of this research was to establish how much of an effect microcredit had on the performance of MSEs in Yemen. To further examine the link between microcredit and MSEs' performance, this study additionally looked into the mediating impact of beneficiaries' satisfaction. Microcredit had a considerable effect on the profitability of MSEs, as seen in Table 8, which lends credence to the first hypothesis. It's clear that microcredit was a useful tool, as MSEs in Yemen saw a boost in their profits. The relationship between microcredit and sales growth of MSEs was found to be significant. This finding suggests that the microcredit service provided by MFIs to their beneficiaries can play an essential role in the sales growth of their business. That shows that when the owners of MSEs get microcredit from MFIs, their sales will grow as a result of that. The impact of microcredit on the employment growth of MSEs was significant, as shown in Table 8, supporting the 3rd hypothesis. Microcredit was an effective technique that contributed significantly to the employment growth of Yemeni MSEs, but it is observed that the beta value is negative β = -0.184; a negative beta value indicates a negative relationship between microcredit and employment growth of MSEs. A unit increase in the value of microcredit results in a 0.184 decrease in the value of the employment growth of MSEs. Unexpectedly, microcredit provided by MFIs and an increase in assets were found to be not significantly related, as shown in Table 8, not supporting the 4th hypothesis, which implies that there is a significant impact of microcredit on the increase in assets of MSEs in Yemen. This means that loans do not contribute to MSE owners increasing their assets by getting microcredit from MFIs. Microcredit had a considerable effect on MSEs' satisfaction, as seen in Table 8, which lends credence

to the fifth hypothesis. This suggests that in overall, the recipients are pleased with the microcredit supplied by MFIs; yet, the descriptive analysis revealed that the recipients are only somewhat content with the loan duration, interest rate on credit, demand collaterals, and repercussions of non-repayment. The next hypothesis (H6) states that beneficiaries' satisfaction mediates the relationship between microcredit and the profitability of MSEs. The present study observed that the link between microcredit and the profitability of MSEs was mediated by the satisfaction of beneficiaries. When beneficiaries are satisfied with the microcredit, the profitability of MSEs will increase. The following hypothesis (H7) states that beneficiaries' satisfaction mediates the relationship between microcredit and sales growth of MSEs; as hypothesized, beneficiaries' satisfaction was discovered to mediate the relationship between microcredit and sales growth of MSEs; that is, when beneficiaries are satisfied with microcredit, the sales of MSEs will grow. The next hypothesis (H8) states that beneficiaries' satisfaction mediates the relationship between microcredit and employment growth of MSEs. Unexpectedly, the result indicated that beneficiaries' satisfaction did not mediate the relationship between microcredit and employment growth of MSEs. The last hypothesis (H9) states that beneficiaries' satisfaction mediates the relationship between microcredit and the increase in assets of MSEs. Unexpectedly, beneficiaries' satisfaction mediates the relationship between microcredit and the increase in assets of MSEs; there was no direct effect of microcredit on the increase in assets of MSEs, but in terms of the indirect effect, the level of satisfaction was found to mediate the relationship between microcredit and the increase in assets of MSEs. In other words, when the beneficiaries are satisfied with microcredit, that could affect the increase of assets of MSEs.

7. Significance of the Study

This study contributes to the body of knowledge on the role of microcredit in the performance of micro and small enterprises and the mediating effect of the level of satisfaction. The significance of this research resides in the vision sought by all communities and states for economic development, which focuses on constructing the essential infrastructure to increase national income and the *per capita* income of individuals, thereby enhancing their standard of living. Economic growth is achieved by assisting the micro and small enterprise sectors, as well as the microfinance sector. The study is thought to be helpful to a variety of institutions, including microfinance institutions (MFIs), community organizations, funding agencies, financial institutions, policymakers, micro and small enterprises (MSEs), and, most importantly, the poor community at large.

8. Limitations and Implications of the Study

Usually, performance and its components (profitability, sales growth, employment growth, and increase in assets) are measured through historical data, but in the case of this study, performance was measured through a structured questionnaire, because most owners of MSEs in Yemen do not have the basics of accounting and bookkeeping. Therefore, the best way to obtain information about the performance of MSEs is through a structured questionnaire.

As previously recommended in the literature, further research into the impact of microcredit on the performance of Micro and Small Enterprises (MSEs) in Yemen is required. The purpose of this study was to determine the direct and indirect impacts of microcredit on the performance of MSEs. The study's findings are noteworthy and may be useful to a variety of parties in Yemen.

The model demonstrates the impact of microcredit in defining the performance of Micro and Small Enterprises (MSEs) and the role of beneficiaries' satisfaction. The theoretical outcome of this study is that the examination of beneficiaries' satisfaction has contributed to the present study on the performance of

the MSE field to accept the impact of microcredit. The proposed theoretical model of this study has established additional correlations, such as those between microcredit and performance of MSEs, thus contributing to the initial models. Moreover, beneficiaries' satisfaction is a strong determinant of the performance of MSEs and a mediator between microcredit and the performance of MSEs. The beneficiaries' satisfaction with the microcredit is an important tool for the development of MSEs. The present study tries to fill the gap in the literature by providing empirical evidence for the connection between microcredit and the performance of MSEs and the role of beneficiaries' satisfaction in this relationship. Thus, the current investigation on the impact of microcredit on the performance of MSEs would reveal the existing relationship and will broaden the horizon of the concept of beneficiaries' satisfaction in the context of the performance of MSEs.

9. Conclusion

Financial inclusion, poverty reduction, and women's empowerment are just a few goals that microfinance banks strive to achieve. There will be continued emphasis on MSEs as an essential part of development policy and strategy. Directly, microcredit helps financially disadvantaged families gain access to credit markets. With the help of microcredit, credit-constrained families may be able to make necessary investments in things like company start up, expansion, household assets, health care, education, and other necessities. As the creation of new enterprises and economic activities is at the core of initiatives aiming to increase access to credit, these strategies are centred on fostering their growth. Governments should make every effort to develop and promote credit market access. The main objective of this study was to investigate the impact of microcredit on the performance of Micro and Small Enterprises (MSEs) in Yemen. To accomplish this goal, the researchers evaluated the direct and indirect effects of microcredit on the performance of MSEs with the mediating effect of beneficiaries' satisfaction. The following conclusions were reached as a result of the analysis. Microcredit had an acceptable impact on the performance of MSEs in Yemen, but they must focus more on reducing the interest rate. In the end, a few studies have looked into the impact of microcredit on the performance of micro and small enterprises (MSEs) in Yemen. As a result, the current study will add to the body of knowledge on how microcredit can affect the performance of MSEs; also, this study built a new model that has not been applied, which measures the effect of beneficiaries' satisfaction as a mediating variable between microcredit and the performance of MSEs. It is intended that future academics will investigate the problems addressed in this study, implement the results of this study, and broaden the avenues offered by this research.

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