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The impact of microfinance on employment and income of the poor in Vietnam

Nguyen Duc Hai[1*], Pham Tien Dat[2], Pham Thi Van Anh[3], Lai Thi Tuyet Lan[4], Nguyen Ngoc Hien[5]

[1,2,3,4]*University of Finance - Marketing, Ho Chi Minh city, Vietnam.*
[5]*Electric Power University, Hanoi city, Vietnam.*

Corresponding author: Nguyen Duc Hai (*Email: nguyenduchai@ufm.edu.vn*)

Abstract

In terms of theory and practice, microfinance activities have affirmed their role in promoting job creation and increasing income for the poor. This study focuses on analyzing the impact of microfinance on the employment and income of the poor in Vietnam through financial intermediary services and social intermediary services. Based on the theoretical framework, the author conducted a direct survey of 300 poor people who received loans for production and business in the past 5 years. The survey area was identified as three provinces in the mountainous region of the Northwest - the area with the most difficult economic conditions in Vietnam; the provinces include Lai Chau, Dien Bien, and Son La. The results of the research and survey show that the poor are more interested in receiving direct loans (through financial intermediary services) to invest in production and business with the hope of escaping poverty and developing. Borrowing capital through savings groups and lending groups (through social intermediary services) is bound by many procedures and processes related to local organizations and groups, so many poor people have limited access; they rate it lower in terms of convenience and efficiency compared to borrowing capital directly from microfinance organizations. From the results of this study, the author discusses some contents aimed at removing difficulties to continue promoting microfinance development to create jobs and income for the poor in Vietnam.

Keywords: Employment, Financial intermediary services, Income of the poor, Microfinance, Social intermediary services, Vietnam.

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1. Introduction

Microfinance has been formed and developed in Vietnam since the 1980s through economic exchange and cooperation programs between Vietnam and governments and international organizations [1]. Over the past 40 years, microfinance in

Vietnam has developed strongly, contributing positively to the fight against hunger and poverty reduction, helping to transform Vietnam from a poor country into a middle-income country as it is today.

Vietnam is a Southeast Asian country that was once poor, but it is also one of the few countries that have successfully achieved the United Nations Millennium Development Goals on poverty reduction. This success is partly due to the contributions of the system of organizations providing microfinance, including the Social Policy Bank, the Bank for Agriculture and Rural Development, the People's Credit Fund System, Microfinance Organizations, and Microfinance Programs and Projects. Through microfinance, the poor in Vietnam—disadvantaged groups—have the opportunity to borrow capital to meet production and business needs, thereby creating more jobs and increasing income, rising out of poverty, and integrating into social life and the economy proactively.

In the field of research, many authors have studied the topic of the impact of microfinance on the employment and income of the poor. This issue continues to be of great interest in the academic and management fields in Vietnam because the country still has a high rate of poor households, which raises management issues for the country and localities. This is also the reason that attracts the author's attention in this study.

2. Literature Review

Modern microfinance is known for the project of lending to the poor—those without collateral. This project was proposed by Professor Yunus (Bangladesh) and successfully tested in the 1970s [2]. Later, the project developed into the famous Grameen Bank, becoming a model of microfinance development for many countries to learn from, including Vietnam [1]. From the success of the project of lending to the poor to the development of Grameen Bank today, whose owner, Professor Yunus, received the Nobel Prize for Peace in 2006 [3].

According to the Consultative Group to Assist the Poor [4] microfinance is the provision of basic financial services, including savings, money transfers, credit, pensions, insurance, etc. Ledgerwood [5] and Robinson [6] believe that microfinance is not only a banking and financial service but also an economic development tool to benefit low-income people in society. In Vietnam, according to the Law on Credit Institutions [7] microfinance is the provision of credit and some banking services for the poor, low-income people and micro-enterprises.

The approaches to microfinance by researchers and organizations have many similarities. In the context of this study conducted in Vietnam, the author builds the concept of microfinance based on the content of current legal regulations in Vietnam. Accordingly, microfinance is the provision of financial services such as deposits, loans, payment services, money transfers, and insurance for the poor, low-income households, and micro-enterprises.

In the ADB - Asian Development Bank [8] research report, microfinance is the provision of financial products that are tailored to the needs of poor groups, in order to improve their living conditions, thereby reducing poverty and promoting economic development. ADB asserts that microfinance can promote sustainable development by helping poor groups participate in economic activities, increase their investment capacity and generate sustainable income. Yunus [9] argues that microfinance not only helps reduce poverty but also creates opportunities for the poor to improve their financial capacity and initiative in economic activities. Research by Armendariz and Morduch [10] also shows that microfinance plays an important role in promoting the participation of poor groups in the economy. On the other hand, microfinance not only creates financial changes but also has a great impact on social factors, such as women's economic and social power, increasing their participation in decision-making at the family and community level, society [11]. Studies by Karlan and Zinman [12] and Banerjee, et al. [13] show that this role of microfinance, especially the combination of small loans and training programs, can increase the success of small businesses and contribute to raising incomes for the poor.

In Vietnam, microfinance has been growing strongly, especially through organizations such as the Vietnam Bank for Social Policies (VBSP), the Vietnam Bank for Agriculture and Rural Development (VBAR), the People's Credit Fund System (PCF), non-governmental organizations (NGOs) and microfinance institutions. Studies show that microfinance in Vietnam has helped millions of poor people access small loans to develop production and business, especially in areas such as agriculture, small-scale industry and services Bich [14]. Tuan and Lee [15] emphasized that microfinance in Vietnam not only contributes to job creation but also helps reduce financial risks for the poor through savings and insurance products. Although microfinance brings many benefits, some studies indicate that there are still many challenges in expanding microfinance activities in Vietnam. Bich [14] and Quý [16] emphasized that the lack of financial management skills, limited small business support services, and issues with the scale and sustainability of microfinance institutions remain factors that hinder the effectiveness of microfinance activities in Vietnam.

In addition, according to Morduch [17] and Zeller and Meyer [18] microfinance helps reduce poverty and create employment opportunities, but the actual performance of microfinance institutions still depends on many other factors such as management capacity, quality of services provided, and macroeconomic factors. In particular, Gertler and Levine [19] argued that microfinance institutions need to combine the provision of basic financial services with training and business support programs to ensure sustainable development for the poor.

Synthesizing the content of the above studies shows that organizations providing microfinance services to poor customers can include the following services: (i) Financial intermediary services; (ii) Social intermediary services; (iii) Small business development services. The content of Financial intermediary services and Social intermediary services has a direct impact on the employment and income of the poor because when the poor are supported with capital, they will proactively invest in production, and business, and generate income. Particularly with Small business development services, this is a factor that indirectly affects the employment and income of the poor because microfinance promotes the production and business activities of enterprises, which in turn creates jobs and income for the poor. In this study, the author discusses the role and direct impact of microfinance on the employment and income of the poor; therefore, the author determines and selects the content of microfinance research in the aspects of Financial Intermediation Services and Social Intermediation Services, and does not mention the aspect of Small Business Development Services.

With the above analysis and explanation, the scales identified in this study include: Financial Intermediary Services (FI); Social Intermediary Services (SI); Creating Employment and Income for the Poor (CEI).

3. Financial Intermediary Services

Providing financial intermediary services is the basic activity of any microfinance institution. This activity includes providing credit (also known as microcredit), capital mobilization, providing payment card services, and insurance (microinsurance). Depending on the legal regulations of each country, some financial services such as payment and microinsurance may be limited, or microfinance institutions may only be allowed to act as agents to perform payment services and to provide insurance products for banks and insurance companies [5].

In studies by Morduch [17] and Armendáriz and Morduch [20] microfinance opens up opportunities for the poor to borrow capital for production instead of formal financial sources - lending institutions that are often not interested in poor customers. Bevacqua, et al. [21] added the aspect of promoting entrepreneurship for the poor of microfinance. Todaro and Smith [22] argued that in addition to labor, some poor people have more land for cultivation, but due to lack of capital, the labor force becomes redundant, unable to play a role in economic development. However, thanks to the capital of microfinance institutions, it has contributed to mobilizing excess resources, promoting the labor of the poor to create products, contributing to increasing the overall output of the economy.

The next issue is that microfinance creates opportunities for the poor without collateral to borrow capital [5, 23]. Research by Johnson [24] and Bevacqua, et al. [21] shows that the way of approaching customers through groups - instead of collateral - microfinance organizations simultaneously solve the problem of optimizing operating costs, while also putting aside concerns about the lack of collateral for the poor when they need to use loans (contributing to limiting lending risks). The poor, like other social groups, also have needs in life such as jobs, income, education, medical treatment... and financial needs to serve the above needs. The emergence and development of microfinance targeting poor customers has contributed to satisfying their needs as well as the needs of society in general, thereby promoting social development and progress.

In addition to providing capital to the poor, microfinance institutions also indirectly support and encourage the poor to save and accumulate assets [25]. In the study of Ledgerwood [5] and Rutherford [26] microfinance institutions can require customers to replace mortgaged assets with compulsory savings or require them to save money before borrowing capital. These savings will be repaid when customers fully pay off their debts and also encourage customers to participate in voluntary savings in the form of contributions through savings and loan groups. The above regulations of microfinance institutions, according to Morduch [17] and Armendáriz and Morduch [20] have helped the poor to be educated improve their financial understanding, and prepare for financial risks in emergency situations that occur to them in their daily lives.

4. Social Intermediary Services

Social intermediation services are activities in which the poor can join together into groups, organizations, or associations [5] with the help of non-governmental organizations, microfinance organizations, and local governments. Through savings groups, and loan groups, the poor have the opportunity to easily access loans, and according to ADB - Asian Development Bank [8] it is necessary to promote access to capital through the form of groups. Johnson [24] shows that the formation of loan groups helps strengthen social solidarity and reduce the rate of overdue debt as well as reduce the possibility of loss of capital of microfinance organizations. But there is also a big challenge for microfinance organizations when the number of customers is too large, leading to difficulties in managing customer information, but thanks to the application of science and technology in the financial sector, according to Bevacqua, et al. [21] microfinance institutions are still able to capture information and credit records of customers as well as enhance transparency in the organization's operations towards society.

Savings groups and lending groups not only guarantee loans for group members but also help each other gain knowledge to produce and do business effectively, ensuring the ability to repay loans [26]. Through the management and operation methods of groups, the poor receive support to access favorable loans, participate in social activities, and accumulate more knowledge and experience in capital management, techniques for production, and business development. Research by ADB - Asian Development Bank [8] and Johnson [24] shows that it is necessary to focus on training management knowledge for customers, knowledge for production and business, and favorable investment opportunities. Using online training technology and mobile applications [21] helps the poor have the opportunity to train to improve financial knowledge and knowledge for business applications in production and life.

By participating in microfinance activities, the poor have built and developed the ability to manage personal and household expenses (Ledgerwood [5]). Rutherford's [26] study shows that the activities of lending groups have helped each other with business opportunities, while at the same time improving knowledge of personal financial management and household financial management. In today's technological development period, online training courses on personal financial knowledge not only reduce operating costs for microfinance organizations but also help enhance the ability to manage personal and household finances (Bevacqua, et al. [21]). Poor people trained in personal finance will increase savings, manage personal expenses effectively, and improve the financial sustainability of poor households [8, 24].

5. Creating Employment and Income for the Poor

The impact of microfinance on creating employment opportunities for the poor is reflected in its ability to provide additional resources for labor, land, and means of production. These small loans enable the poor to invest in production and business activities, thereby creating jobs for themselves and their communities. Research by Ledgerwood [5] and Bevacqua, et al. [21] shows that microfinance helps create an environment conducive to economic development in poor communities, where small-scale production activities can develop, thereby creating more employment opportunities for the poor and low-income people.

Table 1.
Summary of research content on microfinance, employment, and income of the poor.

Scales	Related Studies	The contents have been inherited and developed research scale.
I. Financial Intermediation Services (FI)		
1. Microfinance creates many opportunities for the poor to borrow capital for production.	- Ledgerwood [5] - Morduch [17] - Armendáriz and Morduch [20] - Bevacqua, et al. [21]	**FI1**. The poor have more opportunities to access loans for production and business.
2. Microfinance provides opportunities for poor people without collateral to borrow capital.	- Ledgerwood [5] - Armendáriz and Morduch [20] - Bevacqua, et al. [21] - Johnson [24]	**FI2**: The poor have no collateral but are given the opportunity to borrow capital for production and business.
3. Microfinance gives the poor the opportunity to practice and adhere to the discipline of saving.	- Ledgerwood [5] - Rutherford [26] - Morduch [17] - Armendáriz and Morduch [20] - Schreiner [25]	**FI3**: The poor have the opportunity to practice and comply with the discipline of saving when they are able to borrow capital for production and business.
II. Social Intermediation Services (SI)		
4. Microfinance helps the poor join loan and savings groups to easily access loans.	- Ledgerwood [5] - Bevacqua, et al. [21] - ADB - Asian Development Bank [8] - Johnson [24]	**SI1**. The poor are allowed to join local associations/groups to have the opportunity to borrow capital for production and business.
5. Microfinance helps the poor to be trained and guided on how to manage and use loans effectively.	- Rutherford [26] - Bevacqua, et al. [21] - ADB - Asian Development Bank [8] - Johnson [24]	**SI2**: The poor are trained and guided to use loans effectively when participating in loan associations or groups for production and business.
6. Microfinance helps the poor improve their knowledge of personal and household financial management.	- Ledgerwood [5] - Bevacqua, et al. [21] - ADB - Asian Development Bank [8] - Johnson [24]	**SI3**: The poor are trained and practice personal and household financial management when participating in loan associations or groups for production and business.
II. Creating employment and income for the poor (CEI)		
7. Microfinance helps the poor have the opportunity to proactively create jobs through effective use of loans.	- Morduch [17] - Ledgerwood [5] - Bevacqua, et al. [21] - ADB - Asian Development Bank [8]	**CEI1**. The poor proactively create jobs through effective use of loans.
8. Microfinance helps the poor have the opportunity to increase their income and stabilize their finances through effective use of borrowed capital.	- Schreiner [25] - Morduch and Armendáriz [23] - ADB - Asian Development Bank [8]	**CEI2**. The poor have the conditions to increase their income and stabilize their family finances through effective use of borrowed capital.
9. Microfinance helps the poor have the opportunity to develop production and business and get rich from the effective use of borrowed capital.	- Morduch [17] - Armendáriz and Morduch [20] - Bevacqua, et al. [21]	**CEI3**. The poor have the conditions to develop production and business sectors and become well-off through effective use of borrowed capital.
10. Microfinance helps the rural poor reduce their dependence on seasonal production by diversifying their income-generating activities.	- Morduch [17] - Armendáriz and Morduch [20] - ADB - Asian Development Bank [8]	**CEI4**. The poor have the opportunity to diversify their income outside of agricultural production through the effective use of loans.

One of the major impacts of microfinance is its ability to help the poor proactively create jobs for themselves and their communities. Research by Webster, et al. [27] has shown that access to small loans helps the poor start and expand their businesses, thereby creating sustainable jobs and reducing unemployment in the community. According to Rhyne [28] microfinance promotes innovation and entrepreneurship, helping the poor develop small but stable business models, and creating job opportunities for many others in the community.

In addition to creating jobs, microfinance also helps the poor stabilize their finances and increase their income. ADB - Asian Development Bank [8] asserts that microfinance has great potential to promote income growth for poor households, especially when they use loans to expand their production activities and improve their business conditions. Research by Webster, et al. [27] and Morduch [17] shows that access to loans not only increases income but also helps the poor reduce their dependence on unstable sources of income, creating conditions for them to have a more sustainable life. Armendariz and Morduch [10] also argue that microfinance helps the poor stabilize their finances and minimize economic risks from unexpected fluctuations.

Microfinance plays an important role in helping the poor develop production and business sectors, creating opportunities for enrichment. Ledgerwood [5] and Bevacqua, et al. [21] point out that microloans enable the poor to expand production activities and participate in business sectors with growth potential. These loans also help the poor increase their income and improve their living conditions. Morduch and Hulme [29] point out that women participating in microfinance programs can expand production and penetrate new markets, thereby increasing their income sustainably. Thus, microfinance not only helps create jobs but also promotes financial autonomy, helping the poor develop their careers and enrich themselves through economic activities that they can actively manage and operate.

In particular, in rural areas, microfinance helps the poor reduce their dependence on seasonal agricultural production - a sector that is vulnerable to natural disasters, epidemics, or price fluctuations. Morduch [17] and Banerjee, et al. [13] point out that microloans help the poor invest in non-agricultural activities such as livestock, handicrafts, or small services, thereby generating stable income throughout the year. Economic diversification helps the poor reduce the risks associated with seasonal agricultural production and build a stronger financial foundation.

Thus, microfinance has proven to be an effective tool in creating jobs and increasing incomes for the poor, especially in developing countries. Studies show that microfinance not only creates employment opportunities but also helps stabilize finances, develop productive sectors, and reduce dependence on seasonal production [5, 21]. However, to be sustainable, microfinance programs need to improve management and access to services and need continuous support to maintain and expand under different conditions [4, 8]. And although microfinance brings many economic benefits, maintaining sustainability and scalability remains a major challenge [10].

In that context, the theoretical framework of the article will focus on analyzing the factors affecting the impact of microfinance in creating jobs and increasing income for the poor, including the factors of Financial Intermediation Services (FI) and Social Intermediation Services (SI). This theoretical framework will provide a solid basis for a better understanding of the relationship between the factors of microfinance and socio-economic development outcomes through promoting job creation and income for the poor, thereby serving as a foundation for assessing the impact of microfinance on poverty reduction and promoting sustainable development in Vietnam. From here, the research hypothesis is set out: Financial Intermediation Services (H1), and Social Intermediation Services (H2) have a positive impact on employment and income for the poor.

With the research overview, the author has built a theoretical framework to study the impact of microfinance on employment and income of the poor. The model includes 3 scales with a total of 11 observed variables, shown in Figure 1.

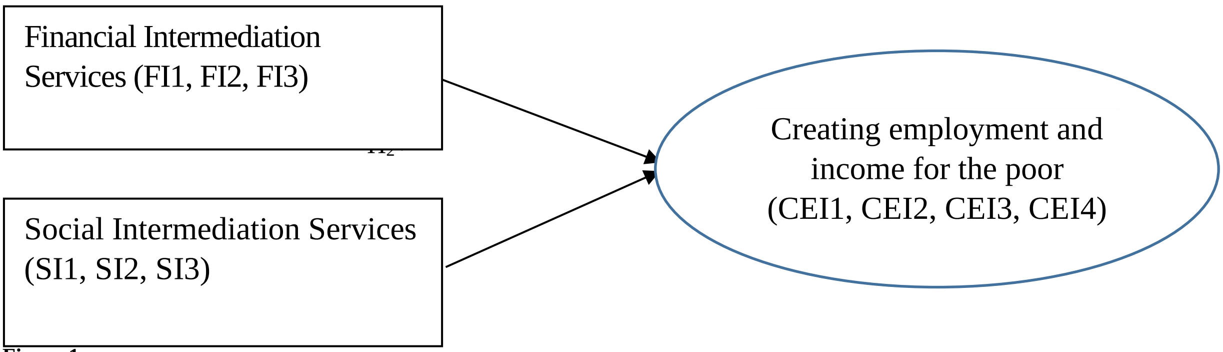

Figure 1.
Research model.

From the research model built with 3 scales and 10 observed variables (Table 1, Figure 1), the author designed a survey form with 10 questions according to these 10 observed variables and measured by a 5-level Likert scale: 1 - Strongly disagree; 2 - Disagree; 3 - No opinion; 4 - Agree; 5 - Strongly agree (Appendix). The survey was conducted according to scientific procedures and methods, as explained below.

6. Research Methods

In this study, the author uses a combination of qualitative and quantitative methods. With the qualitative method, the author collects and analyzes secondary data through research overview activities, thereby making initial judgments about the theoretical research content and building a research model.

Using quantitative methods, the author collected and analyzed primary data by directly surveying 300 poor households who received loans for production and business in the last 5 years. The survey area was also identified as three provinces in the mountainous region of the Northwest of Vietnam - the area with the most difficult economic conditions in Vietnam; the provinces include Lai Chau, Dien Bien, and Son La.

In quantitative research, with a research model of three scales including ten observed variables, the minimum sample size required for exploratory factor analysis and regression analysis is N = 10*5 = 50 [30]. In fact, the author conducted the study with a sample size of N = 300 civil servants (N > 50), showing high reliability when conducting survey research. The survey was conducted in the following order: preliminary survey and official survey.

- Preliminary survey: With the minimum sample size determined as N = 10*5 = 50, the author conducted a preliminary survey with a sample size of N = 70 (N > 50) in Lai Chau province. The preliminary survey results showed that all three scales and ten observed variables were reliable enough to be used in an official survey on a larger scale.

- Official survey: From the results of reliability testing of the scales and observed variables through a preliminary survey with a sample size of N = 70, the author conducted an official survey with a sample size of N = 300 in the identified research area, including three provinces in the mountainous region of the Northwest of Vietnam: Lai Chau Province, Dien Bien Province, and Son La Province.

The survey was conducted selectively, in which the respondents were poor households that received loans for production and business in the last 5 years. The survey was conducted with the consent of the respondents after the author conducted a preliminary interview. The survey results were: 300 out of 300 people agreed to respond, and there were 300 out of 300 valid responses, achieving a valid response rate of 100%.

7. Research results

With data collected from a survey of 300 poor households receiving loans for production and business, the author conducted Cronbach's Alpha testing to identify the reliability of the scales and observed variables in the research model. The test results showed that all 3 scales and 10 observed variables were reliable when meeting the standard conditions: Cronbach's alpha > 0.6; Corrected Item-Total Correlation > 0.3 (Hair et al., 2009), [Table 2].

Table 2.
Statistical results and testing results of the scale.

Scales	Observed variables	N	Min.	Max.	Mean	Std. Deviation	Cronbach' Alpha	Corrected Item-Total Correlation
1. Financial intermediary services (FI)	FI1 FI2 FI3	300 300 300	2 2 2	5 5 5	4.22 4.17 3.96	0.642 0.629 0.644	0.657	FI1 = .507 FI2 = .526 FI3 = .492
2. Social intermediary services (SI)	SI1 SI2 SI3	300 300 300	2 1 2	5 5 5	3.88 3.95 3.92	0.602 0.593 0.599	0.636	SI1 = .502 SI2 = .511 SI3 = .489
3. Creating employment and income for the poor (CEI)	CEI1 CEI2 CEI3 CEI4	300 300 300 300	2 2 1 2	5 5 5 5	3.94 3.89 3.87 3.91	0.639 0.632 0.635 0.641	0.643	CEI1 = .595 CEI2 = .588 CEI3 = .551 CEI4 = .496
Valid N (listwise)		300						

Data in Table 2 shows that observations on the scales "Financial intermediary services" (FI), "Social intermediary services" (SI), and "Creating employment and income for the poor" (CEI) are all rated at an average level Mean > 3.87, statistically significant according to the Likert scale (1-5) determined.

The observed variables of the "Social Intermediary Services" (SI) scale are rated lower than the "Financial Intermediary Services" (FI) scale: Mean (SI1) = 3.88, Mean (SI2) = 3.95, Mean (SI3) = 3.92, showing that the poor are more interested in borrowing capital directly to invest in production and business with the hope of escaping poverty and developing. Borrowing capital through savings groups and lending groups is bound by many procedures and processes related to local organizations and groups, so many poor people have limited access; they rate it lower in terms of convenience and efficiency compared to borrowing capital directly from microfinance institutions.

The statistical data summarized in Table 2 contribute to reflecting the current situation of poor people's participation in borrowing capital in Vietnam. Accordingly, poor people in Vietnam are in great need of loans and often want to receive direct support from microfinance institutions. However, microfinance institutions often have a risk-averse mentality by supporting poor people to borrow capital through intermediary organizations - savings groups, and loan groups. This reality is creating two approaches, evaluating the effectiveness of loans from two related groups: Lending groups - microfinance institutions, and loan groups - poor people.

With the standard test value, all three scales and ten observed variables continue to be used to conduct exploratory factor analysis to test the initial research model. The author conducts exploratory factor analysis with Varimax rotation to preliminarily assess the unidimensionality, convergent validity, and discriminant validity of the scales. The analysis results are shown in Table 3 and Table 4.

Table 3.
Total Variance Explained.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.838
Bartlett's Test of Sphericity	Approx. Chi-Square	3306.277
	df	55
	Sig.	0.000

Total Variance Explained									
	Initial Eigenvalues			**Extraction Sums of Squared Loadings**			**Rotation Sums of Squared Loadings**		
Component	**Total**	**% Of Variance**	**Cumulative %**	**Total**	**% Of Variance**	**Cumulative %**	**Total**	**% Of Variance**	**Cumulative %**
1	5.684	51.671	51.671	5.684	51.671	51.671	5.684	51.671	51.671
2	1.814	16.495	68.166	1.814	16.495	68.166	1.814	16.495	68.166
3	1.070	9.732	77.897	1.070	9.732	77.897	1.070	9.732	77.897
4	.900	8.183	86.080						
5	.481	4.372	90.453						
6	.406	3.695	94.147						
7	.284	2.586	96.733						
8	.214	1.943	98.676						
9	.047	.430	99.607						
10	.043	.393	100.000						
Extraction Method: Principal Component Analysis.									

Table 4.
Rotated Component Matrix

Rotated Component Matrix[a]				
Scales	**Observed variables**	**Component**		
		1	**2**	**3**
1. Financial intermediary services (FI)	FI1	0.768		
	FI2	0.774		
	FI3	0.715		
2. Social intermediary services (SI)	SI1		0.804	
	SI2		0.763	
	SI3		0.791	
3. Creating employment and income for the poor (CEI)	CEI1			0.789
	CEI2			0.801
	CEI3			0.807
	CEI4			0.795

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

In quantitative research, according to Hair, et al. [30] exploratory factor analysis is performed in accordance with the data set through the values: $0.5 \leq KMO \leq 1$; Bartlett's test has an observed significance level Sig. < 0.05; Eigenvalue ≥ 1; Total Variance Explained ≥ 50%; Factor Loading ≥ 0.5.

The survey results in Table 3 and Table 4 show that exploratory factor analysis confirms the suitability of the data set with the initial research model, shown through the KMO coefficient = 0.838 > 0.5; the observed variables have a linear correlation with the representative factor, shown through Bartlett's Test with the observed significance level Sig. = 0.000 < 0.05; the observed variables explain 77.897% of the variation of the representative factors, shown through Total Variance Explained with Cumulative % = 77.897% > 50%; the observed variables have good statistical significance, have a close relationship with the representative factor, with Factor Loading > 0.5.

Data in Table 3 and Table 4 also show that 10 observed variables are extracted into 03 factors corresponding to 03 initial factors with Eigenvalues > 1. This research result confirms that the theoretical framework/research model initially built is appropriate, contributing to confirming the statistical and testing results in Table 2 and reflecting the reality of poor people's participation in borrowing in Vietnam as mentioned above.

The above exploratory factor analysis results also help confirm that the initial research model is feasible when implementing empirical research and is maintained, including 2 independent variables "Financial Intermediary Services" (FI), "Social Intermediary Services" (SI), and 1 dependent variable "Creating Employment and Income for the Poor" (CEI) with a total of 10 observed variables with good statistical significance. It is possible to perform multivariate linear regression analysis to examine the relationship between independent variables and dependent variables in the research model. The results of the regression analysis are shown in Table 5.

Table 5.
Multivariate regression results.

Coefficients[a]							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
		B	Std. Error	Beta			
1	(Constant)	1.262	.110		11.433	.000	
	Financial intermediary services (FI)	.895	.031	1.005	29.107	.000	1.815
	Social intermediary services (SI)	.247	.031	.271	7.845	.000	1.823

Note: a. Dependent Variable: Creating employment and income for the poor (CEI)
R Square = .766; Durbin-Watson = 2.099

The data in Table 3 shows that:

+ R Square = .766, confirming that the scales "Financial Intermediary Services" (FI) and "Social Intermediary Services" (SI) explain 76.6% of the variation in the scale "Creating Employment and Income for the Poor" (CEI), confirming that the initially built research model is appropriate. The constructed scales have theoretical and practical significance when implementing empirical research.

VIF = 1.815 and VIF = 1.823 (1 < VIF < 2), showing that the regression model does not have multicollinearity; Durbin-Watson = 2.099 (1 < d < 3), indicating that the regression model does not have autocorrelation, confirming that the scales "Financial intermediary services" (FI) and "Social intermediary services" (SI) are independent and have the same impact on the scale "Creating employment and income for the poor" (CEI), further confirming that the initially built research model is appropriate.

The regression coefficients of the two independent variables "Financial intermediary services" (FI) and "Social intermediary services" (SI) are both statistically significant with Sig. = 0.000 (Sig. < 0.05) and have positive values: B(FI) = 0.895, B(SI) = 0.247, confirming the positive relationship between the two independent variables "Financial intermediary services" (FI) and "Social intermediary services" (SI) and 01 the dependent variable "Creating employment and income for the poor" (CEI). Hypotheses H1 and H2 are accepted, further confirming that the initially built research model is appropriate.

Based on the generalized regression model Y = Bo + B1*X1 + B2*X2 + … + Bi*Xi [30] the multivariate regression model of this study can be determined as: CEI = 1.262 + 0.895*FI + 0.247*SI.

Based on the regression coefficient in the results of testing the above research model, it can be seen that the correlation level of the independent variables and the dependent variables, in decreasing order, is: "Financial intermediary services" (FI) and "Social intermediary services" (SI). This further affirms the empirical research results in Vietnam: Developing microfinance through Financial intermediary services and Social intermediary services is meaningful in promoting employment development and income generation for the poor, with Financial intermediary services being welcomed and evaluated by the poor at a higher level.

5. Discussing Research Results

With the theoretical framework of the research built and the empirical research deployed scientifically, the author achieved the proposed research objectives. The contribution of this research is generally expressed in two aspects:

Firstly, research has shown that poor people in Vietnam are more interested in borrowing capital directly to invest in production and business with the hope of escaping poverty and developing. Borrowing capital through savings groups and loan groups is bound by many procedures and formalities related to local organizations and groups, so many poor people have limited access; they rate it lower in terms of convenience and efficiency compared to borrowing capital directly from microfinance organizations. From a personal psychological perspective, the poor are in great need of loans and often want direct support from microfinance organizations; however, from a management perspective, microfinance organizations often have a risk-averse mentality by supporting the poor to borrow capital through intermediary organizations - savings groups and loan groups. This reality is creating two approaches to evaluating the effectiveness of loans from two related groups: lending groups - microfinance organizations, and borrowing groups - the poor.

- Second, the study has affirmed the role of microfinance, that developing microfinance through Financial Intermediation Services and Social Intermediation Services is meaningful in promoting employment and income generation for the poor. The results of this study continue to affirm and add value to a number of previous studies, including: ADB - Asian Development Bank [8] - microfinance provides financial products that are suitable to the needs of poor groups, in order to improve their living conditions, thereby reducing poverty and promoting economic development; Yunus [9] - microfinance not only helps reduce poverty but also creates opportunities for the poor to improve their financial capacity and initiative in economic activities; Morduch [17] and Zeller and Meyer [18] - microfinance helps reduce poverty and create employment opportunities; or as Morduch [17] and Armendáriz and Morduch [20] asserted that microfinance opens up opportunities for the poor to borrow capital for production instead of formal financial sources while lending organizations often do not care about poor customers.

From the above research results and practices, the author discusses some contents towards removing difficulties to continue promoting microfinance development to create jobs and income for the poor in Vietnam:

- Firstly, microfinance institutions need to classify and evaluate different customers when approving loans. For customers borrowing capital in the first cycles (new customers), the requirement to participate in a loan guarantee group is necessary to replace collateral. For customers borrowing capital in the following cycles (cycles 4-5), based on credit information history, it can facilitate customers to borrow capital in the form of personal loans—not through a loan association/group. This helps poor customers have the opportunity to access loans easily as well as borrow larger amounts of money, suitable for the conditions of expanding production and business of poor households.

- Second, microfinance organizations, local authorities, and NGOs need to provide guidance and support to poor borrowers to be transparent about their production and business activities after borrowing by recording and monitoring with a complete bookkeeping system, monitoring cash flow for the right purpose and commitment when borrowing. These are important bases for microfinance organizations to have a foundation to replace the form of loan guarantee association/group with the form of individual lending.
- Third, the poor need to be equipped with more knowledge and skills in life to help them use loans for production and business purposes, especially knowledge of applying digital achievements. Through information channels on digital platforms, the poor can accumulate more production experience, as well as introduce and consume products directly to customers in an open commercial space.
- Fourth, the poor need capital to support production, but they also need money to invest in themselves and their family members, especially in education and vocational training. Microfinance organizations need to design more diverse products that are more suitable to the needs of the poor, as well as longer loan terms for those who need to invest in human development. Paying attention to this aspect will help the poor have more diverse opportunities in finding jobs and developing a sustainable family economy.
- Fifth, local authorities need to pay attention to implementing and integrating the activities of start-up programs and production emulation movements into microfinance activities being carried out in the area, with special attention to current customers and potential customers of microfinance. This helps customers of microfinance institutions access not only financial products and services but also non-financial products and services—an inseparable part of providing microfinance services. However, due to cost limitations, microfinance institutions and related parties are not able to fully provide them.

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Appendix

Survey form for poor people borrowing capital to develop production and business

RESPONDENT'S INFORMATION

1. Sex: ☐Male ☐ 2. Female
2. Age: ☐Under 30 ☐ 2. From 30 to 45 ☐3. Over 45
3. Education level
   ☐. High school level ☐2. Vocational training
4. Supported loans for poor households
   ☐. Get direct loans ☐ 2. Get loans through local associations and groups
   ☐. Both forms above

ANSWER SURVEY QUESTIONS

What do you think about the process and results of participating in loans for poor households in the locality?
Answer from: Mark "x" in the box that needs to be answered according to the 5-level scale below:
1 - Strongly disagree. 2 - Disagree.
3 - No comment. 4 - Agree. 5 - Strongly agree.

Scales		**Encode**	**Rating Level**				
Borrow directly from local credit institutions/microfinance institutions		FI					
1	I was given the opportunity to access loans for production and business.	FI1	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
2	I have no collateral but was given the opportunity to borrow capital for production and business.	FI2	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
3	I have the opportunity to practice and comply with the discipline of saving through the loan program for production and business.	FI3	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Borrow capital from credit institutions/microfinance institutions through local associations/groups		SI					
4	I joined a local association/group to obtain loans for production and business.	SI1	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
5	I was trained and guided to use loans effectively when participating in local associations and groups to borrow capital for production and business.	SI2	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
6	I was trained and practiced in personal and household financial management while participating in local associations and groups to borrow capital for production and business.	SI3	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Using production and business loans to create employment and income		CEI					
7	I proactively create jobs through the use of loans.	CEI1	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
8	I have the conditions to increase income and stabilize family finances through the use of loans.	CEI2	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
9	I have the conditions to develop my production and business profession and become well-off by using borrowed capital.	CEI3	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
10	I have the conditions to diversify income outside of agricultural production by using loan capital.	CEI4	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5