

Factors Affecting the Use of Microcredit among Women Entrepreneurs in the Samsun Province of Turkey

Nur Ilkay Abaci¹, Kürsat Demiryurek², Murat Emir³ and Çagatay Yildirim⁴

*Ondokuz Mayıs University, Faculty of Agriculture, Department of Agricultural Economics,
55139, Samsun, Turkey*

*E-mail: ¹<ilkaysonmez55@gmail.com>, ²<kursatd@omu.edu.tr>, ³<muratemir@omu.edu.tr>,
⁴<cagatay.yildirim@omu.edu.tr>*

KEYWORDS Employees. Poverty. Structural Equation Model (SEM). Unemployment

ABSTRACT The aim of this study is to reveal the current status of women using microcredit, their level of awareness about it, the information needs regarding microcredit and to determine the factors affecting the use of microcredit by women in the Samsun province of Turkey. In the study, the women were selected using simple random sampling on the basis of their loan amount and a survey was conducted with 132 women. The researchers attempted to explain causal relationships between variables using a structural equation model. The model was statistically significant from calculations of multiple adaptation measures. According to the results, the women's positive thoughts about using microcredit had no impact, but the flexibility in the use of microcredit and the friendliness of the employees of microcredit firms had a significant impact. According to these results, microcredit employees should provide more information than they currently do and pay more attention to women customers.

INTRODUCTION

Female entrepreneurship has increasingly gained importance as a specific area in women's employment since the 1980s. As a result, developed and developing countries are also trying to increase the number of women entrepreneurs. However, the obstacles faced by the women limit them from entering a working life in society, thereby decreasing the rate of female employment. On the other hand, the biased perspective on women in society has changed rapidly in recent years. In terms of the employment participation rate of women, compared with other OECD countries, the highest rate was in Iceland with seventy-seven point three percent (Norway 73.4%, Switzerland 73.2%, Sweden 71.9%), while Turkey had the lowest rate at 27.8 percent in 2011 (Anonymous 2015). This low rate may be a major obstacle for women entrepreneurs in Turkey. Throughout Turkey, the recent proportion of working women entrepreneurs as employers is 7.5 percent. In 2012, the employer to female ratio was one

point three percent, the female own-account workers ratio was ten point eight percent, while employer and female own-account workers ratio was twelve point one percent for total working women (Anonymous 2015).

Professor Yunus in Bangladesh first launched microcredit, a micro-level lending program for women, in 1976. In Turkey, credit at the micro level has been given to women, especially with the help of MAYA, which is a microeconomic support operation established by the Foundation for Evaluating Women's Labor in 2002. The number of women entrepreneurs has increased along with MAYA's development. Needy poor women began to generate income with these small-scale credits. The main objective of microcredit is to reduce and alleviate poverty by allowing low-income people to generate income; thus, microcredit programs were focused on groups and, most importantly, collateral was not requested. The first program was implemented in the Diyarbakir province of Turkey, with two branches in the Bismil district in 2003. This movement has developed rapidly and the total number of branches was 108 in 2014. A total of 63,358 women are members of the microcredit program (Anonymous 2014). These women are now members using microcredit and run their own affairs (mostly tailors and hairdressers, but also dealing with commercial and production activities, among others). Thanks to microcredit, these women were allowed to participate in employ-

Address for correspondence:

Nur Ilkay Abaci
Research Assistant
Ondokuz Mayıs University,
Faculty of Agriculture,
Department of Agricultural Economics,
55139, Samsun, Turkey
Telephone: 0 5056389861
E-mail: ilkaysonmez55@gmail.com

ment and contribute to their families economically. These activities also contribute to the development of the general economy.

Most of the women in some provinces who applied for microcredit remain unaware of application. They cannot benefit from the contribution of microcredit. In particular, they have doubts about getting and using these credits. Therefore, it revealed that there are several factors having an impact on the adoption of these innovations. To increase the number of people who use microcredit, these factors must be determined. Thus, it will be provided to women entering the business world and they will be the bosses of their own affairs.

Aim of the Study

The aim of this study is to reveal the current status of women using microcredit, their level of awareness about microcredit, the information needs regarding microcredit, and to determine the factors affecting use of microcredit by women in the Samsun province of Turkey. This research shows differences from other studies regarding the use of statistical methods for determining the factors affecting the use of microcredit.

Literature Review

Numerous studies worldwide have been conducted on microcredit and focused on its effect of reducing poverty. In reducing poverty and unemployment, Pitt and Khandker (1996), Mosley and Hulme (1998), Karlan (2001), Robinson (2001), Morduch and Haley (2002), Dunford (2006), Afrin et al. (2008) and Al-Mamun and Mazumder (2015) researched microcredit's effects on female empowerment and increasing production. Mosley and Hulme (1998) found that increasing poverty in the areas where microcredit is available reduces the impact of microcredit on poverty and unemployment, and even negatively affects them. Most of the academic studies assessing the impact of microcredit focused on users and non-users of microcredit in the poor population. This is another important question, because changes in the field of microcredit may be associated with microcredit and microcredit organizations that want to increase their success practicing in more affluent areas (Karl 2001). According to Robinson (2001), in developing countries, active microcredit to the poor and extreme-

ly high efficiency can positively affect production and income levels. Morduch and Haley (2002) showed that increases in the income level of households are primarily the result of increased employment opportunities and partly the result of supported development. Afrin et al. (2008) analyzed the social and economic effects of microcredit, focused on identifying factors for the development of entrepreneurship and sustainable development of rural women. Chen and Snodgrass (2001) studied the impact on unemployment and poverty with use of microcredit in their work with a SEWA Bank microcredit user. Chowdhury et al. (2005) examine empirically the impact of microcredit on poverty in Bangladesh. They determined that use of microcredit is partially effective on unemployment and poverty. Khandker (2005) confirms that microfinance benefits the poorest and has a sustained impact in reducing poverty among program participants. Also, he determined that it has a positive spillover impact, reducing poverty at the village level. Mamun and Mazumder (2015) indicated that use of microcredit leads to an increase in household income and reduces both, the poverty rate and level of economic vulnerability.

Wilson et al. (1997) emphasized, "Turkey has few microfinance service providers to fulfill the credit requirements of its micro-entrepreneurs and informal sector workers, particularly women, who constitute a significant proportion of its working population". Burrit (2003) and Grossman (2006) carried out important work after the introduction of the modern microcredit system in Turkey. Burrit (2003) implemented two different methods through which one can be paid back by the potential of microcredit demand and tried to identify standard of living principles and private sector approaches to microfinance. Grossman (2006) surveyed 388 people in different districts of the provinces of Erzurum, Ankara, Izmir, and Gaziantep and tried to find the potential demand for microcredit. Yilmaz and Koyuncu (2006), Dünder (2007), Altay (2007), Gökyay (2008), Arutoglu (2009), and Akbiyik and Sahin (2010) conducted observations on the intensity of the compilation with the spread of microcredit programs in Turkey. Can and Karatas (2007), Adaman and Bulut (2007), Ören et al. (2012) and Kendirli et al. (2012), since 2009, have investigated the changes that develop entrepreneurship with the intent to spread microcredit into every province and

increase employment and revenue growth, as well as the economic and social benefits of increased employment. At the same time, they conducted researches of microcredit in Turkey related to the definition of this concept and microcredit has become an important issue in recent years, in large part due to the threat of poverty in developing countries.

MATERIAL AND METHODS

Materials

The main data collected was through face-to-face interviews with women registered at microcredit branches in the Samsun province and districts (Bafra, Çarsamba, Terme, Salıpazari, and Ayvacık) that used microcredit. The sampling size was identified by using the simple random sampling method (Yamane, 1967).

$$n = \frac{N(ZC)^2}{Nd^2 + (ZC)^2}$$

N = Population (788)

Z = Standard normal distribution value equivalent to the degree of trust anticipated (1.96)

C = Variation parameter (64%)

d = Error margin ($\pm 5\%$)

n = Sampling size (132)

According to the data, the number of women to be surveyed with a ninety-five percent confidence level and a five percent error margin was estimated to be 132. A random numbers chart was used to identify the women to be surveyed.

Surveys were conducted with individuals identified in cities and districts with the help of the random numbers chart to maintain randomness, the main requirement of the random sampling methodology. Extra respondents were identified (25% of the sampling amount); in cases where the person to be surveyed was not found or rejected contact, the data was collected from women who were part of this extended pool. The study was conducted in the Ondokuz Mayıs University, Faculty of Agriculture, Department of Agricultural Economics. The survey was completed in 2014.

Methods

Methods Used in Analyzing Data

In this research, general statistical methods (percent – frequency) were used to describe de-

mographic information and factor analysis and the Structural Equation Model (SEM) was used to evaluate the statistical meaning of the causality relations of the hidden factors for women's use of microcredit. SEM is a statistical method used today in social sciences, behavioral sciences, education sciences, economy, marketing, and health (Raykov and Marcoulides 2006), based on a particular with variables identified through a causal and relational model (Byrne 2010).

SEM, as a concept, draws attention to two of its significant features: the process consists of a series of structural equations (such as regression equations) and these structural equations can be demonstrated visually, through tables, for the hypotheses to be better understood.

A SEM analysis showing these two basic features demonstrates to what degree the results obtained by testing all the visible and hidden variables of the model comply with the available data. If the fit index shows compliance between the model and data, the structurally created hypotheses are accepted; if the fit index shows discord between the data and the model, it is rejected (Meydan and Sesen 2011). Related statistical analyses were conducted using the SPSS (general statistical methods and factors analysis) LISREL (factors affecting use of microcredit with SEM) package programs.

Research Method

In this research, a scale of 35 items was used to identify the attitudes, intentions, and behavior of women using microcredit. All the items used in the scale were scaled according to a 5-point Likert scale (1: 'I disagree completely' to 5: 'I agree completely'). In the theoretical model of the research, those relevant factors (35 items) were analyzed with the confirmatory factor analysis (Buyukozturk 2011) and the relevant 13 items were added to the analysis. These items are shown in Table 1.

The theoretical model regarding intentions to use microcredit is identified in Table 2. Using latent variables, the causal relations between women's positive attitude towards microcredit (PAM), their attitude towards the microcredit system (PARM), their attitude towards staff of microcredit branches (PAREM), and women's condition of using microcredit (SUM) were analyzed. In analyzing these causal relations, it was

Table 1: The substances included in the analysis

<i>The Positive Attitude towards Micro-credit (PAM)</i>	
PAM 1	Increases the standard of living
PAM 2	Increases confidence
PAM 3	Reveals the awareness of the capabilities of micro-credit
PAM 4	Develops a relationship with the social environment
<i>The Perceived Attitude Related to Micro-credit System (PARM)</i>	
PARM1	I am satisfied that the collection is each week.
PARM2	Obligation to apply as a group gives me confidence
PARM3	Obligation to apply as a group would please me
<i>The Perceived Attitude Related to Employees in Micro-credit Branches (PAREM)</i>	
PAREM 1	Staff is friendly to micro-credit users
PAREM 2	Coming to my neighborhood to get payments gives me confidence
PAREM 3	Make suggestions and provide information about micro-credit
<i>The Status Using Micro-credit of Women (SUM)</i>	
SUM1	I'm happy to use micro-credit
SUM2	I would recommend micro-credit to people around me
SUM3	I would like to get micro-credit again

accepted that the PAM would increase the positive attitude towards the PARM, while the positive attitude about the PARM would, in turn, increase the positive PAREM, and ultimately, the positive attitude towards the staff would increase SUM in the future. The relations between these latent variables and related hypotheses are dem-

onstrated in Figure 1 and the research hypotheses are shown in Table 2.

RESULTS

Current Information on the Research Area

In the Samsun Province of Turkey, the microcredit project was started in 2009. There were 788 women members in the Samsun branch in 2014. The number of women admitted to credit increased every day. All the members and borrowers were women, and many lived in urban areas. Women using credit evaluated their money in various business lines (furnishings, sales of cosmetics, cleaning supplies and goods products, marketing, productivity of grass broom, hairdressing and silver operations, among others).

Demographic Information about Women

It was found that the average age of a female microcredit user was 42 ± 9.5 , while the average spousal age was 46 ± 9.8 . Given that eighty-six percent of the women applying for microcredit were married and not very young, these women seemed to use microcredit to support their spouses and to relieve financial problems. The formal education level of the women was higher than the general population. The majority (46%) of the women had primary education, but twenty-nine percent of them had secondary educa-

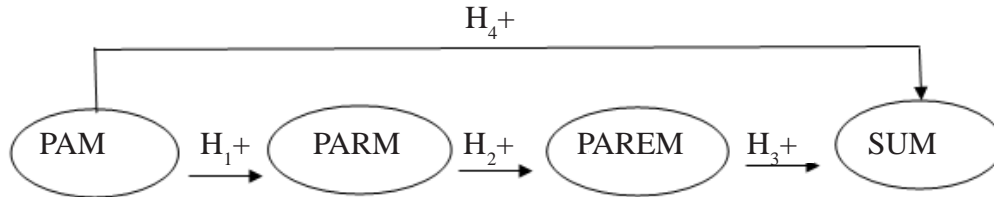


Fig. 1. Research model

Table 2: Hypotheses of the research model

H ₁ :	Increases in the perceived positive attitudes regarding micro-credit, micro-credit system increases positive attitude. (PAM → PARM) NOT VERIFIED
H ₂ :	Increases in the perceived positive attitudes regarding micro-credit system increases positive attitude related to employees. (PARM → PAREM) VERIFIED
H ₃ :	Increases in the perceived positive attitudes regarding employees increases women's micro-credit usage. (PAREM → SUM) VERIFIED
H ₄ :	Increases in the perceived positive attitudes regarding micro-credit increases women's micro-credit usage. (PAM → SUM) NOT VERIFIED

tion and twenty-three percent of them were high school graduates. The spouses of women using microcredit followed the same order; however, a small percentage of the women were more educated than their husbands. When the effects of microcredit on women's jobs and employment were examined, it was found that forty-nine percent of them developed their current business, thirty-nine percent were self-employed, and eleven percent developed their husbands' businesses. Furthermore, women who were self-employed and developed their own business had a production rate of forty-six percent, while those supporting their husbands were entered into the trade. Women were more likely to do handicrafts at home, such as sewing curtains and making bracelets. Although a small amount, 76 out of 132 women using microcredit conducted activities towards contributing an income. Thanks to micro-credit, 56 women integrated to become a part of the market from scratch and were employed. Thus, there was an increase in women's incomes, savings and expenditures.

Information on Women's Use of Micro-credit

The women generally started to hear about microcredit in 2009, while microcredit began to be used in 2008 in Samsun. They started to use microcredit 6 months after they heard of it. Sixty-one percent of them heard about it from their friends, nineteen percent from their relatives, eight percent from newspapers, seven percent from their coworkers, four percent from television, and two percent from the Internet. The women that heard about other women using microcredit from television in 2003 had some success by using small amounts of microcredit and found similarities between them and their work conditions and wanted to use this credit.

The women who first heard about microcredit generally showed positive attitudes. Each woman interviewed was using at least their 3rd credit and, on average, they had used USD1400 total. These women had not only used microcredit but also used additional credits; these credits were entrepreneurship credit, social development credit, and communication credit.

When the women were asked about their aim in using microcredit, forty-nine percent of them said they wanted to develop their business, twenty percent to support their business, fifteen percent to support their family's income, twelve per-

cent to build their own business, and four percent wanted to enter a new business type. Interestingly, women did not find microcredit to be sufficient but eighty-nine percent wanted to get it again. The type of business and the amount of microcredit they needed affected this opinion. The majority (81%) of women had no difficulty in repaying the credit.

Those women, who could not repay the credit sold cosmetic products, generally bought their products in advance, and could not sell their products immediately, resulting in their failure to repay their microcredit. When asked for their view about micro insurance, ninety percent of them said they had heard about it and the rest had not heard of it. Although all the women who used microcredit were made to get micro insurance, most of the women had no ideas about it. When asked about other microcredit types, fifty-six percent of them said they knew about them, while forty-four percent of them did not know about other types, such as social development credit, communication credit, and entrepreneurship credit. Those women did not know the names of the credit types and this showed their need to be informed on these topics.

In Table 3, the level of women's awareness on microcredit is shown. According to this chart, women were informed of the fact that they must repay the microcredit every week, on time, and to be able to get microcredit, they should form groups; however, they were not aware that they did not need to find a guarantor nor that the loan lacked interest, factors which are associated with traditional banking. This shows that they needed to be informed about these conditions, because women using microcredit should be aware that this system is different from the banking system, because its aim is the participation of women in the economy and their self-sufficiency.

Analysis Results of SEM

The results of the SEM analysis are shown in Table 4. Intermediary dependent latent variables PARM, PAREM, dependent latent variable status SUM, and the effects of these articles on the latent variables were statistically significant.

When the attitude scales in Table 4 were analyzed separately, it could be seen from women's attitudes towards the microcredit system that PARM3 was at the highest value (0.83), indicating that it was a necessity for the women to ap-

Table 3: Awareness levels of women obtaining micro-credit

Awareness levels of micro-credit	True		False	
	N	%	N	%
Micro-credit is granted for one year. (T)	103	79.23	27	20.77
Guarantor or collateral is not required to get micro-credit. (T)	63	48.46	67	51.54
Entrepreneur's credit can be taken without getting basic credit. (F)	71	72.45	27	27.55
Micro-credit has interest. (F)	62	47.69	68	52.31
Reimbursement must be made on a regular basis each week. (T)	132	100.00	-	-
You pay for the amount of credit you get. (F)	65	50.00	65	50.00
After application, micro-credit branches give money immediately. (F)	52	39.69	79	60.31
The combination of three women is sufficient for application. (F)	56	43.08	74	56.92
There is no obligation that women who want to apply live in the same neighborhood. (F)	54	41.86	75	58.14
Relatives cannot be included in the same group. (T)	103	81.10	24	18.90
Groups must be created to apply for micro-credit. (T)	132	100.00	-	-

Table 4: Results of SEM for research model

Factors / Items	Standard loads	t-values	Building reliability (Cronbach's á)	R ²
PARM1	0.67	7.87**	74%	0.45
PARM 2	0.28	2.92*		0.07
PARM 3	0.83	9.80**		0.69
PAREM1	0.77	7.78**	61%	0.59
PAREM2	0.47	4.91**		0.22
PAREM3	0.43	4.43**		0.18
SUM1	0.43	4.07**	60%	0.18
SUM2	0.35	3.33**		0.12
SUM3	0.58	5.40**		0.34
PARM → PAREM	0.94	8.34**		
PAREM → SUM	0.84	6.10**		

t-values *P<0.05; **P<0.01

ply for microcredit collectively to ensure their use of the credit in the future. In PAREM, PAREM1 had the highest structural weight (0.77). The sincerity of the staff of the microcredit branch had an important effect on the women developing a positive attitude towards the workers. When the section showing women's intention to use microcredit in the future was analyzed, generally the women's idea of using microcredit again was a definitive factor (0.58).

Different compatibility indices were used to evaluate model compatibility and there were statistical functions that these indexes belonged to. Among the indexes that were recommended and used most, in terms of similarity measure, were the chi-square statistic (χ^2), RMSEA (Root-mean-square error approximation), GFI (Goodness of fit index) and AGFI (Adjusted Goodness of fit index) (Jöreskog and Sörbom 2001).

For the RMSEA, values that are equal to or smaller than 0.05 mean a perfect compatibility,

values that are between or under 0.08 and 0.10 mean an acceptable compatibility, and values that are higher than 0.10 mean bad compatibility (Hayduk 1987).

GFI shows relative variation and co-variation amounts and has a value between 0 and 1, indicating that the model's suitability is good (Hair et al. 1995).

Other used suitability measures were PNFI (Parsimony Normed Fit Index), PGFI (Parsimony Goodness of Fit Index), CFI (Comparative Fit Index), NFI (the Normed Fit Index), and NNFI (Un-normed Fit Index), and these have values between 0 and 1. Researchers using LISREL in their studies generally use the k-square value along with GFI, AGFI, RMSEA, CFI, and NNFI measures.

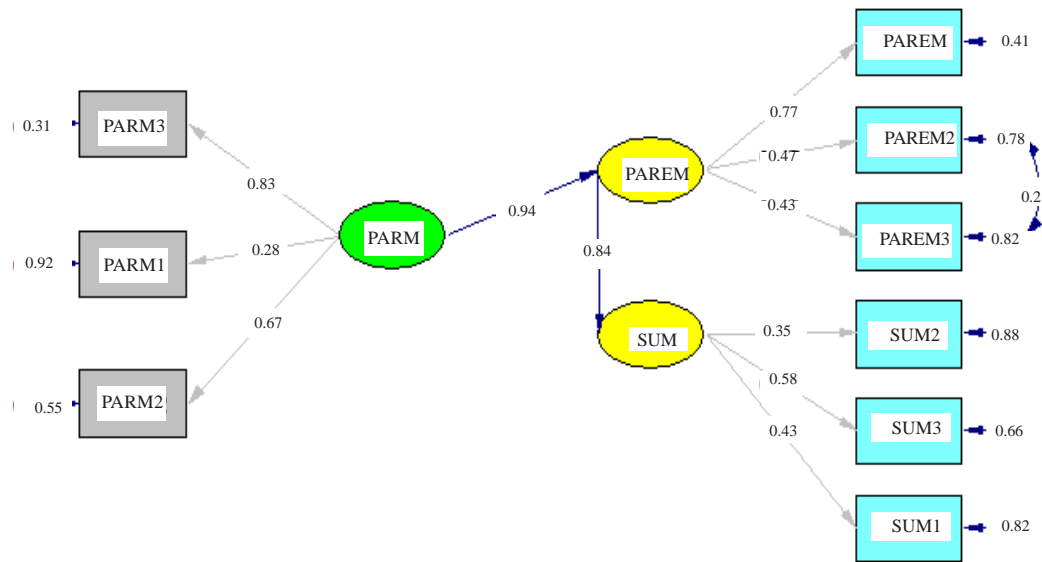
The compatibility statistics calculated with LISREL are shown in Table 5. One of the compatibility measures not shown in Table 5 is the 'Critical N-CN' value that evaluated a research's sam-

ples. In SEM, a value of 200 or higher in Critical N is a sufficient model for showing compatibility (Bollen 1989). CN, aside from showing model compatibility, can also be used to evaluate the sufficiency of the number of samples (Jöreskog and Sörbom 1996). As a research model, the Critical N-CN value was calculated to be 129.17. This value showed that the sample of 132 units was sufficient. When other compatibility measures were evaluated, it was decided that the research model was statistically meaningful. Results found through SEM are shown in Figure 2.

Table 5: Compliance measurement for research model

Compliance measurement	Values	Compliance
χ^2	46.65	
$\chi^2/df=30$	1.55	Perfect compliance
RMSEA	0.06	Acceptable
SRMR	0.07	Acceptable
NFI	0.87	Acceptable
NNFI	0.93	Acceptable
CFI	0.94	Acceptable
GFI	0.93	Acceptable
AGFI	0.89	Acceptable

After studying the causal relations in the theoretical model between the dependent variables and independent latent variables, it was found that the parameter between PARM and PAREM was 0.94. This value showed that when women's positive attitude towards the microcredit system increases, their positive attitude towards microcredit workers increases too. A single point increase in PARM causes an increase in PAREM of 0.94. The H₂ hypothesis regarding this relation was statistically significant. This aforementioned relation had a determinacy parameter of (R²) 0.88 and this showed a strong relation between them; this determinacy parameter showed the amount of change explained through dependent variables and independent variables. Eighty-eight percent of PAREM was explained through PARM. The parameter between PAREM and SUM was found to be 0.84. As the positive attitude of women using microcredit increases towards microcredit workers, the amount of microcredit use increases. The H₃ hypothesis formulated for these two latent variables was also statistically authenticated; however, the H₁ and H₄ hypotheses that described positive attitudes towards microcredit were not authenticated sta-



Chi-square=46.65, df=30, P-value=0.02690, RMSEA=0.065

Fig. 2. Structural equation model regarding the research model

tistically. The factor analysis results that confirmed these positive attitude expressions showed that the t-values were statistically not meaningful and were excluded from the SEM analysis.

DISCUSSION

Recently, it has become very significant to empower women's entrepreneurship in factoring economic development. As such, increasing women's entrepreneurship is an important step for Turkey in terms of becoming a developed country.

According to the results and observations of the research, while women who start a new business find the amount of microcredit sufficient, women who own a business generally find it insufficient. Although work completed with the help of microcredit brings revenue, consumption continues in the same way. So profit is less. This situation reported the research by Crépon et al. (2014).

Milanov et al. (2015) pointed out that intra-group relations are important. The meetings to collect money are held in the house of the same member and do not constitute a problem, given that the women holding the gatherings are in agreement. Furthermore, the traits of the staff in microcredit branches affect the measure of women obtaining microcredit, according to this analysis. The women were therefore influenced by the way they were treated and could even give up obtaining microcredit as a result.

Access to finance has been recognized as one of the positive determinants for entrepreneurs that are establishing a new business (Chowdhury 2015). Another factor affecting women's microcredit use is the flexibility of the application procedure. The necessity for women to apply for microcredit collectively gives them confidence and makes them content with the services, which in turn affects their use of microcredit. As such, the fact that repayment is made every week is a significant factor in the sustainability of women's use of microcredit. Foltz (2004) argues that an easing of credit constraint significantly increases the profitability of agricultural firms (Chowdhury 2015).

Women using microcredit are not well informed about this system, and their first priority is to have cash at their disposal. For this reason, it is necessary for women to be trained accord-

ing to their needs and skills (for example, hand-crafts and marketing). It is not well known by many users that the service cost that the microcredit program demands from women is not interest. Group members who become guarantors to new users should carefully explain, verbally, to current and future microcredit users that this cost is collected to give better and higher quality service to microcredit users.

As a result, users need to be better informed of the fact that the microcredit system is different from traditional banking services. When women using microcredit can accept the fact that this system is markedly different from others, the number of unemployed women using microcredit can increase exponentially, which will, as a result, increase employment. Also, some research indicated that use of microcredit leads to an increase in household income (Dunford 2006; Afrin et al. 2008; Al-Mamun and Mazumder 2015)

It is also significant for microcredit staff to place more emphasis on the satisfaction of women customers who request microcredit. When applying, willingness should be an important measure in accepting women's applications, and the applications for microcredit with no apparent goal should not be accepted. Furthermore, it is thought that women will be able to easily sell products they produce if they are provided with a market by the microcredit branch through which they can advertise their products.

CONCLUSION

The microcredit system contributes to the women to help them earn money from a business they start and can financially support their households. Microcredit is considered to be a very significant tool that enables women with a small income to produce and earn their own incomes. However, there are some issues due to failures in practice. Besides providing the women with the opportunity to start their own business, microcredit informs them about other supports, provide them with the skills of starting business, enable them have their own social security, and the most importantly have their own income and be much less intervened by men. Women from city and district centers rather than rural areas particularly use microcredits. Although these programs are generally directed at housewives, small shopkeeper women benefit more often from the system. It is noteworthy that women in rural

areas are not sufficiently informed about microcredit practices yet. Since the urban women active in trade are more conscious about credit usage, they apply for credits more frequently, which increases the member number and therefore decreases credit funds, and the credit applications of women who start a new business and need cash for product purchase, are not evaluated for the second time. Since the women starting a new business are not educated about what they are going to do, they are left alone and therefore they become unsuccessful. Due to reasons such as having insufficient knowledge about marketing and being insensible to the responsibilities of entrepreneurship, the women become successful until they start the business. However, they cannot usually show enough performance in expanding their business. Since microcredit applications and adoption are totally based on bilateral relations, the role of microcredit branch and its employees is very important in the women's applications, adoption, recommendation to others and diffusion of the microcredits.

RECOMMENDATIONS

Microcredit should be given to the women who are really need, in terms of suitable time, conditions and quantity. Mass media sources can be used to make more women aware of microcredit. However, informal supports from neighbors and friends who are currently using and experiencing microcredit are more effective in helping most women make a decision to use microcredits. Thus, interpersonal communication channels should be used more to influence women's attitude towards adopting microcredit. In addition, cooperative and common responsibility at all stages of the microcredit system empowers women to use it. Another important factor affecting the use of women's microcredit was facilitation behavior of microcredit employees. Thus, selection and employing staff in critically important in order to increase number of women obtaining microcredit and thus more, female microcredit staff should be employed and work closely with women. In addition, women cannot find a market to sell their products. Therefore, the women should cooperate themselves and market their products with the help of microcredit branches. Most of the previous research focused on the contribution of microcredit to a woman's business life and limited to regional and

local areas. However, further research should be directed to the adoption of microcredit in order to diffuse among rural women.

ACKNOWLEDGEMENTS

The researchers are grateful to the women who participated the survey and the office staff of microcredit unit who helped with dividing the fieldwork. They also thank the editors of the *Anthropologist* and peer reviewers for their constructive criticisms and contributions to the paper. The PYO-ZRT.1901.13.003 project division of Ondokuz Mayıs University supported this study.

REFERENCES

- Adaman F, Bulut T 2007. *Diyarbakir to Istanbul from 500 Million Stories of Hope: The Adventures of Micro-credit*. Istanbul: Sena Offset.
- Afrin S, Islam N, Ahmed SU 2008. A multivariate model of micro credit and rural women entrepreneurship development in Bangladesh. *International Journal of Business and Management*, 3(8): 169-185.
- Akbiyik N, Sahin L 2010. Micro-credit Application and Economic Crisis. *I Turgut Ozal International Economics and Politics Congress: Global Crisis and Economic Governance*, Malatya, Turkey, April 15 to 16, 2010.
- Al-Mamun A, Mazumder MNH 2015. Impact of microcredit on income, poverty, and economic vulnerability in Peninsular Malaysia. *Development in Practice*, 25(3): 333-346.
- Altay A 2007. A micro financial perspective for eliminating global poverty. *Finans Politik and Ekonomik Yorumlar*, 44(510): 57-67.
- Anonymous 2014. Turkey Grameen Micro Credit Program (TGMP). From <<http://www.tgmp.net>> (Retrieved on 8 June 2014).
- Anonymous 2015. *Women in Statistics 2012*. Turkish Statistical Institute. Ankara: Printing Division.
- Artukoglu MM 2009. Micro credit applications for decreasing of poverty in the world and Turkey. *The Journal of Ege University Faculty of Agriculture*, 46(3): 225-230.
- Bollen KA 1989. *Structural Equations with Latent Variables*. New York: Wiley.
- Burritt K 2003. Microfinance in Turkey. *Draft Paper for the United Nations Development Programme*. Published by the United Nations Capital Development Fund.
- Buyukozturk S 2011. *Sosyal Bilimler için Veri Analizi El Kitabı*. Ankara: Pegem Academy.
- Byrne BM 2010. *Structural Equation Modeling with Amos: Basic Concepts, Applications, and Programming*. New York: Taylor and Francis Group.
- Can Y, Karatas A 2007. The role of the development of local economy driving force women as entrepreneurs and mikrofinans financing: Mugla province case. *Selcuk University Karaman Administration Journal*, May, Local Economics Special Issue, 251-261.

- Chen MA, Snodgrass D 2001. *Managing Resources, Activities, and Risk in Urban India: The Impact of SEWA Bank*. Washington, DC: AIMS.
- Chowdhury MJA 2015. Does Access to Micro-credit Contribute to Women Entrepreneurship in Bangladesh? From <http://www.sasnet.lu.se/sites/default/files/jahangir_alam_chowdhury_paper_we_mf.pdf> (Retrieved on 3 June 2015).
- Chowdhury MJA, Ghosh D, Wright RE 2005. The impact of micro-credit on poverty: Evidence from Bangladesh. *Progress in Development studies*, 5(4): 298-309.
- Crépon B, Devoto F, Duflo E, Parienté W 2014. *Estimating the Impact of Micro-credit on Those Who Take It Up: Evidence from a Randomized Experiment in Morocco*. National Bureau of Economic Research.
- Dündar SO 2007. Micro Finance. From <http://www.kalkinma.com.tr/data/file/raporlar/ESA/ga/2007-GA/GA-07_0528_Mikro_Finansman.pdf> (Retrieved on 10 January 2015).
- Dunford C 2006. *Evidence of Microfinance's Contribution to Achieving the Millennium Development Goals*. USA: Freedom from Hunger.
- Foltz JD 2004. Credit market access and profitability in Tunisian agriculture. *Türkiye'de Mikro Kredi Uygulamaları ve İstihdama Yansımaları. Agricultural Economics*, 30(3): 229-240.
- Gökyay Ç 2008. *Micro Credit Practices in Turkey and Reflections to Employment*. Türkiye'de Mikro Kredi Uygulamaları ve İstihdama Yansımaları. From <[http://statik.iskur.gov.tr/tr/rapor_bulten/uzmanliktezleri/C3%87A%C4%9EATAY%20G%C3%96KYAY%20\(T%C3%9CRK%C4%B0YE%E2%80%99DE%20M%C4%B0KRO%20KRED%C4%B0%20UYGULAMALARI%20VE%20C4%B0ST%C4%B0H.pdf](http://statik.iskur.gov.tr/tr/rapor_bulten/uzmanliktezleri/C3%87A%C4%9EATAY%20G%C3%96KYAY%20(T%C3%9CRK%C4%B0YE%E2%80%99DE%20M%C4%B0KRO%20KRED%C4%B0%20UYGULAMALARI%20VE%20C4%B0ST%C4%B0H.pdf)> (Retrieved on 10 January 2015).
- Grossman H 2006. Demand Study for Micro-finance in Turkey. From <http://www.tr.undp.org/content/dam/turkey/docs/Publications/PovRed/MFDEMAND_ShortReport.pdf> (Retrieved on 10 April 2013).
- Hair FJ, Anderson ER, Tatham R, Black CW 1995. *Multivariate Data Analysis with Readings*. USA: Prentice-Hall International.
- Hayduk LA 1987. *Structural Equation Modeling with LISREL: Essential and Advances*. Baltimore, Maryland: The John Hopkins University Press.
- Jöreskog KG, Sörbom D 1996. *LISREL 8: User's Reference Guide*. Chicago: Scientific Software International.
- Jöreskog KG, Sörbom D 2001. *LISREL: User's Reference Guide*. Scientific Software International: Lincolnwood, IL.
- Karlan DS 2001. Microfinance impact assessments: The perils of using new members as a control group. *Journal of Microfinance*, 3(2): 75-85.
- Kendirli S, Ülker Y, Tuna M 2012. On the Promotion of Entrepreneurship Micro Credit Applications: An Evaluation for Kyrgyzstan Economy. *International Conference on Eurasian Economies*, Almaty, Kazakhstan, October 11 to 13, 2012.
- Khandker SR 2005. Microfinance and poverty: Evidence using panel data from Bangladesh. *The World Bank Economic Review*, 19(2): 263-286.
- Meydan CH, Sesen H 2011. *Yapısal Eşitlik Modellemesi: AMOS Uygulamaları*. Ankara: Detay Publishing.
- Milanov H, Justo R, Bradley SW 2015. Making the most of group relationships: The role of gender and boundary effects in micro-credit groups. *Journal of Business Venturing*, (in press).
- Morduch J, Haley B 2002. Analysis of the Effects of Microfinance on Poverty Reduction. From <http://pdf.wri.org/ref/morduch_02_analysis_effects.pdf> (Retrieved on 20 January 2015).
- Mosley P, Hulme D 1998. Microenterprise finance: Is there a conflict between growth and poverty alleviation. *World Development*, 26(5): 783-790.
- Ören K, Negiz N, Akman E 2012. Micro credit for women as a vehicle of struggle for poverty: A study on experiences. *Atatürk University, Journal of Economics and Administrative Sciences*, 26(2): 313-338.
- Pitt MM, Khandker SR 1996. Household and Intra-household Impact of the Grameen Bank and Similar Targeted Credit Programs in Bangladesh. *World Bank Discussion Papers*, Washington.
- Raykov T, Marcoulides GA 2006. *A First Course in Structural Equation Modeling*. Mahwah: Lawrence Erlbaum Associates.
- Robinson MS 2001. *The Microfinance Revolution: Sustainable Finance for the Poor*. Washington: IBRD.
- Wilson K, Güzel A, Taymaz E 1997. Assessment of the Informal and Microfinance Sector. From <<http://www.microfinancegateway.org/library/undp-microfinance-assessment-report-turkey>> (Retrieved on 2 June 2015).
- Yamane T 1967. *Elementary Sampling Theory*. Englewoods, New Jersey: Prentice Hall Inc.
- Yılmaz R, Koyuncu C 2006. *Mikrofinans ve Yoksulluğun Azaltılması*. Bursa: Ekin Bookstore.