Microcredit and Rural Women Entrepreneurship Development in Bangladesh: A Multivariate Model

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Microcredit programs have a positive socioeconomic impact on the rural female borrowers of Bangladesh. This study suggests that the microcredit programs do not help the borrowers to develop any entrepreneurial capabilities other than survival. Thus, this paper aims at identifying the factors related to the development of entrepreneurship among rural women through the microcredit programs of providers. A multivariate analysis technique (Factor Analysis) was conducted to identify the factors related to entrepreneurship development. Structural Equation Modeling (SEM) was used to identify the relationship between microcredit programs and the development of rural female entrepreneurship in Bangladesh. Results show that financial management skills are the most important factor and have a significant relationship with the development of rural women and entrepreneurship. Results also show that the group identities of the female borrowers have a significant relationship with the rural entrepreneurship development in Bangladesh. A borrower's experience from the parents' families and the limitation of options also lead to the development of entrepreneurship among the rural female borrowers of Bangladesh.

About 84% of the 140 million people living in Bangladesh reside in rural areas. Half of this population is women. Men who live in the rural areas are primarily engaged in agricultural and related activities. Females however, remain idle in their houses due to a number of social and cultural barriers. They are discouraged from working outside of their homes. This situation can be attributed to the dominant patriarchal society and strong religious influence (*Purdah*) in Bangladesh (Ahmed et al., 1997; Cain & Khanam & Nahar, 1979). Barriers can also be attributed to the lack of access to funds, the knowledge of agro-based production technology and the market, as well as the support from other family members. Research shows that a large number of rural women in Bangladesh are compelled by macroeconomic factors to enter into the labor market. Hence, the overwhelming majority of women in Bangladesh are poor and also caught between two vastly different worlds: the world determined by culture and tradition that confines their activities inside family homesteads, and the world shaped by increasing landlessness and poverty that drive them outside into wage employment (Chowdhury, 1998).

In the last two decades, microcredit programs have been operated by government (GOs) and nongovernmental organizations (NGOs) in Bangladesh. The prime objective of these programs is to enhance the income-earning potential of female borrowers of rural families, and empower them socially and economically. This program helped rural women working in paddy husking, poultry farming, petty trading (e.g., grocery), pond aquaculture, animal husbandry, weaving, mini-garments, handicrafts, dairy farming, and plant nursery activities (which all tend to be home-based in nature). Microcredit programs substantially contribute to the socioeconomic development of the rural women in this country. Studies show that the microcredit programs have created significant positive differences in the socioeconomic lives of the rural women in Bangladesh (Hashemi, 1998; Schuler, Hashemi & Riley, 1997). Microcredit programs have also helped the rural women to be involved in home-based economic activities, which in turn, have created enormous opportunities for them to be independent and self-sufficient. Studies also show that the involvement of rural women in home-based economic activities through microcredit programs has a positive socioeconomic impact on their lives, as well as their families. However, it is not apparent whether these programs are actually making the rural female borrowers entrepreneurial or not (Hashemi, 1998).

The positive impact of microcredit programs can be discussed in two ways. Firstly, microcredit programs create employment opportunity, increased productivity, provide economic security, give nutritional and health status, and improve the housing conditions of the rural women. The positive impact on income has increased their asset position and has created wealth for their families (Hulme & Mosely, 1998). Secondly, microcredit programs create a significant influence on rural women in the area of social empowerment, awareness and education, self-esteem, sense of dignity, organizational and management skills, mobilization of collective strengths, etc. (Pitt & Khandaker, 1996). This positive socioeconomic change subsequently helps them to be more independent and more financially solvent in their families and localities.

Microcredit providers assert that the important impact of their programs is the sustainable development of the socioeconomic lives of rural women. But the reality is

that the developments are hardly prolonged. Observation shows that rural women are unable to be completely self-reliant even if they are involved in microcredit programs for a long period of time (i.e., 10 to 15 years). This indicates that the credit programs are making the women more dependent on the credit provider instead of making them independent. Thus, concerns have been raised by the researchers about the sustainability of the socioeconomic developments of the rural women. These concerns are very much relevant to the development of rural women and their entrepreneurship in Bangladesh.

The development of rural entrepreneurship in Bangladesh primarily depends on the socioeconomic development of the people. It is necessary to develop rural entrepreneurship in order to foster the development of the capabilities of the borrowers. Once the rural women are self-sufficient, they will be able to initiate their own projects that result in self-independence. In order to encourage rural women's entrepreneurship in a developing country like Bangladesh, three types of activities might be performed. These activities include stimulatory, supporting, and sustaining (Rahman, 1979, 1999; Katz, 1991a). All three types of activities are partially performed by the microcredit providers that are helping the borrowers to survive. In addition, the degree of the differences in sustainability is significant in both governmental and nongovernmental programs (Amin, 1994b).

For the development of rural female entrepreneurship, stimulatory supports are essential, as the women tend to be unaware of their capabilities. Interaction with the borrowers and the microcredit providers, as well as direct observation, education, and training in selecting products, projects, and other technoeconomic information motivate rural women to be more enthusiastic and entrepreneurial. The next step is to support the entrepreneurs and their different qualifications. Once the women are encouraged to engage in homestead economic activities, they require a different kind of support to start and run their own business. This support can be related to the supply of scarce raw materials, access to different facilities, such as fund, technology, production methods and procedures, the marketing of products, reinvestments, etc. The question of sustainability comes at the third stage of the entrepreneurial development process. Once the business is run, rural female entrepreneurs require support for sustaining their projects in order to foster growth in the future. These sustaining activities are related to the help in modernization, diversification, additional financing for full capacity utilization, deferring repayment/interest, diagnostic industrial extension, product reservation, new adventures for marketing, quality testing, and improving services. Rural women can benefit from the credit providers by obtaining support facilities, which are helpful in order for them to increase the level of sustainability of their economic activities. Therefore, the research questions of this study are as follows:

(i) Are the rural female borrowers becoming independent by their involvement in microcredit programs?
(ii) Are they gaining any knowledge from the income-generating projects initiated by the credit?

(iii) If not, how can the women borrowers be made entrepreneurial in operating home-based economic activities?
(iv) Is there any difference in the rural female entrepreneurship development between governmental and nongovernmental programs?

This study primarily focuses on how to identify the factors related to the development of entrepreneurship among the rural women borrowers of Bangladesh. The present research also analyzes the sustainability of the socioeconomic impact on rural women, which is termed in this study as *rural entrepreneurship development*. The specific objectives of the study are as follows:

1. To identify and explain the factors related to entrepreneurship development through microcredit programs.
2. To test the appropriateness of the factors.
3. To develop a model related to the development of entrepreneurship among the rural women through microcredit programs.
4. To recommend a policy framework for the credit providers to develop rural women entrepreneurship in Bangladesh.

Microcredit program and the entrepreneurship development

Over the last two decades, microcredit became an important tool for alleviating poverty in Bangladesh (Khandkar & Chowdhury, 1996). The overall success of microcredit programs depends not only on immediate alleviation of poverty, but also on long-term sustainability. Long-term sustainability then depends on accumulation assets (Chowdhury, 2004). In Bangladesh, the Grameen Bank started microcredit programs in 1976 as a pilot project. Now, more than 3000 nongovernmental organizations (NGOs), national commercial banks, and specialized financial institutions operate microcredit programs in Bangladesh. Such programs have proven to be a strong means to alleviate poverty through the social and economic empowerment of rural and disadvantaged women (Puhazhendhi & Badatya, 2002). Such a group savings program can help the rural women to bring economic security into their lives (Secretary General, UN, 1998). The changing role of women shows a steady upward growth in the economic activities in Bangladesh (Arefin & Chowdhury, 2008). Studies show that female entrepreneurs are doing better in the service sector than in the manufacturing sector in Bangladesh (Begum, 2002).

Microcredit is a structured program under which microlevel loans are given to disadvantaged residents, especially to poor rural women, without collateral security. It is a group-based and intensively supervised loan program. The uniqueness of this loan program is that there is no requirement of collateral security from the borrowers. Anyone can apply for this credit and is also eligible to receive credit. It is a small loan that varies from Tk. 1,000.00 to Tk. 10,000.00 for each borrower. The purpose of this microcredit program is to give loans for self-employment that generates income and allows them to care for themselves and their family members (Sankaran, 2005).

There are three C's to the microcredit program: character, capacity and capital (Yunus, 2003). *Character* is defined as the historical record of the borrowers such as how a borrower has handled his/her past debt obligations, his/her background, and a borrower's honesty and ability to repay the loan. *Capacity* is termed as how much debt a borrower can actually handle, according to their income, and still be able to pay that debt off. *Capital* is all the current available assets that the borrower has that will also help him/her to repay the loan on time.

Microcredit programs have a significant impact on the income and economic security of the lives of rural women. These programs increase income and help the female borrowers to spend more in order to foster the development of their families. Such programs also help to increase household income which in turn, improves the consumption patterns and lifestyles of the families (Hossain & Sen, 1992; Navajas et al., 2000). The access to the microcredit program for rural women improves their lifestyles through economic solvency and self-sufficiency; the single most important need of destitute women in Bangladesh (Apte, 1988). Microcredit encourages female borrowers to save for the future, which is an important source of capital accumulation for the rural families and for the economy. Increased income indirectly improves the level of education of the borrowers and the awareness about consumption and sanitation needs as well. The improvement of education among the rural borrowers helps to increase consciousness about their health and the future of the next generation. Credit programs increase productive resources for rural families and their housing conditions and also result in economic security for the borrowers.

The needs of low-income microcredit clients would be best served by highly flexible financial services that enable them to conduct frequent transactions both for small savings and for borrowing at irregular intervals (Sinha, 2003). The main objective of microcredit providers is to create self-employment opportunities for the rural unemployed women. These opportunities are largely in nonfarm related industries. Before joining microcredit programs, many borrowers were employed as day laborers. Now they are more self-sufficient and can work on their own projects, whereas previously they had very little chance to participate in economic activities under the socioeconomic conditions in Bangladesh. Microcredit programs have created the opportunity to reduce their dependency on others in their families. The immediate macroeconomic effect of microcredit is the reduction of labor supply and the raising of the wage rate, given the local demand for labor. Wages remain at the high level if the credit program induces a large demand for food and other local products. Hence, the result of microcredit programs is the increase of placement in rural areas (Ghai, 1984).

Rural wage is a reflection of rural economic conditions. The growth of self-employment has been achieved at the expense of wage employment (Shahidur, 1998). The self-employment of borrowers was much higher than the reduction in wage employment in rural areas. The immediate impact of microcredit is on the labor force participation rate and the total hours worked. A survey on Grameen Bank shows that microcredit programs generated new employment for about one third of its members (Hossain, 1986). Most of the new employment was created for the female borrowers. It has also reduced the dependency ratio in the village families. Rural development is

based on the investments that promote economic growth in rural areas. Increased farm productivity is the main emphasis for this microcredit programs (Jha, 1991). Ability and efficiency are considered here in order to denote the productivity of rural women borrowers. Through this variable, an inquiry was made to discover whether the production of goods was increased by the borrowers after the involvement in credit-financed projects. In addition, women's group memberships seriously shifted overall decision-making patterns from norm-guided behavior and male decision-making to a more joint and female decision-making approach (Holvoet, 2005). In Vietnam, the microcredit program has also reduced the poverty rate of the participants (Cuong, 2008). Microcredit programs have increased the agricultural productivity of small and marginal farm households. The use of high-yielding variety is higher among the borrowers, which helps them produce more products for the locality (Alam, 1988).

The nonfarming activities of Bangladesh include harvesting livestock, poultry, fisheries, trading, and shop keeping. The increase in shop keeping activities has increased the volume of trade in the rural areas. It is reported by the Grameen Bank that 46% of its total trade loans given to the trade sector went to crop trading in 1985, while 22% went to livestock and fisheries. Trading and shop keeping activities have a positive impact on the development of local markets by boosting local production and creating new market opportunities for selling those products locally (Shahidur et al., 1998). A housewife or part-time farmer can link this business to the local production and consumption, as well as outside economic activity. The less fortunate are actually able to work and increase their working days after joining the rural credit programs (Hossain, 1988).

The empowerment of women is another main purpose of microcredit programs. Empowerment is about a change in favor for those who previously exercised little control over their lives. This change is two-sided. The first side is control over resources (financial, physical, and human), and the second is control over ideology (beliefs, values, and attitudes) (Sen, 1997). The next question is for whom are the empowerment benefits for? Such benefits are undoubtedly for the rural women in Bangladesh who are governed by the two powerful forces of patriarchy and class structures (Amin et al., 1994a). The literature on microcredit and female empowerment provides examples of a number of empowerment measures, including a borrower's control over loan (Goetz & Gupta, 1996; Montgomery, 1996), knowledge of the enterprises accounts (Ackerly, 1995), mobility, intra-household decision making power, and general attitudes about children's lives (Amin & Pebley, 1994b; Hashemi et al., 1996). A woman's control over resources and incidence of domestic violence is also a factor (Naved, 1994).

Social empowerment is essential for the development of poor rural women in Bangladesh. The positive argument is that microcredit programs help rural women to be more socially empowered (Zaman, 1999; Acharya, 1994). Empowerment is characterized as the mobility of women, economic security, ability to make purchases, involvement in major household decisions, political and legal awareness, and involvement in public protest and political campaigns. Women's participation in such programs increases their ability to visit market places for buying products, medical centers for medication, cinemas for watching movies, other homes in the village, and

outside villages for more social relations. Participation also enhances the ability of the women to make both small and large purchases. Small purchases include small items used for daily preparation for the family (e.g., kerosene oil, cooking oil, spices), for oneself (e.g., hair oil, soap, glass, etc), or items like ice cream or sweets for the children. The large purchases are usually things like pots and pans, children's clothing, personal clothing (e.g., Saries), and a family's daily food.

Microcredit increases the ownership of productive assets for the women. The microcredit programs also influence legal and political awareness and participation in public campaigns. Such campaigns are often for the members themselves, the chairman, the locale, and political leaders. The longer the involvement of a woman in a credit program, the greater the likelihood will be of that woman being empowered. She is likely to contribute more to not only her family, but to society as a whole in the long run. Credit programs enable women to negotiate gender barriers that increase the control of women over their own lives, improve their freedom in the family, and increase their persuasive power. As a result, credit programs improve the relative positions of women in their families, and in society as well.

Another positive result of microcredit programs is the improvement of nutrition and the health conditions of the rural women and their family members (Srinivasan & Bardhan, 1990; Hossain, 1986). Microcredit increases awareness about the access to modern medication facilities. Tube well water is not normally used by the rural people in Bangladesh. Things such as sanitary latrines and urinals, which to some are everyday conveniences, are a dream for the villagers. One of the major indicators of poverty is the nonavailability of such facilities. The rural credit providers usually try to address this problem in order to improve the quality of life of the rural population. Studies show that the credit programs have even increased the daily intake of protein and calories for the rural people (Shahidur, 1996). The children of microcredit borrowers tend to have better nutritional health compared to the children of nonborrowers. Rural credit projects help increase the income of the rural women, which leads to higher food security and a better life overall. The ability to spend more on sanitation and the health care activities also is increased by the use of credit programs. Female borrowers can also improve their housing conditions from the money they earn from the credit-supported projects. This is often considered to be an insurance against rural poverty in Bangladesh.

Rural credit also increases education and awareness among the rural women. The involvement of women in income-generation activities changes their attitudes also (Ahmed et al., 1997). With the help of fellow borrowers and loan providers, women often feel the need to further their education (an education that will likely benefit their children, their husbands, and themselves). Credit programs actually increase the likelihood for female education more than for male education (Pitt & Khandaker, 1996; Kabeer, 2001). Due to the increase in income, they then are able to send their children to school also. Microcredit programs create awareness among the rural women through interactions with the group members and health workers. Because women are likely to become more educated after enrolling in a microcredit program, the use of contraception and birth control increases greatly. The exchange of ideas with others, social support for the legitimization of innovative reproductive behavior, and group interactions encourage

rural women to use more contraception in their day-to-day lives (Amin et al., 1994a). Microcredit in turn, decreases the level of desire for additional children in rural families. Once a woman obtains economic security and is able to contribute to her family, she will have the freedom of mobility, freedom from domination by only the family, better control of her body, and birth control options. Mobility in the village, and being able to travel outside of the village, helps women to seek family planning information, and other types of educational assistance (Schular et al., 1997). Women earning independently and contributing to their families are less insecure and less vulnerable to the threat that abandonment by their husbands can pose. Acquiring their own money and other assets makes these women less fearful of the repercussions of having more children, should they choose to do so. Studies show that in almost all cases, the impacts of microcredit are positive in terms of returns on investments, household income, employment in the nonagricultural sector, the labor force participation rate, socioeconomic empowerment, household expenditure and consumption patterns, human capital, and fixed investments (Hossain, 1988; Rahman, 1996).

Rural entrepreneurship is a key to economic development in many countries across the globe (OECD, 1998, 2003; UN, 2004). About half of the population of Bangladesh is women who usually remain idle and unproductive within their homes. They have no method of participation in the economy and no resources for income-generating activities except taking care of their family. Thus, these women can become more productive by getting involved in economic activities. By providing stimulatory and sustaining supports, these women can be made able to initiate businesses and other income-generating projects. Hence, both the developed and developing countries are focusing more on groups such as rural women in order to engage them in income-generating activities (Chowdhury, 2002). Countries focus on female entrepreneurship development by demonstrating that financial assistance can lead to reduced fertility and an increase in the economic growth of the country.

Rural entrepreneurship has been defined by different scholars and has also changed over time in Bangladesh (Islam & Mamun, 2000). Studies show the shifting focus of entrepreneurial success factors. Before 1990, the focus was on personal and psychological factors, while after 1990, the focus was shifted to managerial and environmental factors. The common aspects found in the definitions are the entrepreneur, innovation, organization, value creation, opportunity taking, profit or nonprofit, growth, uniqueness, flexibility, dynamism, and risk taking propensity. These aspects can be put into overlapping typologies. There are five different perspectives of entrepreneurship, which include: (1) an economic function, (2) a form of behavior, (3) a set of characteristics, (4) a small business, and (5) creation of wealth (Ahmed & McQuaid, 2005; Deshpande & Joshi, 2002). In almost all definitions of entrepreneurship, there is agreement that entrepreneurs behaviors include (1) initiative-taking, (2) organizing and reorganizing of social and economic mechanisms, and (3) the acceptance of risk or failure.

Entrepreneurship has a wide range of meaning and has been debated among scholars, educators, researchers and policy makers since the early 1700s when the term was first coined. The idea of entrepreneurship is an elusive concept (McQuaid,

2002). Since the expectations and perspectives of various stakeholders are different, their views regarding enterprise, entrepreneurship and small business are also different. Rosa (1992) argued that the vagueness of enterprise definition has been to the advantage of both government and academics in the 1990s in their attempts in the UK to change the national culture. Katz (1991b) commented on this debate, saying that small business is a subset of entrepreneurship, while others argue that small business commencement is an integral part of entrepreneurship. Kearney (1996) asserted that enterprise is the capacity and willingness to initiate and manage creative action in response to opportunities, wherever they appear, in an attempt to achieve outcomes of added value. These outcomes can be personal, social, and cultural. Typically, enterprise involves facing degrees of uncertainty as well. The associated risks are not necessarily financial, but may be physical, intellectual, or emotional.

Innovation

Innovation is an important characteristic for an entrepreneur. Austrian economist Schumpeter (1949) defined entrepreneurship as focusing on innovation in four different areas such as new products, new production methods, new markets, and new forms of organization. Anyone who combines inputs in an innovative manner to generate value to the society, results in a creation of some kind of wealth. According to Schumpeter (1949), the use of new combinations defines enterprise and the individuals whose function it is to carry them out. The Industrial Revolution also added to this dimension in the entrepreneurial concept. Audretsch (1995) and Cunningham and Lischeron (1991) emphasized the innovation issue of an entrepreneur. They identified three levels of the term of entrepreneurship: (1) small firms and enterprise level, (2) new firm formation, and (3) innovation and a system-wide coordination of complex production. Innovation and system-wide coordination is also emphasized in other studies (Malechi, 1997; Casson 1990; Casson, 1999). Behavioral and social scientists also focused on risk-taking, innovation, and initiative-taking capabilities in their definitions of entrepreneurship (Weber, 1930; Hoselitz, 1952; Chell, Haworth & Brearley, 1991, Gartner, 1988). These characteristics are related to the cognitive aspects of entrepreneurship.

Risk-taking

Risk-taking is the prime factor for the success of an entrepreneur. When an entrepreneur initiates a business venture, that person has to take risk and face uncertainty. In the 18th century, the French term *entrepreneur* was first used by Cantillon to describe a 'go-between' or a 'between-taker' whereby they bought goods at certain prices but sold at uncertain prices and when they purchased such goods at a given price, they could not be sure what price they would be able to sell them for. So, he/she bore the risk and uncertainty of a venture, but kept the surplus after the contractual payments had been made (Ahmed & McQuaid, 2005). In 1971, Peter F. Drucker also supported the view point of Cantillon and said that risk-taking is an important characteristic of an entrepreneur. Ahmed (1981) found an entrepreneur to be a risk-taker since he/she invests money and is involved in making decisions, the success of which brings rewards; and the failure of which

could lead to the loss of those rewards. An entrepreneur could also face the loss of their principal (i.e., invested money). Therefore, it is very logical to place risk-taking as the focal point of entrepreneurship. Hence, the person who takes risks in order to establish new ventures, or who has the capability of taking moderate risks can be defined as an entrepreneur (Ahmed, 1982; 1987). A person can also be defined as entrepreneurial when they have a very strong eagerness to achieve, an idea which was emphasized by McClelland (1961). McClelland (1961) also found that achievement motivation is an important characteristic of a successful entrepreneur. The person who strives to reach the top of the success ladder by taking moderate risks is achievement and motivation-oriented. An entrepreneur should not only initiate new business ventures, but also be able to run the business efficiently. In this regard, Jean-Baptiste Say identified a few dimensions of entrepreneurship, with the ideas proposed by Cantillon: planning, supervising, organizing, and even owning the factors of production. These activities are primarily related to business management.

Opportunity-seeking

Another characteristic of an entrepreneur is opportunity-seeking. Stevenson (2000) explained that entrepreneurship is an approach to management that can be defined as the pursuit of opportunity without regard to the currently controlled resources. He examined five critical dimensions of business practices: strategic orientation, commitment to opportunity, control of resources, management structure, and reward philosophy, all of which are related to entrepreneurial development.

Entrepreneurship is the pursuit of a discontinuous opportunity involving the creation of an organization with the expectation of value-creation for the participants. The entrepreneur is the individual or team that identifies the opportunity, gathers the necessary resources, and is ultimately responsible for the performance of the organization. As a catalyst agent, an entrepreneur creates the forces of change and utilizes it in accelerating the socioeconomic value-addition of a country through resource utilization, employment generation, capital accumulation, and industrialization (Rahman, 1979; 1996). Hence, self-employment is the result of the development of entrepreneurship. Entrepreneurs create employment for themselves and for others in order to work with innovative and economic-centered projects. People who are self-employed and have ownership of the business are called entrepreneurs (Chowdhury, 2002). They are the owners of the business enterprises as well. In this regard, women entrepreneurs are defined as conventional entrepreneurs, radical proprietors, and domestic traders (Begum, 2003).

Therefore, it is evident that some definitions of entrepreneurship are concerned with business development aspects, while some are concerned more with the behavioral aspects of the entrepreneur (Ahmed & McQuaid, 2005). Business development aspects can be defined by opportunity seeking, initiative taking for establishing new business venture, and creating wealth. While, in contrast, behavioral aspects are related to achievement motivation, risk-taking propensity, inner urge to do something valuable for oneself and for the society as a whole. Essentially, entrepreneurship is the dynamic process of creating incremental wealth, which is

created by the individual. This can be achieved by adopting risks in terms of equity, time, and career commitment. It is the process of creating something new by devoting the time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the rewards of monetary, personal satisfaction, and independence. Hence, entrepreneurship can emerge through the actions of four factors. These are a support system, socio-sphere system, resource system, and a self-sphere system. First, a *support system* includes structure, organizational goals /policies, activities, technical competence, organizational climate, and style of functioning. A *sociosphere system* includes value orientation (which is defined by work) independence, initiative, innovations, and risk-taking norms. Third, a *resource system,* includes manpower, market, raw material, transport communication, other industries and enterprises, technology, and technical manpower. A *self-sphere system* includes motivation and skill where motivation is explained by personal efficiency, coping capability and skill is defined by a selection of product/process, project development, and by establishing and managing enterprises.

The emergence of women entrepreneurs in a society depends mainly upon various economic, social, religious, cultural, and psychological factors (Habib, Roni & Haque, 2005). The motivations for starting a business by rural women are significant and include earning an attractive source of income, enjoying a better life, the availability of loans, and general security.

One of the key factors for the development of female entrepreneurship in Bangladesh is recognition (Saleh, 1995). When activities are performed by family members or by neighbors, rural women feel encouraged to participate. Therefore, whatever rural women do, it must first be recognized by their husbands, then by the family members, then by others. The type of family in the rural areas has an impact on the development of rural women entrepreneurship. Studies show that rural women that come from a *nuclear family* (a family consisting of a father, mother, and their children living under the same roof) tend to become more entrepreneurial than if they came from a joint family (Surti & Sarupia, 1983). The level of family liability can also attribute to this.

The age of the rural women is another factor that affects the development of rural female entrepreneurship. Studies show that the majority of rural female entrepreneurs start a business at the age of 20-29 years (Punitha, Sangeeta & Padmavathi, 1999). At this age, they no longer have many family bindings, and they can work freely in their business projects. There are many places in Bangladesh where there is no real economic development, but because of the presence of the rural microcredit programs in those areas, rural women are becoming more enthusiastic about initiating new economic projects. Therefore, properly supervised microcredit can help to improve socioeconomic conditions of these women in Bangladesh (Begum et al., 2005). However, a lack of family and community support, an ignorance of available opportunities, the lack of motivation in initiating new projects, shyness and apprehensiveness to get involved with economic activities, and a preference for traditional occupations are all factors that inhibit the promotion of grassroots entrepreneurship development among rural women (Rao, 1991).

Methodology

The Bangladesh Rural Development Board (BRDB) is the largest service-oriented government institution and is directly engaged in rural development and poverty alleviation activities in Bangladesh. The ASA was developed in an atempt to gradually eradicate poverty from society in Bangladesh. BRDB started its credit activities in the study area in 1993, while the inception of the ASA was in 1996. The target people of BRDB for credit programs are poor farmers and rural women who have at least some productive assets. On the other hand, the focus of the ASA is to give credit to the poor women who have no productive assets. ASA provided microcredit to 1,200 women and 295 for the BRDB study area. BRDB gave loans for the purpose of poverty alleviation primarily in the projects of agriculture, fish culture, poultry raising, and petty trading. ASA gave credits for poverty alleviation in the areas of paddy husking, rice frying, running small hotels, petty trading (i.e., vegetables trading, molasses trading, etc.), transportation, purchasing cows, fish culture, and raising poultry. The minimum amount of credit given by BRDB is Tk. 2,500 and the maximum is Tk. 7,000. The ASA ranged from Tk. 3,000 to Tk. 12,000. Along with microcredit, the ASA also has microinsurance services. BRDB does not offer an insurance policy. However, BRDB does provide advice in family planning along with microcredit, but the ASA does not. The ASA is significantly more strict about installments that are supposed to be given every week. BRDB's loanees repay monthly installments, which is less strict in comparison to the ASA.

Characteristics of the Respondents

The respondents of this study are rural female borrowers of two leading NGOs, the ASA in the private sector and the BRDB in the public sector. All the borrowers of BRDB are Hindu, while the borrowers of the ASA are comprised of 77.60% Muslims and 22.40% Hindus. The age distribution of the borrowers of the ASA and BRDB is different. About 29% of ASA's borrowers are between the ages of 20 and 25, followed by 30 to 35 years (24.10%), 35 to 40 years (22.40%), 25 to 30 years (18.40%), and 15 to 20 years old (6.10%). On the contrary, 49% of the borrowers of BRDB are between 35 and 40 years old. About 21% of this group is between the age of 25 and 30 years followed by 20 to 25 years (15.00%), and 30 to 35 years (15.00%) (Table 1). The average age for the borrowers of the ASA is 29 years and for the BRDB is 32 years.

Table 1: *Age Distribution of the Microcredit Borrowers*

Age	ASA (Percentage)	BRDB (Percentage)
15-20	6.10	0.0
20-25	29.00	15.00
25-30	18.40	21.00
30-35	24.10	15.00
35-40	22.40	49.00

About 88% of the borrowers of the BRDB and 98% of ASA are married. The difference between the educational qualifications of the borrowers of the ASA and BRDB has been observed. About 33% of the ASA's borrowers are self-literate. They become literate after joining microcredit programs to manage financial matters. About 29% of them are primary educated, followed by illiterate (22.00%), and secondarily educated (16.00%). About 36% of the borrowers of BRDB are secondarily educated. Those who are illiterate are also similar (36.40%). The self-literate borrowers in BRDB are 15.20%, and primary educated borrowers are 12.10% (Table 2). This educational status indicates that the female borrowers were self-literate after their involvement with credit programs.

Table 2: *Educational Qualifications of the Microcredit Borrowers*

Qualifications	ASA (Percentage)	BRDB (Percentage)
Illiterate	22.00	36.40
Self-literate	33.00	15.20
Primary educated	29.00	12.10
Secondary educated	16.00	36.30

The training status of the rural female borrowers shows that the majority of the respondents have no training in technology or marketing. More than 75% of the borrowers in both the groups did not receive any formal training from the credit providers. Only 18% of the borrowers of ASA and 12% of BRDB have received technical training from anything other than loan providers. Only 8.20% of ASA's borrowers and 12.10% of BRDB's borrowers obtained nontechnical training from the credit providers. The nature of this training is only to give ideas about technology and other aspects of the business (Table 3). This study noted that ASA and BRDB have no arrangement for organized training in the study area.

Table 3: *Training Status of the Microcredit Borrowers*

Type of Training	ASA (Percentage)	BRDB (Percentage)
Technical	18.00	12.00
Non-technical	8.20	12.10

Sample Design and Determination

Bangladesh is divided into six divisions. To select the sample respondents, the second level administrative unit of Bangladesh, the Khulna division, was selected. Under this division, Khulna is an important district (a district refers to the third administrative unit of Bangladesh). A group of Thanas constitutes a district. Under this district, there are 10 Thanas: Khulna Sadar, Batiaghata, Dacope, Daulatpur, Dumuria, Koyra, Paikgacha, Phultala, Rupsa, and Terokhada. A Thana is also called Upa-Zila. It is the fourth level administrative unit of Bangladesh. It consists of a group of Unions,

and every Union is formed with a group of villages. The reason for selecting the Khulna district is that the most densely populated district is the Khulna Division. There are about 2.38 million people living in this district with approximately 375,000 households (BBS, 2005). About 50% of population in this district is female.

Batiaghata Thana was selected as the sampling area which is located adjacent to Khulna City. This Thana consists of 7 Unions, with 159 villages. The population of this Thana is 128,184, with 516 persons per sq. km. The land is about 1,468.38 acres. Only 37.70% of the population is literate. There are 23,698 families in this Thana. The total number of dairy and poultry farms is 12 and 57 respectively. There are 12,088 sanitary latrines and 1,024 tube wells in the Thana. The numbers of deep tube wells are 896. Most of the families are involved in agricultural farming followed by petty trading, fishing, pottering, paddy husking, gold-making business, kamar, and spinning. There are 26 village hat/bazaars in the Thana.

Borrowers who are already engaged in 3-10 years or more with the credit programs are used as respondents. Sample respondents were selected by using two sampling methods: the *purposive sampling method* and the *random sampling method.*

Purposive Sampling Method

This method was used to select the types of activities of rural female borrowers including fish culture, paddy husking, poultry farming, petty trading, grocery, animal husbandry, weaving, handicrafts, dairy farming, and plant nursery. All the female borrowers of BRDB were selected from the Rajbadh village, and 25% of the borrowers from the ASA were selected purposively from Hatbati, Wazed Akundi Nagar, Sachibunia villages who have been involved in microcredit programs. The individual selection was on a random basis to reduce the biases of the sample selection in this study.

Three criteria were used to select two Unions of Batiaghata Thana for this survey: (1) the intensity of credit programs, (2) the density of population, and (3) the intensity of poverty. Under each Union there are about 14 to 17 villages. One village named Rajbadh was selected for interviewing the borrowers of BRDB.

Sachibunia have been selected for interviewing the borrowers of ASA. ASA and BRDB are intense microcredit programs in these selected villages because of large population size and high poverty.

The sample size was determined by using a formula suggested by Yamane (1967). The following formula was used to determine the sample size of the study:

$$n = N/1+N(e)^2$$

where,

n = sample size, N = population, e = precision Levels, and where Confidence Level is 93%, and P = .50 (degree of Variability).

The *degree of variability* in the attributes being measured refers to the distribution of attributes in the population. The more heterogeneous a population, the larger the sample size required to obtain a given level of precision. The less varied (more

homogeneous) a population is, the smaller the sample size. Note that a proportion of 50% indicates a greater level of variability than either 20% or 80%. This is because 20% and 80% indicate that a large majority do not or do, respectively, have the attribute of interest. Because a proportion of .5 indicates the maximum variability in a population, it is often used in determining a more conservative sample size. The sample size may be larger than if the true variability of the population attribute were used. The total number of female borrowers interviewed was 246, 198 of which were from the ASA and 48 from BRDB.

Designing Measurement Instruments

This study was based on primary data collected from the survey of rural women. A survey was conducted among the rural female borrowers of BRDB and ASA to collect information about the development of rural women entrepreneurship through microcredit programs, with the help of a structured questionnaire. A structured questionnaire in a 5-point scale was developed for the variables relating to the development of rural women entrepreneurship. A five-point scale ranging from 1 to 5, with 1 indicating strongly disagree and 5 indicating strongly agree, was used in this regard. This study used 40 entrepreneurship-related variables to explain the chance of rural women for being entrepreneurial-identified from the literature. The dependent variable is explained by four variables: independence, ability to make complex decisions, ability to seek and grasp opportunity, and ability to take risk and initiative. The survey has been conducted with the assistance of MBA students from Khulna University, who explained the questions to the borrowers in detail. The interviewers were trained on the variables representing the questionnaire for data collection before starting the interview. Borrowers were surveyed from January 2006 to March 2007.

Data Analysis

Along with descriptive statistics, multivariate analysis techniques including *factor analysis* and Structural Equation Modeling (SEM) were used to analyze the relationships of the variables relating to the development of rural female entrepreneurship. A *principal factor analysis* with an orthogonal Varimax rotation, using the SPSS statistical package, was performed on the survey data and was used to separate the factors for developing entrepreneurship. The relationship of entrepreneurial factors with the overall entrepreneurship development is assessed through the Analysis of Structural Equation Modeling by using Amos version 4.

It was the ultimate intention of this study to test the conceptual model developed from the theoretical analysis and to estimate the parameters for the structural equation model. Hence, data were analyzed through the SEM using Analysis of Moment Structures (AMOS) to perform path analysis. Amos's method of computing parameter estimates is called *maximum likelihood*. Hypothesis testing procedures, confidence intervals, and claims for efficiency in maximum likelihood or generalized least squares estimation by Amos depend on certain statistical distribution assumptions. First, observations must be independent. Second, the observed variables must meet certain distributional requirements. For instance, it will suffice if the observed variables have a multivariate normal distribution. Amos implements this general approach to the

SEM data analysis, also known as *analysis of covariance structures*, or *causal modeling*. SEM is a computer program for estimating the unknown coefficients within a system of structural equations, and is one of several computer-based covariance structure models for conducting such analysis. LISERAL or Lineral Structural Relations, is a special purpose statistical software package that estimates structural equation models for manifest and latent variables. AMOS, like LISREL, is useful when the researcher desires to explore the causal relationships among a set of variables. The method is called *covariance structure analysis* because the implications of the simultaneous regressions are studied primarily at the level of correlations or covariances. Typically, a covariance structure model is specified through a simultaneous set of structural linear regressions of particular variables on other variables. The field of covariance structure analysis actually covers a wide range of topics, including *confirmatory factor analysis, path analysis*, and *simultaneous equation* and *structural equation modeling*. Much research in the social sciences including business involves the measurement of latent constructs. The method is useful for analysis of structural equations involving experimental data. In business applications, theoretical constructs are typically difficult to operationalize in terms of a single measure, and the measurement error is often unavoidable. As a result, given an appropriate statistical testing method, the structural equation models are likely to become indispensable for theory evaluation in business research. The approach provides a means for examining causal relationships among multiple variables, the magnitude of hypothesized relationships, and the extent of measurement error of constructs in application of experimental designs (Bagozzi, 1977). When researchers attempt to measure constructs such as perceptions to something, they are attempting to gauge unobservable cognitive processes with measurement devices that can only approximate the latent constructs of interest. This process is typically fraught with measurement error. Because of their ability to control or allow for such measurement error when estimating the relationships between variables, covariance structure models have been gaining in popularity in business studies (Bagozzi, 1980, 1981). Howard (1977) suggests in this regard that structural modeling sharply highlights the intimate, powerful, mutually reinforcing relationship between theory and measurement. In this study, it was perceived that structural equation modeling would be the best approach to understand the relationships between the constructs.

In this study, covariance and structural modeling was performed in two distinct stages. First, observed variables are linked to unobserved variables through a Confirmatory Factor Analytic (CFA) model. CFA is a means of discovering an underlying structure in one's data, given some prior theoretical or empirical information. The set of connections between the observed and unobserved variables is often called the measurement model. The measurement model specifies how the latent variables are measured in terms of observed indicators and explicitly introduces measurement error. Second, the causal relationships between the resulting latent variables are examined in a structural equation model. The model component connecting the unobserved variables to each other is often called the *structural model*. The structural equation model specifies the causal relationships among the latent and unobserved variables.

Results of Factor Analysis

A Multivariate Analysis technique, *factor analysis,* was used to identify the factors responsible to development women entrepreneurship in the rural areas of Bangladesh with the support of microcredit. A *principal factor analysis* with an orthogonal rotation using the SPSS statistical package was performed on the survey data and was used to separate the factors. Factor analysis of 40 variables in the rural women entrepreneurship survey identified 13 main factors that account for 75.74% of the variance in the data (Table 4). The initial factor structure derived from varimax rotation extracted thirteen factors. Scrutiny shows that some of the factors were unclear, particularly when several items loaded simultaneously on more than one factor. All of these factors are reflected in Table 4.

Table 4: *Women Entrepreneurship Development Factors*

Name of the factors	Eigenvalue	Cumulative variance (%)
1. Financial Management Skill and Group Identity	7.26	18.16
2. Creative Urge and Self-Interest	3.57	27.89
3. Family Funds and Female Involvement	2.76	33.99
4. New Job and the Employment of Family Members	2.75	40.86
5. Independence and Keeping Oneself Busy	2.21	46.37
6. Knowledge of Business	2.15	51.73
7. Family Experience and Option Limitation	1.80	56,24
8. Economic Necessity of the Family	1.55	60.12
9. Self-Confidence	1.47	63.78
10. Technical Knowledge of Business	1.41	67.32
11. Money Earning	1.20	70.32
12. Unable to Find Suitable Work or Job	1.11	73.09
13. Contribute to the Economic Growth	1.01	75.74

The first factor, *financial management skill* and *group identity,* accounts for 18.16% of the variance in the data. The development of financial skill and the creation of group identity by the microcredit is the most important factor for the development of rural women's entrepreneurship in Bangladesh. The eigenvalue of this factor is 7.26. Financial management skill and group identity are related to six variables, including increased family relationships and cohesiveness (0.536), involved rural women-folk (0.822), development of financial management skills (0.866), realized self and collective identity (0.880), getting adult education (0.621), and developing awareness of health and women's rights (0.696). A relatively higher level of factor loading of almost all the variables indicates that these variables are very important to constitute the rural women entrepreneurship development factor. The communality values for these variables are 0.705, 0.818, 0.835, 0.901, 0.742, and 0.630 respectively. The higher level of communality of the variables associated with financial management

skill and group identity indicates that each variable is very much related to the factor.

The next important factor is *creative urge and self interest* with an eigenvalue of 3.57. The variance of this factor is 9.73%. It indicates that creative urge and self interest is an important factor for the development of rural female entrepreneurship. Seven variables constituted this factor. The variables are creative urge (0.843), self-interest and self dependent (0.815), inadequacy of family supplement income (0.538), family support is required (0.534), attractive source of income (-0.441), competent to take and use loan (-0.426), and getting educated (0.416). These variables are highly important for determining the entrepreneurial status of the rural women borrowers. The communality of the variables is also higher.

Family funds and female involvement is the third important factor for the rural female entrepreneurship development with an eigenvalue of 2.76. This factor explains 6.10% of the variance. The women borrowers are concerned with self-independence (0.852), family peace (0.787), gaining social prestige (0.664), ability to accumulate family fund (0.525), and alleviation of gender discrepancies (0.488). Another entrepreneurship factor is *employment of family members and the creation of new jobs* with eigenvalue of 2.75 and variance of 6.87%. This factor is constituted by four variables: can employ others (0.827), new work and work environment (0.761), training (0.758), and scope to utilize own skills and talents (0.549). *Independence and keeping oneself busy* is the fifth factor for the development of rural women entrepreneurship in Bangladesh. The eigenvalue and the variance of this factor are 2.205 and 6.51% respectively. The variables forming this factor includes doing something independently (0.920), can keep myself busy (0.825) and career and family security (-0.447). *Family experience and option limitation* is the next important factor for the development of rural women entrepreneurship in Bangladesh. Two variables constituted this factor such as, experience and competencies (0.835) and no other option available (0.764).

Other factors like knowledge of business, economic necessity of the family, self confidence, technical knowledge of business, money earning, unable to find suitable work or job, and contribute to the economic growth were found not significant to build the model.

Results of Structural Equation Modeling (SEM) Analysis

The data of this study were analyzed in two stages. First, the measurement model was assessed to confirm that the scales were reliable. Second, when the reliability of the measures had been established, the structural model was tested. This testing determined the strength of individual relationships, goodness of fit of the model, and the various hypothesized paths.

The first step of the analysis was a test of the measurement model. Objectives of this test were: (1) to contain the validity and reliability of measures, and (2) to select the best subset of observed measures for use in testing the structural model. The data depicted a normal distribution with acceptable skewness and kurtosis values. Coefficient alpha was computed for each set of observed measures associated with a given latent variable, and a Confirmatory Factor Analysis (CFA). Alpha values of each item in each dimension

were performed separately and were found acceptable. Estimation of Measurement model for the six constructs (factors) of interest was performed using AMOS 4.01.

The results of overall structural model fit as indicated by the chi-square statistic, was significant chi-square = 707.80; *df* = 168; *p* = 0.000 (Table 5). The overall fit of the confirmatory factor analysis model to the sample variance/covariance matrix, as measured by chi-square, provides a test of the overall reliability of observed measure (Bagozzi, 1980). The statistic is computed under the null hypothesis that the observed covariances among the answers came from a population that fits the model. A statistically significant value in the *goodness of fit test* would suggest that the data do not fit the proposed model, i.e., that the observed covariance matrix is statistically different than the hypothesized matrix. The assumptions required to employ chi-square as a significance test (in support of the hypothesis that the predicted covariance matrix does not differ from the sample covariance matrix) are typically violated in most covariance structure analysis. Accordingly, when the results of chi-square analysis are favorable, it is best to say that the fit between predicted and observed covariance matrices is "acceptable" rather than "significant" (Joreskog & Sorbom, 1986). In this study, however, both terms are used interchangeably to mean "acceptable".

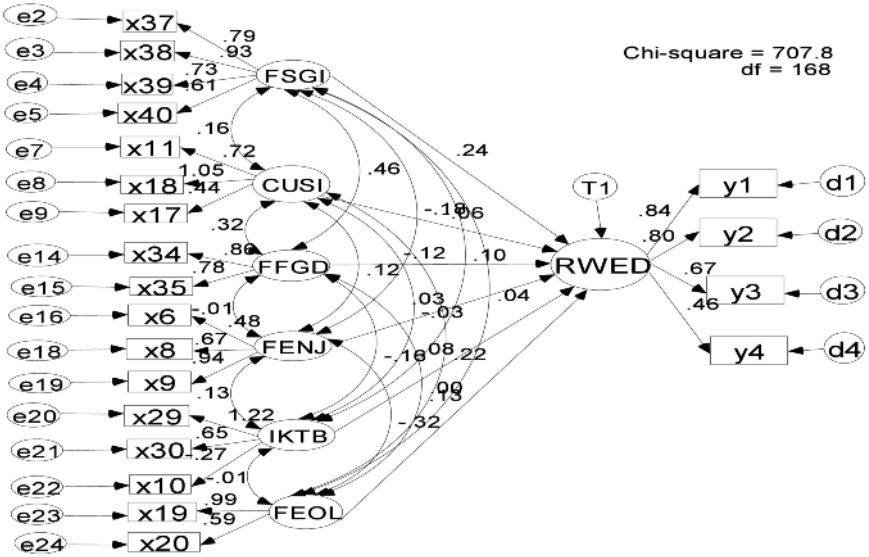
Table 5: *Fit Indices of the Model*

Fit indices	Recommended values	Observed values	df	Significance
Chi-Square	N/A	707.80	168	0.000*
GFI	≥ 0.90	0.809		
AGFI	≥ 0.80	0.737		
RMR	≥ 0.09	0.083		
NFI	≥ 0.90	0.920		
CFI	≥ 0.90	0.950		
RMSEA	≤ 0.08	0.070		

*Significant

The fit of the structural model was estimated by various indices and the results demonstrated good fit. For models with good fit, most empirical analyses suggest that the ratio of chi-square normalized to degree of freedom (chi-square/df) should not exceed 3.0 (Carmines & Mclver, 1981). In addition, the obtained goodness-of-fit (GFI) measure was 0.809 and the adjusted goodness-of-fit (AGFI) measure was 0.737 respectively, which are both higher than the suggested values. The other two indices of goodness-of-fit (GFI), the normalized fit index (NFI), and the comparative fit index (CFI) are recommended to exceed 0.90. The results also meet these requirements. Finally, the discrepancies between the proposed model and population covariance matrix, as measured by the root mean square error of approximation (RMSEA), are in line with the suggested cutoff of 0.08 for good fit (Byrne, 1998). The complete model of microcredit program and the development of rural women entrepreneurship is shown in Figure 1.

Figure 1: *A Model for the Development of Rural Women Enterpreneurship through Micro Credit Program*



Notes: FSGI= Financial Skill and Group Identity; CUSI= Creative Urge and Self Interest; FFGD= Family Fund and Gender Discrepancies; FENJ= Family Employment and New Job; IKTB= Independence and Keeping Thyself Busy; FEOL= Family Experience and Option Limitation; RWED= Rural Women Enterpreneurship Development; y's= Observed measures of the endogenous variable; x's= Observed measures of the exogenous variables; d's= errors associated with y's; e's= errors associated with x's

Table 6 shows that the relationships of the factors that built the model for the women entrepreneurship development in Bangladesh through microcredit programs. After identifying the female entrepreneurial development factors, a hypothesis was developed for each construct and the important factors that were significantly associated with the rural female entrepreneurship development.

Table 6: *Standardized Regression Weights*

Relations	Estimates (Standardized)	S.E.	C.R.	P
RWED – H1	***0.238***	***0.058***	***2.670***	***0.008****
RWED – H2	-0.063	0.078	-0.870	0.384
RWED – H3	-0.120	0.083	-1.252	0.210
RWED – H4	0.035	0.158	0.423	0.672
RWED – H5	***0.082***	***0.030***	***1.479***	***0.13****
RWED – H6	***0.130***	***0.101***	***1.595***	***0.111****

* Significant at 10% level of significance

** Significant at 15% level of significance

Financial Management Skill and Group Identity

In Hypothesis 1 (H_1), it was predicted that the financial management skill and the group identity have a direct and positive relationship with the female entrepreneurial development (WED) in rural areas of Bangladesh. It was presumed that higher financial management skill and group identity will lead to higher level of encouragement among the rural borrowers for taking new initiative of business. The results show that the direct effect of financial management skill and group identity on the development of women entrepreneurship is positive and significant ($\beta = 0.24$, $p < 0.008$). This result indicates that the higher the financial management skill and better the group involvement, the higher the chance of being entrepreneurial. In Bangladesh, many people who live in rural areas are illiterate, including the female borrowers. Therefore, they face the problems of financial planning, financial record keeping, financial calculations, and the identification of profits, etc. In addition, there is also a group effect on the development of women entrepreneurship in Bangladesh.

Family Experience and Option Limitation

Hypothesis 6 (H_6) states that family experience and option limitation has a direct positive effect on the development of rural female entrepreneurship in Bangladesh. This means that if the rural woman has a business orientation from her parent's family and if she has some fund from the microcredit providers, she will take initiative to do business or she will initiate economic projects which will help her to earn money and obtain social status. This hypothesis was supported by the analysis that provides positive and significant values ($\beta = 0.13$, $p < 0.11$). Although this factor is significant at 11%, it's an important factor to be entrepreneurial for the rural women through microcredit programs. Since this study is the first of its kind, this result is acceptable.

Independence of the Women and the Urge to Keep Busy

In Hypothesis 5 (H_5), we hypothesized *that the independence of the rural women and the urge to be kept busy* can make them entrepreneurial which has a positive and significant effect on female entrepreneurial development in the rural areas of Bangladesh. This indicates that more independence and more enterprising by a rural women will lead to a higher level of entrepreneurship. The results support this hypothesis and positive and significant ($\beta = 0.08$, $p < 0.13$). We also accept this result on the grounds that the significant level is 13%.

Other factors

In Hypothesis 2 (H_2), we predicted that the relationship between *creative urge and self-interest* and the rural female entrepreneurship is positive and significant. But the results show that the relationship between these constructs are negative and not significant ($\beta = -0.063$, $p > 0.38$). This indicates that if there is a change in the creative urge and self-interest factor, it will not lead to the development of rural women entrepreneurship through microcredit programs in Bangladesh. That means through microcredit programs, the creative urge and self-interest is not developed among the rural female borrowers, as it depends on environmental factors which are unfavorable for the rural women in Bangladesh.

In Hypothesis 3 (H_3), it was predicted that the relationship between *family funds and involvement in business* and rural female entrepreneurship is positive and significant. However, the results show the opposite situation in this regard (β = -0.120, p > 0.21). This indicates that the change in financial status and female involvement with money matters will not change in the entrepreneurship development characteristics among the rural women in Bangladesh. If the rural families are financially solvent, they will not lean towards doing business in Bangladesh where it is culturally discouraged.

In Hypothesis 4 (H_4), it was perceived that there is a positive and significant relationship between a *new job and the employment of family members* with rural female entrepreneurship development. But the results show that there is no significant relationship between the two constructs (β = 0.035, p > 0.67). This indicates that employment of family members and the new job will not develop any entrepreneurial characteristics among the rural female borrowers through microcredit programs.

Conclusions and Recommendations

It is generally perceived that the microcredit program helps to develop socioeconomic status of the rural women in Bangladesh. In addition, it is perceived that microcredit is helping not only to bring socioeconomic changes, but also to make the borrowers entrepreneurial. This study tried to resolve these questions by constructing a model which was supported by the results of multivariate analysis.

This study identified that factors like the financial management skill of the borrowers and group identity, experience from the fathers' family and option limitation, independence of the rural women, and the urge to make them entrepreneurs have a significant relationship with the rural female entrepreneurship development in Bangladesh. On the other hand, factors such as creative urge and self interest, family fund and previous involvement in business, and job and employment of the family members are not significantly related to the rural women entrepreneurship development. SEM analysis shows that among seven hypotheses, only three hypotheses are supported by the analysis. This indicates that other factors are not appropriate for the development of rural women entrepreneurship in Bangladesh.

The most important finding of this study is that the financial management skill and the group identity of the borrowers have a direct and significant relationship with the development of rural women entrepreneurship (WED) through microcredit programs. When rural women receive financial support from the microcredit providers, they feel encouraged to involve themselves in the financial projects that subsequently increase the financial management skills of the borrowers. Microcredit also provides group identity to the rural women. When women acquire knowledge of financial management and get group identity, they become more enthusiastic to initiate new business projects. These significant relationships indicate that if the microcredit borrowers can enhance this skill among the rural female borrowers, it would lead them towards the development of entrepreneurship. As a result, the borrowers will be able to stand on their own feet.

The second important finding of this study is that the experience from the parent's

family of the borrower and option limitation have a direct positive impact on the development of rural women entrepreneurship in the rural areas of Bangladesh. This means that if a rural female has a business orientation from her parent's family and at the same time, has some funds at her disposal, she will initiate new business or economic projects which will help her to earn a profit and obtain social status as well.

The third important finding is that the rural women who are independent by nature and would like to keep busy with economic activities could be identified by the borrowers. This section of rural female has the highest potential to be entrepreneurial. This study supports this observation for the rural women borrowers in Bangladesh.

The main problem of any small business in Bangladesh is the management skills related to financial affairs of the business. The businessmen or entrepreneurs are unable to make financial plans and maintain financial accounts of the business because of their illiteracy. Most of the people in rural areas are illiterate in Bangladesh and women are in a more disadvantageous position in this regard. Hence, microcredit providers should give importance to the development of the financial management skills of the borrowers and create group identity of the borrowers. They also should identify the rural women who have their family experience and no other options but to do business or get involved with loan providers. Loan providers should also be mindful of the fact that the rural women of Bangladesh have an independent mentality and they would like to take on the challenge of being entrepreneurs. Therefore, to design and implement a loan program, microcredit providers should keep this independence in mind. If these aspects are properly addressed by the loan providers, rural female borrowers will be more entrepreneurial and as a result, the borrowers will be able to stand on their own feet and rural women entrepreneurship will be developed in Bangladesh.

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