

# Empowering Women SME Entrepreneurs in Bangladesh: Unleashing Market Potential and Driving Economic Growth

Prof. Dr. Nazr Slam

[azrulk@gmail.com](mailto:azrulk@gmail.com)

Md. Nafiz Rahman<sup>1</sup>; Rashi Hassan; Zeb Sami; Mysha Mali

[afizrahman@gmail.com](mailto:afizrahman@gmail.com)

## ABSTRACT

Financial inclusion is a critical issue for enhancing the welfare of an economy as well as reducing income inequality by providing access to efficient financial services to both the privileged and the poor people of the country. Financial inclusion is a significant issue in Bangladesh as the majority of the population- especially women, farmers, and individuals do not have access to basic financial services such as credit, insurance, payment, etc. Thus, this paper aims at identifying the impacts of financial inclusion on the women SME entrepreneurs of Bangladesh. To conduct this research, 207 respondents were chosen from those women who either initiated their own SME or worked as an employee in one. A structured questionnaire with 5 points Likert scale was used to collect primary data. Multivariate analysis techniques like factor analysis, multiple regression analysis were performed to identify the impacts of financial inclusions on the women SME entrepreneurs of Bangladesh. The study finds the impact factors of financial inclusion on women SME entrepreneurs in Bangladesh. Factors such as, easiness in payment, comfortable in transaction, reduced unemployment problem due to the creation of agents, no network problem in transaction, and secured area coverage were found significant impact factors of financial inclusion on the women SME entrepreneurs in Bangladesh.

## KEYWORDS

Financial inclusion, small and medium enterprises, women SME entrepreneurs, easiness in payment, regression analysis. JEL Classification G20, L26, O31, O33

## BACKGROUND

Financial inclusion in Bangladesh has a great impact on the socio-economic lives of the people of the country. Study shows that around 40% of the adult population and 75% of households have access to financial services in Bangladesh which is an important indicator of their development. Financial inclusion has helped to access to finance, through banks, through agent banking, through mobile phones, through ATM, through Micro-Finance Institutions, through the insurance sector, and access to finance through the co-operatives sector of Bangladesh. Bangladesh Bank addressed the financial inclusion question both from the supply and demand sides. Bangladesh Bank's Financial Inclusion Initiatives (BBFII) also helped school banking, working/street children banking, agent banking, mobile financial services, financial literacy program, small and medium enterprises (SMEs) financing, and agricultural credit. Statistics show that the total number of banks and their branches in Bangladesh were 48 and 6,717 respectively in 2007, which reached to 57 and 9,955 respectively in 2017. Presently, the ratio of rural-urban bank branches stands at 48:52. The credit/deposit ratio of the scheduled banks excluding the specialized banks is 0.86, which was 0.81 a decade ago<sup>2</sup>. Hence, Access to finance is an important initiative for promoting inclusive economic growth and eradicating poverty in Bangladesh. Access to finance means an opportunity for the low-income group and the poor for implementing their plan. This has facilitated greater access to credit and other financial services to the poor and un-served people of Bangladesh. The study found that key barriers of financial inclusion are lack of overall knowledge among women entrepreneurs of the available business opportunities and credit facilities, hesitation in applying for a loan from a commercial bank, high loan interest rates, rigid policies on loan-related paperwork and collateral, and lack of knowledge and information among women regarding were to contact about services<sup>3</sup>. The study also reveals that access to information is a key constraint for women entrepreneur's ability to take advantage of these opportunities offered

<sup>1</sup> Corresponding Author: Md. Nafiz Rahman, Department of Business Administration in Finance & Banking  
Email: [afizahman@gmail.com](mailto:afizahman@gmail.com), Phone: +880198095731

<sup>2</sup> [https://www.bb.org.bd/pub/research/sp\\_research\\_work/srw1903.pdf](https://www.bb.org.bd/pub/research/sp_research_work/srw1903.pdf)

<sup>3</sup> <https://asiafoundation.org/2017/11/01/financial-inclusion-women-entrepreneurs/>

by the regulators. Therefore, this study aims at identifying the impact of financial inclusion on the women SME entrepreneurs in Bangladesh.

The broad objective of this study is to examine the impact of financial inclusion on the SME entrepreneurs of Bangladesh. The specific objectives are:

- To illustrate the overall condition of the SME industry in Bangladesh.
- To identify the impact factors of financial inclusion on women SME entrepreneurs in Bangladesh
- To identify the significant impact factors of financial inclusion on women SME entrepreneurs in Bangladesh.

## LITERATURE REVIEW

Presently, the majority of the households of Bangladesh have access to financial services. Hence, financial inclusion has a positive impact on the lives of the general people of Bangladesh. Study reveals that financial inclusion increases women income, purchasing power, living standard and position in the family. It also reveals that after availing regulated financial programs, rural women become able to meet their emergencies, give children a better education, get better medical facilities, reduce dependency on local money lenders which means that financial inclusion programmers promote women's economic empowerment (Siddik, 2017). Proactive regulatory policies and expanded financial literacy are the major determinants for the positive impact of financial inclusion in Bangladesh. Empirical evidence based on household-level data shows that the intensity of financial literacy in Bangladesh is moderate, and it has a positive impact on inclusive finance. These findings warrant more emphasis on increasing financial literacy for access to finance and informed investment decisions (Khalily, 2016).

The consequence of financial inclusion was also measured by (Joseph and Varghese, 2014) (on the enhancement of the Indian economy in terms of quantity of bank branches, and the use of debit and credit cards). The observed result was that the use of debit cards increased drastically throughout the period of the study and the number of people with access to the products and services of the bank decreased even after the introduction of financial inclusion in the country. (Ezazul and Salim, 2011) (examined financial inclusion and its role in Bangladesh and it concluded that geographic and demographic dispersion of banking service plays a significant role in financial inclusion). (Rahman, 2009) (has depicted financial inclusion with its relation to the number of bank accounts, MFIs members, cooperatives, and the ratio of the adult population). This research reveals major weaknesses and suggests necessary steps for better financial inclusion in Bangladesh.

(Ravikumar, 2010) (made effort to find the role of the banking sector in financial inclusion and evaluated the effect of ATM availability, distribution of branches of banks, population for each branch, and deposits of credits of Scheduled Commercial Banks (SCBs)). The study concluded that banking is a vital driver for financial inclusion but most of the population was detached from the formal financial system due to a higher level of poverty. (Paramasiven and Ganesh, 2013) (found that branch density has a positive significant impact on financial inclusion). The number of microfinance institutions, banks, and cooperatives is rapidly increasing in Bangladesh but the country has yet to cover a large expanse of the rural sector and a small portion of the urban one. According to (Faruk, and Noman, 2013), these institutions focused on solvent farmers rather than the struggling or landless individuals in the rural areas. This study stated that the lack of adequate infrastructure is the primary cause of slow financial inclusion in rural areas. It claimed a proper transportation system, telecommunication system, availability of electricity, and roads and highways will motivate farmers, entrepreneurs, and businessmen to take credit from the bank. The window for financial inclusion may increase by encouraging women to gain financial knowledge as they have neither the necessary funds to start up their own businesses nor the adequate knowledge for conventional financial banking.

Studies also identified financial intermediaries should ensure accessibility to the consumers in a fair, transparent, and cost-effective manner. This study also mentioned that increasing the access to deposit accounts, number of branches and ATMs cannot guarantee easier access to finance but might increase the burden on the financial institutions instead. (Khanam, 2017) (observed a positive and significant change in the number of bank branches and credit deposit ratio on the GDP of the country and an insignificant change in ATM growth on the GDP of the economy). (Hans, 2016) (examined the initiatives and impact of financial inclusion in India). This study stated that the financial inclusion was directly proportional to micro-credit policies that were introduced in the economy with proper regulation and consumer education policies. However, there were problems that needed to be dealt with in terms of social intermediation. Financial institutions still considered financial inclusion to be a short term measure and found it difficult to implement more accessible financial services such as customer doorstep banking and paperless banking. The potential for commercializing and combining science, entrepreneurship, and technology remained poor. Furthermore, it was difficult and expensive to reach deeper into the rural areas and train individuals how to operate different types of machinery.

(Vong, Fang, and Insu, 2012) (conducted a pilot study on the impact of mobile money service on micro-entrepreneurs in rural Cambodia and concluded that understanding mobile money services has brought a positive effect on micro-entrepreneurs and micro-enterprises in rural areas enabling rural inhabitants to improve

their standards of living and sustainability of their businesses. According to (Ozili, 2018), digital finance has positively impacted financial inclusion in emerging and advanced economies providing individuals with more services at a lower price than a conventional bank. A study conducted by (Fareed, et al., 2017) concluded that there is a positive link between financial inclusion and entrepreneurship encouraging several women entrepreneurs to come up with their own businesses. By introducing several financial access points such as banking branches and ATMs and introducing additional financial services that enable consumers to get access to credit facilities, financial inclusion can be increased.

In another study, (Wairagu, 2016) concludes credit given to entrepreneurs and SMEs that measures the activities of the financial sector through administering funds from savers to investors brought a significant and positive growth of the economy. The regression result indicates that credit given to the private sector and interest rates affordability of financial services had a positive and significant effect on entrepreneurial growth. (Durai and Stella, 2019) studied digital finance and its impact on financial inclusion and found out that digital finance allows greater control of personal finance, swift financial decision making, and the ability to make and receive payments. Improving consumer convenience and providing easier interbank account facilities have brought significant changes in mobile banking too. Lower service charges and prompt timings have a significant impact on mobile wallets or software as well as credit cards.

(Julie, 2013) found that financial inclusion and economic growth have a strong positive relationship in Kenya. The study also concluded that economic growth has a strong positive relationship with branch density and a weak negative relationship with the number of mobile money services. A study conducted in India by (Kamboj, 2014) found a positive relationship with branch and ATM density and the GDP growth rate of the country. According to (Beck et al., 2007) outreach and usage such as deposit and lending are important variables in measuring the impact of financial inclusion. (Demirguc-Kunt, Beck, and Honohan, 2007) accumulated data of demographic and geographical outreach on access to banking and ATM booths. The effect of digital finance on financial inclusion was measured by (Michelle, 2016) in the banking industry of Kenya. The study revealed that there was no correlation between digital finance and financial inclusion in the banking industry as the banks only adopted digital financial services to minimize their operational costs concerning the inaugurating and functioning cost of new branches. (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2011) evaluated the role and impact of technology such as mobile, internet, new technology-based financial services in financial inclusion, the study also suggested ways of improving financial inclusion with the help of technology. Some determinants of financial inclusion were found by (Mehrotra, et al., 2009) such as penetrated area as a percentage of total penetrable area, the number of cooperatives teams, and branches numbers of bank for every 100 persons.

Study (Sarma & Paos, 2011) found that levels of human development and financial inclusion in a country move closely with each other. Among socio-economic and infrastructure-related factors, income, inequality, literacy, urbanization, and physical infrastructure for connectivity and information are also important factors. However, the health of the banking sector does not seem to have an unambiguous effect on financial inclusion whereas ownership pattern does seem to matter in some countries. Study also found that the income growth net of the inflation effect was 8.40% for women as against 3.97% for men indicating that the gender of participating poor undoubtedly affects the outcomes of these financial programs (Swamy, 2014). The results of Structural Equation Modeling (SEM) of a research indicate that the perceived financial cost, perceived risk, and subjective norm are the most influencing factors that affect people's behavioral intention to adopt mobile banking (Siddik, Sun, & Yanjuan, 2014).

On the supply side, the size of a bank, its efficiency, and the interest rate it charges have a direct impact on the financial inclusion of a country like Bangladesh. On the other hand, on the demand side, the literacy rate is positively and the age dependency ratio is negatively related to financial inclusion. Study also found that bank size has a significant impact on both deposit collection and loans & advances disbursement of a bank. The study can be beneficial for both government and bank authorities in developing their policy decisions to ensure a more inclusive financial system. Setting the loan interest rate close to the international level and extending the branch facilities can encourage the excluded population to use formal financial services (Uddin, Chowdhury, & Islam, 2017). In a study on farmers, it was revealed that there are around 86% technically efficient and amongst them, credit takers were more efficient than non-credit takers (Afrin, Haider, & Islam, 2017). This indicates that the financial inclusion can help in developing the technical efficiency of the loan takers. The potential costs of financial inclusions are compensated for by important dynamic benefits that enhance financial stability over time through a deeper and more diversified financial system (Hannig, & Jansen, 2010). There is growing evidence that appropriate financial services have substantial benefits for consumers, especially women and poor adults. Review of literature, secondary data, and participatory evidences show that there are substantial financial gaps across the economies and within the households. In a rural context, it is evident that financial access is low in developing countries like Bangladesh (Choudhury, 2015).

It has also been revealed that the practice of financial inclusion by Bangladesh Bank contributes positively in advancing the number of bank branches, members in MFIs and cooperatives; number of no-frills accounts;

disbursing SME and women enterprise credit, implementing refinancing scheme in the agricultural sector; encouraging savings in the school bank account, etc. To fulfill even some of its progressive goals, it must be regulated and subsidized, and other strategies for viable financial inclusion of the poor and small producers must be more actively pursued (Ghosh, 2012). Financial inclusion of access to financial services is increasing worldwide, often with official support. Greater financial inclusion changes the behavior of firms and consumers in ways that could influence the effectiveness of monetary policy. The impact on financial stability may depend on how any improvements in financial access are achieved. Risks may arise if greater financial inclusion results from rapid credit growth, or if relatively unregulated parts of the financial system grow quickly (Mehrotra, & Yetman, 2015).

Financial inclusion has a great role to play for promoting inclusive growth of a country. Financial inclusion ensures access to a well-functioning financial system, by creating equal opportunities, enables economically and socially excluded people to integrate better into the economy and actively contribute to development and protect themselves against economic shocks. Financial inclusion leads to greater asset accumulation by the poor and it is also associated with pro-poor growth. Poverty reduction and promoting inclusive growth are the most important policy priorities of the government of Bangladesh (Faruq, & Prince, 2015). The agent banking is an effective and credible way of entrenching financial deepening across the unbanked areas of Bangladesh. Moreover, the study emphasizes that agent banking can secure access to financial services for the rural poor and generate wholesome development for Bangladesh (Nisha, Nawrin, & Bushra, 2019). Study also finds that respondents with financial accounts are more resilient than those without accounts. The chances of being financially resilient are around 1.4 times higher for account holders than their counterparts (Hussain, et al, 2018). Hence, the impact of financial inclusion is broadly in the socio-economic development of the people of a developing country like Bangladesh.

## RESEARCH METHODS

This section describes the designing research, questionnaire design and test of reliability, determination of sample size, data collection, analytical tools, and test of reliability, etc. Both primary and secondary data were used to conduct this research. Primary data were collected from the SME Women Entrepreneurs of Bangladesh. Secondary data were collected from books, journals, online resources, etc.

### *Designing Sample*

In recent years, the rate of new business formation by women has significantly risen in Bangladesh. However, women still own and manage significantly fewer businesses than men. According to the Economic Census 2013, the number of female-headed establishments is 0.56 million (7.21 percent)<sup>4</sup>. The sample size of this study was determined by using the following formula suggested by Yamane (1967).

$$n = \frac{N}{1 + N(e)^2}$$

Where  $n$  is the sample size,  $N$  is the population size, and  $e$  is the level of precision. For this study, the level of precision is presumed as 0.07 and the population size is 5,60,000. Putting these values in the above equation, the required number of sample size becomes approximately 204. This study interviewed 207 women entrepreneurs who are engaged in small and medium enterprises (SME) in Bangladesh. This figure is well above the critical sample size of 200 for employing multivariate analysis (Hair et al., 1998). Taking the accessibility and willingness of the employees to respond to this study into account, Convenience Sampling Method was used to draw the sampling units (Malhotra, 2007).

### *Questionnaire Design*

Responses to all the statements in the questionnaire were measured on a five-point scale ranging from 1 to 5 with 1 indicating strongly disagree and 5 indicating strongly agree. One of the relative advantages of using this scale is its suitability for the applications of multifarious statistical tools used in marketing and social research study (Malhotra, 1999). The collected data were statistically processed subsequently to get useful information. The reliability statistics show that the internal consistency of the questionnaire is under the acceptable limit (Nunnally, 1978). The reliability statistics are at an acceptable level (Table 1).

Table 1: Reliability Statistics

Cronbach's Alpha	N of Items
------------------	------------

<sup>4</sup> <https://thefinancialexpress.com.bd/views/female-entrepreneurship-in-bangladesh-1553181544>

Cronbach's Alpha	N of Items
0.912	34

### *Data Collection*

Both primary and secondary sources were used to collect data. Primary data were used for the identification of the success factors of online commodity businesses in Bangladesh. The survey was conducted among the SME women entrepreneurs in Bangladesh. The survey was conducted in 2019. The interviewers were properly trained on the items included in the questionnaire for data collection before commencing the interview.

### *Data Analysis*

Along with descriptive statistics<sup>5</sup>, inferential statistical<sup>6</sup> techniques such as Factor Analysis and Multiple Regression Analysis were used to analyze the data. A Principal Component Analysis (PCA) with an Orthogonal Rotation (Varimax)<sup>7</sup> using the SPSS (Statistical Package for Social Sciences) was performed on the survey data. Multiple Regression Analysis<sup>8</sup> was conducted by using SPSS to identify the relationships between the dependent and independent variables and the significant factors.

## RESULTS AND DISCUSSIONS

### *Respondents Profiles*

Age distribution of the sample respondents shows that 48.30% respondents were at the age of 18-24 years followed by 22.70% at the age of 35-40 years, 12.10% at the age of 36-41 years, 9.20% at the age of 24-29 years, and 7.70% at the age of above 41 years (Table 2).

Table 2: Age Distribution of the Respondents

Age	Frequency	Percent	Valid Percent	Cumulative Percent
18 to 23	100	48.3	48.3	48.3
24 to 29	19	9.2	9.2	57.5
30 to 35	47	22.7	22.7	80.2
36 to 41	25	12.1	12.1	92.3
Above 41	16	7.7	7.7	100.0
Total	207	100.0	100.0	

Fifty-one point seven percent of the respondents were married and 48.30% were unmarried (Table 3).

Table 3: Current Relationship Status

<sup>5</sup> Descriptive statistics includes statistical procedures that we use to describe the population we are studying. The data could be collected from either a sample or a population, but the results help us organize and describe data. Descriptive statistics can only be used to describe the group that is being studying. That is, the results cannot be generalized to any larger group.

<sup>6</sup> Inferential statistics is concerned with making predictions or inferences about a population from observations and analyses of a sample. That is, we can take the results of an analysis using a sample and can generalize it to the larger population that the sample represents.

<sup>7</sup> [Varimax rotation](#) is an orthogonal rotation of the factor axes to maximize the variance of the squared loadings of a factor (column) on all the variables (rows) in a factor matrix, which has the effect of differentiating the original variables by extracted factor. Each factor will tend to have either large or small loadings of any particular variable. A varimax solution yields results which make it as easy as possible to identify each variable with a single factor. This is the most common rotation option.

<sup>8</sup> In [statistics](#), regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a [dependent variable](#) and one or more [independent variables](#). More specifically, regression analysis helps one understand how the typical value of the dependent variable (or 'Criterion Variable') changes when any one of the independent variables is varied, while the other independent variables are held fixed.



Marital Status	Frequency	Percent	Valid Percent	Cumulative Percent
Unmarried	100	48.3	48.3	48.3
Married	107	51.7	51.7	100.0
Total	207	100.0	100.0	

Table 4 shows that most of the respondents (50.20%) have bachelor and above degrees followed by 41.10% have HSC, 8.20% have SSC and 0.50% have Class V-IX degrees.

Table 4: Highest Level of Education

Educational Qualifications	Frequency	Percent	Valid Percent	Cumulative Percent
Class V – IX	1	.5	.5	.5
SSC	17	8.2	8.2	8.7
HSC	85	41.1	41.1	49.8
Bachelor and above	104	50.2	50.2	100.0
Total	207	100.0	100.0	

The experience of the sample respondents with the use of financial systems shows that 52.70% respondents have below 1-3 years' involvement followed by 22.20% have 4-6 years, 21.30% have below 1 year, 2.90% have above 7-9 years, and 1.00% have above 10 Years (Table 5).

Table 5: Experience with the Financial System

Involvement	Frequency	Percent	Valid Percent	Cumulative Percent
< 1 Years	44	21.3	21.3	21.3
1-3 years	109	52.7	52.7	73.9
4-6 years	46	22.2	22.2	96.1
7-9 years	6	2.9	2.9	99.0
> 10 years	2	1.0	1.0	100.0
Total	207	100.0	100.0	

### *Results of Factor Analysis*

The results of factor analysis show that all the variables concerning the impact of financial inclusion on the SME women entrepreneurs in Bangladesh are very high indicating the variables are important in this area of study (Table 6).

Table 6: Communalities of the Impact Variables

Variables	Extraction
1. Now, I can enquire/check my balance	.486
2. I can easily withdraw cash	.610
3. I can easily deposit cash	.566
4. Easy to pay bill for me now	.644
5. I can do some savings now	.566

---

6. [Facilitating fund transfer	.527
7. I can easily receive foreign remittance	.434
8. Easiness in payment to others	.685
9. Easy to cash out in the shortest possible time	.513
10. Easy to send money to my family	.691
11. Easy to receive cash from others	.656
12. I can buy at any time without hard currency	.669
13. Transaction is very fast	.627
14. It is affordable to me	.643
15. This system is convenient to me	.670
16. I feel more secured than before	.670
17. The system is nationwide which is helpful for me	.676
18. Facilitates me to pay the loan installment	.612
19. Facilitating utility bill payment of my house	.669
20. Company can follow my loan and I can know my outstanding easily	.718
21. I can pay my insurance premium easily	.769
22. I frequently use these systems	.613
23. Very good network coverage	.744
24. Agents are efficient and capable to deal with the problem	.383
25. Now it is efficient and swift in transaction procedures	.702
26. My transaction is safe	.537
27. Helping to reduce unemployment problem	.633
28. Helping to develop rural life	.571
29. These are cost-effective	.594
30. Helping to improve the earning standards of mine	.506
31. I did not feel any network problem	.698
32. This systems are easy to cover remote areas	.632
33. There are sufficient number of agents near my house	.597
34. Not time-consuming at all	.475

---

Extraction Method: Principal Component Analysis.

---

Table 7 shows the factors related to the financial inclusion of the SME women entrepreneurs in Bangladesh. It shows that **easiness** in payment, comfortable in transaction, reduced unemployment problem due to the creation of agents, easy payment of utility bill and receiving remittance, easy to pay loan and premium, easy to pay loan and premium, no network problem in transaction, and secured area coverage are important for the financial inclusion of the SME women entrepreneurs in Bangladesh. The variance of factor named is the highest (28.05%) followed by Comfortable in Transaction (11.10%), Reduce Unemployment Problem Due to Creation

of Agents (5.85%), Payment of Utility Bill and Receiving Remittance (5.06%), Easy to Pay Loan and Premium (4.50%), No Network Problem in Transaction (3.60%), and Secured Area Coverage (2.98%). The total variance of the data set is 61.13% indicates that a major portion of the data set is included in the analysis.

Table 7: Total Variance Explained

Component/Factors	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1. Easiness in Payment	9.537	28.049	28.049
2. Comfortable in Transaction	3.773	11.097	39.146
3. Reduce Unemployment Problem Due to Creation of Agents	1.987	5.845	44.991
4. Payment of Utility Bill and Receiving Remittance	1.719	5.055	50.046
5. Easy to Pay Loan and Premium	1.531	4.503	54.550
6. No Network Problem in Transaction	1.225	3.603	58.153
7. Secured Area Coverage	1.012	2.977	61.129

Extraction Method: Principal Component Analysis

Table 8 shows the factor loadings of the impact variables constituted the impact factors of the financial inclusion. It shows that the factor loadings of all the variables are very high indicating that the variables constituted the factor(s) have higher level of relationships with them.

Table 8: Rotated Component Matrix<sup>a</sup>

Variables/Factors	Component						
	1	2	3	4	5	6	7
<b>Factor 1 Easiness in Payment</b>							
[Easiness in payment to others]	.729						
[Easy to pay bill for me now]	.677						
[I can easily deposit cash]	.652						
[Easy to cash out in shortest possible time]	.647						
[I can easily withdraw cash]	.636						
[Now, I can enquire/check my balance]	.560						
[This system is convenient to me]	.541						
[Facilitating fund transfer]	.507						
<b>Factor 2 Comfortable in Transaction</b>							
[I can buy at any time without hard currency]		.752					
[Easy to send money to my family]		.716					
[Transaction is very fast]		.669					
[Easy to receive cash from others]		.649					
[Now it is efficient and swift in transaction procedures]		.641					
[It is affordable to me]		.526					



[I frequently use these systems]	.506
[Helping to develop rural life]	.489
<b>Factor 3 Reduce Unemployment Problem Due to Creation of Agents</b>	
[Helping to reduce unemployment problem]	.729
[There are sufficient number of agents near my house]	.622
[These are cost effective]	.576
[Helping to improve the earning standards of mine]	.521
[This systems are easy to cover remote areas]	.474
[Agents are efficient and capable to deal with the problem]	.450
[My transaction is safe]	.404
<b>Factor 4 Payment of Utility Bill and Receiving Remittance</b>	
[Facilitating utility bill payment of my house]	.613
[I can easily receive foreign remittance]	.609
[I can do some savings now]	.591
<b>Factor 5 Easy to Pay Loan and Premium</b>	
[I can pay my insurance premium easily]	.868
[Company can follow my loan and I can know my outstanding easily]	.795
[Facilitates me to pay the loan installment]	.571
<b>Factor 6 No Network Problem in Transaction</b>	
[I did not feel any network problem]	.791
[Very good network coverage]	.735
[Not time consuming at all]	.489
<b>Factor 7 Secured Area Coverage</b>	
[I feel more secured than before]	.690
[The system is nationwide which is helpful for me]	.617

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 12 iterations.

### *Results of Multiple Regression Analysis*

Analysis of variance shows that all the seven factors concerning the impact of financial inclusion on the SME women entrepreneurs in Bangladesh are significantly related to the overall impact. The results of the regression analysis show that the seven factors can explain the dependent variable by 47% (R Square) indicating that the model is important (Table 9). The other factors might be in the greater environment like socio-cultural, political, economic, technological, environmental, and legal issues of the SME women entrepreneurs in Bangladesh.

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.470 <sup>a</sup>	0.221	0.193	0.72787

a. Predictors: (Constant), REGR factor score 7 for analysis 1, REGR factor score 6 for analysis 1, REGR factor score 5 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

Analysis of variance (ANOVA) shows that seven factors are significantly related to the overall impact of financial inclusion on the SME women entrepreneurship development in Bangladesh (Table 10). All the factors together are significantly related to the overall impact of the financial inclusion on the SME women entrepreneurs in Bangladesh.

Table 10: ANOVA<sup>b</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	29.875	7	4.268	8.056	.000 <sup>a</sup>
Residual	105.429	199	.530		
Total	135.304	206			

a. Predictors: (Constant), REGR factor score 7 for analysis 1, REGR factor score 6 for analysis 1, REGR factor score 5 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

b. Dependent Variable: Considering all the factors mentioned above, I have initiated my business and continuing it successfully.

The individual factor relationships with the overall impact of financial inclusion on the SME women entrepreneurship development in Bangladesh show that five factors such as easiness in payment, comfortable in transaction, reduce unemployment problem due to creation of agents, no network problem in transaction, secured area coverage are significantly related to the overall impact (Table 11). This indicates that the factors such as easiness in payment, comfortable in transaction, reduce unemployment problem due to creation of agents, no network problem in transaction, secured area coverage are significantly connected to the dependent variable of the overall impact of financial inclusion on the SME women entrepreneurship development in Bangladesh. That means that if there is a change in these factors there will be a change in the dependent variable of the model. Factors like Payment of Utility Bill and Receiving Remittance and Easy to Pay Loan and Premium are not significantly related to the overall impact of financial inclusion on the SME women entrepreneurship development in Bangladesh.

Table 11 Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.058	.051		80.212	.000
1. Easiness in Payment	.160	.051	.197	3.145	.002
2. Comfortable in Transaction	.137	.051	.169	2.696	.008
3. Reduce Unemployment Problem Due to Creation of Agents	.224	.051	.277	4.425	.000
4. Payment of Utility Bill and Receiving Remittance	-.048	.051	-.059	-.947	.345
5. Easy to Pay Loan and Premium	-.010	.051	-.012	-.199	.843

6. No Network Problem in Transaction	.136	.051	.168	2.688	.008
7. Secured Area Coverage	.172	.051	.212	3.389	.001

a. Dependent Variable: Considering all the factors mentioned above, I have initiated my business and continuing it successfully.

## LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This paper has some limitations which include the sampling method and the sample size. The sampling method used in this research was the non-probability convenience sampling technique. Most of the women entrepreneurs who participated in this survey were from urban areas. The district level and sub-urban SME entrepreneurs were not included in this research. Future research can be conducted by expanding the geographical range of sampling to get more accurate insight. Secondly, we found a lack of extensive prior research in this area in Bangladesh. Besides, there appeared to be no strong theoretical foundation on this topic upon which this research could be built, the literature review was based on prior empirical researches in this field. This paper used a set of questions to measure the impact of financial inclusion on women SME entrepreneurs which can guide future researchers and reinforce more interest in this research area.

## CONCLUSIONS AND POLICY IMPLICATIONS

This study identified seven impact factors such as, easiness in payment, comfortable in transaction, reduced unemployment problem due to creation of agents, easy payment of utility bill and receiving remittance, easy to pay loan and premium, easy to pay loan and premium, no network problem in transaction, and secured area coverage of financial inclusion on the SME women entrepreneurs in Bangladesh. The most important impact factor is easiness in payment followed by comfortable in transaction, reduced unemployment problem due to creation of agents, easy payment of utility bill and receiving remittance, easy to pay loan and premium, easy to pay loan and premium, no network problem in transaction, and secured area coverage. All the impact factors are significantly related to the overall impact of financial inclusion on the SME entrepreneurs in Bangladesh. The individual impact factor relationships with the overall impact of financial inclusion on the SME women entrepreneurship development in Bangladesh show that easiness in payment, comfortable in transaction, reduce unemployment problem due to creation of agents, no network problem in transaction, secured area coverage are significantly related. This means that these impact factors are significantly connected to the overall impact of financial inclusion on the SME women entrepreneurs in Bangladesh. If there are changes in these impact factors, there will be a change in the overall impact of financial inclusion on these women entrepreneurs in Bangladesh. Hence, the policymakers in this SME sector should focus on these issues to develop SME women entrepreneurship in Bangladesh. However, there is an ample scope to conduct further study on this matter that may come to some other useful findings for the SME entrepreneurs in Bangladesh.

## REFERENCES

- Afrin, S., Haider, M. Z., & Islam, M. S. (2017). Impact of financial inclusion on technical efficiency of paddy farmers in Bangladesh. *Agricultural Finance Review*, 77(4), 484-505.
- Michelle, A. M. (2016). The Effect of Digital Finance On Financial Inclusion in The Banking Industry in Kenya. *A Research Project Submitted in Partial Fulfillment of the Requirements for The Award of the Degree of Master of Science In Finance, School Of Business, University Of Nairobi*.
- Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2011). Firm innovation in emerging markets: The role of finance, governance, and competition. *Journal of Financial and Quantitative Analysis*, 46(6), 1545-1580.
- Choudhury, M. S. (2015). Financial Inclusion in Bangladesh: Evidence from Two Villages. *Journal of Exclusion Studies*, 5(2), 113-128.
- Durai, Tabitha & G., Stella) .2019 .(DIGITAL FINANCE AND ITS IMPACT ON FINANCIAL INCLUSION
- Demirguc-Kunt, A., Beck, T., & Honohan, P. (2007). *Finance for all?: Policies and pitfalls in expanding access* (No. 41792, pp. 1-268). The World Bank.
- Ezazul, Md .I .& Salim, Al M., 2011, Financial Inclusion :The Role of Bangladesh Bank, Working Paper Series :WP1101, Bangladesh Bank.
- FARUQ, M. O., & PRINCE, E. R. (2015). Inclusive Growth: Dimensions of Financial Inclusion in Bangladesh. *evsjvžk Rvb© vj Ad cwjwUKvj BKbwg*, 31(2), 151.
- Fareed, F., Gabriel, M., Lenain, P., & Reynaud, J) .2017 .(Financial Inclusion and Women Entrepreneurship.
- Faruk, M .O., & Noman, S .M .S) .2013 .(The financial inclusion :A district wise study on Bangladesh.
- Ghosh, J. (2012). Microfinance and the Challenge of Financial Inclusion for Development. *Ensayos Económicos*, 1(67), 7-34.
- Hannig, A., & Jansen, S. (2010). Financial inclusion and financial stability: Current policy issues.

- Hussain, A. B., Endut, N., Das, S., Chowdhury, M. T. A., Haque, N., Sultana, S., & Ahmed, K. J. (2018). Does financial inclusion increase financial resilience? Evidence from Bangladesh.
- Hair, J., Anderson, R., Tatham, R. and Black, W. (1998) Multivariate data analysis. 5th Edition, Prentice Hall, New Jersey.
- Hans, V .B) .2016 .(Initiatives and Impact of Financial Inclusion in India .Journal of Exclusive Management Science, 5)10.(
- Izquierdo, N .C., & Tuesta, D) .2015 .(Factors that matter for financial inclusion :Evidence from Peru . Aestimatio :The IEB International Journal of Finance, )10(, 10-31.
- Joseph, J and Varghese, T )2014(, "Role of Financial Inclusion in the Development Indian Economy "Journal of Economics and sustainable Development, vol. 5, No II, pp-6-15.
- Julie, O. (2013). The relationship between financial inclusion and GDP growth in Kenya. *Research Project Submitted in Partial Fulfillment of The Requirements For The Award of The Degree of Master of Business Administration of The University of Nairobi.*
- Kimmitt, J., & Munoz, P. (2017). Entrepreneurship and financial inclusion through the lens of instrumental freedoms .International Small Business Journal, 35)7(, 803-828.
- Khalily, M. A. (2016). Financial inclusion, financial regulation, and education in Bangladesh.
- Khanam, F. A. (2017). Financial Inclusion in Bangladesh-Status and Issues .International Academic Research Journal of Economics and Finance, 5)2(, 21-31 .
- Malhotra, N. and Birks, D. (2007). *Marketing Research - An Applied Approach*. Prentice Hall, New York.
- Mehrotra, N., Puhazhendhi, V., Nair, G., & Sahoo, B.B. (2009). Financial Inclusion-An Overview, Occasional Paper -48, Department of Economic Analysis and Research, National Bank for Agriculture and Rural Development.
- Mehrotra, A. N., & Yetman, J. (2015). Financial inclusion-issues for central banks. *BIS Quarterly Review March*.
- Mohammad Bayezid Ali, (2017). An Assessment of the Impact of Financial Inclusion Practices of Bangladesh Bank, Jagannath University Journal of Business Studies, Vol. 5, No. 1 & 2, 37-54, June.
- Nisha, N., Nawrin, K., & Bushra, A. (2020). Agent Banking and Financial Inclusion: The Case of Bangladesh. *International Journal of Asian Business and Information Management (IJABIM)*, 11(1), 127-141.
- Nunnally, J.C. (1978) Psychometric theory. 2nd Edition, McGraw-Hill, New York.
- Parvin, L., Jinrong, J., & Rahman, M. W. (2012). Women entrepreneurship development in Bangladesh: What are the challenges ahead? *African Journal of Business Management*, 6(11), 3862-3871.
- Ozili, P .K) .2018 .(Impact of digital finance on financial inclusion and stability .Borsa Istanbul Review, 18)4(, 329-340.
- Paramasivan,C amd Ganesh Kumar,V).2013(, "Overview of Financial Inclusion in India", International Journal of Management and Development Studies, vol .2 No.3 pp 45-49
- Rahman, A) .2009a .(Financial inclusion as a tool for combating poverty -the Bangladesh approach .A keynote address in 1st AFI Global Policy Forum .Nairobi.
- Ravikumar, T) .2010" .(Assessing role of banking sector in financial inclusion process in India", Retrieved from [http://www.microfinance\\_gateway.org/sites/default/files/mfg.en-paper\\_assessing-roleof\\_banking\\_in\\_financial\\_inclusion\\_-\\_process-in\\_India\\_May-2013.pdf](http://www.microfinance_gateway.org/sites/default/files/mfg.en-paper_assessing-roleof_banking_in_financial_inclusion_-_process-in_India_May-2013.pdf).
- Sarma, M., & Pais, J. (2011). Financial inclusion and development. *Journal of international development*, 23(5), 613-628.
- Siddik, M. N. A., Sun, G., Yanjuan, C. U. I., & Kabiraj, S. (2014). Financial inclusion through mobile banking: a case of Bangladesh. *Journal of Applied finance and Banking*, 4(6), 109.
- Shirin, Akter. (2016). Overview of Financial Inclusion in Bangladesh. The journal of the study of modern society and culture 1345-8485. 63. 225-255
- Siddik, M. N. A. (2017). Does Financial Inclusion Promote Women Empowerment? Evidence from Bangladesh. *Applied Economics and Finance*, 4(4), 169-177.
- Swamy, V. (2014). Financial inclusion, gender dimension, and economic impact on poor households. *World development*, 56, 1-15.
- Uddin, A., Chowdhury, M. A. F., & Islam, M. N. (2017). Determinants of Financial Inclusion in Bangladesh: Dynamic Gmm & Quantile Regression Approach. *The Journal of Developing Areas*, 51(2), 221-237.
- Vong, J., Fang, J., & Insu, S) .2012 .(Delivering financial services through mobile phone technology :a pilot study on impact of mobile money service on micro-entrepreneurs in rural Cambodia .International Journal of Information Systems and Change Management, 6)2(, 177-186.

- Wairagu, R) .2016 .(Effects of Financial Deepening on the Entrepreneurial Growth in Kenya :A Case Study of SMEs within Nairobi County .A Master's Degree Thesis Submitted to the School of Business, University of Nairobi.
- Yamane, Taro. (1967). Statistics: An Introductory Analysis, 2nd Edition, New York: Harper and Row.