



**CREDIT FOR SMALL AND MEDIUM ENTERPRISES: A STUDY ON  
KHULNA CITY CORPORATION, BANGLADESH**

**Tanjuma Khanam\* and Mohammed Ziaul Haider**

*Economics Discipline, Khulna University, Khulna 9208, Bangladesh*

KUS: 17/08: 161117

Manuscript received: November 16, 2017

Accepted: September 12, 2018

**Abstract:** Small and medium enterprises (SMEs) often face challenges in getting access to finance from banks and other financial institutions. This study tries to trace out such challenges faced by the SMEs of Khulna city in Bangladesh. The study follows stratified random sampling technique to select 60 interview respondents in the city. The study findings indicate that high rate of interest, longer loan processing time and complex security requirements are the three prime obstacles faced by the SMEs in getting access to finance. These obstacles hinder the development of SME sector. This study also tries to trace out the influence of credit on performance of SMEs through running multiple linear regressions. Profit and sales are considered for measuring performance of SMEs. The regression results indicate that firm size and credit have statistically significant positive influence on profit and sales of the SMEs. The firms having larger amount of credit are enjoying more profit and sales compared with those having smaller amount of credit. Hence, this study recommends for removing obstacles faced by the SMEs in getting access to finance. More specifically, this study recommends for decreasing interest rate, reducing loan processing time and simplifying security requirements for getting loan by the SMEs from banks or other financial institutions. Such initiatives will contribute to simplify the process of getting access to finance for the SMEs which will ultimately help to improve performance through boosting sales and profit.

**Keywords:** Small and medium enterprise, access to finance, profit, sales, Khulna

### **Introduction**

One of the significant characteristics of a growing and flourishing economy is the existence of a vibrant and blooming Small and Medium Enterprise (SME) sector. It is a major contributor in the development of an economy. A balanced and sustained growth of this sector contributes to socio-economic development by generating employment opportunities, developing entrepreneurial skill and contributing to export earnings. However, Bangladesh economy is suffering from high level of unemployment, low per capita income, mass poverty and social deprivation. In this regard, the higher growth of SMEs can contribute to reduce poverty by creating employment both for skilled and unskilled labors (Hussain et al., 2017). In Bangladesh, SMEs constitute the dominant form of business organization, accounting for over 95 percent of enterprises (Islam et al., 2011). However, the numbers of SMEs are declining despite having all these potentials that they

\*Corresponding Author: <khanam\_tan@yahoo.com>

DOI: <https://doi.org/10.53808/KUS.2018.15.1and2.1708-S>

could have played for economic development. The prevalence of credit market failure is the key hindrance to SME development. The process of acquiring loan is to some extent hazardous from both the borrowers' and lenders' end. A cross-country study implies that SMEs account for over 51 percent of GDP and 57 percent of employment in high-income countries, whereas for the low income countries, the corresponding figures are only 16 percent and 18 percent, respectively (Beck et al., 2004).

SME sector is considered to be the first step to the world of entrepreneurs. For individuals, SMEs often represent the first job, the first step in the career. The SMEs are the introducer of new ideas and grouping of new processes which accelerate more effective use of resources. Future competition is centered from the SME sector for the big companies (Savlovski & Robu, 2011). Paul Almeida, Professor at Georgetown University, thinks that "*SMEs play a unique, active and critical role in the innovation process by their ability to invent in the new technological space and to improve the high technology information networks*" (Almeida, 2004).

Many SME owners face difficulties when they resort to banks for loan. The high lending rate and collateral requirement is considered as most considerable financing problem for the demand side. On the other hand, financial institutions also stumble upon several problems while financing the small enterprises (Huq & Khan, 2013). However, SMEs come across great difficulties in receiving fixed and working capital because financial institutions take long time for processing this working capital loan. At the same time inappropriate financial statement, lack of quality information and inadequate collateral and security restrict SMEs to have access to formal credit (Chowdhury et al., 2013). Various studies indicate that one of the major obstacles for the formation and development of SME is related with the SME's access to financing. For example, about 46 percent respondents of a survey claimed lack of finance as the major obstacle to growth of SME sector in Ghana (Kwaning et al., 2015).

Lack of access to finance is considered as a key hindrance for growth of SME businesses (Etemesi, 2017). Additionally, small entrepreneurs face several difficulties in obtaining finance from the formal sector. The major problems inhibiting their access to finance from the financial institutions are the interest rate and collateral (Beck et al., 2004). SME entrepreneurs receive financial support from financial institutions which mostly depends on the high interest rate, collateral and the attitude of bankers towards the borrowers (Parvin et al., 2012). The differences in the financial institution structure and lending infrastructure may significantly affect the availability of funds to different types of SMEs (Berger & Udell, 1998). Moreover, interest rates of SME loans are higher than general loans (Chowdhury & Ahmed, 2011). Kwaning et al. (2015) also states that the exorbitant rate of interest is the major embankment to SME development along with the little repayment period and financial illiteracy of the borrowers.

There are several obstacles that stand in the pathway of SME finance. SMEs suffer from less publicly available information and opaqueness than the large firms. In addition, they also lack of required information and enough collateral in assessing loan (Abraham & Schmukler, 2017). Around 50.53 percent of SMEs have no access to formal source of finance whereas 35.79 percent of SMEs enjoy unrestricted access to credit and the rest 13.68

percent have restriction on credit worthiness. Most SMEs seek finance for working capital but only a half of them get loan from banks (Chowdhury & Ahmed, 2011). The reason behind banks' unwillingness to disburse loan to SME is the higher operational cost for monitoring and supervision, higher risks associated with the collateral requirements as the borrower lacks from financial resources (Hasan & Islam, 2008).

The Government of Bangladesh has recognized SME as an employment generating tool. It also fosters the development of entrepreneurial skills and innovation. In most developing countries SME sector creates huge employment opportunities and it varies between 70 percent to 95 percent in Africa and 40 percent to 70 percent in the countries of the Asia-Pacific region (Islam et al., 2011). The roles of SMEs are forefront in terms of alleviating poverty through job creation. Thai SMEs are increasingly seen as a creator of new jobs and 64 percent of the Vietnamese SMEs employ industrial workforce (Swierczek & Ha, 2003). In most developing countries the contribution of SMEs in employment generation is robust although the magnitude varies across countries (Ahmed, 2001).

It is evident from the above discussion that SMEs face various problems in obtaining loans from financial institutions in one hand and on the other hand, SME sector can contribute significantly to the development of an economy if it has access to finance. Accordingly, this study endeavors to identify the problems of receiving access to finance by the SMEs and the impact of credit on the profit and sales of SMEs.

**Materials and Methods**

Khulna City Corporation (KCC) of southwest Bangladesh has been selected purposively for the study from where primary data have been collected for SMEs. Non-probability sampling technique are employed to select the locations for SMEs. The authors have interviewed 60 SME entrepreneurs having loan from either bank or other non-bank financial institutions. A stratified random sampling technique are applied to select respondent SMEs. Manufacturing, trade and service are the three main strata of the study for selecting respondent SMEs. The study mainly targeted the SME owners as respondents. A structured interview schedule is used for collecting primary data from the respondents.

The important variables of the study include capital, firm age, firm size, education and sex of the entrepreneur, profit, sales, credit amount, collateral requirement for loan, loan procedure, loan processing time, loan type, purpose of loan and loan disbursement time. Among these variables, profit and sales are the dependent variables for running regression analysis. The corresponding explanatory variables are capital, firm age, firm size, credit, loan disbursement and loan refusal. According to the literature review and interview outcomes, capital, firm age, firm size and credit are supposed to influence the outcome variables (profit and sales) positively, while loan disbursement time and loan refusal feature are supposed to influence the outcome variables negatively (Ahmed, 2001; Beck et al., 2004; Hasan & Islam, 2008; Hossain, 1998).

**Quantitative analysis:** Quantitative approach is applied in quantifying the dependence of explanatory variables on outcome variables. A regression analysis has been run using the following model:

$$Y_j = \omega_i X_i + \mu \dots \dots \dots (01)$$

Where  $Y_j$  is the outcome variables (profit and sales),  $X_i$  is a set of observed characteristics, and  $\mu$  is the unobserved characteristics. The dependent variable  $Y_j$  is a continuous variable.  $\omega_i$  is the coefficients of observed characteristics. In this study, the authors have collected data of two years (2012 and 2013) for each firm.

**Multiple regression model for profit of the firms:** The authors use multiple regression model to determine the influence of credit on the profit of the firm. The underlying equations (02-03) have been constructed to realize the dependence of the variables on the profit of the firm (PF).

$$PF = f(CA, FA, FS, CD, LD, LR) \dots \dots \dots (02)$$

$$PF = \alpha_0 + \alpha_1 CA_1 + \alpha_2 FA_2 + \alpha_3 FS_3 + \alpha_4 CD_4 + \alpha_5 LD_5 + \alpha_6 LR_6 + \mu_i \dots (03)$$

Where, CA, FA, FS, CD, LD and LR denote capital, firm age, firm size, credit, loan disbursement time and loan refusal, respectively (Ahmed, 2001; Beck et al., 2004; Hasan & Islam, 2008; Hossain, 1998).  $\alpha_0$  = Intercept of the regression line;  $\alpha_i$  ( $i = 1, 2 \dots 6$ ) = Coefficients of the explanatory variables;  $\mu$  = error term

**Multiple regression model for sales of the firms:** This multiple regression model determines the influence of credit on the sales (SA) of the firm. Some explanatory variables for this analysis are used by the authors. The following equations (04-05) have been built to comprehend the dependence of the variables.

$$SA = f(CA, FA, FS, CD, LD, LR) \dots \dots \dots (04)$$

$$SA = \gamma_0 + \gamma_1 CA_1 + \gamma_2 FA_2 + \gamma_3 FS_3 + \gamma_4 CD_4 + \gamma_5 LD_5 + \gamma_6 LR_6 + \mu_i \dots (05)$$

Where, CA, FA, FS, CD, LD and LR denote capital, firm age, firm size, credit, loan disbursement time and loan refusal, respectively (Ahmed, 2001; Beck et al., 2004; Hasan & Islam, 2008; Hossain, 1998).  $\gamma_0$  = Intercept of the regression line;  $\gamma_i$  ( $i = 1, 2 \dots 6$ ) = Coefficients of the explanatory variables;  $\mu$  = error term

## Results and Discussion

**Summary statistics:** Table 1 indicates that most of the entrepreneurs are male (88 percent), their average age is 39.18 years and average years of schooling is 11.43 years which signals that the most of the entrepreneurs are educated.

Table 1: Socio-demographic Characteristics of the Entrepreneurs

Variables	Unit of Measurement	N	Mean	Std. Dev	Min	Max
Age	Years	60	39.18	8.86	25	65
Sex	0=Female, 1=Male	60	0.88	0.32	0	1
Education	Years	60	11.43	4.05	0	18

The authors have interviewed respondents of 60 firms in Khulna city from different places. Most of the interviewed firms are in operation for a longer period with an average of 12.08 years. About 70 percent of the interviewed firms are small in size.

Fig. 1 portrays the profit earned by the firms in two successive years 2012 and 2013. It is evident that most of the firms' profit lies between BDT 10,000 to 2,00,000 during the time period. A very few firms earned higher profit range. It is found that on an average the firms made comparatively higher profit in year 2013 compared to year 2012.

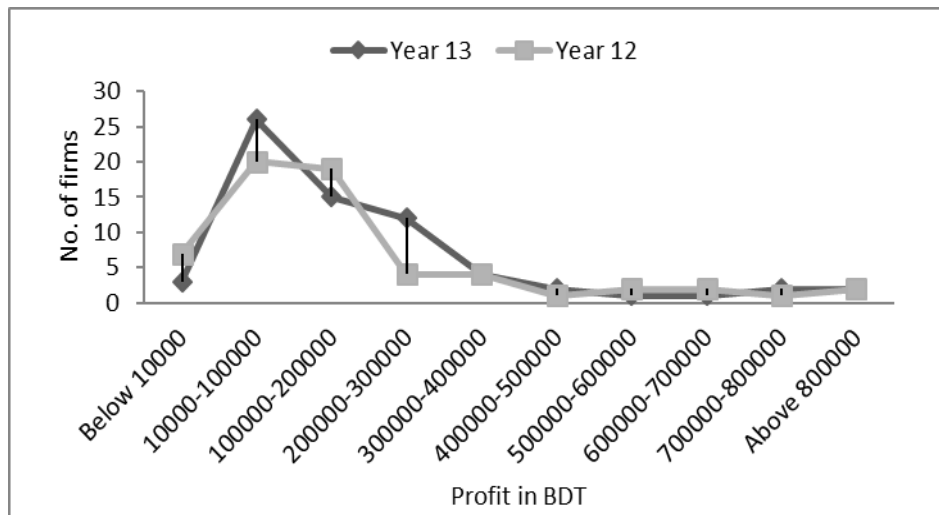


Fig. 1: Profits of the firms in different years

**General information of credit:** Among the interviewed borrowers, 52 percent did not provide collateral while the remaining 48 percent provided collateral for getting loan from financial institutions. About half of the respondents have taken loan from commercial banks and the rest have taken loan from non-bank financial institutions. Bank is the last resort for the SMEs to meet the business requirements. But loan processing from banks is to some extent hazardous for the entrepreneurs. Different entrepreneurs have different views against the processing of loan application. Among the respondents, 45 percent mentioned that loan application procedure is easy but 55 percent mentioned that the loan procedure is complex.

There are three categories of loan that banks provide: short term, long term and working capital loan. On the basis of requirements, the entrepreneurs take loan which varies from firm to firm. For short term loan the time is below 1 year and for long term it is above 1 year. Most of the interviewed entrepreneurs (45 percent) take short term loan. About 18 percent of the interviewed entrepreneurs took long term loan while 37 percent took working capital loan. Hence, it seems that entrepreneurs are mostly in need of short term loan for the business purpose.

Loan amount varies from firm to firm on the basis of business requirements. From Table 2 it is seen that about 37 percent of the entrepreneurs took the amount of loan between 10,000-1,00,000 BDT. About 40 percent of the entrepreneurs took loan above 5,00,000 BDT. It seems that most of the entrepreneurs took loan below 5,00,000 BDT.

Table 2: Distribution of firms as estimated by amount of loan

Loan Amount Range (BDT)	No. of Firms	Percent (%)
10,000-1,00,000	22	36.67
1,00,001-2,00,000	5	8.33
2,00,001-3,00,000	5	8.33
3,00,001-4,00,000	4	6.67
4,00,001-5,00,000	0	0.00
Above 5,00,000	24	40.00

The entrepreneurs take loan for various purposes which include investment in the business, buying raw materials for the business or expanding business activities of the firm. Fig. 2 show that 55 percent borrowers have taken loan for investment purpose, 25 percent for buying raw materials and 20 percent for expanding business activities of the firms.

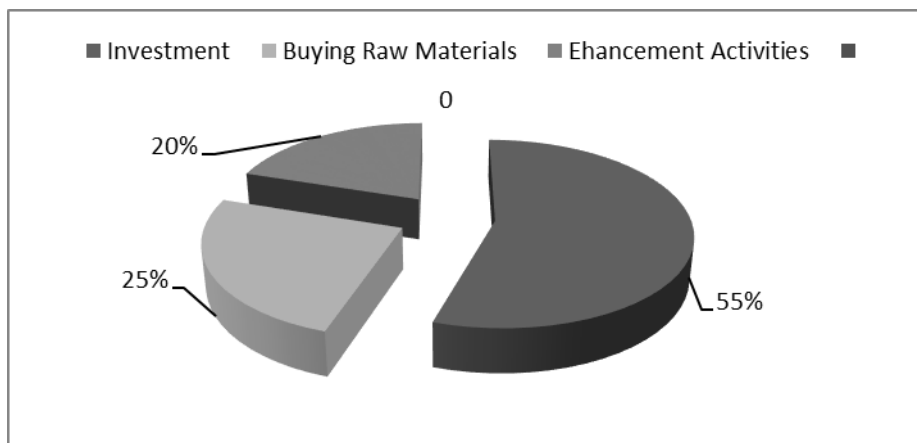


Fig. 2: Purpose of taking loan

Table 3 shows the length of time required to approve the loan. It is observed that 35 percent of the loanee received loan within 7-15 days of application made and another 32 percent of the loanee received loan within 16-30 days of application. It is also observed that about one-third of the loanee received loan after two or more months of application.

Table 3: Estimated time requirement for receiving loan

Days/Months	Frequency	Percent (%)
7-15 Days	21	35.00
16-30 Days	19	31.67
2-3 Months	15	25.00
Above 3 Months	5	8.33
Total	60	100

During the interview, the authors provided a list of probable problems faced by small and medium enterprise to rank them according to their merit as per entrepreneurs' real experiences. According to Table 4, total 43 out of 60 respondents i.e. about 72 percent revealed that the high interest rate is considered as the prime obstacle of accessing loan. Loan processing time is regarded as the second highest obstacle as endorsed by 65 percent of the respondents. The third obstacle is the excessive security endorsed by 53 percent of the respondents. Document's complexity (endorsed by 50 percent) is regarded as the fourth hindrance. However, complex repayment policy is considered as the least (endorsed by 23 percent) hindrance to finance. These obstacles actually hinder the accessibility of loan to financial institutions, as mentioned by the entrepreneurs.

Table 4: Obstacles as estimated in accessing loan

Obstacles	Frequency	Percentage (%)
High Interest Cost	43	71.67
Loan Processing Time	39	65.00
Excessive Security Requirement	32	53.33
Complexity of Documents	30	50.00
Guarantee Required	28	46.67
Financial Institutions Negligence	25	41.67
High Operational Cost	20	33.33
Complex Repayment Policy	14	23.33

**Multiple regression model for profit of the firms:** In this regression analysis, explained variable is profit of the SMEs which is measured in BDT. The corresponding explanatory variables are capital, firm age, firm size, credit, loan disbursement time and loan refusal (equation 02, 03). The results indicate that firm size and credit have statistically significant positive influences on the profit of the firms (Table 5). The profit of the firms having larger amount of credit is significantly higher than the profit of the firms having smaller amount of credit. Similarly, the profit of the large firms is significantly higher than that of the small firms. The other variables such as capital, firm age, loan disbursement time and loan refusal also have expected sign of influence on the dependent variable, though the influences are

not statistically significant. The value of  $R^2$  is about 0.26 which denotes that about 26 percent of the total variation in profit is explained by the considered explanatory variables (Table 5).

Table 5: Multiple regression model for profit of firms

Variables	Coefficient
Capital (BDT)	8.56
Firm age (year)	1.00
Firm size dummy (small=0; otherwise=1)	727.67**
Credit dummy (credit amount less than one lac=0; otherwise=1)	23.88*
Loan disbursement time (month)	-13.68
Loan refusal dummy (yes=1; otherwise=0)	-69.84
Constant	8.23
N	60
$R^2$	0.26

N.B.: \*\*  $p < 0.05$ , \*  $p < 0.10$ .

**Multiple regression model for sales of the firms:** The explained variable of this regression model is the sales of the firm which is a continuous variable measured in BDT. The corresponding explanatory variables are capital, firm age, firm size, credit, loan disbursement time and loan refusal feature. The results indicate that firm size and credit have statistically significant positive influences on the sales of the firms (Table 6). The sales of the SMEs having larger amount of credit is significantly higher than the sales of the SMEs having smaller amount of credit. Similarly, the sales of the large firms is significantly higher than that of the smaller firms. The other explanatory variables such as capital, firm age, loan disbursement time and loan refusal also have expected sign of influence on the dependent variable, though the influences are not statistically significant. The value of  $R^2$  is about 0.34 which denotes that about 34 percent of the total variation in sales is explained by the considered explanatory variables (Table 6).

Table 6: Multiple regression analysis for sales of firm after credit

Variables	Coefficient
Capital (BDT)	4.37
Firm Age (year)	0.23
Firm Size Dummy (small=0; otherwise=1)	144.10**
Credit Dummy (credit amount less than one lac=0; otherwise=1)	5.04*
Loan Disbursement Time (month)	-3.38
Loan Refusal Dummy (yes=1; otherwise=0)	-13.58
Constant	1.93
N	60
$R^2$	0.34

N.B.: \*\*  $p < 0.05$ , \*  $p < 0.10$ .



## Conclusion

Small and medium enterprises often face problem in getting access to finance from banks and other financial institutions. This study finds that high interest rate, longer loan processing time and complex security requirements are the three prime obstacles faced by the SMEs in getting access to finance. These financial problems hinder the development of small and medium enterprises.

The authors conducted regression analysis to identify the factors influencing profit and sales of the SMEs. All of the considered explanatory variables possessed the expected sign of influence on the dependent variables, though the influences of all the variables are not statistically significant. Specifically, firm size and credit has statistically significant positive influence on profit and sales of the firms. The firms having larger amount of credit are enjoying more profit and sales compared with the firms having smaller amount of credit. Similarly, the profit and sales of the larger firms are significantly higher than that of the smaller firms.

Despite having various problems faced by the SME sector in Bangladesh, it can be a flourishing sector in the economy if proper measures are taken. This study finds that credit plays a positive role on enhancing performance of SMEs. Hence, focus should be given on removing the obstacles faced by the firms in getting access to credit. More specifically, based on the findings, this study recommends for decreasing interest rate, reducing loan processing time and simplifying security requirements for getting loan by the SMEs from banks or other financial institutions. Nurturing this SME sector is essential for economic well being of Bangladesh.

## Acknowledgement

The authors acknowledge the respondents for providing information. Acknowledgements are also due to Economics Discipline, Khulna University, Bangladesh.

## References

- Abraham, F. & Schmukler, S.L. (2017). Addressing the SME Finance Problem, Development Research, Research and Policy Brief, No. 9, World Bank Malaysia Hub.
- Ahmed, M.U. (2001). *Bangladesh Facing the Challenges of Globalization: A Review of Bangladesh*. Dhaka, Bangladesh: University Press Limited.
- Almeida, P. (2004). Small Firms and Innovation. Paper Presented at the Entrepreneurship in the 21st Century, USA. Retrieved from <[https://people.ucsc.edu/~rfairlie/presentations/sbaproceedings\\_a.pdf](https://people.ucsc.edu/~rfairlie/presentations/sbaproceedings_a.pdf)>
- Beck, T., Demirguc, K.A., & Maksimovic, V. (2004). Bank competition and access to finance: International evidence, *Journal of Money, Credit, and Banking*, 36(3), 627-648.
- Berger, A.N., & Udell, G.F. (1998). The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle, *Journal of Banking & Finance*, 22(6), 613-673.
- Chowdhury, M.S., Islam, R., & Alam, Z. (2013). Constraints to the Development of Small and Medium Sized Enterprises in Bangladesh: An Empirical Investigation, *Australian Journal of Basic and Applied Sciences*, 7(8), 690-696.

- Chowdhury, T.A., & Ahmed, K. (2011). *An Appraisal of the Problems and Prospects of Small and Medium Enterprises (SMEs) Financing in Bangladesh: A Study on Selected Districts* (EWUCRT Working Paper No.4) Dhaka: Center for Research and Training.
- Etemesi, E.M. (2017). Credit Access from Commercial Banks and Growth of Small and Micro Enterprises in Nairobi Central Business District, Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirement for the Degree of Masters in Business Administration (MBA), United States International University, Africa.
- Hasan, R.A., & Islam, K.Z. (2008). Bridging the Gap between Microfinance and SME Financing in Bangladesh: Unlocking the Potentials, *Journal of Business and Economics*, 3(1).
- Hossain, N., (1998). *Constraint to SME Development in Bangladesh*, Paper Presented at the Job Opportunities and Business Support (JOBS) Program and the Institutional Reform and the Informal Sector (IRIS), College Park, USA: University of Maryland.[http://www.academia.edu/3048645/Constraints to SME Development in Bangladesh](http://www.academia.edu/3048645/Constraints_to_SME_Development_in_Bangladesh).
- Hussain, M.D. Bhuiyan, A.B. Said, J. & Halim, M.S.B.A. (2017). Eradicating Poverty through Micro, Small, and Medium Enterprises: An Empirical Exploration, *Journal of Business and Management*, 1, 42-49.
- Huq, U.R., & Khan, M.M.H. (2013). The Supply Side Gaps and Opportunities of Small & Medium Enterprises (SMEs) in Bangladesh, *European Journal of Business and Management*, 5, 71-79.
- Islam, M.A., Khan, M.A., Obaidullah, A.Z.M., & Alam, M.S. (2011). Effect of entrepreneur and firm characteristics on the business success of small and medium enterprises (SMEs) in Bangladesh, *International Journal of Business and Management*, 6(3), 289.
- Kwaning, C.O., Nyantakyi, K., & Kyereh, B. (2015). The Challenges behind SMEs' Access to Debt Financing in the Ghanaian Financial Market, *International Journal of Small Business and Entrepreneurship Research*, 3(2), 16-30.
- 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.
- Savlovski, L.I., & Robu, N.R. (2011). The Role of SMEs in Modern Economy, *Economia, Seria Management*, 14(1).
- Swierczek, F.W., & Ha, T.T. (2003). Entrepreneurial Orientation, Uncertainty Avoidance and Firm Performance: An Analysis of Thai and Vietnamese SMEs, *The International Journal of Entrepreneurship and Innovation*, 4(1), 46-58.