

SME Development, Inclusive Growth, and Poverty Alleviation in Bangladesh

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The massive involvement of SMEs in economic development is considered one of the important prerequisites for inclusive growth in developing countries. This paper aims to assess the performance of SMEs towards economic development in Bangladesh based on the research question of whether SMEs have a significant influence on economic growth and the alleviation of poverty. Annual time-series data from 1996 to 2017 have been used to carry out the empirical analysis. The econometric analysis has been performed employing OLS and 2SLS techniques to investigate the impact of SMEs on economic growth and poverty alleviation. The results of the empirical analyses show that there is an economic linkage between SME development, economic growth, and the incidence of poverty. Even though such empirical relationships are not found to be statistically well justified, an increase in the percentage share of SMEs expansion has a positive effect on economic growth, which in turn, can alleviate poverty in Bangladesh. The findings of the study suggest that in light of economic theory, SME development is implicitly essential for ensuring inclusive growth and consequent poverty alleviation.

Keywords: SME, Poverty Alleviation, Inclusive Growth, Bangladesh.

JEL Classification: C26, O47

I. INTRODUCTION

In South Asia, the prospective economy of Bangladesh has a number of emerging sectors. In the rapidly growing economy, small and medium-sized enterprise (SME) is one of the important sectors for generating huge employment opportunities and creating a significant number of entrepreneurs. Over the last decade, Bangladesh has been achieving stable output growth (ranging between 6 and 7 per cent), while the contribution of the SME sector has fostered the performance of the entire economy. In general, SME expansion increases the private ownership and business skills of entrepreneurs, and, finally, it makes a considerable contribution in enhancing exports and trades. In this context, huge attention is required in the policy-making process for the future development of the SME sector.

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For sustainable economic development, the Bangladesh Government has initiated the implementation of poverty alleviation action plans and strategies. The government has also implicitly undertaken many strategies at both macro and micro levels for reducing poverty substantially. Poverty free country is one of the major targets in the Sustainable Development Goals (SDGs), and that has to be achieved, along with other goals, by 2030. The targeted poverty reduction goal could be achieved through the rapid and sustainable growth of the SME sector. This sector can act as an accelerating force in inclusive economic growth by generating substantial employment and ensuring the proper distribution of income. The main advantage of SMEs is their labour-intensive nature, and most SMEs have lower capital intensity than larger industrial sectors. In terms of the merits of high labour intensity and low capital requirements, the entire SME sector provides huge benefits to private enterprises through their cost-effective business nature.

Bangladesh is an agricultural dominated country. According to the World Bank indicators in 2016, around 65 per cent of the total population still lived in rural areas. Most of the people in rural areas are involved in agricultural activities. Bangladesh can achieve significant development by establishing agriculture-based small and cottage industries. In many developing countries, a large portion of the private sector activities, including employment generation, mainly originated from the SME sector. Moreover, the SME function has expanded into the manufacturing, trade, and service sectors rather than the agro-based industry or the industries with lower dependence on technology. For maintaining rapid and sustained economic growth, the essential prerequisite is to reduce poverty, along with unemployment, and, with that in mind, the development of SMEs to ensure the ultimate goal of poverty reduction.

In almost every part of the world, the main barrier in the development of the private sector is limited access to finance. It has also been creating obstacles for SME funding in Bangladesh, where the entrepreneurs cannot get sufficient capital due to their limited access to finance from formal financial institutions. Timely financing in this sector can play a dominant role in the national production of Bangladesh by providing optimal employment with an increasing number of industries, which also increases the contribution of industrial production to GDP. The relative share of SMEs in the manufacturing industry is much higher, and this share in the total value-added ranges from 45 to 50 per cent in the manufacturing industry. Furthermore, developing new industrial enterprises, with efficient entrepreneurs, in the SME sector will ensure greater contributions to domestic production.

An integrated SME policy should be required for achieving the ultimate mission of SDGs, as the government has already completed its journey to the MDGs. The successful adoption of comprehensive SME sector development strategies can take the country's output growth to a satisfactory level. It has been proven worldwide that SMEs are the powerhouse of local trade, commerce, and industry. Despite lower energy supply, inadequate infrastructure facilities, and higher environmental risk, SMEs can contribute significantly to poverty reduction, employment creation, women empowerment, optimal distribution of income, and boost up the industrial production in Bangladesh.

This study attempts to evaluate the impact of the SME sector performance on inclusive economic growth and consequent poverty reduction in Bangladesh. In fact, the study is carried out based on the following research question. Do SMEs have any significant impact on inclusive growth and poverty alleviation in Bangladesh? The paper is structured as follows. Section II summarises the literature review, Section III discusses the methodology, Section IV presents the empirical findings and analysis, and Section V shows the current condition and comparison of the SME sector of Bangladesh, Section VI includes policy recommendations, and section VII concludes the paper.

II. LITERATURE REVIEW

Ahmed (1999) pointed out that the SME sector of Bangladesh cannot function properly in terms of product quality and the service facility in both local and international markets due to the lack of policy measures and proper initiatives, including lack of an appropriate support system. He also specifies that SMEs cannot collect adequate funds due to limited access to finance in the formal sources. As a result, inadequate investment in operating capital is a major problem in the development of SMEs in Bangladesh.

Raihan (2001) found that only 49.5 per cent of SMEs have access to formal sources of funding. Out of these SMEs, only 35.8 per cent have an advantage in access to the formal sources of credit without any restriction, and while the rest (13.7 per cent of SMEs) can get access to credit sources but face many restrictions. A small percentage of entrepreneurs use bank credit, which provides only about 20 per cent of their total outlay. About 59.6 per cent of SMEs have demand to manage their working capital from bank credit even though half of them can collect loans or funds from the banking system.

A Bangladesh Bank Report (2008) mentioned that SMEs are not performing properly in the manufacturing sector due to several constraints such as low

financial access, improper utilities and inadequate technologies. The banks and other financial institutions always try to fund the large firm clients for optimizing the transaction cost and greater possibility of getting collateral. Bangladesh Bank also focuses on SME financing by treating it as outside the range of micro-financing and, for this reason, the firms have to pay a higher interest rate for managing funds from formal credit sources.

Ahmed and Chowdhury (2009) tried to identify the problems of SMEs in Bangladesh. They found that the performance of this sector is below standard due to various reasons. This study also indicates that this sector does not get proper support from the government. They emphasize that the development rate of SMEs is not up to the expectation.

Chowdhury, Azam and Islam (2013) explored the potentials of SMEs in Bangladesh's economy. Using 100 SME units as the sample, this study found SMEs have significant potential for growth and poverty reduction. This study also indicates some constraints relating to SME financing.

Alauddin, Rahman and Rahman (2015) studied the contribution of SMEs in the development of Bangladesh using descriptive analysis. This study found that SMEs have a noteworthy contribution to GDP and other factors. They postulate that SMEs cannot function properly due to lack of financing, absence of political stability, etc.

Gebremariam, Gebremedhin and Jackson (2004) evaluated the role of small businesses in economic growth and poverty reduction in West Virginia. The results estimated, employing OLS and 2SLS, showed a positive relationship between small businesses and economic growth. Also, they found an inverse relationship between poverty alleviation and small business and economic growth. The findings of that study reveal the linkage between SME, economic growth, and the incidence of poverty.

Oba and Chima (2013) explored the role of SMEs in poverty reduction in Nigeria. Using an econometric model and employing the OLS estimation method, this study addressed how SMEs help reduce poverty through their employment generation activities. The empirical results indicate that SME income helps promote GDP growth through employment creation and thus reduces poverty.

Ali, Rashid and Khan (2014) examined the impact of SMEs on poverty in Pakistan. This study applied the log-linear autoregressive model estimated by the OLS technique. The findings of the study indicate that small-scale enterprises have

a strong negative impact on poverty in Pakistan. This study also suggests that a smooth financing procedure would help establish a robust SME sector in Pakistan.

Myslimi and Kacani (2016) investigated the impact of SMEs on the economic growth in Albania. The empirical results provide evidence that the major and micro-enterprises have impact on the economic growth of Albania. This study also reveals that large enterprises have a comparative advantage due to their economies of scale.

The background studies on the SMEs contribution in developing countries depict a comprehensive measurement of SMEs involvement in economic development. This paper is a modest attempt at exploring the performance of SME development towards inclusive growth in the economy of Bangladesh.

III. METHODOLOGY

The study is conducted mainly using secondary data collected from various publications of different organisations, such as the Bangladesh Bureau of Statistics, the Bangladesh Bank, the Ministry of Finance, and the World Bank. Some important relevant literature, information, writings, and quotations have been cited from different published papers. The interview of a few entrepreneurs has also been taken to justify the problem involved in the SME sector. Simple statistical techniques, such as average, percentage, etc., were used to process the collected data; the analytical part of this paper has been prepared in such a way that the description makes the study more informative and easily readable for the users. The impact of SMEs on growth and poverty alleviation has been performed using sophisticated econometric software, namely STATA.

3.1 Empirical Frameworks

The techniques used in this study have emphasized the macroeconomic relationships between SME development, output growth, and poverty reduction in Bangladesh. The implicit objective of the study is to explore the impact of SME (manufacturing) development on economic growth and poverty alleviation by controlling the other factors. The economic theory indicates that a change in SMEs is associated with a change in per capita real GDP and ultimately changes in the incidence of poverty if other factors remain constant. Sometimes, in practice, SMEs development may influence the change in poverty without affecting the

growth in per capita real income. According to Gebremeskel *et al.* (2004), empirical relationships can be specified in the following four econometric models.

$$LRIPC_t = \alpha_0 + \alpha_1 LSSMSP_t + \alpha_2 LUER_t + \alpha_3 LPCGE_t + \alpha_4 DLCPI_t + \alpha_5 TT + \varepsilon_{1t} \quad (1)$$

$$LPHCR_t = \beta_0 + \beta_1 LLRIPC_t + \beta_2 LLPHCR_t + \beta_3 LPCGE_t + \beta_4 DLCPI_t + \beta_5 TT + \varepsilon_{2t} \quad (2)$$

$$LPHCR_t = \gamma_0 + \gamma_1 LSSMSP_t + \gamma_2 LUER_t + \gamma_3 LPCGE_t + \gamma_4 DLCPI_t + \gamma_5 LLPHCR_t + \gamma_6 TT + \varepsilon_{3t} \quad (3)$$

$$LPHCR_t = \delta_0 + \delta_1 LSSMSP_t + \delta_2 LLRIPC_t + \delta_3 LPCGE_t + \delta_4 DLCPI_t + \delta_5 LLPHCR_t + \delta_6 TT + \varepsilon_{4t} \quad (4)$$

where,

LRIPC = Log of real income per capita

LLRIPC = One period lagged log of real income per capita

LSSMSP = Log of small-scale manufacturing sector production volume to real GDP

LPHCR = Log of poverty headcount ratio

LLPHCR = One period lagged log of poverty headcount ratio

LUER = Log of unemployment rate

LPCGE = Log of per capita government expenditure

DLCPI = Log difference of consumer price index

TT = Time trend variable

ε = Disturbance term

α , β , γ and δ = Regression constants and coefficients

3.2 Definition of Variables and Data Sources

In the models, real income per capita (RIPC), small-scale manufacturing sector production volume to real GDP (SSMSP) and poverty headcount ratio (PHCR) are considered a proxy for the real economic growth of SMEs, and the incidence of poverty. The study used real income per capita (RIPC) and poverty headcount ratio (PHCR) as dependent variables. On the other hand, the study used small-scale manufacturing sector production volume to real GDP (SSMSP), lagged real income per capita (LRIPC), unemployment rate (UEP), per capita government expenditure (PCGE), consumer price index (CPI), lagged poverty headcount ratio (PHCR), and a deterministic time trend variable (TT) as explanatory variables in the case of empirical relationships. The expected signs of the variables used in the empirical models, i.e., equations (1) to (4), are given in Table I.

TABLE I
EXPECTED SIGNS OF THE EXPLANATORY VARIABLES

Name of Variable	LSSMSP	LUER	LPCGE	DLCPI	LLRIPC	LLPHCR	TT
Equation (1)	(+)	(-)	(+)	(-)	N/A	N/A	(+/-)
Expected Sign	N/A	(+)	(+/-)	(+)	(-)	(+)	(+/-)
Equation (2) to (4)							

Note: N/A = Not Applicable

The real income per capita (RIPC) is computed by dividing the real gross domestic product (GDP) by the total population for each year. The small-scale manufacturing sector production volume to real GDP (SSMSP) refers to the volume/contribution of the small-scale manufacturing sector to real GDP. The consumer price index (CPI) is defined as the average price level of a market basket of consumer goods and services over a specific point of time. The poverty headcount ratio is the percentage of the total population living below the national poverty line. The per capita government expenditure (PCGE) is calculated by dividing the government budgetary expenditure by the total population for each year. The unemployment rate (UER) defines the percentage of unemployed people in the total labour force.

The empirical analysis is carried out using annual time series data from 1996 to 2017 for different variables specified in the models. The annual data on RIPC, SSMSP, and CPI (the base year 2005-06 = 100) have been collected from the Bangladesh Bureau of Statistics (BBS). The annual data on UER has also been collected from the BBS. The annual data on PHCR have been taken from the World Bank data and the annual information on PCGE from the Ministry of Finance, GoB.

3.3 Models and Estimation Techniques

In the empirical models, we considered UER along with SSMSP to explain the RIPC in the equation (1) because from countries that experienced good performing SMEs like Japan, South Korea, Singapore, Taiwan, Hong Kong and China, we learned that SME development is considered a growth driver through creating nationwide employment opportunities. In addition, the variables PCGE and CPI are also considered control variables in the sense that if the government expenditure is allocated more to development projects, it leads to greater employment creation, while higher inflation adversely impacts real income. A time-trend variable has also been included in equation (1) to focus on any combined trend in variable RIPC, and ε_1 is a residual in equation (1). In equations (2) to (4), all the econometric relationships depict the poverty measures in light of general macroeconomic performance along with employment generation capacity through SME development. A lagged dependent variable (LLPHCR) has been

incorporated into these three equations to reflect the dynamic effects of macroeconomic shocks, although without micro-level analysis, the incidence of poverty cannot be measured properly. Macroeconomic policies like increasing government expenditure on development works and SME sector development, to some extent, can have a large influence on employment generation among the marginal population, and poverty may be alleviated through distributing income to the poor people. As we know, poverty mainly belongs to the household level, the effects of macroeconomic performances on poverty alleviation are observed indirectly at a macro level. The overall unemployment rate (UER) is considered to cover the labour market opportunities among the poor.

On the other hand, the inclusion of variable PCGE in all the equations is allowed to capture the effects of government expenditure on growth and poverty reduction. The inflation variable is incorporated in the equations to explore any impact of inflationary fluctuations on output growth and the incidence of poverty. Since high inflation deteriorates the real output, poor people become poorer due to their decreasing purchasing power. A time-trend (TT) variable is included to capture any drift that is not explained in the poverty measure.

Applying the OLS technique, the log-log regression models are estimated in this study using annual time-series observations from 1996 to 2017. The estimated models predict how the independent variables explain the dependent variables in terms of elasticity measure. While time-series variables may usually have non-stationary problems, in practice, the variables can be stationary in their first difference, i.e., $I(1)$. Although we included the deterministic time-trend variable in the models to mitigate the stationary assumptions, using time series observations, the OLS estimations can violate the assumption of classical regression that independent variables do not correlate with error terms. In general, this may happen when a variable is endogenous but included in the model as an explanatory variable.

After performing the diagnostic tests for normality, autocorrelation, and heteroskedasticity of the residuals in the OLS estimation, we applied the two-stage Hausman (1978) technique intending to determine the simultaneous bias problem. This technique is applied to avoid the reverse causality problem, which, in this case, is that the rate of SMEs development depends largely on the rate of GDP per capita growth (Carree *et al.* 2002, Beck, Demirguc-Kunt and Levinr 2003). To detect the endogeneity problem, the regression equation is computed taking the possible endogenous-explanatory variable as a dependent variable and other remaining variables with an instrument as the explanatory variables, and the residuals are retrieved in the first stage analysis. In the second stage of the analysis, the estimated residuals are used as an exogenous variable in the first regression

equation. If the coefficient of residuals is not significantly different from zero, then the simultaneous bias or endogeneity problem is absent in the suspected variable.

The robustness of the results from the OLS estimation in the first specified regression equation is assessed by applying the instrumental variable (IV) regression technique using the one-period lag of SME sector development as an instrumental variable. To avoid any simultaneous bias, we used the two-stage least squares (2SLS) technique for extracting the exogenous component of the SMEs expansion that explained the variations in real income. The econometric analysis of this study has been carried out using the sophisticated statistical software STATA 14.

IV. EMPIRICAL FINDINGS AND ANALYSIS

Table II summarises the estimation results of equation (1) using OLS and 2SLS techniques. Since our regression equation is in log-log form, the coefficients depict the elasticity of the concerned dependent variable in terms of each of the explanatory variables. The OLS estimation shows that SME development has a very low and insignificant association with economic growth; however, the relationship is in the right direction, which means we found the expected positive sign. The cause for insignificant and very low elasticity of SMEs expansion in economic growth may be that the SME development in Bangladesh is still not in such a stage that it can significantly stimulate economic growth. However, the expected sign indicates a hopeful future.

The relationship between SME development and economic growth is found to be robust, to some extent, because all the explanatory factors have shown the expected impact on economic growth; however, all of them have insignificant elasticity except per capita government expenditure (PCGE). The unemployment rate and the inflation rate show a counter-cyclical effect on economic growth, but the elasticity of RIPC in UER and CPI is not statistically significant.

From the OLS estimation, presented in Table II, theoretically, it may seem that the relationship between SMEs improvement and the growth rate of the economy of Bangladesh is robust in the sense of the expected signs of the relationship even though these are not statistically well approved, based on this study. Using time-series data, the OLS estimation may not be able to fulfil the standard regression assumptions due to violation of the stationary property. Then, we performed the diagnostic tests for autocorrelation, heteroskedasticity, and normality of the estimated residuals. The results of the different tests show the estimated residuals are normally distributed and free from heteroskedasticity problems, but only the serial correlation problem is found (see Appendix 1).

Since we used OLS estimation, it is difficult to identify whether SME development has a causal effect on economic growth because this result may have simultaneity bias. To detect the endogeneity problem, we used a two-stage Hausman's test in this analysis. In the first stage, residuals are retrieved considering LLSSMSP as an instrument. Using retrieved residuals as an additional explanatory variable, we estimated the second-stage regression, which shows that the coefficient of the retrieved residuals is not significantly different from zero. It is a clear indication that there exists no endogeneity problem in equation (1) (see Appendix 2).

TABLE II
FINDINGS OF OLS AND 2SLS ESTIMATIONS OF EQUATION (1)

Regressor	Dependent Variable: LRIPC	
	OLS Regression	2SLS Regression
LSSMSP	0.0455(0.032)	0.036(0.048)
LUER	-0.0061(0.015)	-0.006(0.013)
LPCGE	0.086**(0.030)	0.084*** (0.026)
DLCPI	-0.121(0.107)	-0.114(0.094)
TT	0.032*** (0.005)	0.033*** (0.005)
Constant	8.849*** (0.447)	8.962*** (0.612)
Adjusted R ²	0.9987	0.9986
No. of Observations	21	21

Source: Author's calculations.

Note: 1. Standard errors are in parentheses. 2. *** and ** indicate the 1% and 5% level of significance respectively.

The results of the 2SLS estimation presented in Table II also support the finding of the test of endogeneity and the SMEs development has a positive association with economic growth, but it is not statistically significant. Hence, it may be concluded that the exogenous component of SMEs expansion has an economically significant positive association with economic growth in Bangladesh but that relationship is not statistically significant.

The next part of the empirical analysis consists of the other three respective OLS regression equations to explore the linkage between SMEs, economic growth, and poverty alleviation. The first regression equation investigated the impact of growth on poverty reduction. The second regression equation examined the relationship between SMEs and the incidence of poverty. The final regression equation explored whether SME development has an influence on the poverty level distinctively despite its association with the growth rate of the economy. All of these regression estimation results are presented in Table III.

Column 2 of Table III depicts the results of the regression equation of LPHCR on LLRIPC and other control variables, including LPGE. These results indicate

that economic growth implies a counter-cyclical impact on the incidence of poverty. The estimated coefficient is not statistically significant, but the expected negative sign gives economic insight into the specified relationship. The estimated coefficients of other explanatory variables are insignificant except the variable LLPHCR, but all these estimated results demonstrate the expected signs. However, this estimation shows the expected inverse relationship between economic development and the incidence of poverty.

The estimated results of equation (3) are presented in column 3 of Table III. This estimation shows that the coefficients of LLPHCR, LPCGE, DLCPI, and TT depict similar types of results to that of column 2 of Table III. SMEs have a weak counter-cyclical effect on poverty measures, but it is statistically insignificant. In the case of the unemployment rate, the sign of the coefficient gives an ambiguous result, and it is statistically insignificant. Although the SMEs and poverty alleviation relationships are not statistically established, it has some merits in true economic relation.

TABLE III
RESULTS OF OLS ESTIMATION OF EQUATIONS (2), (3) AND (4)

Dependent Variable: LPHCR			
Regressor	Equation (2)	Equation (3)	Equation (4)
LSSMSP	-	-0.049(0.044)	-0.026(0.055)
LLRIPC	-0.521(0.554)	-	-0.326(0.704)
LLPHCR	0.653***(0.178)	0.694***(0.131)	0.678***(0.191)
LUER	-	-0.021(0.021)	-
LPCGE	0.0828(0.053)	0.029(0.062)	0.069(0.063)
DLCPI	-0.104(0.179)	-0.044(0.157)	-0.069(0.198)
TT	-0.002(0.019)	-0.013*(0.006)	-0.006(0.021)
Constant	5.986(6.039)	1.600(1.217)	4.334(7.129)
Adjusted R ²	0.9972	0.9972	0.9971
No. of Observations	21	21	21

Source: Author's calculations.

Note: 1. ***, ** and * indicate the 1%, 5% and 10% level of significance respectively.

The anticipated results of equation (4) are presented in column 4 of Table III. In this estimation, LSSMSP and LLRIPC include the macroeconomic determinants of poverty reduction. The estimated coefficients of all other explanatory variables illustrate similar types of results to those estimated in equations (2) and (3). In particular, this result shows the way to extract the component of the SMEs effect on the poverty measure. Moreover, these findings depict that LLRIPC and LSSMSP are negatively associated with the incidence of poverty. So far, this estimation also demonstrates that the autonomous effect of SMEs development on poverty alleviation is not so strong. Even though the relationships are insignificant, somewhat these relations have a useful economic linkage. The results from Table III also indicate that per capita government expenditure has an adverse impact on poverty reduction although these are not statistically significant. In a true sense, it demonstrates that if government development expenditure is not allocated in such projects that can create employment for the poor, it does not help alleviate poverty.

In general, the overall results from the above empirical analyses provide evidence of an economic linkage between SME development, economic growth and the incidence of poverty. Even though these relationships are not statistically well justified, an increase in the percentage share of SMEs expansion has a positive effect on economic growth, and thus it can alleviate poverty in Bangladesh.

V. CURRENT CONDITION AND COMPARISON OF THE SME SECTOR IN BANGLADESH

In Bangladesh, the SME scenario illustrates that it accounts for about 80 per cent of the total enterprise units and the job opportunities it provides account for about 40 per cent of total employment. The contribution of SMEs to gross value added is around 22.5 per cent while its contribution to total exports is about 11.3 per cent. After comparing the recent SMEs performance in Bangladesh with the countries of good performing and not good performing SMEs, we found that in contrast to other neighbouring South Asian countries, the SME sector of Bangladesh is not performing well to stimulate economic development and attain satisfactory growth in SME sector as well.

At present, Bangladesh has initiated different kinds of acceptable strategies for the improvement of the SME sector. Despite these policies, the entire SME sector is still facing a huge number of barriers. Due to these barriers, the SMEs of Bangladesh are not able to contribute to economic development properly. The

major obstacles in different steps of SME activities in Bangladesh are as follows: (1) High interest rate with limited access to finance; (2) Absence of modern technology; (3) Inadequate infrastructure development; (4) Insufficient research and development facilities; (5) Furious competition with the cheaper foreign goods.

Figure 1: SMEs as % of All Enterprises

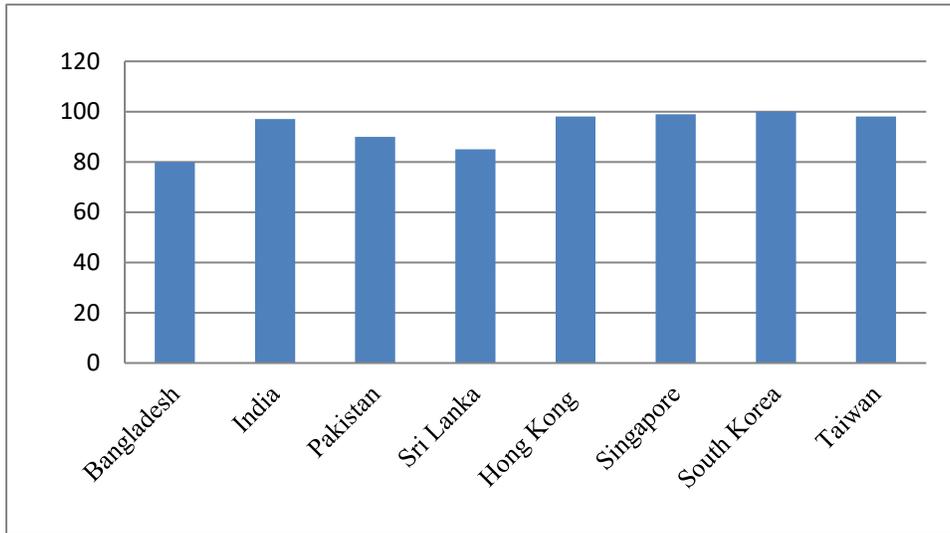


Figure 2: Contribution of SMEs to Total Employment (%)

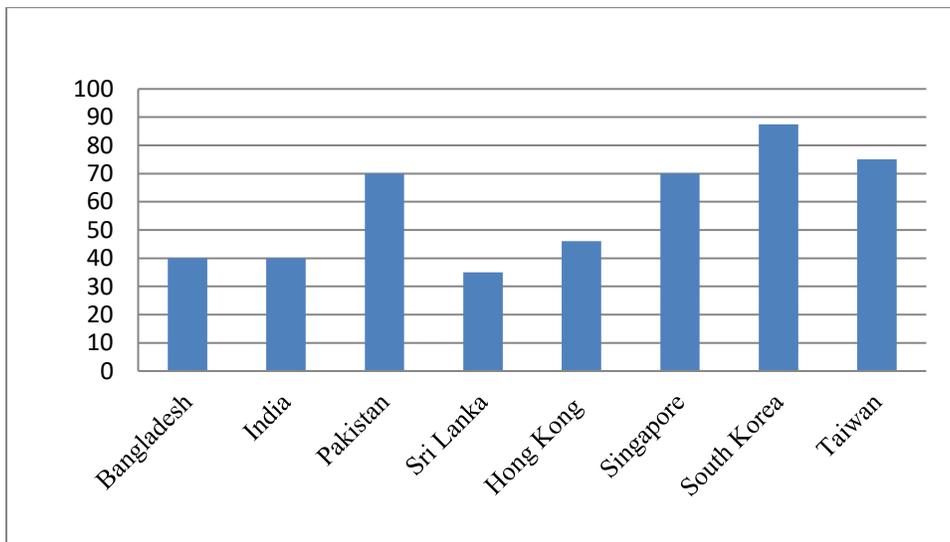


Figure 3: Contribution of SMEs to GDP (%)

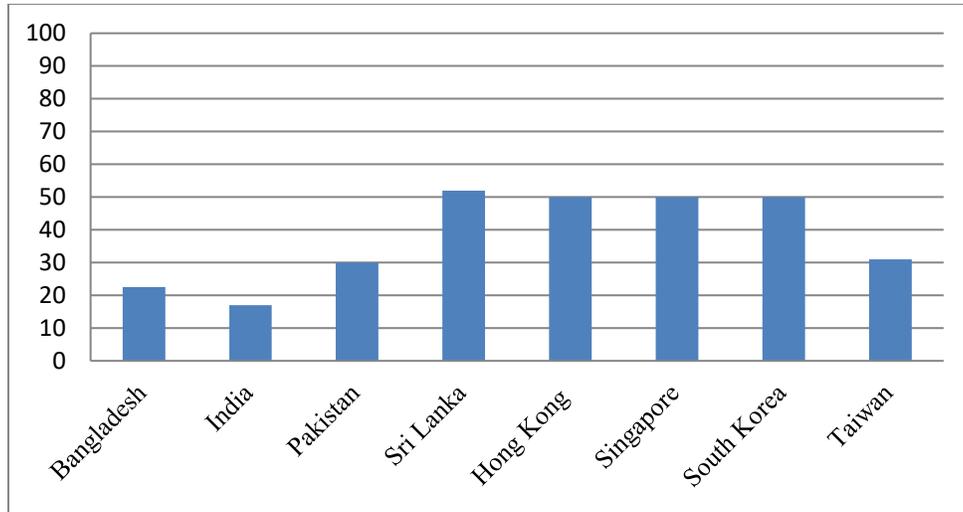
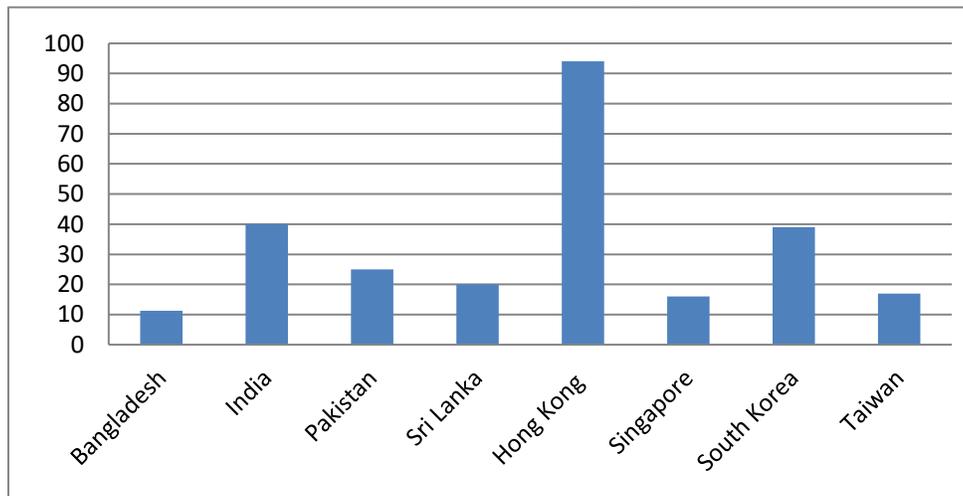


Figure 4: Share of SMEs to Total Exports (%)



Source: Various statistical agencies (Small Business and Entrepreneurship Council, Business in Asia etc.)

Note: (i) SME definition varies by economy/country. (ii) Uses most recently available data.

VI. POLICY RECOMMENDATIONS FOR IMPROVING SME PERFORMANCE

It is assumed that the SME sector will be the main driving force for income and employment generation in Bangladesh if proper policy measures are implemented. Developing entrepreneurial skills and creating a sufficient number of entrepreneurs are the essential prerequisites for managing SMEs efficiently. A

dynamic or prospective entrepreneur can utilise the resources of SMEs in an innovative way so that the SMEs can perform their activities well. As we live in the era of entrepreneurs, the government and private sectors should invest a lot to develop skilled entrepreneurs for establishing good performing SMEs. The development of good performing SMEs is the time demand requirement for employment generation and improving the living standard of poor people in Bangladesh. For the quality assurance and vast improvement of the SMEs performance, target-based SME sector development strategies are needed. We suggest the following recommendations regarding policy reforms to improve the performance of SMEs in Bangladesh.

1. The formal credit sources should be required to enhance the limits of SME financing with easy access to financing procedures, and it is necessary to change their view towards SME financing. Only banks and donor funds are not sufficient for the development of SMEs. Government and other related organisations should arrange more reliable sources of SME financing.
2. The interest rate should be lower for the optimum mobilisation of capital to SME entrepreneurs. Banks and other credit sources should reduce their collateral requirement at a logical stage. Access to financing should be easy so that firms can get financing despite their constraint of collateral.
3. The government could impose different restrictions on imported SME products available in our local markets to protect our local companies.
4. Adopting technological innovation and using modern technology in SMEs can ensure sustainable development in the growth of the SME sector.
5. Research and Development (R&D) is one of the essential tools for improving the performance of SMEs. Therefore, the government must provide proper planning and necessary investment in R&D for promoting the performance of the SME sector in Bangladesh.

VII. CONCLUSIONS

For the sake of a growing economy, SMEs could play an important role in enhancing the inclusive development of Bangladesh. Recently, most Asian countries have paid comprehensive attention to conducting their development activities in ways that mainly focus on the SME sector. The present study depicts clearly that, in light of economic relations, SME development is implicitly essential for ensuring inclusive growth and consequently poverty alleviation. In fact, this study did not provide true/significant statistical evidence about the impact of SME development on economic growth and the incidence of poverty. However,

the overall analysis from the study provides evidence that there is an economic linkage between SME development, economic growth, and poverty alleviation.

In contrast to the SMEs performance of neighbouring or other Asian countries, the SME sector of Bangladesh is not performing well. Therefore, the government and other relevant organisations like Bangladesh Bank should consider the suggestive measures recommended in this study and take necessary initiatives to implement the integrated strategies. Bangladesh has already graduated into the process of a developing country. By 2024, Bangladesh has to fulfil every kind of necessary development process to enter into a full-phased developing nation. A lot of attention has to be paid to improving the performance of the SME sector and other sectors of the economy. The advantage of the SME sector is that due to its labour-intensive industrial nature, it can create significant employment opportunities and reduce the income gap by generating more income. Ultimately, it will reduce the incidence of poverty by enhancing inclusive economic growth. Considering the remarkable contribution of SMEs to the overall growth and sustainable economic development, it is essential to take further appropriate steps to promote the growth of SMEs in Bangladesh; otherwise, the inclusive growth process would not be sustainable.

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Appendix 1

Autocorrelation Test

lags (p)	Chi ²	df	Prob > chi ²
1	6.968	1	0.0083

Heteroskedasticity Test

Source	Chi ²	df	p
Heteroskedasticity	21.00	20	0.3971
Skewness	8.09	5	0.1513
Kurtosis	0.48	1	0.4875
Total	29.57	26	0.2857

Normality Test

Variable	Obs.	Pr (Skewness)	Pr (Kurtosis)	adj Chi ² (2)	Prob>chi ²
resid	21	0.1103	0.9946	2.87	0.2376

Appendix 2:

First Stage Regression Used for Retrieving Residuals

Dependent Variable: LSSMSP	
Regressor	Coefficient
LSSMSP	0.6779075** (0.2556717)
LUER	-0.0683517 (0.0998992)
LPCGE	-0.2030881 (0.2021116)
DLCPI	-0.7004979 (0.8698325)
TT	0.0493432 (0.0283)
Constant	5.215397 (3.000045)
Adjusted R ²	0.9776
No. of Obs.	21

Note: 1. Standard errors are in parentheses. 2. ** indicates the 5% level of significance.

Second Stage Regression for Test of Endogeneity

Dependent Variable: LRIPC	
Regressor	Coefficient
LSSMSP	0.0498025 (0.0400002)
LUER	-0.0063886 (0.0153534)
LPCGE	0.0843401** (0.0320695)
DLCPI	-0.1147845 (0.1151262)
TT	0.0327744*** (0.0063708)
Residuals	-0.0136191 (0.0708085)
Constant	8.961714*** (0.7447019)
Adjusted R ²	0.9986
No. of Obs.	21

Note: 1. Standard errors are in parentheses. 2. *** and ** indicate the 1% and 5% level of significance respectively.

Appendix 3:

2SLS Instrumental Variable Regression

Dependent Variable: LRIPC	
Regressor	Coefficient
LSSMSP	0.036183 (0.0479034)
LUER	-0.0063886 (0.0125878)
LPCGE	0.08434*** (0.0262929)
DLCPI	-0.1147843 (0.0943884)
TT	0.0327744 (0.0052233)
Constant	8.961718 (0.6105591)
Adjusted R ²	0.9990
No. of Obs.	21

Note: 1. Standard errors are in parentheses. 2. *** indicates the 1% level of significance.