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# Promoting Factors of SMEs in Bangladesh: A Comprehensive Study

Rashid, Md. Abdur

University of Rajshahi

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# **Promoting Factors of SMEs in Bangladesh: A Comprehensive Study**



**M.Phil Dissertation**

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Roll No: 1513035501, Session: 2014-2015

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**December, 2021**





# Promoting Factors of SMEs in Bangladesh: A Comprehensive Study



*This Dissertation is Submitted to the Department of Marketing,  
University of Rajshahi for the Partial Fulfillment of the Degree  
of Master of Philosophy*

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**December, 2021**




## **DEDICATION**

**To my parents and my wife with  
deepest respect and appreciation**

## Declaration

I, Md. Abdur Rashid hereby declare this thesis, entitled “**Promoting Factors of SMEs in Bangladesh: A Comprehensive Study**” is my own research and the dissertation prepared by me under the supervision of Dr. Md. Nuruzzaman and Dr. A.K.M. Golam Rabbani Mondal, Professor, Department of Marketing, University of Rajshahi. I further declare that this work has not already been accepted for any degree, and is not being simultaneously submitted in candidature for any other degree.

 26.12.21

**Md. Abdur Rashid**

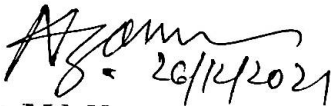
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## Certificate

This is to certify that this thesis, entitled “**Promoting Factors of SMEs in Bangladesh: A Comprehensive Study**” carried out under strict supervision and has been approved for submission to the University of Rajshahi in partial fulfillment of the requirements for the award of the Degree of Master of Philosophy in Business Studies is a original research work done by **Md. Abdur Rashid, Roll No: 1513035501, Session: 2014-2015 during the period 2014-2021** of his study in the Department of Marketing, University of Rajshahi, Rajshahi -6205 , Bangladesh under our supervision and guidance. This thesis has not formed the basis for the award of any Degree/ Diploma/ Fellowship or other similar title of any candidate of any University

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**Md. Abdur Rashid**

## Abstract

The specific objectives of this study are to investigate the effect of the promoting factors on the success of SMEs in Bangladesh and to identify the moderating effect of entrepreneur's skills between the relationship of the promoting factors and the success of SMEs in Bangladesh. This study was conducted on 100 SMEs of Rajshahi District of Bangladesh by preparing the structured interview questionnaire in collecting the data about selected factors regarding SMEs of the owners and managers of the firm. Smart partial least squares (PLS) version 3.0 computer software based structural equation modelling (SEM) technique developed by Chin (1998); Gefen, Straub, and Boudreau (2000) was used to analyze the data as well as to test the associated hypotheses. A research model was developed after reviewing the literature and on the basis of that model hypothesis were developed. Quantitative approach and closed-ended questions were used in this study. The non-probability sampling specifically convenient sampling was used to draw the sample from research population. In this study, the survey was conducted among 450 respondents at the owner and managerial level of SMEs in Bangladesh where 399 questionnaires were usable. A 7-point Likert scale questionnaire was used to collect the information to measure the factors and constructs of the proposed model.

In this research, data was analyzed by structural equation modelling. With the support of SPSS version 23 and Smart-PLS 3.0., this section deals with data interpretation and conclusions in line with the hypotheses. The analysis is followed by the assessment of the measurement model in relation to convergent validity, construct reliability and validity, and eventually, discriminant validity in various sub-sections. To test the structural model, structural model estimation,  $R^2$ ,  $f^2$ , multi-collinearity (VIF) and predictive relevance ( $Q^2$ ) were used. The details of the path coefficient (direct relationship), the results of the study of moderation and mediation, the summary of the hypotheses were presented.

The result of this study shows that marketing network is most affecting factor that create the effect on the success of SMEs in Bangladesh. The findings of this study are

beneficial to various stakeholders of SMEs in Bangladesh that includes owners, managers, employees, creditors, suppliers, customers, policy makers finally government and other various private organizations in making policy, strategy as well as setting goals. The most important contribution of the research is to identify the vital factors that affect the success of SME in Bangladesh.



## Table of Contents

Declaration .....	i
Certificate.....	ii
Acknowledgements.....	iii
Abstract .....	iv
Table of Contents .....	vi
List of Tables .....	x
List of Figures .....	xi
List of Abbreviations .....	xii
<b>Chapter One : Introduction .....</b>	<b>1</b>
1.1 Overview .....	1
1.2 Background of Research.....	2
1.3 Statement of the Problem and Question of the Research .....	3
1.4 Objectives of the Research .....	4
1.5 Definition of SMEs.....	4
1.6 Significance of the Research .....	7
1.6.1 Theoretical contribution.....	8
1.6.2 Practical contribution .....	8
1.7 Thesis Structure .....	9
1.8 Summary.....	10
<b>Chapter Two : The Overall Scenario of SMEs in Bangladesh.....</b>	<b>11</b>
2.1 Introduction .....	11
2.2 Definition of SMEs in Bangladesh.....	11
2.3 Motivation for choice of SME.....	13
2.4 Contribution of SME in Bangladesh .....	14
2.5 Prospects SME in Bangladesh.....	16
2.6 Growth and challenges of SME in Bangladesh .....	18
2.7 Source of Finance of SME.....	20
2.8 Success of SMEs in Global Economy .....	21



<b>Chapter Three : Review of Literature .....</b>	<b>22</b>
3.1 Introduction .....	22
3.2 Literature about Promoting Factors .....	23
3.3 Literature about Entrepreneur's Skill .....	27
3.4 Literature about Role of SMEs .....	28
3.5 Literature about Problems of SMEs .....	29
3.6 Review of Theories.....	32
3.6.1 Stakeholder Theory .....	32
3.7 Justification for Adoption of the Stakeholder Theory .....	32
3.8 Proposed Prilimany Research Model .....	32
3.9 Summary.....	38
 <b>Chapter Four : Research Methodology.....</b>	 <b>39</b>
4.1 Introduction .....	39
4.2 Research Paradigm .....	39
4.3 Research Methods.....	41
4.4 Research Process .....	41
4.5 Study Method .....	42
4.5.1 Questionnaire Development .....	43
4.5.2 Questionnaire Measurement .....	43
4.5.3 Sample Selection and Data Collection .....	44
4.5.4 Analysis of Data .....	45
4.5.5 Partial least squares (PLS) data analysis procedure.....	46
4.6 Summary.....	47
 <b>Chapter Five : Data Analysis .....</b>	 <b>48</b>
5.1 Introduction .....	48
5.2 Preliminary Data Examination .....	48
5.3 Non-response rate .....	48
5.4 Dealing with missing responses .....	49
5.5 Data cleaning and screening .....	49
5.6 Outliers .....	50
5.7 Data Normality .....	52

5.8	Profile of Respondents .....	54
5.9	Structural Equation Modelling (SEM) Evaluation .....	56
5.10	Assessment of the Measurement Model .....	57
5.10.1	Construct validity and reliability .....	57
5.10.2	Convergent validity .....	58
5.10.3	Measurement of discriminant validity.....	60
5.11	Assessment of Structural Model.....	62
5.11.1	Result of multi-collinearity (Variance Inflator Factor-Inner VIF).....	63
5.11.2	Coefficient of Determination ( $R^2$ ).....	64
5.11.3	Effect size ( $f^2$ ).....	64
5.11.4	Path Coefficient.....	64
5.11.5	Moderating effect.....	65
5.11.6	Predictive Relevant ( $Q^2$ ).....	66
5.11.7	Summary of the analysis .....	67
<b>Chapter Six :</b>	<b>Discussion.....</b>	<b>69</b>
6.1	Introduction .....	69
6.2	Discussion of the Result .....	69
6.2.1	Hypothesis related to market accessibility and networking.....	70
6.2.2	Hypotheses related to government policies on success of SME.....	70
6.2.3	Hypotheses related to financial support on success of SME .....	71
6.2.4	Hypotheses related to training and development on success of SME ...	71
6.2.5	Hypotheses related to modern technology on success of SME .....	72
6.2.6	Hypotheses related to entrepreneur's skills between the relationship of market accessibility and networking and success of SME .....	72
6.2.7	Hypotheses related to entrepreneur's skills between the relationship of government policies and success of SME .....	73
6.2.8	Hypotheses related to entrepreneur's skills between the relationship of financial support and success of SME.....	73
6.2.9	Hypotheses related to entrepreneur's skills between the relationship of training and development and success of SME .....	74
6.2.10	Hypotheses related to entrepreneur's skills between the relationship of modern technology and success of SME .....	74
6.3	Summary.....	75

<b>Chapter Seven : Conclusions and Further Directions.....</b>	<b>76</b>
7.1 . Introduction .....	76
7.2 Summary of the Research.....	76
7.3 Research Contribution .....	77
7.3.1 Contribution to Methodology .....	77
7.3.2 Contribution to Theory .....	77
7.3.3 Contribution to Practice .....	79
7.4 Limitations of the Research.....	80
7.5 Further Directions of the Research .....	81
<b>References.....</b>	<b>82</b>
<b>Appendix.....</b>	<b>102</b>

## List of Tables

Table 1.1:	Definition of Small and Medium Enterprises with European Union standards.....	5
Table 1.2:	Definition of Small and Medium Enterprises by World Bank standards.....	5
Table 1.3:	Definition of Small and Medium Enterprises in China.....	6
Table 1.4:	Definition of Small and Medium Enterprises in India.....	6
Table 2.1:	Bangladesh Bureau of Statistics classified the following categories .....	12
Table 2.2:	Number of SMEs in Bangladesh up-to 2018 .....	12
Table 2.3:	Shows the number of SMEs in Bangladesh from 2012 to 2019. ....	13
Table 2.4:	Contribution of SMEs to GDP: .....	14
Table 2.5:	Share of SMEs in all enterprise.....	14
Table 2.6:	The overall contribution of SMEs in Bangladesh .....	15
Table 2.7:	Export Earnings of SMEs of other country .....	15
Table 2.8:	Employment Scenario of Different Country .....	16
Table 2.9:	The contribution of SMEs to GDP of Bangladesh in fiscal year 2017-2018.....	18
Table 2.10:	The growth/ decline rate of SMEs from 2012 to 2019.....	20
Table 2.11:	SME Financing by Banks and NBFIs .....	20
Table 3.1:	Literature Review Matrix .....	30
Table 4.1:	View of Research Paradigms .....	40
Table 5.1:	Result of univariate outliers based on standardized values.....	50
Table 5.2:	Assessment of data normality .....	53
Table 5.3:	Demographic profile .....	55
Table 5.4:	Construct reliability and validity.....	59
Table 5.5:	Fornell-larcker criterion .....	61
Table 5.6:	Heterotrait-monotrait (HTMT).....	61
Table 5.7:	Discriminant Validity- Cross Loadings.....	62

Table 5.8:	Result of multicollinearity–Inner VIF values.....	63
Table 5.9:	R-square result.....	64
Table 5.10:	f-square result.....	64
Table 5.11:	Path coefficient result.....	65
Table 5.12:	Moderating effect.....	66
Table 5.13:	Cross validated redundancy.....	67

## List of Figures

Figure 3.1:	Proposed research model.....	35
Figure 4.1:	Research process.....	42
Figure 5.1:	Measurement Model.....	60

## List of Abbreviations

AVE	:	Average Variance Extracted
BEIOA	:	Bangladesh Engineering Industry Owners' Association
BBS	:	Bangladesh Bureau of Statistics
CB	:	Covariance Base
CFA	:	Confirmatory Factor analysis
EO	:	Entrepreneurial Orientation
FY	:	Fiscal Year
GDP	:	Gross Domestic Product
GSP	:	Government Support Policy
HTMT	:	Heterotrait-Monotrait
ICOSA	:	International Cooperation Organization for Small and Medium Enterprises
ICT	:	Information Communication Technology
JBCCI	:	Japan Bangladesh Chamber of Commerce and Industry
MFI	:	Microfinance Institution
NAICS	:	North American Industry Classification System
NBFI	:	Non-Banking Financial Institutions
NGOs	:	Non-Government Organizations
PF	:	Promoting Factors
PLS	:	Partial Least Squares
SBA	:	Small Business Administration
SMEs	:	Small and medium enterprises
SEM	:	Structural Equation Modelling
STDEV	:	Standard Deviation
VIF	:	Variance Inflation Factor-Outer
VIF	:	Variance Inflation Tolerance

# Chapter One

## Introduction

### 1.1 Overview

Small and Medium Enterprises (SMEs) are considered as the key contributor of economic development in any country. The case of Bangladesh is alike where SMEs are keeping tremendous contribution in mobilizing the resources and wealth maximization. Thus, how SMEs would be successful become an essential topic in the government's development policy agendas. Previous researches focus on various aspects of SME development. Philip (2010) explored various effects of product and services, external factors, and management know how on the success of SMEs in the context of Bangladesh. The economic efficiency and overall performance of SMEs in the developing countries concerned with the different initiatives and the policy taken by the government for the promotions of SMEs (Uddin, 2008). SMEs is a business of employing limited number of peoples that has limited number of investments. SME is a business of big opportunity. Despite of having world economic crisis and other limitations of economy the total production of Bangladesh increased where the GDP rate was greater by six percent than the financial year of 2014-15 and about seven percent in the fiscal year of 2014-2015 (Bangladesh Economic Review, 2016).

SMEs act as the means of generating new employment, poverty reduction and quick revolution of industry (Ahmed, 2009). All countries in the world are focusing on developing the SMEs sectors for the rapid improvement in this field and trying to develop the new entrepreneurs (Abdin,2015).

Different country fusing on the different methods, tools, techniques, strategy, policy resources and many dimensions of improvement to develop the SMEs vastly where in China 'One Region One Industry', and in Japan 'One Village One Product' motto is being used (Ibid).



SMEs set the skill of entrepreneurs to cope with the changing nature of business (Zaman and Islam, 2011). This business is facing many problems in Bangladesh (Taslim, 2014). SMEs can contribute to the economy if the financing problem is solved like breaking the syndicate of financing, limitations of government interventions, improper training for people and other constraints (Chowdhury, Azam, and Islam, 2013). Hence, the proper initiatives of the government specially developing the infrastructure of it may eradicate the problems or remove the challenges of this field (Qamruzzaman, 2015). The success of SME financing is very high but the loan disbursement in this field is very limited (Bosri, 2016). Suitable and sustainable policy formulation and implementation is essential to enhance the competency of this business (Alam, and Ullah, 2006). Hence, the government and related agency should focus on the promoting factors of the SME sector and should provide proper and sufficient facilities with financial incentives for its development

In this context, stakeholders of SMEs influence in promoting the success of it and overcoming the problem also. Hence, stakeholder theory is applied in this study to identify the promoting factors. This can be achieved by focusing on the specific stakeholders of SMEs despite of having some problems. On the basis of stakeholder theory, external and internal stakeholders may formulate and implement appropriate policy to increase the overall competency of entrepreneurs as well as success of SMEs in Bangladesh.

This study focused on the promoting factors, the problems or challenges and prospects of SMEs and the impact of promoting factors on SMEs in Bangladesh. Our study is structured as follows: overview of SMEs in Bangladesh, the overall scenario of SMEs in Bangladesh, literature review of SMEs, research methodology, analysis of data, discussion, and finally, the conclusion, limitations and further research directions.

## **1.2 Background of Research**

Small and medium enterprises are the essential contributor in the economy of the country. In Bangladesh SMEs are keeping the tremendous contribution in mobilizing the cycle of wealth maximization. As earlier it is said that, in Bangladesh product and services, external factors and management know how affect the success of SMEs (Philip, 2010). He also focused on the value-added product or services, social network



building that will help entrepreneurs to reduce the risk and cost of transactions, improve access to business, ideas, knowledge and capital. Government support and legal aspects is necessary to develop or promote the SMEs in Bangladesh. King and McGrath (2002) showed that the education is the influencing factor on the progress and development of the organizations.

It is seen that many initiatives in the SMEs are pull down because of various factors. Some factors are inspiring and some are dispiriting. To promote this industry the government incentives are insufficient and the action plan is not so long term oriented for its survival. As a result, the entrepreneurship in this business arena is failed. Therefore, we have to focus on the success factors of SMEs. Moreover, the SMEs are concerned with huge challenges and problems to flourish. These challenges and problems should be addressed strongly focusing on the promoting factors of it. Hence, this study will reveal these success factor that inspires SMEs in Bangladesh.

### **1.3 Statement of the Problem and Question of the Research**

Small and Medium Enterprises in Bangladesh is growing rapidly. It has the immense opportunity to establish itself with long term survivability. In many locations of the country this industry is facing many problems and trying very hardly to move on. It struggles for many wanted issues like sufficient capital, entrepreneurial training, industrial infrastructure, effective human resources, proper market segmentation, demographic problems and other social barriers. If proper action and plan is taken, this industry can go forward. The capacity building of the entrepreneur and the more facilities should be increased that are necessary for them. Thus, the study on promoting factors of SMEs in Bangladesh is undoubtedly essential. This study has analyzed a theoretical concept to empirically explore and test the relationships among the effect of entrepreneur's skills, affecting factors and the success of SMEs in Bangladesh. Therefore, this research intends to investigate the following research questions preliminary by considering the above problems:

RQ1. Do promoting factors affect the success of SMEs in Bangladesh?

RQ2. Do entrepreneurs' skills moderate the relationship between the promoting factors and the success of SMEs in Bangladesh?

## 1.4 Objectives of the Research

The main purpose of the study is to find the promoting factors of SMEs in Bangladesh.

The specific objectives of this study are:

RO1. To investigate the effect of the promoting factors on the success of SMEs in Bangladesh.

RO2. To identify the moderating effect of entrepreneur's skills between the relationship of the affecting factors and the success of SMEs in Bangladesh.

## 1.5 Definition of SMEs

SMEs is a business of employing limited number of peoples that has limited number of investments. European Union (2003) defined SMEs that has twenty-five employees with annual turnover of fifty million euros maximum and the small business will have fewer than fifty employees and less than ten million euros.

World Bank (2006) defined medium enterprises as the enterprises that will have three hundred employees mostly and fifteen million dollars will be the highest turnover. Again, the small business will have fewer than fifty employees and three million US dollars annual turnover where micro enterprise belongs to ten employees with one lac US dollar. In UK according the sections 382 and 465, Company Act 2006, the employee will be fifty and the annual turnover 5.6 million euros. Medium enterprise belongs to 22.8 million euros and the maximum number of employees two hundred fifty employees.

This definition is not universally applied. The US set standard of size individually for each North American Industry Classification System (NAICS) coded industry. In case of manufacturing industry, the employee size will be up to five hundred and for mining industries one hundred, for wholesale business the annual turnover will be six million US dollars and dollar 28.5 million for general construction industries, 0.75 million for most agricultural industries. European Union have also the easy definitions of all industries,

Table 1.1: Definition of Small and Medium Enterprises with European Union standards

Enterprise category	Headcount: Annual Work Unit (AWU)	Annual turnover	or	Annual balance sheet total
Medium-sized	< 250	≤ €50 million	or	≤ €50 million
Small	< 50	≤ €10 million	or	≤ €10 million
Micro	< 10	≤ €2 million	or	≤ €2 million

Source: European Commission (2005)

In Canada SME refers to businesses that have fewer than 500 employees while classifying firms with 500 or more employees as large businesses.

In Canada it is small business with fewer than 100 employees and for service-based business the employee will be fewer than 50. Again, in the case of medium enterprise if the employees are more than this but the overall will be fewer than 500.

Table 1.2: Definition of Small and Medium Enterprises by World Bank standards

Enterprise indicators (2/3)	Number of employees	Total assets	or	Total annual sales
Medium	> 50; ≤ 300	> \$3,000,000; ≤ \$15,000,000	or	> \$3,000,000; ≤ \$15,000,000
Small	> 10; ≤ 50	> \$100,000; ≤ \$3,000,000	or	> \$100,000; ≤ \$3,000,000
Micro	< 10	≤ \$100,000	or	≤ \$100,000

Source: Independent Evaluation Group (2008)

In China the definition of SMEs is classified under the following categories. It varies by industry. Examples are given below:

Table 1.3: Definition of Small and Medium Enterprises in China

<b>Industry</b>	<b>Number of staff</b>
Large industry	More than 1000
Wholesale business	More than 200
Retail business	More than 300
Transportation	More than 1000
Warehousing	More than 200
Restaurant	More than 300
Software	More than 300
IT	More than 2000

Source: Ministry of Industry and Information and Technology, the National Bureau of Statistics, the National Development and Reform Commission, and the Ministry of Commerce (July 7, 2011)

In India the MSMED Act 2006 defines the Micro, Small, and Medium Enterprises. According to the Act, the activities are grouped into manufacturing and service industry that are given below.

Table 1.4: Definition of Small and Medium Enterprises in India

<b>Enterprise</b>	<b>Manufacturing</b>	<b>Services</b>
<b>Micro Enterprise</b>	Up to Rs. 25 Lakhs.	Up to Rs. 10 Lakhs.
<b>Small Enterprise</b>	Above Rs.25 lakhs but not more than Rs. 5 Crores.	Above Rs.10 lakhs but not more than Rs. 2 Crores.
<b>Medium Enterprise</b>	Above Rs.5 Crores but not more than Rs. 10 Crores.	Above Rs. 2 Crore but not more than Rs. 5 Crores

Source: [www.bankofindia.com](http://www.bankofindia.com)

It is rare to find the exclusive and accepted definition of SMEs in the world. The definition of SMEs is mostly concerned with the numerical factors of measuring the performance of the economy of a country. The importance of SME definition is the concern of policymakers that confined in measuring the classification of trade and commerce and the contribution of employment and gross domestic product as well as the indicators of micro or macroeconomic performance of a country. The definition of SME depends on quantitative indicator like annual turnover, the summation of economic results, the financial statements etc.

## 1.6 Significance of the Research

Small and medium enterprises are concerned with playing a crucial role in economy through employment creation, producing gross domestic product and introducing new invention and enhancing other activity of economy (Gamage, 2003). In Bangladesh Small and medium enterprises are treated as vibrant tool for generating employment creation, alleviating poverty and revolution of industry (Ahmed, 2009). 40% employment is generated by SMEs in Bangladesh (Chowdhury et al., 2013). SMEs keep contribution to the GDP only 20.25% in Bangladesh, where it accounts for 80 % in India, in China it accounts for 60 % and 69.50 % in Japan. It is found that this sector creates 35.495 employment in Bangladesh by a study of International Cooperation Organization for Small and Medium Enterprises in Asia (ICOSA), Japan. SMEs constitute 50.91% as total number of micro economic units in Bangladesh. (Japan Bangladesh Chamber of Commerce and Industry (JBCCI)-2018). Two million young people are joining in the country's workforce. As Bangladesh is labor SMEs can play a vital role to provide employment opportunity in modern manufacturing industry beyond the agriculture and informal sectors. SME is less capital oriented sector. As in Bangladesh there is limitations of getting huge capital for industrialization, the SME can be the ample opportunity for the people who has small amount of capital or saving. Hence, SME can be effective way to reduce the unemployment problem. Again, Bangladesh is still failed to show the significant performance in large-scale industries which is dementedly owned and operated by public entities. So, SMEs can be source of huge production-oriented sector to occupy the position of large-scale industries. Now days it is being increased the urban migration where cash flow is increasing in rural areas as result standard of living of the rural people is enriched. SMEs are keeping contribution in creating employment on rural areas, generating household income for the distressed people, and bringing the huge economic prospect in many ways in Bangladesh.

It is obvious that small and medium enterprises are treated as the backbone of a country's economy that are the source of financial gain, prosperity, and rapid industrialization. SMEs constitute major forms of business organization that accounts for over 95 percent and up to 99 percent . SMEs create 60-70% job of total employment

in developing countries. Small businesses are special scope as well ample opportunity to create the new era of business and open the doors of immense prospect of doing something new with creating unique values and finally it creates the opportunity for the employment of family members, friends that creates the effect on the accomplishment of the country. After being successful they come combined for a new investment to expand or innovate further.

### ***1.6.1 Theoretical contribution***

This study will keep contribution in understanding both the external and internal stakeholders extensively in the field of SMEs. This research combines the insights of stakeholder theory that improves the promoting factors of SMEs. The external factors like government support, the financial assistance and incentives, enhancement of training and development, development self-esteem and other technical assistance that are connected to success of business (Kader *et al.*, 2009). This research considers some variables that includes market accessibility and networking, government policies, financial support. training and development, modern technology and entrepreneur's skills that are considered as the promoting factors of SMEs. Therefore, it is expected that this research will create huge impact on the field of SMEs in Bangladesh. Furthermore, it will also contribute in the academic literature by focusing on the SMEs of Bangladesh.

### ***1.6.2 Practical contribution***

It is expected that the findings of the research will keep contribution in the field of SMEs in Bangladesh as it draws attention to some uncovered issues which relate to the development better SMEs. The outcomes of the study will be helpful for different stakeholders of the SMEs in Bangladesh that covers various government and private organizations. The stakeholders of SMEs will understand that the necessary steps to be taken in developing this field and to achieve the desired result. Effective policies can be formulated and implemented for sustainable growth and success of SMEs in Bangladesh so that it can compete with modern global business.

## 1.7 Thesis Structure

This section presents the structure of the entire thesis. This structure divided into seven chapters that are organized sequentially. These chapters are inter-connected and complementary to each other. These chapters focus on the clear and distinct picture of the whole study that are given below:

### Chapter One: Introduction

First chapter shows the preliminary overview and the significance of study as well as the gap of the review of literature. This part helps to develop the research questions and the objectives of it. Furthermore, the definitions of the terms are described focusing on the research and its practical and theoretical significance. Lastly, it shows the general scenario of the research study.

### Chapter Two: The overall scenario SMEs in Bangladesh

This chapter discusses the overall scenario of world SMEs as well as Bangladesh and its present situation.

### Chapter Three: Literature Review

This chapter focuses on the literature review about SMEs in the world. It reviews the literature on the promoting factors of SMEs. Finally, on the basis of literature review, a preliminary proposed research model is developed to show the relationship among the different factors in this chapter.

### Chapter Four: Methodology and Design of Research

It focuses on the methodology of the research which is applied in this study to meet the questions and objectives of the research. It describes the research approach used to conduct this research. Here the quantitative approach was used in research process. Furthermore, the selection of sample, collection of data and analysis procedures are discussed in this chapter.

### Chapter Five: Analysis of Data

This part presents the techniques and findings of this research. It also focuses on the short account of the demographics profile of the sample of the research. It presents the

quantitative survey that is used to show the methodology of the research. After that the results of the empirical study are presented and discussed with use of partial least squares (PLS)-based structural equation modelling (SEM) technique. In fine, the results of the proposed research hypothesis are discussed and presented.

#### Chapter Six: Discussion

This chapter presents the explanation of developed hypothesis that are found by analyzing the data. The hypotheses are developed from the literature review. These hypotheses reflect the proposed preliminary research model which is also developed on the basis of literature review. It also presents the quantitative technique and questionnaire for survey of the research. More specifically, this chapter describes the findings of the research which is based on theory and practice.

#### Chapter Seven: Conclusion and Further Directions

This chapter describes the concluding remarks, the contribution of theory and practice of the research. It also presents the major limitations and further directions of the research in the field of SMEs.

### **1.8 Summary**

This chapter presents the details of the entire research that includes the research background and scope, summary of the literature, existing gap, methodology, discussion, conclusion and further directions of the research. The objectives are met based on the research questions also. Finally, it shows the structure of the research by concluding on the study.



## Chapter Two

# The Overall Scenario of SMEs in Bangladesh

### 2.1 Introduction

### 2.2 Definition of SMEs in Bangladesh

There is no specific definition of small and medium business where many authors defined it on the basis of different criteria like size, sum of employees, and financial performance in a year (Devins, 2009; Muhammad, Char, Yaso, & Hassan, 2010; Mahmood & Hanafi, 2013). Different countries have different meaning about SMEs. The SMEs are classified broadly in Bangladesh by two categories these are manufacturing enterprise and non-manufacturing activities.

#### Manufacturing enterprise

Manufacturing enterprise are classified by following sections:

**Small enterprise:** the small enterprise refers to the organizations where the market price, cost of replacement, machinery and other components, fixtures, support utility and other associated technical services includes Taka fifteen million excluding the cost of land and building.

**Medium Enterprise:** Medium enterprise refers to the organizations where the market price, cost of replacement, machinery and other components, fixtures, support utility and other associated technical services includes Taka hundred million excluding the cost of land and building.

**Non-manufacturing activities** (trading or services)

Non-manufacturing activities are categorized as follows:

**Small enterprise:** small enterprises refer to the organizations where it belongs less than twenty-five workers in full time.

**Medium enterprises:** medium enterprises are if it has between 25 and 100 employees.

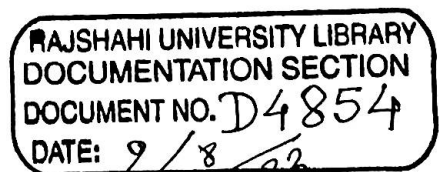


Table 2.1: Bangladesh Bureau of Statistics classified the following categories

Organization	No. of employees
Micro	0-9
Small	10-49
Medium	50-99
Large Above	99

The Ministry of Industries of Bangladesh categorized the eleven booster sectors of SME which are given below:

1. Electronics and electrical
2. Software-development
3. Light engineering and metal-working
4. Agro-processing/agro-business/plantation agriculture/ specialist farming/ tissue-culture
5. Leather-making and leather goods
6. Knitwear and ready-made garments
7. Plastics and other synthetics
8. Healthcare & diagnostics
9. Educational services
10. Pharmaceuticals/cosmetics/toiletries
11. Fashion-rich personal effects, wear and consumption goods.

Table 2.2: Number of SMEs in Bangladesh up-to 2018

Bangladesh	Quantity	Remarks
Micro enterprise	17,384	5.02 million people are engaged
Small enterprise	15,666	
Medium enterprise	6,103	
Large scale	3,639	

Source: Japan Bangladesh Chamber of Commerce and Industry (JBCCI)-2018

The study indicated that Bangladesh has 17,384 micro enterprises, 15,666 small enterprises, 6,103 medium enterprises and 3,639 large scale enterprises, where a total of 5.02 million people are engaged. Presently Japan treated as the best user of SMEs globally where it includes the 3.8 million companies with 0.41 million manufacturing enterprises of SMEs. The Planning Commission of Bangladesh explains a statistic

where it is seen that SMEs indicates forty percent is manufacturing value addition, eighty percent industrial employment, ninety percent of total industrial units and about twenty five percent of the labor forces. The export earning fluctuates between seventy to eighty percent of SMEs.

In Bangladesh SMEs employed 35.49% of the entire employment of population and it contributes 33.80% as compensation of the employees and the investment rate is 48% in this regard in fixed assets. The survey of private sectors in 2003 estimates that the sum of entire SMEs in Bangladesh is seventy-nine lacs where 93.6 % are small enterprise and 6.4% are medium enterprises. Again, it indicates that six million micro and small enterprises are belong to fewer than one hundred employees each. About 60-65% of entire SMEs located outside of metropolitan areas of Dhaka and Chattagram city. The following table shows the number of SMEs in Bangladesh from 2012 to 2019.

Table 2.3: Shows the number of SMEs in Bangladesh from 2012 to 2019.

Year	Number of Micro Manufacturing	Number of Small Enterprise	Number of Medium Enterprise	Number of Large Enterprise
2019	16,689	23,557	3,014	3,031
2012	17,384	15,666	6,103	3,639

Source: Bangladesh Bureau of Statistics, Survey of Manufacturing Industries-2019

### 2.3 Motivation for choice of SME

It seen that many initiates in the Small and Medium Enterprises are pull down because of many factors. Some factors are inspiring and some are dispiriting. To promote this industry the government incentives are insufficient and the action plan is not so long term oriented for its survival. As result the entrepreneurship in this business arena is failed. Therefore, we have to focus on the success factors of SMEs.

Furthermore, SMEs are concerned with huge challenges and problems to flourish. These challenges and problems should be addressed strongly and focus on the promoting success factors of it. Hence, this study will reveal this factor that inspires SMEs in Bangladesh

## 2.4 Contribution of SME in Bangladesh

Small and medium enterprises (SMEs) contribute lot though they have some problems like scarcity of financial motivation, managerial difficulties, limited access to finance, and bureaucratic limitations etc. The SMEs are plenty of opportunity in Bangladesh to create the employment opportunity that may keep contribution to total gross domestic product (GDP).

Table 2.4: Contribution of SMEs to GDP:

Country	Contribution to GDP
Bangladesh	20.25%
India	80%
China	60%
Japan	69.50
Pakistan	15 %

Source: Japan Bangladesh Chamber of Commerce and Industry (JBCCI)-2018

SMEs keep contribution to the GDP (see table 2.4) only 20.25% in Bangladesh, where in India indicates 80%, 60% in China and 69.50% in Japan. This sector creates 35.495 employment in Bangladesh which is found in a study of International Cooperation Organization for Small and Medium Enterprises in Asia (ICOSA), Japan. The SMEs in Bangladesh includes 50.91% of the entire micro economic enterprises.

Table 2.5: Share of SMEs in all enterprise

Country	Contribution to GDP
Bangladesh	80%
India	97.6%
China	99%
Japan	99.7

Source: Japan Bangladesh Chamber of Commerce and Industry (JBCCI)-2018

The share of SMEs in Bangladesh accounts for 80 % of total enterprises where in India it accounts for 97.60 %, 99 % in China and 99.70% in Japan according to the study of Japan Bangladesh Chamber of Commerce and Industry (JBCCI)

Small and medium enterprises have emerged as a leading developing agenda in Bangladesh due to its contribution in generating the growth of economy, sustainable economic gain and mobilizing the employment and reducing poverty.

The overall contribution of SMEs in Bangladesh is stated below (see table 2.6)

Table 2.6: The overall contribution of SMEs in Bangladesh

Aspects	Role of SMEs
National domestic gross product	25%
Gross manufacturing product	40%
Industrial Jobs	85%
Total labor force	25%
Total exporting earning	89%
% of Business	above 95%
Absorbed industrial workers	70% to 80 %

Source: Bangladesh Engineering Industry Owners' Association (BEIOA), <http://beioa.org.bd> [16]

The above scenario shows that SMEs play a very vital role in the economy of Bangladesh. It contributes 25 % to the GDP of Bangladesh and total export earning accounts for 89%. The export earning is much higher than South Asian country.

Contribution of SMEs from export earning fluctuates between seventy-five to eighty percent in Bangladesh. The following table shows the export earning of other countries.

Table 2.7: Export Earnings of SMEs of other country

Country	% of Export earnings
India	42.4
China	41.5
Thailand	26.3
Sri Lanka	20
Republic of Korea	18.8
Indonesia	15.7

Source: <https://www.thedailystar-February 25, 2017>

In the following table we see the employment scenario of different country where Bangladesh contributes 80-85% in creating employment and other country like Republic of Korea accounts for 87.7%, Thailand 80.3% and Cambodia 71.8%.

Table 2.81: Employment Scenario of Different Country

Country	% of employment
Bangladesh	80%
Republic of Korea	87.7
Thailand	80.3
Cambodia.	71.8

Source: <https://www.thedailystar-February 25, 2017>

The contribution of SMEs by sector to GDP in Bangladesh is found by Bangladesh Bureau of Statistics that are stated as Agriculture 24%, fishing 4%, manufacturing 38%, construction 1%, whole sale and retail trade 23%, hotel and restaurants 4%, transport, storage and communication 1%, real estate business 2%, education 0%, health and social service 0%, other service activities 25%.

Source: <http://www.bbs.gov.bd/Home/.aspx>[19]

## 2.5 Prospects SME in Bangladesh

Bangladesh has an immense opportunity to develop small and medium enterprise (SMEs) that can be ample opportunity to bring the effective impact on the employment generation, gross domestic product and national earning and devolving the both domestic and international market. A study of BRAC Bank in June 2020 which is conducted a survey during COVID 19 pandemic among 6,000 customers of SMEs where it is found that the small customers are recovered relatively well. Here it is seen that loan 80 to 85 percent loan disbursements in a position of normal state. The rate of improving or collecting the loan was satisfactory. Hence, the clients were in normal and sound situation despite of having economic trouble countrywide and the huge pressure in pandemic situation. (The Daily Star, accessed on 30 March, 2021)

Bangladesh needs to focus on technology-based education so that it can develop its SMEs sector. A large portion of people in Bangladesh is unemployed who can be the big opportunity to be engaged in SMEs and create bigger employment opportunity. A study of Bangladesh Bureau of Statistics (BBS) shows that the rate of employment is increased from 4.35% to 4.37% in December 2017. About two million of people in Bangladesh are added to the total labor force at home and abroad for jobs but half of the people can manage their job. Therefore, the SMEs can be big opportunity to grab this

scope and to create entrepreneurship for the unemployed people despite of having the many challenges in these aspects. In Bangladesh Banks are instructed to provide the loan as well as financial incentive to the SMEs for the development of it.

A study of 15-member delegation from International Cooperation Organization for Small and Medium Enterprises in Asia (ICOSA) visited Bangladesh in November 2018. They give very optimistic feedback in developing the SMEs and they suggest SMEs support committee to involve the people in SMEs. Furthermore, they focus on major challenges in developing the SME in this area. They found few policies inconsistency in this regard and recommended to empower the people by providing the proper training and improving the quality to be eligible for involving with SMEs.

The committee recommended the following

1. Establishing the intensive lab facilities to improve the product of SMEs.
2. Setting up a individual segment in the industrial infrastructure by the intervention of government for the sustainable development of SMEs like India and Indonesia
3. Establishing distinct ministry for SMEs.
4. Setting up a separate bank to help or to lend to SMEs or engaging state-owned banks to deal with SMEs like India, Malaysia.

The Chairperson of Japan Bangladesh Chamber of Commerce and Industry (JBCCI) said that Bangladesh should develop SMEs as Japanese investments going to be the ample opportunity for Bangladesh. Furthermore, Honda started to produce products in in Bangladesh unit. Therefore, it is a big opportunity for Bangladesh

On the other hand, Bangladesh can grab the opportunity in doing business in the field in the field of food processing, consumer goods and services to capture the foreign market of the Japan.

Here we see that the contribution of SMEs to GDP of Bangladesh in a brief.

Table 2.9: The contribution of SMEs to GDP of Bangladesh in fiscal year 2017-2018

Year	Manufacturing Micro industries	Small Enterprise	Large and Medium industries
2017-2018	22.85%	3.78%	19.07%,

Source: Bangladesh Bureau of Statistics -2019

The data of BBS in 2017-2018 indicates that manufacturing industries keep contribution in GDP by SMEs that shows 22.85% to the gross domestic product. In last fiscal year it was 21.74%. Furthermore, large and medium industries keep contribution by 19.07%, while the contribution of small industries were 3.78% to the gross domestic product in Bangladesh. However, the growth of SMEs depends mostly on the intervention of government, involvement of entrepreneur themselves in SMEs, infrastructure development, proper policy making, role of stakeholders and other concerned parties who can shape the enriched atmosphere of SMEs in Bangladesh.

Again, here following shows the volume and growth rate of manufacturing sector.

It is also seen that in 2008-09 the growth rate of small industry was 7.30% and in 2016-17 it was 9.82% which clearly indicates the growth sign. Furthermore, in case of medium and large industry it is seen that in 2016-17 the growth is increased by 11.20% which is obviously much higher than the previous year 2008-09.

## 2.6 Growth and challenges of SME in Bangladesh

Small business is a business that has limited number of employees, small capital as well as limited financial transactions. It is not a big business in the eyes of the professionals or policy makers. Small business does not have absolute definition and accepted measurement. It depends on the different quantitative parameter of the country. It has been defined differently by the different authors or policy makers around the world. Generally, SMEs are such a business entities possessed and functioned independently which is less dominant in the field of operations. In a simple sense SMEs are concerned with business activities like manufacturing, mining, wholesaling, retailing, service etc. Obviously in Bangladesh the definition of small business is changed or modified in different times. The proprietor will own at least 51% of share for the joint venture or company which is listed at the office of the Registrar of Joint Stock Companies. The



industrial policy of Bangladesh divided the industrial sector in the form of large, small and cottage before 1999. These categories were fixed according to the size of fixed assets. On the other hand, “Small Industry” was defined by the Industrial Policy 1991 where total fixed investment without value of land, expense of transportation and machinery, duties and taxes are limited to 30 million and working capital includes the mostly in cottage industry Tk. 500,000. Medium industry treated as with a fixed capital investment in between Taka one hundred to three hundred million the range of 50-90 workers. However, the big changes have been made in 2005 in the industrial policy that defined the classifications of enterprises. According to the new Industrial Policy 2005 the large industry refers to the organizations whose fixed capital will be up to taka one hundred million where the value of land building was excluded and for non-manufacturing large enterprise the workers with more than hundred workers. The medium enterprise refers to the organizations with fixed investment up to taka fifteen to hundred million where the price of land and building was excluded and for the non-manufacturing enterprise the employment size will be in between twenty-five to hundred workers. Manufacturing enterprises indicates that total investment will be less than Taka fifteen million without the worth of land and for non-manufacturing organizations will be fewer than twenty-five workers that is treated as small enterprises.

Bangladesh Bureau of Statistics (BBS) stated that the medium enterprise will be treated as that has workers in the range of ten to forty-nine. On the other hand, the large enterprise will be treated as that has more than fifty workers and other will be treated as small industries (Shamsul Alam and Anwar Ullah, 2006).

Bangladesh has ample opportunities of growth as it depends on SMEs hugely. SMEs produce and distribute most of the products and services for the one sixty million people of Bangladesh. It also pays a large portion of taxes and vats to the statutory body of the country. Scholars forecast that SMEs can keep contribution to the economic growth by employing large number of people and contribute to the business sector.

Table 2.10: The growth/ decline rate of SMEs from 2012 to 2019

Year	Change of Micro Manufacturing	Change of Small Enterprise	Change of Medium Enterprise	Change of Large Enterprise
2012-2019	4% declined	50.37% increased	50.61% declined	16.70 % declined

Source: Bangladesh Bureau of Statistics, Survey of Manufacturing Industries-2019

It is found that from 2012 to 2019 (see table 6 and 7) Small enterprise increased by 50.37% on contrary the micro manufacturing declined by 4%, medium enterprise declined by 50.61% and large enterprise declined by 16.70% that shows that the progress rate of small industries.

On the other hand, there are many challenges are associated with growth of the SMEs in Bangladesh.

## 2.7 Source of Finance of SME

The banking sector loan disbursement to SMEs are given below which is explicated by the Economic Census 2013 conducted by The Bangladesh Bureau of Statistics (BBS). The total amount loan is disbursed total 720.41 billion Taka in 866,424 enterprises in the field of SMEs. Again, we see that the financing gap of SMEs is TK 1,398.9 billion which is stated as the demand of Taka 1,727.2 billion for the 859,318 enterprises and the supply of loan is taka 328.3 billion.

Again, we see that bank and non-banking financial institutions financed in SMEs from 2010 to 2017.

Table 2.11: SME Financing by Banks and NBFIs

Year	Target	Trading	Manufacturing	Service	Total	Women Entrepreneur	% of Achievement against target
2010	38858.12	35040.53	15147.72	3355.68	53543.93	1804.98	138
2011	56940.13	34382.64	15805.95	3530.85	53719.44	2048.45	94
2012	59012.78	44225.19	21897.33	3630.90	69753.42	2244.01	118
2013	74186.87	56703.72	24016.64	4602.89	85323.25	3346.55	115
2014	89030.94	62767.18	30246.20	7896.77	100910.15	3938.75	113
2015	104586.49	73551.78	30462.02	11856.68	115870.48	4226.99	111
2016	113503.00	90547.57	35168.63	16219.19	141935.39	5345.66	125
2017*	133853.59	26580.45	9626.84	4413.25	40620.54	1116.57	30

Source: Bangladesh Bank \*=Up to March 2017

Credit and Development Forum -2016 states that TK 566.5 billion was disbursed as credit to SMEs the by source which was compiled by with the total credit,

## **2.8 Success of SMEs in Global Economy**

SMEs are dominated world business stage. Although it is not precisely counted up-to-date data to measure the estimation of its size, it is clear in many studies that more than ninety five percent of enterprises in the world are SMEs that indicates sixty percent employment of private enterprise.

In Japan SMEs keep contribution ninety percent than engage majority of people of its labor force. In India SMEs plays role hugely that keeps contribution eighty percent in its all business and thirteen million people were engaged in 2008 (Ghatak, 2010).

In South Africa, total business accounts for ninety one percent Abor & Quartey, 2010). In China total 4.3 million people are engaged in SMEs that kept contribution 58.5% of its gross domestic product GDP. Besides it produces fifty percent of taxes revenues, sixty eight percent of exports earnings and seventy five percent of jobs annually. In China the product of developed country has been transferred for the large-scale production that results in producing the brand name “Made in China”. It helps China to be the second largest economy in the world (Zhou, 2012).

## **Chapter Three**

### **Review of Literature**

#### **3.1 Introduction**

The key purpose of this chapter is to present the literature on SMEs in the world. This chapter focuses on the different promoting of SMEs in developing countries. Furthermore, it also showed the different, roles, constrains or challenges as well as prospects of SMEs in developing countries. This part finally includes the presentation of overall picture and significance of SMEs.

This chapter discusses the review of literature which explores the theme which is connected to the research work. Furthermore, the prime objective of this thesis is to present the promoting factors of SMEs by analyzing the different forces in Bangladesh. Promoting factors lead a firm to settle the business. Every industry has a many promoting factors that are helpful to detect or evaluate the performance of it (Tracy, 2007). For success of the organizations, it is needed to increase income or gain in sales growth (Perren, 2000). The success of the business is indicated by 'hard' measures of firm performance (Parasuraman *et al.*, 1996).

This section contains two parts. The first part discusses the promoting factors (PF), The PF and its various issues have been explored from different studies in the literature. Many scholars discussed about promoting factors (PF) in various ways like definitions, significances, performance measurement, theory and concept development, strategy formulation, framework preparations and guided different empirical research work from various areas of different industries. The second part focuses on the issues related to the SMEs especially on the entrepreneur's skills and businesses infrastructure of SMEs in Bangladesh to find the gap of research that was discussed in this study.

Focusing on the conceptual framework of stakeholder theory, this section discusses the literature review of previous studies to show the different internal and external affecting factors, entrepreneurs' quality, business climate and other forces of SMFs in Bangladesh. Based on this theory, the coordination and co-operational relationships and behavioral approach among the external and internal stakeholders accelerate the

success of SMEs. The following subsections provide details of studies in the literature about the SMEs, its promoting factors, performance and related issues in the Bangladesh. After having comprehensive analysis and discussion on the current literature, this chapter focuses on the concept of research which is applied current research and then a preliminary proposed model of research is developed.

### **3.2 Literature about Promoting Factors**

The growth or survivability of SMEs depends on the many factors like the entrepreneur's skill and power, influences and other credentials on entrepreneurship development and formulation of policy and proper dynamic initiatives, effective managerial or the skill of human resource, external environment, networking, updated technology, sufficient capital, proper infrastructure, consumer perception, marketing knowhow, strategic actions, available sources of raw material, trade policy or government support, easy access to finance etc. The product and services, external factors and management know how affect the success of SMEs in Bangladesh (Philip, 2010). He emphasized on the value-added product or services, social networking of entrepreneurs that will reduce the risk and cost of transactions that will help in improving the business ideas and concepts and capital formation. Government support and legal aspects is also needed to develop or promote the SMEs in Bangladesh.

A strong association exist between marketing communication activities and net sales and customer loyalty (Mumel et al., 2007). Again, a positive connection also exists between improvement of small business performance and marketing strategies which are very important to survive (Emmanuel A, 2014).

Marketing strategies treated globally as the vital instrument to be treated as more competitive and stronger to face many challenges of business (Jain, 1997).

The marketing is process of covering many activities like products or services promotion of the organization bringing new idea and concepts for improving the product and services and ensuring the product delivery (Wang, Lo, & Yang, 2004).

The activities of marketing like developing distribution networks, advertising agencies, mentor development and different media that will be helpful to enter into the market globally and will guide to access to information and technology. It will assist in commercialization of potential offers for SMEs worldwide. (Partanen *et al.*, 2008)

Marketing strategies brings the impact on the advancement and growth of the organization to survive in long term and enhance the competency in competitive market. So, the firms need to build this capability as the business environment is changing (Moore & Fairhurst, 2003).

Marketing is the part of external factors that plays the role on the success of SMEs. External factors also include the financial incentives, enhancement of training and development, development self-esteem and other technical assistance that are connected to business (Kader *et al.*, 2009).

There are few factors that affect the success of entrepreneurs of SMEs that includes market cope, supply chain management, age, firm size, role of founding team and its experiences (Song *et al.*, 2008).

A study presents impact of characteristics of entrepreneur on SME Success which focused on the marketing network A research conducted in Thailand on the success of SMEs that found the success of the business depends on understanding of continuity of business and the external factors of the enterprise. It also identified that new product, quality, cost and reliability and other services that play the significant role in the success of the business of Thailand. Innovative product created value for the customers that so significant to reach the target by balancing the product cost and quality. Furthermore, the organizations have to compete on the basis of its specialization and strength of it that is concerned with cost leadership, differentiation, and focus strategy (Yu, S. 2016).

Innovation is not only concerned with technological advances but also confined with innovative marketing, strategy of distribution, structures of innovation that can add value to customers and organization (Omar, 2010).

External environmental factor is also crucial factors for the success of the firm that includes social relationship, assistance of government and legal aspects of doing

Moreover, Inter organizations assistance, consultancy, performance evaluation, and the flexibility influences on the success of the organization. Assistance empowers the small enterprise in gaining the competitive stand focusing on its main business, entrance into global environment, reduction of business charges, learning novel competency, and coping with quick setting. inter organizational assistance helps to obtain legacy and market fame (Chittithaworn *et al.*, 2011).

SMEs has connection with government policy that influence the SMEs hugely. The policy brings impact on the performance of SMEs makes it more competitive. (Eniola, A. A., & Entebang, H, 2015).

Governmental strategy generally brings the impact on large-scale manufacturing rather than SMEs that creates big challenges on economic and sociocultural environment for entrepreneurship (Chemin, M, 2010).

The effect of information communication technology (ICT) is analyzed on the development of small businesses in New Zealand that indicates the government policy strongly focusing on the significance ICT and the knowledge of economy. In this case particular projects are taken that includes rural broad band internet developments and other electronic activities (Locke, S, 2004).

There is a positive consequence of information technology on the business which is established by numerous research (see e.g., Petter, DeLone, and McLean 2008) Implementation of information and communication technologies advantageous for SMEs (Johnston et al., 2007).

The New Zealand Government has undertaken initiative to promote the SMEs by using the information communication technology (ICT) where the impact of ICT is recognized strongly and it is treated as essential part in SME sector. It focused on the micro businesses that should seizure some of the efficacy gains. (Locke, S., & Cave, J, 2018).

The relationship between the support of government on entrepreneurship development and SMEs of Bangladesh which is measured by the assessment of study. Yet, this support still less in the development and growth of SMEs special in the field of social science. (Hoque, A. S. M. M, 2018).

There is an association between entrepreneurial human and social capital and successful entrepreneurship. These two factors enhance the success of entrepreneurship in SMEs. The impact of education of entrepreneurs on the success of SMEs business is hugely connected with small firm size (Vixathep, S, 2017).

The effect of financial support on the performance of SMEs in Nigeria was explored. This research identified that financial assistance influences on the performance of SMEs and creates huge impact in this regard. These assistances are less sufficient and characterized by rigorous, unrealistic bureaucratic details. (Peter *et al.*, 2018).

The financial assistance of government assists SMEs to enhance the performance over and above the impact of traditional financial assistance. This study also finds that the implied effect of receiving the government financial assistance by the firm where it is suggested to receive the nongovernment financial support by the firms in the future. (Xiang, D., & Worthington, A. C., 2017).

Well trained people al become more creative and bring something unique for business (Ndubisi, Gupta, and Massoud, 2003).

Training of management and entrepreneurship skill affect the performance of SMEs and success (Magableh and Al-Mahrouq, 2006).

Training helps the SMEs to adjust with the latest system of accounting, information technology, managerial thoughts and techniques of production (Jones, 2004).

Education is one of the factors that create constructive impact on the growth of the firms. Education and training of entrepreneurs or vocational training of entrepreneurs help to adapt with changing business environment (King and McGrath, 2002).

The success of small business is concerned with internal characteristics of entrepreneur that are related to the personal features. These includes business idea, hardworking, capability of building network of entrepreneurs. Besides it, the personal financial resources and innovation also plays the role on the success of SMEs. He also indicated that the government support which is treated as external factors that brings impact on the SMEs (Kader *et al.*, 2009).



There are some factors that play a vital role on the entrepreneur's mind. These factors include presence of business expert and the knowledge, skill, business tendency, norms and values of them, staying close to different institutions, universities etc. that keeps contribution hugely in shaping the entrepreneurial mind set of the entrepreneurs. Furthermore, risk taking tendency, available financial resources, and policy of government also helps in this regard (Yusop, 2010).

The entrepreneurs' managerial skills are the factors that act for the development of small and medium enterprises (SMEs) in Nigeria. Furthermore, this study investigated that both the entrepreneurs' conceptual and technical skills shape the management skills of the entrepreneurs that creates effect on SMEs. This study suggested entrepreneurs to adopt conceptual skills for strategic planning for the firms. (Ikupolati *et al.*, 2017).

A study in UK is conducted where the mediating effect of technology on the internationalization orientation and international performance of SMEs is found. This study conducted on one hundred and sixteen SMEs and mediation effect is measured. In this case the few recommendations are made to improve the international performance by using the modern technology that may enhance strategic managerial decision making. (Bagheri *et al.*, 2019).

From the above literature, it is vibrant that victory of SMEs is extensively connected with the different internal and external factors of its infrastructure.

### **3.3 Literature about Entrepreneur's Skill**

The personal competency, efficiency and managerial skills are the affecting factors for the performance of the enterprise with awareness and knowledge of entrepreneurs (Sambasivan *et al.*, 2009). Fact finding and managerial efficiency of entrepreneurs are similarly needed for the entrepreneurs. The level of education is moderately concerned with success of organizations (Thapa *et al.*, 2008). The demographic factors which are treated as personal qualities educational level, gender, experiences of work have the huge effect on the success of entrepreneurs (Indarti and Langenberg, 2005). Education and experience are the factors that play very vital role for the growth of the firm in a developing country (Scott *et al.* 1998). Efficiency and level of education of the

entrepreneurs keep contribution in developing the new concept of business (Chowdhury, 2011). Three factors play the significant role in promoting the entrepreneurial development and success at the grass root level that includes family background, nature of business, and environment or infrastructure of business. (Cooper, 1985).

### **3.4 Literature about Role of SMEs**

It is generally acknowledged around the world that small business organizations promote the financial progress that act as a prime foundation of creating employment and production in any country (Tambunan, 2008).

SMEs are significant role player in bringing new idea and latest concept, rivalry, and generating financial gain (Khalid et al, 2008). The advancement small business are treated as source of accomplishing wider objectives of development for poverty alleviation as well as developing the democratic society (International Labor Organization, 2007). SMEs keep contribution in the generating employment, developing manpower, creating rivalry and sustainability in an economic environment, Furthermore, huge people are hugely affected by the SMEs (Fida, 2008).

SMEs manages a competitive way to foster the economic gain, eradication of poverty, wealth maximization and employment generation. Furthermore, SMEs act as source of financial gain and employment creation (Kotelnikov, 2007). SMEs maintains that the growth of socioeconomic system, accelerate the way of the accomplishing wider objectives (Cook and Nixon, 2000). Generally, small business act as poverty alleviation tools as well as economic development (Sen, 1980 and Green *et al.*, 2002). SMEs play the role in contributing to income of household (Liedholm *et al.*, 1994; McPherson, 1996; Kapoor *et al.*, 1997; Perks, 2004).

Wealth maximization increase the economic gain and reduce the poverty by generating employment in a competitive way (Kotelnikov, 2007). The factors that affect the success of SMEs are personal features of entrepreneur, management technique, procedure of doing business, marketing and customers, personal resource and external

environment. Furthermore, business level is influenced by entrepreneurial direction (Onkelinx *et al.*, 2015).

### 3.5 Literature about Problems of SMEs

The SMEs faces many hidden or explicit problems. The provable problems are insufficient capital, less scope financing and higher rate of interest, limited supply of raw materials, transportation problems, improper infrastructure, back dated technology, information and communication problem, insufficient supply of power and fuel, inefficient people, less scope of research and development, low capability of building networking with others and quick changes of policy and business strategy etc. (Miah, 2007).

Infrastructure of SMEs creates the problems in developing the small business that includes limited power supply, communication problem, less supply of manpower (Bokea *et al.*, 1999). SMEs cannot do conventional marketing due to the limitation of resources and different thinking of manager. (Gilmore *et al.*, 2001). Numerous of bureaucratic obstacles create the difficulties for the entrepreneurs to start a business (Quddus and Rashid, 2000). Many difficulties or problematic factors are found in the research of many scholars in Bangladesh that is limited supply of capital (Chowdhury and Amin, 2011).

SMEs are main structure of the of the economy like Bangladesh. SMEs faces, many problems these insufficient financing, limited raw materials, limited access to information in business, less capabilities of technology, complexity of bureaucratic procedures, and market distortions caused by policies and regulations Therefore, government keeps close eyes towards global market trends (Rahman and Mahmood ,2007).

SMEs are facing the problems of providing the quality product and services in national international market that takes place due to inconsistent policy making and improper assistance from the concerned body in Bangladesh. (Ahmed, 2004).

Generally, banks are not interested towards SME financing due to high maintaining cost and risk and less profit. Hence banks are required close monitoring and supervision in

this regard. The main reason of this risk is that the SMEs do not have immovable properties security for getting loan. As a result, banks and non-bank financial institutions are not interested for financing at SMEs. (Hasan and Islam, 2008)

About six million small business are active in doing business in Bangladesh and thirty million people engaged in this business and providing 75% of household income and generating eighty to eighty five percent industrial employment and twenty three percent of total employment in Bangladesh (Chowdhury, 2008).

After reviewing different literature on SMEs, a factor matrix is prepared that is shown below. This table shows furthest significant factor for the success of SME which is followed by government policy, modern technology, financial support, entrepreneur's skill, market accessibility and networking, training and development.

Table 3.1: Literature Review Matrix

Authors, Year	Title	Variable
(Partanen <i>et al.</i> , 2008)	Social capital in the growth of science-and-technology-based SMEs. <i>Industrial Marketing Management</i> Volume 37, Issue 5, July 2008, Pages 513-522	Marketing Network
(Wang, Lo, & Yang, 2004).	The constituents of core competencies and firm performance: evidence from high-technology firms in China. <i>Journal of Engineering and Technology Management</i> , 21(4), 249–280	Marketing Network
Eniola, A. A., &Entebang, H. (2015)	Government policy and performance of small and medium business management. <i>International Journal of Academic Research in Business and Social Sciences</i> , 5(2), 237.	Government policy
Locke, S. (2004)	ICT adoption and SME growth in New Zealand. Available at SSRN 3284905.	Modern technology
Chemin, M. (2010)	Entrepreneurship in Pakistan: government policy on SMEs, environment for entrepreneurship, internationalization of entrepreneurs	Government policy

Authors, Year	Title	Variable
	and SMEs. <i>International journal of business and globalization</i> , 5(3), 238-247.	
Locke, S., & Cave, J. (2018)	Information Communication Technology in New Zealand SMEs. <i>Available at SSRN 3284911</i> .	Modern technology
Hoque, A. S. M. M. (2018)	Does government support policy moderate the relationship between entrepreneurial orientation and Bangladeshi SME performance? A SEM approach. <i>International Journal of Business Economics and Management Studies</i> , 6(3), 37-59.	Government policy
Vixathep, S. (2017)	Entrepreneurship, human and social capital, and government policy in small and medium enterprise development in Laos. <i>Japan Social Innovation Journal</i> , 7(1), 33-50.	Government policy, Training and development
Peter, F., Adegbuyi, O., Olokundun, M., Peter. A. O., Amaihian, A. B., &Ibidunni, A. S. (2018)	Government financial support and financial performance of SMEs. <i>Academy of Strategic Management Journal</i> , 17.	Financial support
Xiang, D., & Worthington, A. C. (2017)	The impact of government financial assistance on the performance and financing of Australian SMEs. <i>Accounting Research Journal</i> .	Financial support
Ikupolati, A. O., Adeyeye, M. M., Oni, E. O., Olatunle, M. A., &Obafunmi, M. O. (2017)	Entrepreneurs' managerial skills as determinants for growth of small and medium enterprises (SMEs) in Nigeria. <i>Journal of Small Business and Entrepreneurship Development</i> , 5(1), 1-6.	Entrepreneurs' skill
Bagheri, M., Mitchelmore, S., Bamiatzi, V., &Nikolopoulos, K. (2019).	Internationalization orientation in SMEs: the mediating role of technological innovation. <i>Journal of International Management</i> , 25(1), 121-139.	Modern technology
Ndubisi, Gupta, and Massoud, (2003)	Organizational Learning and Vendor Support Quality by The Usage of Application Software Packages: A Study of Asian Entrepreneurs. <i>Systems Science and Systems Engineering</i> , 12(13),314-331.	Training and Development

### **3.6 Review of Theories**

In a research study, Becchetti, Ciciretti, Hasan, and Kobeissi presented stakeholder theory at SMEs focusing on that organization need to concentrate on its stakeholder's interests that influence the organizations.

This paper used stakeholder theory to present the influence on performance of SMEs.

#### **3.6.1 Stakeholder Theory**

Stakeholder theory is applied in this research to meet the research purpose. Stakeholders are the parties who are directly or indirectly influenced by the accomplishment for the organization's objective (Freeman 1984). According to this theory buyers, suppliers, competitors, policy makers, creditors, service providers, the government, bureaucrats, political parties, etc. are considered as stakeholders.

Organizations are not only interacted with customers, suppliers and shareholders , media and non-government organizations it is also affected by governments which is political stakeholders (Holtbrugge, Berg, and Puck 2007). Stakeholder theory presents that the success of a firm or organization affected by the sound harmonization and maintenance of business procedures and setting the mutual negotiation with the parties of business that shapes the functions in a specific means (Clarkson 1995; Holtbrugge, Berg, and Puck 2007). Stakeholders are the parties who are involved with interests of an organizations that promotes formal authority (Freeman 1984; Gioia 1999; Holtbrugge, Berg, and Puck 2007). As there are many inner and outward stakeholders who are straight or circuitously concerned with SMEs, stakeholder theory is used in this study.

### **3.7 Justification for Adoption of the Stakeholder Theory**

There are many internal and external stakeholder are involved with SMEs which are shown in literature review; hence the stakeholder theory has been applied in this study. In the preliminary proposed research model, the two influential factors have been taken based on stakeholder theory that may create effect on the success of SMEs in Bangladesh. Here, the levels of factors, namely, the marketing accessibility and

network, government policies, financial support, training and development and modern technology were considered in this model. These are the influential factors of the SME's success.

On the basis of the above discussion, this research used the stakeholder theory due to the applicability in the study, as the organizations as well as stakeholders are the part for the society in which they exist. These theories are used more frequently in the research conducted in developed and developing countries.

The objectives of this study are to explore the promoting factors of SMEs of Bangladesh. As stakeholder theory seems rational to focus on the research questions of this study (see chapter 1), the current study used this theory to determine to what extent stakeholder theory can influence in promoting the success of SMEs in the context of Bangladesh which is a developing country.

This study also focused on the strengths and weaknesses of the internal stakeholders like buyers and suppliers who plays the crucial role in the success of SMEs and also influenced by the activities of external stakeholders. The prime principle of stakeholder theory is that inner and outside parties will shape the activities of the organization (Delmas and Toffel 2004; Street and Cameron 2007; Sarkis, Zhu, and Kee-hungLai 2011). Stakeholder theory focuses on the two-way relationship between the organizations and its stakeholders (Preble and Preble 2005) which is very important in Bangladeshi.

### **3.8 Proposed Research Model**

The above discussed stakeholder theory and literature review justified the applicability of research of SMEs business. Hence, this part presents the theoretical rationality behind the preliminary proposed research model that tends to investigate the effect of the factors that affect the success of SMEs in Bangladesh. Figure 3.1 showed the preliminary research model which was developed based on the literature review. As discussed above in this chapter, the external and internal stakeholders' factors (constructs) used in the model drew extensively from the stakeholder theory (Freeman 1984). The preliminary research model pursued to extend the theoretical models that

would explain the external and internal factors that influence the success of SMEs in Bangladesh.

The figure (3.1) presents the factors or constructs from the external stakeholders that has effect on the success of SMEs which is dependent factors. The includes the twy types of constructs. The first group of constructs contain five independent constructs and second has one dependent construct. Marketing accessibility and network, government policies, financial support, training and development and modern technology are the independents constructs and success of SMEs are the independent constructs. The second stage has one independent construct like entrepreneur's skill that moderate the relationship between the influencing factors and the success of SMEs of the Bangladesh.

This study proposed that the capabilities, behavior and actions of stakeholders would allow SMEs to influence the success of it. Stakeholder theory focuses on maintaining good harmony with all stakeholders. Stakeholder theory manages the activities of all stakeholders by establishing the mutual integration, setting infrastructure, financing and staffing.



## Research Framework:

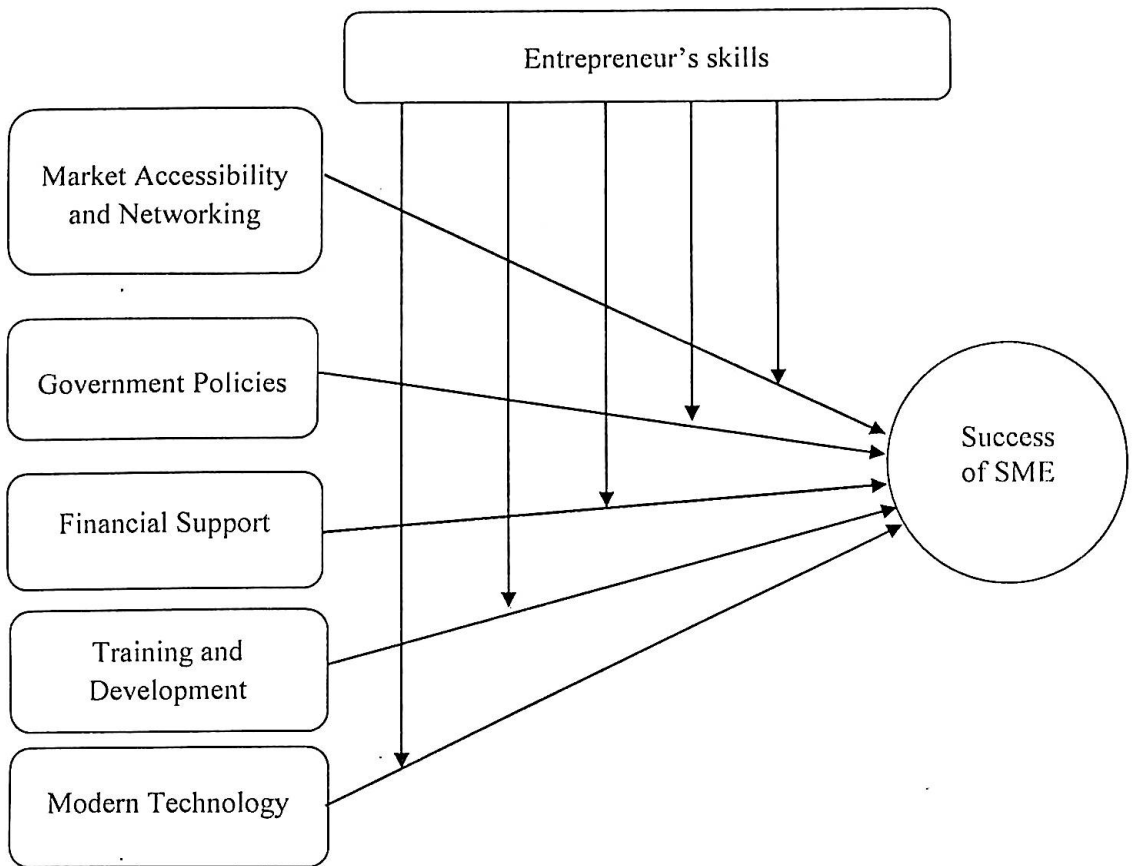


Figure 3.1: Proposed research model

The following are the research hypothesis that are concerned with this study.

### Hypothesis Development

Marketing strategies brings the impact on the progress of the enterprise and long-term survival capability in the viable market atmosphere. So, the firms need to build this capability as the business environment is changing (Moore & Fairhurst, 2003). There is an association among marketing communication activities and net sales and customer loyalty (Mumel et al., 2007). Again, there is a good harmony between improvement of small business performance and marketing strategies which are very important to survive (Emmanuel A, 2014). Hence, the following hypothesis can be developed on the basis of above literature.

*H1: There is significant effect of market accessibility and networking on success of SME.*

Governmental policy generally brings the impact on large-scale manufacturing rather than SMEs that creates big challenges on economic and sociocultural environment for entrepreneurship (Chemin, M, 2010). There is association between government policy and the performance of SMEs where government policy plays a vital role to bring the effect on the attractiveness of SMEs. (Eniola, A. A., & Entebang, H, 2015). Therefore, this hypothesis can be proposed.

*H2: There is significant effect of government policies on success of SME*

The financial assistance of government assists SMEs to enhance the performance over and above the impact of traditional financial assistance. It is also found that the implied effect of receiving the government financial assistance by the firm where it is suggested to receive the nongovernment financial support by the firms in the future. (Xiang, D., & Worthington, A. C. ,2017). So, this hypothesis can be proposed in this case.

*H3: There is significant effect of financial support on success of SME*

Well trained people al become more creative and bring something unique for business (Ndubisi, Gupta, and Massoud, 2003). Training of management and entrepreneurship skill affect the performance of SMEs and success (Magableh and Al-Mahrouq, 2006). Therefore, on the basis of these literature the next hypothesis can be drawn.

*H4: There is significant effect of training and development on success of SME*

There is a positive effect of information technology on business performance which is measured by some studies (Petter, DeLone, and McLean 2008) Implementation of information and communication technologies advantageous for SMEs (Johnston et al., 2007). In this case the subsequent hypothesis can be proposed.

*H5: There is significant effect of modern technology on success of SME*

The entrepreneurs' managerial skills are the factors that act for the growth of SMEs in Nigeria. Furthermore, this study investigated conceptual and technical skills of entrepreneurs that contribute to the management skills of the entrepreneurs and create impact on the growth of SMEs. (Ikupolati *et al.*, 2017). Thus, the following is proposed hypothesis.

*H6: There is a moderating effect of entrepreneur's skills between the relationship of market accessibility and networking and success of SME*

Three factors play the significant role in promoting the entrepreneurial development and success at the grass root level that includes family background, nature of business, role of government, political environment or infrastructure of business. (Cooper ,1985).

*H7: There is a moderating effect of entrepreneur's skills between the relationship of government policies and success of SME*

Well trained people al become more creative and bring something unique for business (Ndubisi, Gupta, and Massoud, 2003). Financial knowledge and skills create the impact on the performance of business organization as well as non-business activities in every financial matter (Njoroge, 2013). Therefore, the following is proposed.

*H8: There is a moderating effect of entrepreneur's skills between the relationship of financial support and success of SME*

Training of management and entrepreneurship skill affect the performance of SMEs and success (Magableh and Al-Mahrouq, 2006). Kotey and Folker (2007) explained that the training is significant force that improves the performance of employees and helps in increasing the growth and profitability of an organization. Hence the following is proposed hypothesis in this regard.

*H9: There is a moderating effect of entrepreneur's skills between the relationship of training and development and success of SME*

There is moderating effect of technology on market competitiveness and high innovative process of organization. It also creates the huge impact on capturing the future product and production quality improvement in the market place (He & Wong, 2004). Hence, the following is proposed hypothesis. A study of Bagheri *et al.* (2019) recommends for the managers to recover global performance by merging inner and outer internationalization positioning by the uses of modern technology and innovation in decision making (Bagheri *et al.*, 2019.)

*H10: There is moderating effect of entrepreneur's skills between the relationship of modern technology and success of SME*

### **3.9 Summary**

This chapter presents the earlier and associated literature of this research. Since SMEs play a significant role and the success of it is influenced by many factors, in Bangladesh, the established stakeholder theory can be used as a basis to present the success of it. Hence, the related theoretical concepts from stakeholder theory is used in this study. Furthermore, from stakeholder provides the foundation for proposing factors like government policy, marketing network, modern technology and the bureaucratic behavior affect the success of SMEs. The associated literature of external and internal stakeholders and their influence on SMEs industry have been discussed in this research. Furthermore, this section presents a preliminary proposed research model which was developed on the current literature and it will be improved further by conducting extensive study.

## **Chapter Four**

# **Research Methodology**

### **4.1 Introduction**

This section focuses on the methodology of the research. It shows the choice of logic to select the method and strategy of data collection for the research. This chapter focuses on the methodology of the research that focuses on the process to meet objectives and questions of the study. The research methodology and design were set by the research questions and objectives which is shown in chapter 1. Here the selection of sample, data collection and techniques of analysis are also discussed in this chapter.

### **4.2 Research Paradigm**

The research paradigm acts as the core views and guidance helps to attain the research objectives (Denzin and Lincoln Yvonna S. 2000). Creswell (2009) indicates that research paradigm focuses on the research design, data collected and the findings of the study. Three prime paradigms of the research are found that are stated as positivism, constructivism and pragmatism. These are concerned with the establishing base of methodology of research. The research methodology is visualized by research paradigm (Neuman 2000). On the other hand, three approaches or concepts are found that are used for analyzing the data. It includes quantitative approach, qualitative approach and mixed-methods approach (Creswell 2009; Johnson and Onwuegbuzie A. J. 2004). Hence, the paradigms are called as ontological (Guba and Lincoln Y.S. 1995), epistemological (Burrell and Morgan 1979) and methodological in specific views of research. The ontological statement concerned with philosophical idea or belief of the researcher about the realism that investigates the in the research and the epistemological assumption involves the knowledge and understanding which is achieved by different types of investigation in the research (Hirschheim, Klein, and Lyytinen 1995). The methodological statement is concerned with qualitative and quantitative approaches which is applied to identify the realism based on the assumed paradigm (Guba and Lincoln 1994). Two other norms in research are found as axiological and rhetorical (Creswell 2003).

Table 4.1: view of the research paradigms

Assumptions	Paradigms		
	Positivism	Constructivism/Inter-pretivism	Pragmatism
<b>Ontological</b> Realism	Naïve realism: reality is objective and singular, and apart from the researcher	Relativism; multiple, subjective, local and specific constructed realities	Choice of explanations
<b>Epistemological</b> Relationship of the research to the issue being researched	Objective point of view	Subjective point of view	Both objective and subjective points of view
<b>Methodological</b> Process of research	Deductive process includes quantitative, experiments, surveys, hypothesis testing. Believing in realism	Inductive process includes qualitative: in-depth interviews, focus groups, participant observation. Believing in idealism	Fused on both inductive and deductive that includes quantitative and qualitative (mixed method)

Sources: Adapted from Creswell (2003); Nelson (2006)

The positivism paradigm indicates where the researchers understand the reality is independent (Smith 1983; Johnson and Onwuegbuzie A. J. 2004). It is involved with quantitative research approach that deals with formulation of hypothesis (Creswell 2009; Johnson and Onwuegbuzie A. J. 2004). Positivism presents realism as objective and self-governing of the researcher that concerned with deductive judgment and the test of hypothesis by trials, investigations and data (Neuman 2000; Creswell 2009). It forecasts and explains fundamental associations among constructs (Gephart 1999).

The constructivist view that tends to develop an ordinary science through communal understanding (Neuman 2003). It indicates the qualitative method that includes interview, focus groups and observation by which the researchers tend to bring out the meaning of subject based on interpretations of the fact (Guba and Lincoln 1994; Creswell 2009). It presents the subjective approach and explains by numerous realisms than one association (Neuman 2000). The third paradigm is concerned with qualitative and quantitative approaches on basis of research questions or problems. Here the pragmatist researchers tend to focus on accessible approaches for collecting, analyzing and interpreting the fact to achieve objectives of research (Teddle and Tashakkori 2003). Therefore, in this procedural statement, mixed method is used where the researcher investigates using both quantitative and qualitative approaches.

The objective of this research is to show the promoting factors of SMEs in Bangladesh. Hence, to meet the research objectives, this study selected quantitative approach suggested by Creswell (2009) where hypotheses development is essential. Positivism focus on developing and testing the hypothesis with demanding quantitative approaches (Neuman 2000; Creswell 2009). It forecasts and explains fundamental associations among constructs (Gephart 1999). Therefore, the positivism is selected as it is treated as suitable paradigm to justify quantitative technique (Neuman 2000; Creswell 2009).

### **4.3 Research Methods**

As stated in introduction chapter, the foremost purpose of this research is to investigate the effect of the promoting factors on the success of SMEs in Bangladesh. Figure 4.1 therefore shows the quantitative research methods used in this study. It presents the steps that started from review of literature that guides to identify the research questions, objectives and the development of a preliminary proposed research model on the basis of earlier theoretical aspects and outlines. The preliminary research model in figure 3.1. Then on the basis of literature review and research model, hypothesis is developed. Based on this model, the study was conducted on 100 SMEs using a structured interview questionnaire to collect information about selected factors regarding SMEs based on experiences and opinions of the firm owners and managers. Then using Smart partial least squares (PLS)-based structural equation modelling (SEM) the collected data led to examine the associated hypotheses. The research framework is stated in figure 4.1.

### **4.4 Research Process**

The research process began by reviewing of previous literature about SMEs related topic in the different industry, and different related issues like influencing factors internal and external stakeholders, main concepts and gaps. This stage focused on the most suitable variables to develop preliminary proposed model of research. Moreover, various sources of information like journals, books, and seminar and conference proceedings that were used in this research.

By using the above-mentioned sources of information, the preliminary proposed model was developed for this study which is shown in figure 3.1. Deductive approaches were

applied in collecting the data to test and confirm the research model. At first, this study selected constructs and its variables after literature review and a proposed model was developed initially for this research on the basis of previous theories and studies. Secondly, the quantitative approach was used by developing the hypotheses to justify the relationship among the constructs. In the next step, items or variables for each construct were identified and a questionnaire was designed. The test and manipulation check were conducted to ensure the accuracy and reliability of the research instrument.

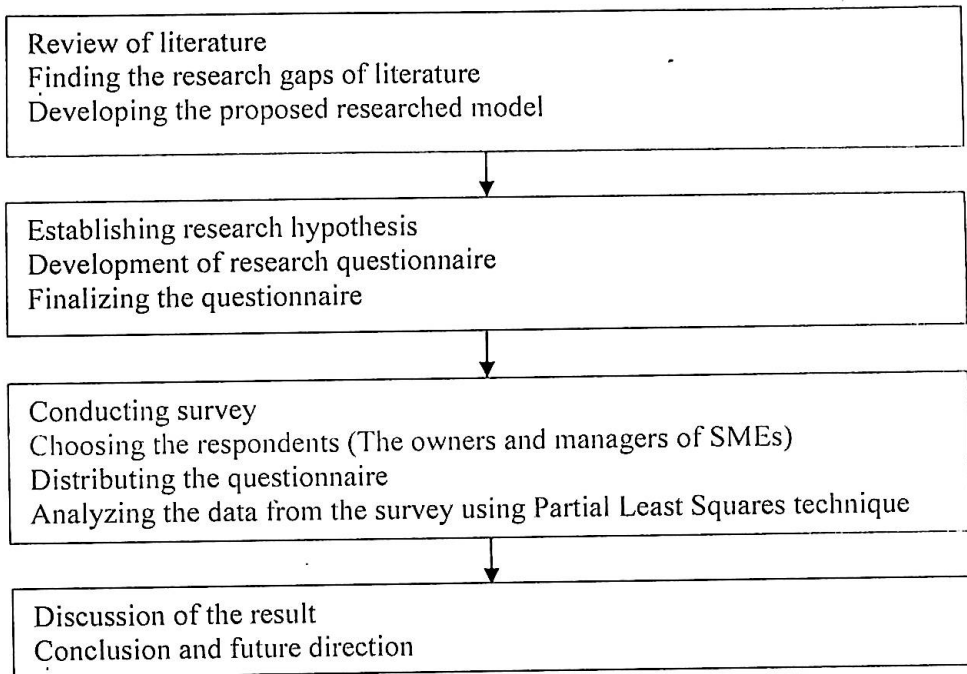


Figure 4.1: Research process

#### 4.5 Study Method

After the literature review the preliminary proposed research model was developed. This study aimed to invention the effect of promoting factors and variables affecting the success of SMEs which were introduced in the developed model. A number of hypotheses were developed based on the model that were subjected to test in empirical research that focused on verifying or falsifying these hypotheses (Anderson 1987). Quantitative method was used that was considered more suitable in this study. Moreover, the sample was collected from different place. Hence, the survey method and a questionnaire-based survey was considered most applicable in this study.



#### ***4.5.1 Developing the questionnaire***

In this research a questionnaire was developed and designed to measure the effect of promoting factors of SMEs. Then research model was developed and to test the association among the constructs taken from proposed research model. Here the closed-ended questions were used to collect the data in the survey of this study.

A 7-point Likert scale questionnaire was used in preparing the questionnaire to measure the factors and variables of the proposed model where 1= Strongly Disagree, 2= Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5 =Somewhat Agree, 6= Agree, 7= Strongly Agree.

These types of scales criticized in many academic studies. (Jöreskog 2005) stated that the Likert scale is an ordinal variable in essence because of having its origins and units of measurement its spreading is isolated, which does not have values between numbers. Therefore, in practice, it is reported that in case of applying SEM Likert scale is mostly used (Byrne 2008) which is being used for last fifteen years. There is an issue of debate about using the optimum amount of scale points to use. Hair, Money, and Samouel (2007) asserted that odd or even number of numbers in selecting scale categories are used in this regard. Many studies are using 7-point Likert because of having the scale of neutral point. This type of scale is helpful for the researcher when judgment is made on the basis of experience.

#### ***4.5.2 Measurement of the questionnaire***

The questionnaire of this study is adapted from the different literature. This paper focused on the questionnaire of different variables including success of SMEs, marketing network, government policy, financial support, training and development, Technology and Information, Entrepreneur's skills. The questionnaire of Success of SMEs adapted from the study of Yu, S. (2016). Success of SMEs is meant by using the general financial gain such as earning profit, increasing sales and saving, is dominant in evaluating firm's success or not (Brüderl & Preisendörfer, 1998).

The questionnaire of marketing network is also adapted from Yu, S. (2016). The marketing is process of covering many activities like products or services promotion of

the organization bringing new idea and concepts for improving the product and services and ensuring the product delivery (Wang, Lo, & Yang, 2004).

The questionnaire of government policy taken from Global Entrepreneurship Research Association, London Business School, Regents Park, London NW1 4SA, UK <https://www.gemconsortium.org/wiki/1172>. The firms that receive assistance in managerial education and development, advices, market related and other technical aids from the government and other organizations that creates impact on sales growth, productivity and employment generation in Bangladesh (Sarder et al., 1997).

The questionnaire of financial support adapted from Lee, C. H. (2016). Sufficient financial resources are a dominant role player in the development process of firm which facilitates the entry, exist and growth of the firms in a competitive business environment (Beck et al., 2006)

The questionnaire of Training and development is used from Benzing, C., Chu, H. M., & Kara, O. (2009; Mitchell, B. C. (2004). Precise skills of job-related activities are required for entrepreneurs to make decision about the business as well as training staff (Chandler & Jansen, 1992; Baum, 1995; Winterton, 2002)

In case of technology and information the questionnaire adapted from Lee, C. H., 2016 & Yu, S., 2016). Technological factors affect all aspects of a business like overall strategic position and all activities of marketing and production (Boddy, 2002).

The questionnaire on Entrepreneur's skills is taken from Ho, M. H. R., Uy, M. A., Kang, B. N., & Chan, K. Y., 2018). *Frontiers*. Managerial knowledge, skills, behaviors and attitudes of the entrepreneur shapes the personal efficiency (Hellriegel *et al.*, 2008).

#### ***4.5.3 Sample selection and data collection***

Non probability sampling was introduced first in US in election and other surveys by Stephan and McCarthy (1958). Non probability sampling specifically convenient sampling and purposive sampling was used in this study to collect the sample from the population (Creswell 2003; Malhotra 2004).

Because, Brick (2014) recommended non provability sampling instead of a probability sample because of three criteria like the low cost of data collection, not to have extremely accurate information of estimation and when the target population is steady and well understood. A rule of thumb of determining least size of sample for PLS analysis is 10 times of the number of inner relation among the construct within the model (Barclay, Higgins, and Thompson. 1995). This is presented as 100 ( $10 \times 10 = 100$ ) was least sample size for this study. In this study, the survey was conducted among 450 respondents at the owner and managerial level of 100 SMEs in Bangladesh. The manufacturing firms were selected which were located in the city of Rajshahi and nearby. The survey questionnaires were distributed to the owners or managers by contacting personally. The survey instrument was sent to them with a cover letter by describing the objective and instructions of the study for survey purpose by the contact person. The questionnaire was sent to the respondents by the contact person in collecting the information who were sample of the research. They collected the questionnaires from the respondents after the completion of it. A total of 450 questionnaires were circulated among 100 SMEs. while the 399 questionnaires were usable.

Hence, the non-response rate was 11.33%. The questionnaires were sent to the owners and managers of SMES for the purpose of sample. The main methods of data collection were survey in the entire research.

#### **4.5.4 Data analysis**

Structural equation modelling (SEM) approach was used in this research in analyzing the data (Chin 1998; Gefen, Straub, and Boudreau 2000). The researchers are able to get the answer of a set of inter connected questions to attain the research objective in a very systematic and comprehensive way by demonstrating the association among independent and dependent constructs simultaneously by using SEM (Gefen, Straub, and Boudreau 2000). The PLS-SEM technique works to assess the simultaneously the reliability and validity of the theoretical constructs and assume the association or relationships among the constructs or variables (Barclay, Higgins, and Thompson. 1995). The PLS-SEM technique is effectual enough to measure the somehow difficult or complicated conceptual models. PLS-SEM is a fundamental modelling method that

aims to maximize and explains variance of the dependent latent constructs (Hair, Ringle, and Sarstedt 2011).

Furthermore, PLS-SEM is more suitable to measure the causal modelling for the relatively small sample size specially when the model is complicated (Hulland 1999; Teo, Wei, and Benbasat 2003). After the reviewing the literature, a theoretical model was developed while PLS-SEM was taken into consideration to analyze the data efficiently as a method in this research. Recently, PLS-SEM became popular among the researcher for its capacity to model latent constructs in the conditions of non-normality when the sample size is small (Compeau and Higgins 1995; Chin 1998). PLS-SEM is more suitable within a new measurement context when the measurement items are not well established and in a new measurement context (Barclay, Higgins, and Thompson. 1995). Moreover, PLS-SEM is also applicable when the initial objective of the research intends to explain the variance of model for one or more constructs while the researcher is concerned with theory development. The proposed model is considered as an estimation model when the empirical research and theory are united.

Based on the above discussed features and advantages PLS-SEM was taken as a most suitable technique to analyze the data for the quantitative approach in this research. Hence, PLS-SEM was used in measuring the relationship between constructs and testing the hypotheses. Therefore, this study the collected data were analyzed with the use of PLS technique to utilize the Smart PLS version 3.0 computer software developed by Chin (2001).

#### ***4.5.5 Partial least squares (PLS) data analysis procedure***

Smart PLS was used in this study in analyzing data by considering the sample size. PLS is suitable for small sample studies which is declared by many authors (Barclay, Higgins, and Thompson. 1995; Gefen, Straub, and Boudreau 2000). Two specific phases are involved in this research to analyze the data with the use of the Smart PLS technique that are i) assessment of the measurement model and ii) assessment of the structural model that are discussed in Chapter 5 (Data analysis).

## 4.6 Summary

This section concludes the entire research procedure and theoretical and methodological approaches which were taken in this research. The appropriate research approach was used in this research by comparing the current research trends in the field of SMEs. This chapter mentioned the quantitative appropriate research approach which was used to analyze data. The positivism was treated as suitable view for the research. This section focused on the total procedure and tools of the research in this research. The entire research process of this study is stated as: Literature review and development of the preliminary proposed research model, hypothesis development, conduct of the survey by developing the questionnaire, data collection and finally analyzing the data by using the quantitative approach which relied on PLS-based SEM technique.

# **Chapter Five**

## **Data Analysis**

### **5.1 Introduction**

The earlier chapter dealt with testing methodology and gave explanations for using a research design fit for the current study. With the support of SPSS version 23 and Smart-PLS 3.0., this chapter deals with data interpretation and conclusions in line with the hypotheses. The chapter begins with an introduction accompanied by data screening and various statistical methods, including the treatment of incomplete data, evaluating outliers, non-response biases, and normality measures, along with their conclusions. Then the section included a short demographic feature for the respondents. The analysis is followed by the assessing the measurement model in relation to convergent validity, construct reliability and validity, and eventually, discriminant validity in various sub-sections. To test the structural model, structural model estimation,  $R^2$ ,  $f^2$ , multicollinearity (VIF) and predictive relevance ( $Q^2$ ) were used. The details of the path coefficient (direct relationship), the results of the study of moderation and mediation, the summary of the hypotheses and, finally, the summary of the chapter at the end of the chapter.

### **5.2 Preliminary Data Examination**

The raw data provided in this section needs to be cleaned and screened prior to analysis. There are two major types of problems, such as data normality & linearity and incomplete quantities, data input accuracy and outliers (Tabachnick & Fidell, 2007). Both stages of the data processing system have been addressed one by one below.

### **5.3 Non-response rate**

To fill out the questionnaires, the prosecutor named the respondents; the questionnaires were sent to them. The investigator sometimes tried to clarify the respondents' questions and helped to make the questionnaires legible. If the respondents had some problem answering any of the questions clarified by the researcher to them. In this research 450 questionnaires were distributed among the respondents and 399 questionnaires were completed via a structured questionnaire methodology. Hence, the non-response rate was 11.33%.

## 5.4 Dealing with missing responses

Most of the experiments are carried out in social science and marketing research through a questionnaire survey (Sekaran & Bougie, 2016). Many questionnaires remain incomplete in the case of a manually conducted survey (Zikumnd *et al.*, 2003). Therefore, missing value in the data processing process is a common problem (Tabachnick & Fidell, 2007). When respondents are failed to answer one or more items in the questionnaire, the issue of missing value arises. Missing numbers are the root of several issues in the process of quantitative data analysis. For example, because of missing responses that decrease statistical strength, it decreases the sample size (Corderio *et al.*, 2010). In multivariate analysis, it generates an issue (Hair *et al.*, 2006). Hair *et al.* (2006) suggested four steps to solve such serious problems: 1) observe the nature of the missing data, 2) investigate the sum of the missing value, 3) examine the randomness of the missing value, and, ultimately, 4) incorporate solutions, such as the imputation process. However, there are two types of missing information that are split into two groups: 'ignorable' and 'non-ignorable.' Therefore, there is no need for any approach to cope with the ignorable type of missing details and it can be part of the survey method. On the other hand, the non-ignorable missing value is a type of data which may emerge from the researcher's technological factors, e.g. errors during data entry or may result from respondents' rejection of reply or failure to enter all entries. No missing data was found in this study because the researchers took the appointment before sitting to fill out the questionnaires from the respondents.

## 5.5 Data cleaning and screening

For study a total of 399 questionnaires collected were used. As soon as the information was gathered via a questionnaire survey, input into the SPSS software was given. All questions were asked in this study with a 7-point Likert option questions reported as Strongly Agree-7 Agree-6, Somewhat Agree-5, Neither Agree nor Disagree-4 Somewhat Disagree-3 Disagree-2, Strongly Disagree-1 Via simple frequency distributions and descriptive statistics, the data was analyzed and screened. With straight forward tests, values that were out of range or wrongly coded were found. A frequency test was conducted to recognize any incorrect, illegal, and missing answer

for each latent construct. Hence, without any missing, incorrect and illegal values, the data input was properly given.

## 5.6 Outliers

A case with an extreme value is defined as an outlier on one variable (Tabachnick and Fidell, 2006). An outlier is one unique observation attributed to very low or very high scores from other observations (Hair et al., 2006). Tabachnick & Fidell (2007) claimed that the normality of data is influenced by outliers and can impact statistical effects. There are four reasons for the inclusion of outliers in the dataset, and they are: 1) entering cases that are not part of the target population from which the sample is taken, 2) inability to specify codes that should be retained as legitimate data for lost data, 3) incorrect entry of data, and 4) included population observation, but the distribution for population variables has extreme value relative to the normal distribution. Some researchers have provided some generally known thumb rules that indicate that the outlier is one in which the normal Z score can be considered up to  $\pm 3.29$  for a big sample size, and it is  $\pm 2.5$  or more as an outlier for a limited sample size (i.e. 80 or less) (Hair et al., 2006). For the present sample, objects were grouped together to represent a single variable to classify the outliers. By using SPSS to perform descriptive statistics, researchers obtained z-score, and the values of each observation were converted into uniform z-scores (Tabachnick & Fidell, 2007). The report's results showed in table 5.1 that the outlier value of the items was lower than  $\pm 3.29$ .

Table 5.1: Result of univariate outliers based on standardized values

	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Zscore(SS1)	-3.07	1.28	.000	1.000
Zscore(SS2)	-1.98	1.42	.000	1.000
Zscore(SS3)	-2.15	1.08	.000	1.000
Zscore(SS4)	-2.07	1.50	.000	1.000
Zscore(SS5)	-2.77	1.17	.000	1.000
Zscore(SS6)	-2.21	1.19	.000	1.000
Zscore(SS7)	-2.81	1.05	.000	1.000
Zscore(SS8)	-3.24	1.36	.000	1.000
Zscore(SS9)	-2.87	1.06	.000	1.000
Zscore(MN1)	-2.17	1.10	.000	1.000
Zscore(MN2)	-3.03	1.40	.000	1.000
Zscore(MN3)	-2.80	1.19	.000	1.000



	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Zscore(MN4)	-2.73	1.38	.000	1.000
Zscore(MN5)	-1.58	1.19	.000	1.000
Zscore(MN6)	-2.18	1.35	.000	1.000
Zscore(MN7)	-3.31	1.35	.000	1.000
Zscore(MN8)	-2.55	1.23	.000	1.000
Zscore(GP1)	-1.92	1.73	.000	1.000
Zscore(GP2)	-1.81	1.09	.000	1.000
Zscore(GP3)	-2.04	1.54	.000	1.000
Zscore(GP4)	-1.86	1.85	.000	1.000
Zscore(GP5)	-1.48	1.94	.000	1.000
Zscore(GP6)	-1.80	2.31	.000	1.000
Zscore(GP7)	-1.93	1.98	.000	1.000
Zscore(FS1)	-1.36	1.95	.000	1.000
Zscore(FS2)	-1.51	2.00	.000	1.000
Zscore(FS3)	-1.65	2.34	.000	1.000
Zscore(FS4)	-1.39	2.45	.000	1.000
Zscore(FS5)	-2.02	1.01	.000	1.000
Zscore(FS6)	-3.06	1.06	.000	1.000
Zscore(FS7)	-1.73	1.21	.000	1.000
Zscore(FS8)	-1.15	2.08	.000	1.000
Zscore(FS9)	-1.19	1.67	.000	1.000
Zscore(TD1)	-2.83	1.62	.000	1.000
Zscore(TD2)	-3.24	1.65	.000	1.000
Zscore(TD3)	-2.08	1.53	.000	1.000
Zscore(TD4)	-3.09	1.47	.000	1.000
Zscore(TD5)	-2.47	1.30	.000	1.000
Zscore(TD6)	-2.37	1.47	.000	1.000
Zscore(TD7)	-2.94	1.21	.000	1.000
Zscore(TD8)	-3.26	0.99	.000	1.000
Zscore(TD9)	-2.78	1.07	.000	1.000
Zscore(ICT1)	-2.07	1.37	.000	1.000
Zscore(ICT2)	-3.28	1.10	.000	1.000
Zscore(ICT3)	-2.08	1.20	.000	1.000
Zscore(ICT4)	-2.66	1.14	.000	1.000
Zscore(ICT5)	-2.08	1.37	.000	1.000
Zscore(ES1)	-2.93	1.04	.000	1.000
Zscore(ES2)	-2.62	1.08	.000	1.000
Zscore(ES3)	-2.58	1.57	.000	1.000
Zscore(ES4)	-2.22	1.97	.000	1.000
Zscore(ES5)	-2.97	1.40	.000	1.000
Zscore(ES6)	-2.63	1.54	.000	1.000
Zscore(ES7)	-2.82	1.18	.000	1.000
Zscore(ES8)	-2.94	1.43	.000	1.000
Zscore(ES9)	-2.50	1.53	.000	1.000
Zscore(ES10)	-2.93	1.24	.000	1.000
Zscore(ES11)	-2.27	1.30	.000	1.000

## 5.7 Data Normality

A mentionable quantity of past research has been done on the need for normal distribution before an adequate statistical analysis has been developed (Micceri, 1989). Micceri (1989) also noted that the need for routine dissemination through the use of analytical instruments in analysis was devoted to extensive literature. In some cases, on the other hand, the data showed non-normal distribution. There are various statistical analysis tools available to verify data normality, such as histogram, Kolmogorov-Smirnov, skewness & kurtosis, etc. Many real-life data are non-normal and have been analyzed through many prior research approaches (Micceri, 1989). Skewness and kurtosis are the other method used to evaluate the distributional shape (Pallant, 2007). While skewness reflects the distribution symmetry, kurtosis mentions to the distribution 'peakness' or 'flatness' relative to the normal distribution (Field, 2006; Hair et al., 2006). The positive skewness, according to Hair et al. (2006), indicates although the negative distribution of the skew is reversed, the distribution heading to the left and tails to the right are reversed. The value of skewness is suggested to be 0 for the normal distribution, describing a symmetric form (Curran et al., 2006). Furthermore, the negative value of kurtosis implies a flatter distribution, while the peak distribution is indicated by a positive value. Kurtosis values below 1 are referred to as negligible and values between 1 and 10 indicate mild abnormality, while values above 10 indicate severe abnormality (Holmes-Smith, Cunningham & Coote, 2006). All variables were within the usual range of skewness and kurtosis in this study, as presented in Table 5.2 (Hair et al., 2006, p.82). However, the ranking has both positive and negative values in terms of skewness and kurtosis. Before and until they are beyond the usual range, negative or positive skewness and kurtosis pose no concern, according to Pallant (2007, p. 56). Negative or positive values of skewness and kurtosis also represent the essential meaning of the measured construct. The magnitude of normality also depends on the sample size (Hair et al., 2006). The greater sample size limits the detrimental consequences of non-normality (Hair et al., 2006; Pallant, 2007). Furthermore, in comparison to large sample sizes, small sample sizes (less than 50 cases) have a serious effect on normality (more than 200 cases). The size of the workable sample is 399 in the current study and it was observed that data was normally distributed as the skewness value was not greater than  $\pm 2$  for items that met the criterion of Hair (2006).

Table 5.2: Assessment of data normality

	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
SS1	5.82	0.92	-.693	.122	.709	.244
SS2	5.74	0.88	-.337	.122	-.553	.244
SS3	5.99	0.93	-.631	.122	-.469	.244
SS4	5.74	0.84	-.346	.122	-.386	.244
SS5	6.11	0.76	-.665	.122	.304	.244
SS6	5.95	0.88	-.480	.122	-.527	.244
SS7	6.18	0.78	-.589	.122	-.348	.244
SS8	6.11	0.65	-.442	.122	.578	.244
SS9	6.19	0.76	-.643	.122	-.089	.244
MN1	5.99	0.92	-.512	.122	-.662	.244
MN2	5.42	1.13	-.470	.122	-.264	.244
MN3	5.51	1.25	-1.169	.122	1.117	.244
MN4	5.99	0.73	-.421	.122	.058	.244
MN5	6.14	0.72	-.214	.122	-1.062	.244
MN6	5.85	0.85	-.458	.122	-.313	.244
MN7	5.55	1.07	-1.131	.122	1.943	.244
MN8	6.03	0.79	-.716	.122	.381	.244
GP1	4.16	1.65	-.463	.122	-.725	.244
GP2	4.12	1.72	-.606	.122	-.990	.244
GP3	4.42	1.68	-.415	.122	-1.189	.244
GP4	4.01	1.62	.116	.122	-.913	.244
GP5	3.59	1.75	.403	.122	-1.052	.244
GP6	3.63	1.46	.312	.122	-.965	.244
GP7	3.96	1.53	.626	.122	-.379	.244
FS1	3.47	1.81	.092	.122	-1.207	.244
FS2	3.58	1.71	.296	.122	-.964	.244
FS3	3.48	1.51	.253	.122	-.876	.244
FS4	3.17	1.56	.309	.122	-.852	.244
FS5	5.00	1.98	-.747	.122	-.804	.244
FS6	5.45	1.46	-1.491	.122	2.304	.244
FS7	4.53	2.04	-.448	.122	-1.299	.244
FS8	3.14	1.86	.534	.122	-1.077	.244
FS9	3.09	1.75	.336	.122	-1.232	.244
TD1	4.81	1.35	-1.072	.122	1.315	.244
TD2	4.98	1.23	-1.426	.122	2.291	.244
TD3	5.73	0.83	-.427	.122	-.264	.244
TD4	6.03	0.66	-.671	.122	1.397	.244
TD5	5.96	0.79	-.269	.122	-.630	.244
TD6	5.85	0.78	-.365	.122	-.167	.244
TD7	6.13	0.72	-.678	.122	.607	.244

	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
TD8	5.83	1.18	-1.173	.122	1.433	.244
TD9	6.17	0.78	-.686	.122	.034	.244
ICT1	5.80	0.87	-.318	.122	-.577	.244
ICT2	5.50	1.37	-1.286	.122	1.838	.244
ICT3	4.81	1.83	-.805	.122	-.531	.244
ICT4	5.21	1.58	-1.261	.122	.944	.244
ICT5	5.81	0.87	-.402	.122	-.445	.244
ES1	6.22	0.76	-.801	.122	.444	.244
ES2	6.12	0.81	-.798	.122	.333	.244
ES3	5.87	0.72	-.195	.122	-.245	.244
ES4	5.59	0.72	-.448	.122	-.039	.244
ES5	5.72	0.91	-1.013	.122	1.038	.244
ES6	5.89	0.72	-.323	.122	.013	.244
ES7	5.82	1.00	-.848	.122	.276	.244
ES8	6.02	0.69	-.634	.122	1.007	.244
ES9	5.86	0.74	-.505	.122	.276	.244
ES10	5.81	0.96	-.825	.122	.498	.244
ES11	5.91	0.84	-.902	.122	.554	.244

## 5.8 Profile of Respondents

The demographic results of the respondents are depicted in Table xxx. The gender of the majority respondents was male which is 78.4% and the female respondents were 21.6%. The age between 26 – 33 was highest among the respondents which was 32.1%, age between 34 – 41 respondents were 28.6%, age above 41 years were 23.6%, 18 – 25 were 13.3%, and below than 18 years were 2.5%. The respondents were mostly married which is 78.4% and 21.6% were single respondents. 57.9% of factories have less than 10 employees, while, 29.1 % have 10-15, 2.5% and 10.5% have 16-20 and more than 20 employees respectively. The highest number of respondents' qualifications were higher secondary 36.6%; followed by bachelor 31.3%, secondary and primary were 24.1% and 8% respectively. The majority of the respondents 63.4% were earned more than 25001, while, 18.3 % earned less than 15000 Taka per month. Most of the respondents (52.4%) were founded their business while 23.3% of respondents purchased their current business. Most of the respondents (31.6%) prefer the business because, it gives them freedom, 23.8%, and 23.3% of respondents started the business

for being own boss and getting monetary rewards respectively. To make a societal contribution, 13.5 % of respondents prefer business while 7.8% of respondents started the business for more innovative thinking.

Table 5.3: Demographic profile

Demographic profile	n	%
<b>Age</b>		
Below than 18	10	2.5
18 – 25	53	13.3
26 – 33	128	32.1
34 – 41	114	28.6
More than 41	94	23.6
<b>Marital status</b>		
Single	86	21.6
Married	313	78.4
<b>Gender</b>		
Male	356	89.2
Female	43	10.8
<b>Number employees</b>		
Less than 10	231	57.9
10-15	116	29.1
16-20	10	2.5
More than 20	42	10.5
<b>Monthly profit</b>		
TK. 5300 to TK. 10,000	42	10.5
TK. 10,001 to TK. 15,000	31	7.8
TK. 15001 to TK. 20000	31	7.8
TK. 20001 to TK. 25000	42	10.5
TK. 25001 to TK. 35000	136	34.1
Above TK. 35000	117	29.3
<b>Education level</b>		
Primary	32	8.0
Secondary	96	24.1
Higher secondary	146	36.6
Bachelor	125	31.3
<b>Period of business</b>		
Less than 1 year	66	16.5
1 to 3 years	63	15.8
4 to 6 years	74	18.5
7 to 9 years	73	18.3
More than 9 years	123	30.8
<b>How did you become the owner</b>		
I purchased it	93	23.3
I founded it	209	52.4
I inherited it	43	10.8
Other	54	13.5

<b>Reasons to start business</b>		
Being own boss	95	23.8
Monetary rewards	93	23.3
Make a societal contribution	54	13.5
Freedom	126	31.6
More innovative thinking	31	7.8

## 5.9 Structural Equation Modelling (SEM) Evaluation

Chin *et al.* (2008) suggested that the SEM in the field of psychology, cognitive science, and strategic management has been broadly extended and brought to the attention of an increased number of scholars over the past decade. Hoyle (1995) told SEM is applied to explain a huge number of empirical data utilized to estimate the validity of fundamental theories of statistical models. In the other side, MacCallum & Austin (2000) use the SEM methodology to approximate a particular theoretical model researcher, and the SEM also makes the testing of theories relating to the relationship between variables. For studying both structural properties of theoretical models and the measurement model, SEM is used for its aggregate topographies of factor analysis and multiple regression. Structural Equation Modeling is able to approximate and measure correlations for relationships between factors / latent variables that differentiate characteristics from another form of data analysis (Weston & Gore, 2006).

Due to the shortcoming in first-generation data analysis techniques like regression analysis, for describing multi-layers links amongst dependent as well as independent variables at the same period which inspired an increased number of researchers to utilize SEM as an alternative (Heinlein & Kaplan, 2004). SEM is used as an effective tool for testing the relation between constructs, validating the instrument, and evaluating whether the theoretical conclusions are denied or supported by a given model with empirical evidence (Reinartz *et al.*, 2009). In one methodology, SEM has an edge in evaluating both the structural models and estimation. It also allows the interaction between several dependent and independent variables to be modelled simultaneously (Hair *et al.*, 2010). SEM assimilates not just the estimation errors of experiential factors into the hypothesized construct, but also the factor interpretation to be embedded in hypothesis research (Gefen *et al.*, 2000). It is important to fully understand SEM before using SEM. PLS-SEM and CB-SEM are two methods that can be used. Each method is suitable for a given research background setting (Hair *et al.*,

2013). In Smart-PLS applications, the mathematical calculation model was drawn for simulation work in the evaluation of the impact of apparent variables. The model's PLS simulation is carried out by measuring and testing different parameters, including item loading, reliability, and validity checks. As proposed by Henseler *et al.* (2009), this involves a 2-step method that involves separately measuring PLS model parameters by solving the calculation model blocks and then determining the path coefficients of a structural model.

## 5.10 Assessment of the Measurement Model

The first step in assessing the model is to test the measurement model in which Cronbach's alpha and composite reliability are tested for build reliability, and composite reliability and discriminant validity are checked for convergent and discriminant. According to Chin (1998), to determine the degree to which experiential variables are loaded on their underlying construct, the outer model or calculation model is used for factor analysis. Since the theoretical model existing in chapter three which was built from the well-matured and appropriate theoretical research streams in management, does not require reassessment of measurement (Hair *et al.*, 2006), it is also recommended that the outer model/CFA validate the underlying relationship of the variables observed with the latent factors (Byrne, 2001). The measurement model criteria for model fit are shown in table 5.4. The requirements for stepwise analysis are presented as hereunder:

### 5.10.1 Construct validity and reliability

The first criterion for testing the measurement model by matching items/observed variables with one another is internal accuracy. In fact, the underlying latent variable defines the variance of items displaying item-reliability (Gotz *et al.*, 2010, p.694). The latent construct illustrates the normal internal loadings (absolute correlation), which must be over 50 percent, according to Chin (1998). Churchill (1995) indicated the value should not be less than 0.4, and Henseler *et al.* (2009) reported that the value should be higher than 0.70. The results focusing on PLS measurement analysis, the absolute relation between the construct and its measuring components, were seen in Table 5.4 showing that the load factor varied from 0.470 to 0.933, which was above Churchill's (1979) minimum threshold criteria; (1998). Figure 1 displays the outer loadings of the

calculation model. While the reliability of the individual item level was appropriate, construct reliability was also suggested, according to Bagozzi & Baumgartner (1994), to observe the reliability of the item group under the same construct. Items assigned to the same frameworks expose a larger relationship that is confirmed by construct-level durability within themselves. Construct-level reliability was observed by composite reliability and Cronbach's alpha in the current research. When evaluating composite durability, how well all given items expressed their structures (Fornell & Larcker, 1981; Gotz *et al.*, 2010), Cronbach's alpha evaluated the uni-dimensionality of the internal constancy of the multi-item scale (Cronbach, 1951). The value of composite reliability was greater than the cut-off value of 0.70 (Nunnally and Bernstein, 1994) and the Cronbach alpha was higher than the recommended value of 0.6 for all structures according to Table 5.4

### **5.10.2 Convergent validity**

Hair *et al.* (2006) explained that the fundamental theoretical concept of convergent validity is correctly reflected by a series of observing objects. In particular, convergent validity indicates that the relationship between responses received from various measures represents the same construct (Peter, 1981). In other words, it implies that the entity set can embody the same fundamental structure that can be verified by its uni-dimensionality (Henseler, 2009, p. 299). For this research, convergent validity was tested using the universally defined "Average Variance Extracted" (AVE) technique (Hair *et al.*, 2006; Henseler, 2009; Tabachnick & Fidell, 2007). Table 5.4 shows that for each latent construct, Average Variance Extracted (AVE) was greater than the prescribed value of 0.5 (50 percent), indicating that each construct (except, entrepreneur's skills, marketing network, SME success, training and development) could describe more than half of the variance for its measurement items on average (Fornell & Larcker, 1981). The value of AVE slightly lesser than 0.5 is accepted at the time of composite reliability is more than 0.60 for all construct (Lam, 2012). Thus, the value of AVE of entrepreneur's skills, marketing network, SME success, training and development is 0.430, 0.491, 0.432 and 0.486 are accepted, respectively according to Fornell and Larcker (1981).



Table 5.4: Construct reliability and validity

Items	Outer loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
<b>Entrepreneur's Skills</b>		<b>0.811</b>	<b>0.855</b>	<b>0.430</b>
ES1	0.737			
ES10	0.745			
ES11	0.514			
ES2	0.537			
ES5	0.751			
ES6	0.611			
ES7	0.763			
ES8	0.519			
<b>Financial Support</b>		<b>0.826</b>	<b>0.871</b>	<b>0.541</b>
FS1	0.690			
FS3	0.757			
FS4	0.776			
FS7	0.470			
FS8	0.862			
FS9	0.837			
<b>Government Policies</b>		<b>0.869</b>	<b>0.883</b>	<b>0.566</b>
GP1	0.792			
GP2	0.933			
GP3	0.887			
GP5	0.634			
GP6	0.648			
GP7	0.541			
<b>Information &amp; Technology</b>		<b>0.766</b>	<b>0.839</b>	<b>0.568</b>
ICT1	0.684			
ICT2	0.835			
ICT3	0.832			
ICT4	0.645			
<b>Marketing Network</b>		<b>0.736</b>	<b>0.825</b>	<b>0.491</b>
MN1	0.770			
MN2	0.787			
MN3	0.758			
MN6	0.623			
MN7	0.529			
<b>SME Success</b>		<b>0.675</b>	<b>0.789</b>	<b>0.432</b>
SS1	0.628			
SS2	0.607			
SS4	0.519			
SS6	0.717			
SS9	0.784			
<b>Training &amp; Development</b>		<b>0.654</b>	<b>0.791</b>	<b>0.486</b>
TD1	0.693			
TD2	0.659			
TD8	0.698			
TD9	0.737			

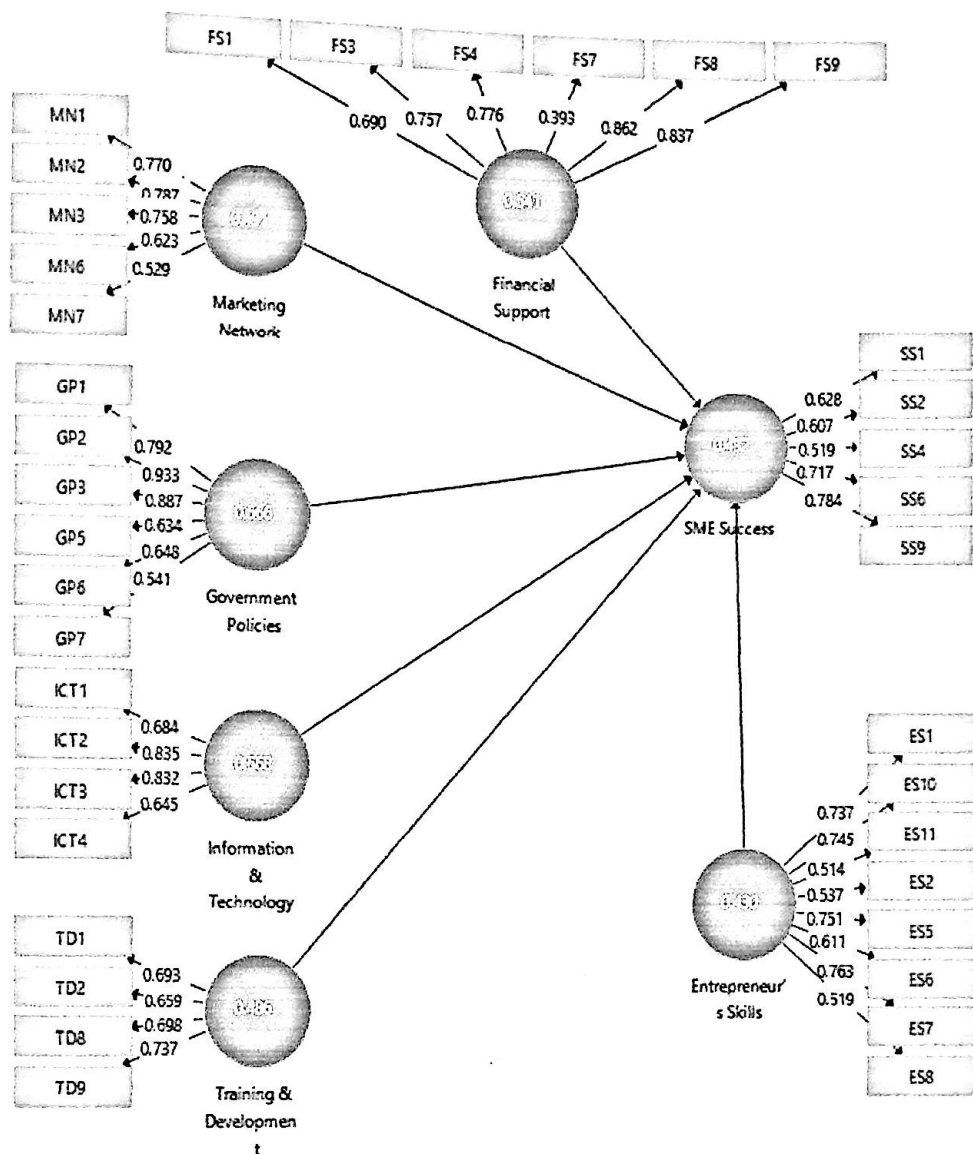


Figure 5.1: Measurement Model

### 5.10.3 Measurement of discriminant validity

Discriminant validity represents one construct's specific distinction from other constructs. Fornell Lacker, HTMT and Cross Loadings are separate methods to measure discriminant validity. The first criteria for discriminant validity that needs to be validated is Fornell Lacker. According to this method, the value of the square root of one construct's AVE must be greater than the value of the inter-correlations between constructs. With its items, a construct must represent more variation than it does with those in the model. The square roots of the AVE of all constructs are larger than their corresponding inter-correlations.

as represented in table 5.5. Hence, the assessment of validity and reliability indicates that the measurement model is appropriate.

Table 5.5: Fornell-larcker criterion

Variable	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Entrepreneur's Skills (Y1)	0.656						
Financial Support (Y2)	0.436	0.736					
Government Policies (Y3)	0.533	0.509	0.752				
Information & Technology (Y4)	0.647	0.110	0.363	0.754			
Marketing Network (Y5)	0.629	0.300	0.371	0.664	0.701		
SME Success (Y6)	0.551	0.378	0.328	0.448	0.653	0.658	
Training & Development (Y7)	0.551	0.116	0.111	0.663	0.616	0.419	0.697

HTMT was the second approach to the validity of discriminants. Compared to Fornell Larcker, this approach seems to be the superior strategy. HTMT values must be below 0.90 according to Henseler *et al.* (2015). For this study, the upper threshold value was less than 0.90 (Table 5.6), which complies with the discriminant validity, since the value is smaller than 0.90.

Table 5.6: Heterotrait-monotrait (HTMT)

	Y1	Y2	Y3	Y4	Y5	Y6
Entrepreneur's Skills (Y1)						
Financial Support (Y2)	0.557					
Government Policies (Y3)	0.595	0.602				
Information & Technology (Y4)	0.762	0.295	0.402			
Marketing Network (Y5)	0.779	0.419	0.391	0.852		
SME Success (Y6)	0.659	0.490	0.384	0.548	0.876	
Training & Development (Y7)	0.689	0.406	0.372	0.852	0.891	0.588

The third method in which researchers investigate the validity of discriminants is the cross-loading matrix. The loading aspects of one construct must be greater than other constructs' loading factors. It shows that the objects of the construction test the intended structure (Straub et al., 2004). Cross loading of this analysis method is the confirmation of the discriminant validity given in Table 5.7. The table clarifies that all objects have the maximum values loaded into their associated structures.

Table 5.7: Discriminant Validity- Cross Loadings

Items	Entrepreneur's Skills	Financial Support	Government Policies	Information & Technology	Marketing Network	SME Success	Training & Development
ES1	0.737	0.506	0.407	0.420	0.524	0.585	0.409
ES10	0.745	0.195	0.414	0.514	0.486	0.418	0.511
ES11	0.514	0.108	0.278	0.425	0.325	0.242	0.271
ES2	0.537	0.326	0.076	0.497	0.265	0.230	0.243
ES5	0.751	0.224	0.517	0.552	0.436	0.333	0.444
ES6	0.611	0.244	0.493	0.373	0.277	0.217	0.184
ES7	0.763	0.381	0.214	0.389	0.490	0.388	0.453
ES8	0.519	0.104	0.425	0.275	0.355	0.207	0.197
FS1	0.424	0.690	0.573	0.009	0.074	0.179	0.030
FS3	0.304	0.757	0.236	0.053	0.152	0.343	0.103
FS4	0.257	0.776	0.256	0.180	0.318	0.345	0.136
FS7	0.085	0.393	0.114	0.234	0.018	0.041	0.223
FS8	0.318	0.862	0.419	0.000	0.228	0.216	0.079
FS9	0.478	0.837	0.625	0.166	0.345	0.333	0.140
GP1	0.386	0.455	0.792	0.106	0.156	0.195	0.126
GP2	0.565	0.484	0.933	0.398	0.352	0.334	0.183
GP3	0.478	0.350	0.887	0.319	0.343	0.290	0.061
GP5	0.357	0.302	0.634	0.165	0.195	0.054	0.022
GP6	0.213	0.429	0.648	0.259	0.266	0.205	0.114
GP7	0.144	0.331	0.541	0.058	0.106	0.058	0.286
ICT1	0.465	0.211	0.373	0.684	0.281	0.249	0.351
ICT2	0.671	0.211	0.184	0.835	0.610	0.484	0.696
ICT3	0.370	0.136	0.356	0.832	0.558	0.317	0.430
ICT4	0.316	0.062	0.298	0.645	0.527	0.148	0.396
MN1	0.476	0.379	0.442	0.464	0.770	0.510	0.414
MN2	0.425	0.293	0.273	0.581	0.787	0.516	0.436
MN3	0.464	0.057	0.285	0.493	0.758	0.487	0.477
MN6	0.523	0.263	0.156	0.414	0.623	0.442	0.369
MN7	0.295	0.033	0.062	0.347	0.529	0.289	0.522
SS1	0.338	0.124	0.090	0.386	0.495	0.628	0.375
SS2	0.168	0.237	0.133	0.134	0.238	0.607	0.036
SS4	0.389	0.254	0.371	0.224	0.217	0.519	0.130
SS6	0.361	0.203	0.202	0.413	0.514	0.717	0.301
SS9	0.490	0.411	0.305	0.260	0.538	0.784	0.413
TD1	0.170	0.199	0.126	0.352	0.269	0.266	0.693
TD2	0.150	0.053	0.104	0.477	0.351	0.233	0.659
TD8	0.484	0.026	0.053	0.528	0.541	0.295	0.698
TD9	0.622	0.357	0.372	0.489	0.516	0.353	0.737

### 5.11 Assessment of Structural Model

If the calculation model was in place, the next step was to verify the validity of the structural model. Different statistical tests, such as path coefficient ( $\beta$ ), predictive relevance ( $Q^2$ ), impact size ( $f^2$ ), and determination coefficient ( $f^2$ ), are used to validate the structural model ( $R^2$ ). The next step was to create the causal path between independent (exogenous) and dependent (endogenous) variables for establishing covariance linear relationship. According to Chin (2010), the structural model is theoretical model to evaluate the inner path model with a series of structural equations. For the evaluation of the structural model

in this research, the essential criteria were as follows: path coefficient ( $\beta$ ), coefficient of determination ( $R^2$ ) for endogenous variable, effect size ( $f^2$ ), prediction relevance ( $q^2$ ) and multicollinearity (inner VIF) (Henseler *et al.*, 2009; Gotz *et al.*, 2010). The threshold value and description for each benchmark are seen in a stepwise test of the structural model below.

### 5.11.1 Result of multi-collinearity (Variance Inflator Factor-Inner VIF)

Multi-collinearity is defined as two or more independent constructs that are very much correlated. If common indicators are found in the various constructs, then it is the matter of multi-collinearity (Yoo *et al.*, 2014). The researchers are needed to test the multi-collinearity before testing the model suggested by Hair *et al.* (2010). The researchers are able to identify the multi-collinearity by computing the correlation coefficient. According to Hair *et al.* (2010), it is assumed that there is a collinearity problem in variables when the correlation coefficient values are greater than 0.9. Again, Variance Inflation Tolerance (VIF) can be used instead of the correlation coefficient for measuring collinearity problems. The value of VIF will not be higher than 5 in the model that shows that variables are free from collinearity problem in the measurement of Smart-PLS technique. There was no multi-collinearity problem in the current study as the inner VIF values are lower than 5. The VIF values higher than 10 and lower than 0.1 indicate the existence of multi-collinearity, according to Pallant (2007). The findings provided in Table 5.8 in the current study show that the highest VIF value was 2.76 and the lowest VIF value was 1.59, indicates the absence of multi-collinearity among independent variables.

Table 5.8: Result of multicollinearity–Inner VIF values

	Y6
Entrepreneur's Skills (Y1)	2.650
Financial Support (Y2)	1.587
Government Policies (Y3)	1.827
Information & Technology (Y4)	2.760
Marketing Network (Y5)	2.280
SME Success (Y6)	
Training & Development (Y7)	2.261

### 5.11.2 Coefficient of Determination ( $R^2$ )

The R square shows the variety that the endogenous model represents. The coefficient of determination ( $R^2$ ) is the primary criteria for determining the structural model, according to Klarner et al (2013). The  $R^2$  value of SME success is 0.680 in Table 5.9. In empirical testing, this  $R^2$  value, which is above 25 percent, suggests a high acceptable prediction level (Gaur & Gaur, 2006).

Table 5.9: R-square result

	R Square	R Square Adjusted
SME Success	0.680	0.672

### 5.11.3 Effect size ( $f^2$ )

The impact size of entrepreneur's skills, financial support, government policies, information & technology, marketing network, training & development on SME Success was computed by using  $f^2$ . The value between 0.00 and 0.15 indicates a small scale of the effect, whereas the value between 0.15 and 0.35 indicates a medium effect, while the values above 0.35 suggest a significant size of the effect (Sarstedt et al., 2017). The effects of  $f^2$  are seen in Table 5.10 below.

Table 5.10: f-square result

	Y6
Entrepreneur's Skills (Y1)	0.027
Financial Support (Y2)	0.032
Government Policies (Y3)	0.026
Information & Technology (Y4)	0.033
Marketing Network (Y5)	0.221
SME Success (Y6)	
Training & Development (Y7)	0.197

### 5.11.4 Path Coefficient

The PLS structural model's individual path coefficients can be interpreted as standardized beta coefficients of ordinary least-square regressions. Resampling techniques like bootstrapping can be used to evaluate the confidence intervals of the path coefficients and statistical inference (Tenenhaus et al., 2005). The PLS SEM calculation is used to evaluate if there is empirical support for the conceptual model or

theoretical hypotheses (Hair et al., 2014). Relationship between the constructs hypothesized is measured by the arrows or paths (Hair et al., 2014). Standardized regression coefficients are the path coefficients results from a PLS analysis (Hulland, 1999). The study of path coefficients is a statistical technique by which the correlation coefficients are divided into their direct and indirect effects in estimating the contribution of each character to the yield. The purpose of the path analysis is to accept explanations of the association between the characteristics based on a model of relationship of cause and effect, and to estimate the significance of the characteristics affecting a specific attribute (Cyprien & Kumar, 2011). The effect/relation will be significant if the p value is less than 0.05 and the t-value is greater than 1.96, while the Alpha level was set at 0.05.

According to the table 5.11, there have significant effect of Entrepreneur Skills ( $b=0.202$ ,  $t=2.586$ ,  $p<0.05$ ), Financial Support ( $b=-0.173$ ,  $t=3.427$ ,  $p<0.05$ ), Information & Technology = ( $b=0.185$ ,  $t=3.523$ ,  $p<0.05$ ), Marketing Network ( $b=0.421$ ,  $t=6.873$ ,  $p<0.05$ ), Training & Development= $(b=0.339$ ,  $t=5.639$ ,  $p<0.05$ ) on SME Success. On the other hand, there is no significant effect of government policies ( $b=-0.096$ ,  $t=1.831$ ,  $p>0.05$ ) on SME success.

Table 5.11: Path coefficient result

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Entrepreneur Skills -> SME Success	0.202	0.202	0.078	2.586	0.010
Financial Support -> SME Success	0.173	0.174	0.051	3.427	0.001
Government Policies -> SME Success	0.196	0.187	0.053	2.431	0.016
Information & Technology -> SME Success	0.185	0.187	0.067	3.523	0.000
Marketing Network -> SME Success	0.421	0.420	0.061	6.873	0.000
Training & Development -> SME Success	0.339	0.342	0.069	5.639	0.000

### 5.11.5 Moderating effect

In moderating effect, the relationship between an independent and dependent variable is changed with direction of value of moderator variable (Dawson, 2014). Furthermore, by using the moderating variable it is measured whether there is a same relationship among the variables. In a moderating model a variable explains 'when' or 'for whom' causes an outcomes are emerged (Frazier et al., 2004). There is moderating effect of

entrepreneur's skills between the relationship of marketing network and SME success ( $b= 0.263$ ,  $t= 2.887$ ,  $p<0.05$ ). On the other hand, there is no moderating effect of entrepreneur's skills between the relationships of financial support and SME success ( $b= 0.026$ ,  $t= 0.385$ ,  $p>0.05$ ), information & technology and SME success ( $b= 0.127$ ,  $t= 1.283$ ,  $p>0.05$ ), training & development and SME success ( $b= 0.190$ ,  $t= 2.343$ ,  $p>0.05$ ), government policies and SME success ( $b= 0.054$ ,  $t= 0.878$ ,  $p>0.05$ ).

Table 5.12: Moderating effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV  )	P Value s
ES * FS -> SME Success	0.026	0.028	0.068	0.385	0.701
ES * I & T -> SME Success	0.127	0.126	0.099	1.283	0.200
ES * MN -> SME Success	0.263	0.266	0.091	2.887	0.004
ES * T & D -> SME Success	0.190	0.177	0.043	2.343	0.016
ES* GP -> SME Success	0.054	0.062	0.061	0.878	0.380

#### 5.11.6 Predictive Relevant ( $Q^2$ )

By reproducing the manifest values and calculating parameters, the  $Q^2$  procedure is used to calculate the predictive capabilities of the structural model to measure the predictive capabilities. The  $Q^2$  statistics were computed based on Stone-suggestion Geisser's (Stone, 1974; Geisser, 1975), and the model must be able to predict the things of the dependent variables according to them. It is also known as a sample reprocessing technique that enables the cross-validation of the model to be tested (Wold, 1982; Chin, 1998). The model shows predictive validity if the  $Q^2$  value is greater than zero, otherwise the model has an inadequacy of predictive relevance (Fornell & Cha, 1994). To confirm the predictive validity of the formula, the predictive relevance ( $Q^2$ ) must be greater than null (Chin, 1998). To measure the  $Q^2$  value, a blindfolding test was run to obtain the predictive relevance of the model. A reasonable match and high statistical significance as a whole are assessed by the model, as the  $Q^2$  values in table 5.13 are greater than zero.



Table 5.13: Cross validated redundancy

	SSO	SSE	Q <sup>2</sup> (=1-SSE/SSO)
SME Success	1,995.000	1,624.054	0.186

### 5.11.7 Summary of the analysis

The chapter began with a preliminary data analysis including missed answers, recording, screening, cleaning, normality checking, and outliers. For the study, a total of 399 observation samples were considered to be usable. Descriptive statistics have been used for demographic profile analysis. For all the composite variables, reliability was tested, and all of them were deemed acceptable.

For research, a hypothesized measurement model was built with the use of a two-stage method of Structural Equation Modeling. To evaluate variables where all the items have adequate factor loadings higher than 0.5, the PLS Algorithm was performed. All constructs have composite reliability values of more than 0.7 in terms of internal consistency. In this study the value of AVE is higher than 0.50 and all apparent variables are loaded on their latent variable where square roots of AVE for each construct are higher than their inter correlation. the measurement model also showed adequate convergent validity. Convergent validity, construct reliability and discriminant validity are reached by all the dimensions. Second, satisfactory findings were shown by the validation of the structural model. In addition, there was support for three suggested paths within the structural model, and seven paths were refused.

In accordance with the results obtained, the next chapter gave a description of key results and explanation of the constructs used in this research. In the next chapter, the details of the observations and conclusions are discussed. Here the result of developed hypothesis is given below:

Hypothesis	Result
H1: There is significant effect of market accessibility and networking on success of SME	Supported
H2: There is significant effect of government policies on success of SME	Not Supported
H3: There is significant effect of financial support on success of SME	Supported
H4: There is significant effect of training and development on success of SME	Supported
H5: There is significant effect of modern technology on success of SME	Supported
H6: There is a moderating effect of entrepreneur's skills between the relationship of market accessibility and networking and success of SME	Supported
H7: There is a moderating effect of entrepreneur's skills between the relationship of government policies and success of SME	Not Supported
H8: There is a moderating effect of entrepreneur's skills between the relationship of financial support and success of SME	Not Supported
H9: There is a moderating effect of entrepreneur's skills between the relationship of training and development and success of SME	Not Supported
H10: There is moderating effect of entrepreneur's skills between the relationship of modern technology and success of SME	Not Supported

# Chapter Six

## Discussion

### 6.1 Introduction

This section shows the explanation and discussion of study findings found from the results of the survey which was conducted to observe the effect of different promoting factors on the SMEs success in Bangladesh. This chapter discusses on the findings of the research as well as results of structural equation modelling (SEM) which is illustrated in chapter 5. The findings of this study discussed 10 proposed hypotheses on the basis of major research questions projected in chapter 1. The preliminary proposed model was developed from the literature review and 10 hypotheses were formulated. The earlier part of this research focuses on the explanation of the results of the tested hypotheses where 5 of the hypotheses were accepted. The significant associations of the proposed hypothesis are found interconnected with propositions that can act as a guide in formulation and implementation of effective actions to promote the success of SMEs in Bangladesh. Here, the structural model of SMEs shows the effect of the promoting factors on the success of it. Furthermore, in this section, the hypotheses are discussed elaborately that are with the implications of and possible explanations and the hypotheses are also discussed that are rejected. In the following all constructs associated to the hypotheses are illustrated with its probable applications.

### 6.2 Discussion of the Result

The analysis part of this thesis indicates that, the tested hypotheses was measured by examining the t-values and reliable structural coefficients. The results of the tested the hypotheses are presented that reveals that of 10 hypotheses related to success of SMEs where 5 were taken as significant effect and 5 hypotheses were taken as moderating effect. Among these hypotheses 5 were statistically significant and 5 hypotheses were insignificant.

The following sections presents the discussion of the findings related to the individual hypotheses that were developed from the review of literature.

### **6.2.1 Hypotheses related to market accessibility and networking**

The first research questions on how the promoting factors (market accessibility and networking, government policies, financial support, training and development, modern technology) influence the success of SME of Bangladesh that were reflected in developed hypothesis. In case of first hypothesis which has been stated as H1: There is significant effect of market accessibility and networking on success of SME. After analyzing the data in chapter 5, the following are the results of the hypothesis testing.

In case of H1, the result of marketing network shows that  $b= 0.421$ ,  $t= 6.873$ ,  $p<0.05$ ) which is statistically significant and positively supported. This result consistent with the study of Philip, 2010) where the marketing or social networking of entrepreneurs plays the positive role on the success of SMEs in Bangladesh. It also helps to reduce the risk and cost of transactions, update the knowledge and raise capital. Furthermore, Marketing strategies brings the impact on the progress of the enterprise and long-term endurance ability in the global market. So, the firms need to build this capability as the business environment is changing (Moore & Fairhurst, 2003). Hence, the effect of marketing network was treated as imperative construct of success of SMEs in the proposed conceptual model and the hypothesis accepted.

### **6.2.2 Hypotheses related to government policies on success of SME**

Government support and legal aspects is also needed to develop or promote the SMEs in Bangladesh (Philip, 2010). The association between the role of government policy and entrepreneurship and SMEs of Bangladesh performance is examined. Yet, the factors of government assistance policy to the performance of SMEs are ignored many ways in the area of social science particularly in management like emerging economy of Bangladesh (Hoque, A. S. M. M, 2018).

The second hypothesis is stated as H2: There is significant effect of government policies on success of SME. In this case, after analyzing the data it is found that ( $b= -0.096$ ,  $t= 2.431$ ,  $p>0.05$ ) which is statistically insignificant and the result is not supported. Here the government policy is not creating impact on success of SME which is dissimilar to the study of (Eniola, A. A., & Entebang, H, 2015) where there is connection between government policy and the performance of SMEs and government policy plays a vital

role to bring the effect on the attractiveness of SMEs. Probably the positive result is not found due to demographic reason in Bangladesh. The demographic factors which are treated as personal qualities educational level, gender, experiences of work have the huge effect on the entrepreneurs (Indarti and Langenberg, 2005). (Indarti and Langenberg, 2005). Therefore, the test result indicates to reject the proposed hypothesis.

### **6.2.3 Hypotheses related to financial support on success of SME**

The impact of financial assistance on the performance of SMEs is explored which identified that financial assistance plays a vital role on the performance of SMEs and creates huge impact in this regard. These assistances are less sufficient and characterized by rigorous, unrealistic bureaucratic details. (Peter *et al.*, 2018). The hypothesis of financial support is developed as H3: There is significant effect of financial support on success of SME. The result of this hypothesis shows that ( $b = -0.173$ ,  $t = 3.427$ ,  $p < 0.05$ ) which is supported. The result of hypothesis hugely supported the proposed hypothesis and the result was consistent with the prior literature. Xiang, D., & Worthington, A. C (2017) stated that the financial assistance of government assists SMEs to enhance the performance over and above the impact of traditional financial assistance. This study also finds that the implied effect of receiving the government financial assistance by the firm. It is suggested to receive the nongovernment financial support by the firms in the future. Based on the above significant relationship, it can be interpreted that proposed hypothesis is accepted.

### **6.2.4 Hypotheses related to training and development on success of SME**

Education and experience are the factors that play very vital role on the economic performance of a developing country (Scott *et al.*, 1998). In the case of training and development the proposed hypothesis is as H4: There is significant effect of training and development on success of SME. The result of this hypothesis indicates ( $b = 0.039$ ,  $t = 5.639$ ,  $p > 0.05$ ) which is statistically significant and supported. This result is consistent with the findings of prior literature. The impact of entrepreneur's education on SMEs business success is hugely concerned with small firm size (Vixathep, S, 2017). On the other hand, well trained people become more creative and bring something unique for business (Ndubisi, Gupta, and Massoud, 2003) which is

supportive to this result. Hence, this result shows that training and development plays a vital role to the success of SMEs where the hypothesis is accepted.

#### **6.2.5 *Hypotheses related to modern technology on success of SME***

The impact of information communication technology (ICT) is analyzed on the success of small businesses that indicates the government policy strongly focusing on the significance of ICT (Locke, S, 2004). Here the proposed hypothesis is H5: There is significant effect of modern technology on success of SME. After analyzing the data, the result of hypothesis indicates ( $b= 0.185$ ,  $t= 3.523$ ,  $p>0.05$ ) which is statistically significant and supported. This result is similar with the prior reviewed literature. Locke, S., & Cave, J (2018) stated that the New Zealand Government has undertaken initiative to promote the SMEs by using the information communication technology (ICT) where the impact of ICT is recognized strongly and it is treated as essential part in SME sector. It focused on the micro businesses that should seize some of the efficacy gains. Therefore, in this research this result intends to interpret that it is supportive to proposed hypothesis which is accepted.

#### **6.2.6 *Hypotheses related to entrepreneur's skills between the relationship of market accessibility and networking and success of SME***

Skills and level of education of the entrepreneurs keep contribution in developing the new concept of business (Chowdhury, 2011). Entrepreneur's skill is taken as the moderating construct to find the relationship of market accessibility and networking and success of SME. In this case the proposed hypothesis is H6: There is a moderating effect of entrepreneur's skills between the relationship of market accessibility and networking and success of SME. After analyzing the data, the result indicates ( $b= 0.263$ ,  $t= 2.887$ ,  $p<0.05$ ) which is statistically significant and supported. Here we find that there is moderating effect of entrepreneur's skills between the relationship of marketing network and SME success which is consistent with the prior study. Partanen et al., (2008) focused on the activities of marketing like developing distribution networks, advertising agencies, mentor development and different media that will be helpful to enter into the market globally and will guide to access to information and technology. It will assist in commercialization of potential offers for SMEs worldwide. These works can be done if the entrepreneurs of SMEs have the personal skills and other attributes

in this regard. Marketing strategies brings the impact on the advancement and growth of the organization to survive in long term and enhance the competency in competitive market. So, the firms need to build this capability as the business environment is changing (Moore & Fairhurst, 2003). This result indicates that the proposed hypothesis is accepted.

#### **6.2.7 Hypotheses related to entrepreneur's skills between the relationship of government policies and success of SME**

The personal competency, efficiency and managerial skills are the affecting factors for the performance of the enterprise with awareness and knowledge of entrepreneurs (Sambasivan *et al.*, 2009). Here the proposed hypothesis is H7: There is a moderating effect of entrepreneur's skills between the relationship of government policies and success of SME. The result of analysis shows ( $b= 0.054$ ,  $t= 0.878$ ,  $p>0.05$ ) which is insignificant and not supported to proposed hypothesis. Here we find that there is no moderating effect of entrepreneur's skills between the relationship of government policies and SME success which is dissimilar to the previous study. Knowledge and management capability of entrepreneurs are also needed for the entrepreneurs. The level of education is moderately responsible for the positive relationship with success of the small business firm (Thapa *et al.*, 2008). Education and experience are the factors that play very vital role for the growth of the firm in a developing country (Scott *et al.*, 1998). This result presents that the proposed hypothesis is not accepted. The result is not accepted due to lack of in-depth understandings of the respondents.

#### **6.2.8 Hypotheses related to entrepreneur's skills between the relationship of financial support and success of SME**

This research identified that financial assistance create effect on the performance of SMEs and creates huge impact in this regard (Peter *et al.*, 2018). In this research the proposed hypothesis is H8: There is a moderating effect of entrepreneur's skills between the relationship of financial support and success of SME. The result of this analysis indicates ( $b= 0.026$ ,  $t= 0.385$ ,  $p>0.05$ ) which is not supported to the developed hypothesis in this research. This finding contrary to the previous literature like and McGrath, (2002) which stated that education is one of the factors that create constructive impact on the growth of the firms. Education and training of entrepreneurs



or vocational training of entrepreneurs help to adapt with changing business environment (King and McGrath, 2002). This result presents that the proposed hypothesis is not accepted. The positive result is not found because of low quality manpower, less awareness or less efficiency in network building, quick changes of policy and business strategy which are considered as the obstacles of SMEs (Miah, 2007).

#### **6.2.9 Hypotheses related to entrepreneur's skills between the relationship of training and development and success of SME**

Knowledge and management capability of entrepreneurs are also needed for the entrepreneurs for the success of the firm (Thapa *et al.*, 2008). In this case the proposed hypothesis developed as H9: There is a moderating effect of entrepreneur's skills between the relationship of training and development and success of SME. Here the calculated result presents ( $b= 0.190$ ,  $t= 2.343$ ,  $p>0.05$ ) which is insignificant and not supported to the hypothesis. This result is inconsistent with reviewed literature that are stated as education and training of entrepreneurs or vocational training of entrepreneurs help to adapt with changing business environment (King and McGrath, 2002). The entrepreneurs' managerial skills are the factors that act for the progress of (SMEs) in Nigeria. Furthermore, this study investigated that both the entrepreneurs' conceptual and technical skills play a vital role on the management skills of the entrepreneurs that creates effect on the accomplishment of SMEs. This study suggested entrepreneurs to adopt conceptual skills for strategic planning for the firms. (Ikupolati *et al.*, 2017). Hence here the proposed hypothesis is rejected.

#### **6.2.10 Hypotheses related to entrepreneur's skills between the relationship of modern technology and success of SME**

Managers need to improve the international performance by using the modern technology that may enhance strategic managerial decision making. (Bagheri *et al.*, 2019). In this case the proposed hypothesis specified as H10: There is moderating effect of entrepreneur's skills between the relationship of modern technology and success of SME. The analyzed result of this hypothesis indicates ( $b= 0.127$ ,  $t= 1.283$ ,  $p>0.05$ ) which is statistically insignificant and not supported. This result is dissimilar to the prior



study. In this case the impact of information communication technology (ICT) is analyzed on the advancement of SMEs in New Zealand that indicates the government policy strongly focused on the importance of ICT and the knowledge economy (Locke, S, 2004). Here this hypothesis is not accepted. The positive result is not found because of limited knowledge of respondents about modern technology or misunderstanding about the subject matter of the research questions.

### 6.3 Summary

This section discussed the explanation of the results by using the smart PLS analysis of the proposed research model to investigate impact of the promoting factors of SMEs. The findings of the research as well as consequences of the survey conducted on the managers and owners of the SMEs in Rajshahi district of Bangladesh were explained with the direction of developed hypotheses. The results were illustrated and compared with the reviewed literature.

In the developed 10 hypotheses, the following were supported: i) H1: There is significant effect of market accessibility and networking on success of SME, ii) H3: There is significant effect of financial support on success of SME, iii) H4: There is significant effect of training and development on success of SME. iv) H5: There is significant effect of modern technology on success of SME. v) H6: There is a moderating effect of entrepreneur's skills between the relationship of market accessibility and networking and success of SMEs. The rest of hypotheses were not supported and all the positive relationships were supported. Primarily, the proposed hypotheses were developed based on the literature review. After analyzing the data, the relationships which were found significant that shows there is effect of promoting factors on the success of SMEs in Bangladesh.

This section also discussed the probable elucidations for rejected hypotheses in this thesis. Five hypotheses were insignificant among the proposed developed hypothesis. These hypothesized relationships did not show any association. Hence, the applied implications of the found result provide guidelines to formulate suitable policy should be taken into consideration for the improvement or progress of the factors that influences the success of SMEs.

# Chapter Seven

## Conclusions and Future Directions

### 7.1 Introduction

This research was conducted to investigate the effect of the factors on the success of SMEs in Bangladesh using the quantitative approach. A preliminary proposed research model was developed in this thesis after literature review to meet the objectives of the research. The hypotheses were also drawn from the review of literature. After that research questionnaire was developed to collect the data for quantitative analysis. Then with the use of quantitative data collected from SMEs in Rajshahi district, the hypotheses were tested by Smart PLS-based SEM. The data analysis was discussed in chapter 5. Five hypotheses were accepted among the ten hypotheses that were formulated earlier. The explanations of the accepted and rejected hypotheses were discussed in chapter 6 based on the outcomes of chapter 5 by the support of literature and field study analysis. This section describes the concluding remarks and summary of the research.

The next segment states the summary of the research based on research questions and objectives. This section also explores the theoretical and practical contribution of the research. Furthermore, it focuses on the few drawbacks of the study and the further directions to conduct the research in the area of SMEs.

### 7.2 Summary of the Research

This study presents the promoting factors of SMEs that influence the success of it that was directed based on the gap obtained from the review of academic literature. In this study, model was developed in this thesis after literature review and focused on the concept of stakeholder theory. The constructs and items of research model was also developed from the review of literature. 7 constructs 58 items and 10 hypotheses were taken based on the literature.

In this research the quantitative approach was used that is discussed in chapter 4. A survey was conducted to collect the data by designing a structured questionnaire focusing on the proposed research model. The survey was conducted among the owner and managers of

SMEs in Rajshahi, Bangladesh. After completing the survey, the collected data were collected and analyzed by using the Smart PLS-based SEM technique which sequentially assessed the measurement model and the structural model. The result of the hypotheses testing explains that 5 suggested relationships were statistically significant while the other 5 hypotheses were not supported (chapter 5). The results were presented and discussed elaborately in chapter 6.

### **7.3 Contribution of the Research**

The findings of this research indicate some contributions that are given below.

#### **7.3.1 Methodological contribution**

This research kept contribution focusing on the quantitative method which was applied in this research after literature review, a proposed model was developed and based on that model, data were collected and analyzed applying the quantitative approach with the use of smart PLS-based SEM technique.

This is a technique which was applied in new shape in the area of SMEs to identify the promoting factors of SMEs. Many research studies were carried out to find the promoting factors of SMEs in different industrialized nations especially in western country using this method. There was no significant research to indent the promoting factors in the field of SMEs in developing countries like Bangladesh. Hence, a study was carried out in the field of SMEs in Bangladesh. This research was conducted on the SMEs of Bangladesh and information was collected and analyzed focusing on the stakeholder theory in this regard.

#### **7.3.2 Theoretical contribution**

This section presents the theoretical contributions of the study of SMEs. Here, a significant contribution to theory was presented by investigating the promoting factors of SMEs. The contribution for the both external and internal stakeholders nationally and internationally in the field of SMEs was also provided for better understanding.

The demographic factors like age, sex, education and work experience are immensely responsible for creating effect on the accomplishment of entrepreneurs of SMEs (Indarti

and Langenberg, 2005). This research considers some constructs, namely, market accessibility and networking, government policies, financial support, training and development, modern technology that brings effect on the success of SMEs in Bangladesh which are not previously dealt. Hence, it is believed that this study will keep a distinct contribution in the field of theory of SMEs. Furthermore, it is also expected that this thesis will contribute uniquely to the academic literature in SMEs for Bangladesh that is developing country.

In the current circumstances of improvement, this study finds the gap of theory and develops a research model after reviewing the literature and further analyzing the data from quantitative approach that ensures the use of influential constructs and items. The proposed model assesses the empirical data establish a link with the owners and managers of different SMEs in Bangladesh. Thus, the researcher thinks that this study contributes to the field of SMEs in developing country because of having less amount research activity in past.

Majority of the studies are conducted in developed countries but there are few studies in a developing country like Bangladesh about promoting factors of SMEs. SMEs has a mentionable implication on Bangladesh to eradicate poverty which causes in development activity (Sarker & Palit, 2015).

Numerous numbers of research conducted on the problems and prospects of SMEs but few focused-on role of SMEs as well as overall performance. The economic efficiency and overall performance of SMEs in the developing counties concerned with the different initiatives and the policy taken by the government for the promotions of SMEs (Uddin, 2008). Therefore, contribution of the theoretical aspect this study is novel because, firstly, it explores the promoting factors of SMEs; secondly, it attempts to find the moderating effect of entrepreneur's skill with the others promoting factors of SMEs; thirdly, it focused on the SMEs of Bangladesh; finally, it investigates the effect on the internal and external stakeholders of SMEs.

### 7.3.3 *Practical contribution*

This study kept valued contribution in the field of SMEs in Bangladesh. It has revealed some issues concerned with promotion as well as success of SMEs in practical sense. The research has investigated some influential constructs of the SMEs that affect the success of SMEs. According to the table 5.11, there have significant effect of Entrepreneur Skills ( $b= 0.202, t= 2.586, p<0.05$ ), Financial Support ( $b= 0.173, t= 3.427, p<0.05$ ), Information & Technology = ( $b= 0.185, t= 3.523, p<0.05$ ), Marketing Network ( $b= 0.421, t= 6.873, p<0.05$ ), Training & Development= ( $b=0.339, t=5.639, p<0.05$ ) on SME Success. On the other hand, there is no significant effect of government policies ( $b= -0.096, t= 1.831, p>0.05$ ) on SME success.

In this study it is found that marketing network has the largest effect (22.1%) on the success of SMEs of Bangladesh in accordance with the value of f square. Therefore, we need to focus on marketing network more since marketing network positively affect success of SMEs.

It also shown the moderating effect of entrepreneur's skill with the others constructs of SMEs. There is moderating effect of entrepreneur's skills between the relationship of marketing network and SME success ( $b= 0.263, t= 2.887, p<0.05$ ). On the other hand, there is no moderating effect of entrepreneur's skills between the relationships of financial support and SME success ( $b= 0.026, t= 0.385, p>0.05$ ), information & technology and SME success ( $b= 0.127, t= 1.283, p>0.05$ ), training & development and SME success ( $b= 0.190, t= 2.343, p>0.05$ ), government policies and SME success ( $b= 0.054, t= 0.878, p>0.05$ ).

The result of this research is beneficial to various stakeholders of SMEs in Bangladesh that includes owners, managers, employees, creditors, suppliers, customers, policy makers finally government and other various private organizations in making policy, strategy as well as setting goals. The most foremost contribution of the research is to identify the factors that creates effect on the success of SME in Bangladesh. The stakeholders will be able to see what necessary actions to be taken for smooth functioning and accelerating the growth of SMEs.

Another significant contribution of this research is the identification elements or constructs based on the strengths and weaknesses of the external and internal stakeholders of the firms that affect the success of SMEs. This study focused on the entrepreneur's skill which was identified as a moderating construct. Finally, it has been shown how the external stakeholder's elements or constructs that influence the overall performance of SMEs.

Another contribution of this research will help the SMEs in Bangladesh more efficient and competitive. The study on the role, problem and prospect of SMEs, and entrepreneur's skill have been conducted in past. However, this research has kept contribution in providing the guidance and direction for the SMEs to run smoothly.

In fine we may hope that this study will be helpful for local Bangladeshi SMEs to moving forward and taking appropriate measures for future development in the competitive market. Furthermore, this research will help the researchers of SMEs and related academics and scholars of Bangladesh well as the globe.

#### **7.4 Limitations**

These are some limitations of the study. These limitations could be the inspiration for further research work. In the part of methodology, the techniques of sampling, the selection of the participants' sample was not purely justified. The data collection from the SMEs was not easy as the participants who were included in the sample for this study. It was based on convenience sampling. The firms were chosen purposively in the survey. Considering these difficulties, only Rajshahi based SMEs were selected as participants in the key survey of this study.

The samples were limited mostly due to the location of study that created the time and financial constraints. The firm's owners and managers were busy with their own jobs and this research only based Bangladeshi SMEs. Hence, irrespective of the firm size, a firm of the different location should be considered. Hence, there is still the need to conduct further research in various size of SMEs in different locations of Bangladesh.

The concluding remarks of this study were not common applications in all countries as the research was conducted in Bangladesh which is a developing country in the field of

SMEs. The applicability of the of the results or acceptability of the findings of this research is limited to the organizations of developing countries. The developed model is literature based and the interpretations of the analysis are Bangladeshi firm specific specially SME.

### **7.5 Future Research Directions**

As are there are some limitations of this study which recommends the further investigation in this field. The future directions of this research may be as follows.

In this research, the proposed research model was developed after reviewing the literature that should be based on field study also. The findings of the research are based on Bangladesh in the field of SMEs. Hence, it is not applicable in general in other country. Therefore, it is suggested to conduct a research project in another developing country for its more suitability or generalizability and the research model should also be developed on other country context for a same type of industry.

This endeavor of research was limited to investigating firms of Rajshahi district of Bangladesh. In future, all firms of small and medium business across the country should be considered.

After the quantitative analysis, the hypothesis which were rejected could be another research study in the SMEs field in future.

Finally, this research provides a direction for a comparative study on the factors of SMEs that affect the success of it in future.

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# Appendix

## Questionnaire on SME

### Section A:

#### Demographic profile

##### Age

(1) Below 18 (2) 18 – 25 (3) 26 – 33 (4) 34 – 41 (5) More than 41

##### Marital status

(1) Single (2) Married

##### Gender:

(1) Male (2) Female

##### Size of Enterprises by number of employees

(1) Less than 10 (2) 10-15 (3) 16-20 (4) More than 20

##### Monthly profit

(1) Below TK. 5300 (2) TK. 5300 to TK. 10,000 (3) TK. 10,001 to TK. 15,000 (4) TK. 15001 to TK. 20000 (5) TK. 20001 to TK. 25000 (6) TK. 25001 to TK. 35000 (7) Above TK. 35000

##### Education level

(1) Primary (2) Secondary (3) Higher secondary (4) Bachelor

##### Period of the business

(1) Less than 1 year (2) 1 to 3 years (3) 4 to 6 years (4) 7 to 9 years (5) More than 9 years

##### How did you become the owner of this business?

(1) I purchased it (2) I founded it (3) I inherited it (4) Other (please specify)

##### What were the main reasons to start your own business?

(1) Being own boss (2) Monetary rewards (3) Make a societal contribution (4) Freedom (5) More innovative thinking

## Section B:

Please respond to the following questions

1= Strongly Disagree, 2= Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5 =Somewhat Agree, 6= Agree, 7= Strongly Agree

### Success of SMEs

Yu, S. (2016). Key Determinants for Thai SME's Success: A Study of Thai Food Enterprise in Bangkok Metropolitan District

Success of SMEs is meant by using the general financial measures of success like profitability, sales turnover, sales growth and return on investment, is dominant in evaluating firm's success or not (Brüderl & Preisendörfer, 1998).

The capability of owner to control cost and operating expenses	1	2	3	4	5	6	7
The capability of owner to increase the level of profit	1	2	3	4	5	6	7
The capability of owner to increase the income of long-term	1	2	3	4	5	6	7
The business should be run on continues basis	1	2	3	4	5	6	7
Willingness of employees to work for the success of business according to their satisfaction	1	2	3	4	5	6	7
Business should run all processes of operations by maintaining quality standard	1	2	3	4	5	6	7
Trust of customers on the reputations of products and services quality.	1	2	3	4	5	6	7
Willingness of customers to come back to buy the product	1	2	3	4	5	6	7
Trust of customers on business honesty and integrity	1	2	3	4	5	6	7

### Marketing Network

Yu, S. (2016). Key Determinants for Thai SME's Success: A Study of Thai Food Enterprise in Bangkok Metropolitan District

The marketing of the firm focuses many areas, including promotion of the products or services of the firm, product or service innovation, and setting product or service placement (Wang, Lo, & Yang, 2004).

Surveying market and consumer demand before launching the new products/services	1	2	3	4	5	6	7
Continuation of change for new marketing strategies	1	2	3	4	5	6	7
Developing of product on continuous basis	1	2	3	4	5	6	7
Fixation of price according to product/service quality	1	2	3	4	5	6	7
Delivering quality of service to customers	1	2	3	4	5	6	7
Providing accessible easy channel for customers	1	2	3	4	5	6	7
Providing informing to new and current customers about new products into the market	1	2	3	4	5	6	7
Continuously performing and supporting relationship with surrounding community to retain customers	1	2	3	4	5	6	7

## Government policy

Global Entrepreneurship Research Association, London Business School,  
Regents Park, London NW1 4SA, UK <https://www.gemconsortium.org/wiki/1172>

The firms that receive assistance in management education and training, extension and consultancy, information, marketing, technical and communal facilities from the government or other agencies creates the significant increase in sales, employment and productivity in Bangladesh (Sarder et al.,1997).

Government policies are always favourable for new firms	1	2	3	4	5	6	7
The support for new and growing firms is a high priority for policy at the national government level	1	2	3	4	5	6	7
The support of government for new and growing firms is a high priority for policy at the local government level	1	2	3	4	5	6	7
New firms can get most of the required permits and licenses in about a week	1	2	3	4	5	6	7
Taxes is not a burden for new and growing firms	1	2	3	4	5	6	7
Taxes and other government rules are applied to new and growing firms in a expected and consistent way	1	2	3	4	5	6	7
Adapting with government bureaucracy, rules, and licensing requirements is not excessively difficult for new and growing firms	1	2	3	4	5	6	7

## Financial support

Lee, C. H. (2016). Critical Success Factors for Entrepreneurs (Doctoral dissertation, UTAR).

Sufficient financial resources are a dominant role player in the development process of firm which facilitates the entry, exist and growth of the firms in a competitive business environment (Beck et al., 2006)

I get financial support through SME assistance scheme	1	2	3	4	5	6	7
I get financial resource from bank	1	2	3	4	5	6	7
I get sufficient capital from special funds of SME	1	2	3	4	5	6	7
I get Government funds for SMEs	1	2	3	4	5	6	7
I provide fund by myself	1	2	3	4	5	6	7
I get financial support from friends and family members	1	2	3	4	5	6	7
I receive financial support from business partners	1	2	3	4	5	6	7
I get financial resource from Bangladesh Industrial Development Finance	1	2	3	4	5	6	7
I get financial assistance from Credit Guarantee Corporation Bangladesh	1	2	3	4	5	6	7

## Training and development

Benzing, C., Chu, H. M., & Kara, O. (2009). Entrepreneurs in Turkey: A factor analysis of motivations, success factors, and problems. *Journal of small business management*, 47(1), 58-91.

Mitchell, B. C. (2004). Motives of entrepreneurs: A case study of South Africa. *The Journal of Entrepreneurship*, 13(2), 167-183.\*

Precise skills of job-related activities are required for entrepreneurs to make decision about the business as well as training staff (Chandler & Jansen, 1992; Baum, 1995; Winterton, 2002)

I have sufficient Training of Management	1	2	3	4	5	6	7
I have sufficient Training of Marketing	1	2	3	4	5	6	7
I can manage accounting records accurately	1	2	3	4	5	6	7
I have good skills Management	1	2	3	4	5	6	7
I can manage human resources	1	2	3	4	5	6	7
I am able to develop idea for product/business*	1	2	3	4	5	6	7
I keep learning*	1	2	3	4	5	6	7
I am innovative and in the front of new technology*	1	2	3	4	5	6	7
I need more money to survive*	1	2	3	4	5	6	7

## ICT: Technology and Information

Lee, C. H. (2016). Critical Success Factors for Entrepreneurs (Doctoral dissertation, UTAR).

Yu, S. (2016). Key determinants for Thai SME's Success : A Study of Thai Food Enterprise in Bangkok Metropolitan District

Technological factors affect all aspects of a business like overall strategic position, marketing, design, production, and distribution system (Boddy, 2002).

I can get access to proper technology	1	2	3	4	5	6	7
I can get access to necessary information quickly	1	2	3	4	5	6	7
I use computer technology to serve the customers	1	2	3	4	5	6	7
I use computer technology to supervise and communicate with employees	1	2	3	4	5	6	7
I use social media like facebook, to introduce the product and services	1	2	3	4	5	6	7

## Entrepreneur's skills

Ho, M. H. R., Uy, M. A., Kang, B. N., & Chan, K. Y. (2018, March). Impact of entrepreneurship training on entrepreneurial efficacy and alertness among adolescent youth. In *Frontiers in Education* (Vol. 3, p. 13). Frontiers.

Managerial knowledge, skills, behaviours and attitudes of the entrepreneur shapes the personal efficiency (Hellriegel et al., 2008).

I am able to see myself to start and run a business in future	1	2	3	4	5	6	7
I am confident to develop a product by using needs identification techniques	1	2	3	4	5	6	7
I am able to understand the perception of consumers about how to market the product or service to them	1	2	3	4	5	6	7
I can communicate my business ideas to other people like mentors, potential customers and potential business partners	1	2	3	4	5	6	7
I can conduct market research by myself	1	2	3	4	5	6	7
I know about how to sell business ideas and products/ services to people	1	2	3	4	5	6	7
I can determine appropriate strategies of pricing and channels for marketing	1	2	3	4	5	6	7
I am confident to prepare a budget for my business	1	2	3	4	5	6	7
I am able to understand the financial requirements and considerations to start and run a business	1	2	3	4	5	6	7
I can assess the strengths and weaknesses of my business idea in comparison to existing products/ services in the market	1	2	3	4	5	6	7
I am able to understand about developing and analysing income statements	1	2	3	4	5	6	7

End of Question

Thank you for your cooperation

