



# **ST.MARY'S UNIVERSITY**

## **SCHOOL OF GRADUATE STUDIES**

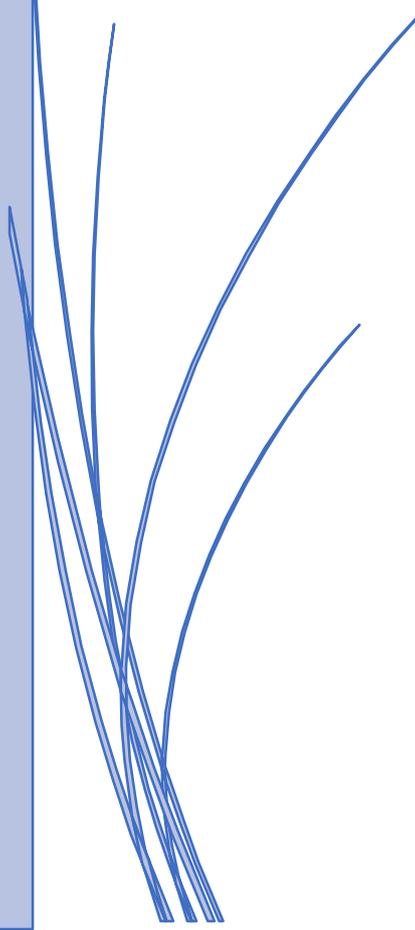
---

### **Factors Affecting Business Performance of Small and Medium Size Enterprise (SMEs) in Addis Ababa: (In Case of Nifas Silk-Lafeto Sub-City)**

**BY: Atalel Fetene**

**Advisor: Tilaye Kassahun (PhD)**

**Addis Ababa  
Ethiopia  
January, 2017**



# **Factors Affecting Business Performance of Small and Medium Size Enterprise (SMEs) in Addis Ababa: (In Case of Nifas Silk-Lafeto Sub-City)**

**A Thesis Submitted to the School of Graduate Studies of St. Mary's  
University in Partial Fulfillment of the Requirements for the Master  
of Business Administration (MBA) in General Management**

**BY: Atalel Fetene**

**Advisor: Tilaye Kassahun (PhD)**

**Addis Ababa**

**Ethiopia**

**January, 2017**

## **Declaration**

I, the undersigned, declare that this work entitled “Factors Affecting Business Performance of Small and Medium Size Enterprise (SMEs) in Addis Ababa: In Case of Nifas Silk-Lafeto Sub-City” is the outcome of my own endeavor and original work. It has not been presented for a degree in any other university, and that all sources of materials used for the study have been duly acknowledged.

Declared by:

Name: Atalel Fetene

Signature\_\_\_\_\_

Date\_\_\_\_\_

## **Certificate**

This is to certify that this study entitled “Factors Affecting Business Performance of Small and Medium Size Enterprise (SMEs) in Addis Ababa: In Case of Nifas Silk-Lafeto Sub-City”, undertaken by Atalel Fetene for the partial fulfillment of Masters of Business Administration [MBA] at St. Mary’s University, is an original work and not submitted earlier for any degree either at this University or any other University.

Research Advisor: Tilaye Kassahun (PhD)

Signature\_\_\_\_\_

Date\_\_\_\_\_

**St. Mary's University**  
**School of Graduate Studies**

This is to certify that the thesis prepared by Atalel Fetene, entitled “Factors Affecting business Performance of Small and Medium Enterprises in Addis Ababa: in case of Nifas Silk-Lafeto Sub city” and submitted in partial fulfillment of the requirements for the Degree of Master of Business Administration in General Management complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the Examining Committee:

Examiner \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Examiner \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_  
Chair of Department or Graduate Program coordinator

## **Acknowledgements**

First, it is with great appreciation and gratitude to my advisor Tilaye Kassahun (PhD), for his helpful guidance, valuable feedback and in general for his professional support in this study.

Second, I would like to forward my deep gratitude to my wife W/o Almaz Gonche for her cooperation during the process of data collection and unlimited support for the entire study. Once again I would like to thank my friends who were keen to support me in disseminating and recollecting the blank and filled questionnaires to and from SMEs.

Lastly, I would like to thank all participants of the study who cooperate and provide me their precious time to fill the questionnaires. Last but not least I would like to thank the Nifas Silk-Lafeto Sub City officers for providing me the information about the SMEs.

## **Abstract**

*This study was intended to explain the influential business factors that affect the business performance of small and medium enterprises (SMEs) in Addis Ababa Nifas Silk Lafeto Sub City. The study mainly deployed explanatory/causal research design and used quantitative research approach. It used mixed: stratification, population proportionate and simple random sampling techniques and structured Likert scale data collection instrument. Both descriptive and inferential statistical data analysis methods were applied. The regression results showed that the eight hypothesized factors: financial, management, marketing, entrepreneurial, technology, politico-legal, infrastructural and working premises factors were found significantly affecting the business performance of SMEs operating in the sub city ( $t_{cal} > t_{critical}$ ,  $P < 0.05$ ). A significant regression model was formulated at  $F ((8, 230) = 167.657, p < 0.000)$ , the coefficient of determination (R-Squared) value of the model was 0.854 and its adjusted  $R^2$  was 0.849. The comparative influential intensity (effect) of the eight hypnotized factors on the business performance of SMEs were determined by using their standardized coefficient (beta), and it was found that the financial factors were the most influencing predictor variable for SMEs business performance followed by infrastructure and politico-legal factors. Working premises were at the fourth position in terms of its strength in influencing business performance followed by management and marketing factors. In the seventh and eighth ranks were technological and entrepreneurial factors respectively. The validity of the regression model was evaluated using residual plots and coefficient of determination and found that it was consistent with the multiple regression assumptions indicated that the model was valid and useful to predict the business performance of SMEs.*

*Key words: SMEs, Business Performance, Performance Factors*

# Table of Contents

<b>Acknowledgements</b> .....	iv
<b>Abstract</b> .....	v
<b>List of Tables</b> .....	viii
<b>List of Figures</b> .....	ix
<b>Abbreviations</b> .....	x
<b>1. Introduction</b> .....	1
<b>1.1 Background</b> .....	1
<b>1.2 Statement of the problem</b> .....	4
<b>1.3 Research objective</b> .....	6
<b>1.4 Research hypothesis</b> .....	6
<b>1.5 Significance of the study</b> .....	10
<b>1.6 Scope and limitation of the study</b> .....	11
<b>1.7 Organization of the research</b> .....	11
<b>2. Literature Review</b> .....	13
<b>2.1 Theoretical Literature</b> .....	13
<b>2.1.1 Definition of Small and Medium Enterprises</b> .....	13
<b>2.1.2 Business performance</b> .....	14
<b>2.1.3 Factors affecting business performance</b> .....	14
<b>2.2 Empirical literature</b> .....	17
<b>2.3 Conceptual framework</b> .....	23
<b>3. Research Methodology</b> .....	24
<b>3.1 Research design</b> .....	24
<b>3.2 Sample size and sampling procedure</b> .....	25
<b>3.3 Data Sources and Data Collection Method</b> .....	26
<b>3.4 Data Analysis Method</b> .....	27
<b>3.5 Reliability and Validity</b> .....	28
<b>4. Results and Discussions</b> .....	30
<b>4.1 Introduction</b> .....	30
<b>4.2 Descriptive Statistical Analysis</b> .....	30

<b>4.2.1 Frequency and Percentages of SMEs by business Sector</b> .....	31
<b>4.2.2 Descriptive Statistics of Variables</b> .....	31
<b>4.3 Inferential Statistical Analysis</b> .....	35
<b>4.3.1 Pearson’s Product Moment Correlation Coefficient (PPMCC) Matrix</b> .....	35
<b>4.3.2 Multiple Linear Regression Analysis and Hypothesis Testing</b> .....	36
<b>4.3.3. Validation of the Regression Model</b> .....	45
<b>5. Summary, Conclusion and Recommendation</b> .....	51
<b>5.1 Summary</b> .....	51
<b>5.2 Conclusion</b> .....	53
<b>5.3 Recommendation</b> .....	55
<b>References</b> .....	58
<b>Annexes</b> .....	66

## **List of Tables**

Table 3-1 Strata, size of strata and proportionate sample sizes of strata.....	26
Table 3-2 Reliability Test result .....	28
Table 4-1 Descriptive Statistics of factors affecting business performance of SMEs.....	32
Table 4-2 Pearson’s Correlation Coefficient Matrix .....	36
Table 4-3 Model Summery .....	37
Table 4-4 Regression coefficients .....	38
Table 4-5 Ranks of predictor variables based on their strength to influence SMEs business Performance .....	39
Table 4-6 t-Calculated .....	40
Table 4-7 Collinearity Diagnostics .....	46

## List of Figures

Figure 2-1: Conceptual frame work developed by the Author.....	23
Figure 4-1: Frequency and Percentage of SMEs based on their business sector.....	31
Figure 4-2 Histogram of the Residuals showing that the deviation is normally distributed .....	47
Figure 4-3 Normal P-P plot of regression Standardized residual dependent variable.....	48
Figure 4-4 Scatter Plot .....	49

## Abbreviations

ADB-	African Development Bank
ANOVA-	Analysis of Variance
CPMN-	Corporate Performance Measurement network
EEA-	Ethiopian Economics Association
EPF-	Entrepreneur factors
EPS-	Earnings Per Share
FMaSE-	Federal Micro and Small Enterprise Agency
FNF-	Financial factors
GDP-	Gross Domestic Product
IFF-	Infrastructure factors
MBA-	Master of Business Administration
MBNQA-	Malcolm Baldrige National Quality Award
MKF-	Marketing factors
MNF-	Management factors
MSEs-	Micro and Small Enterprises
OECD-	Organization for Economic Cooperation and Development
PPMCC-	Pearson's Product Moment Correlation Coefficient
PE-	Profit to equity
PFE-	Performance
PLF-	Politico-Legal factors
PPS-	Population Proportionate Sampling
ROE-	Return on Equity
ROI-	Return on Investment
SD-	Standard Deviation
SMEs-	Small and Medium Enterprises
SPSS-	Statistical Package for Social science
SSA-	Sub-Saharan Africa
TEF-	Technology factors
USA-	United States of America
WBG-IFG –	World Bank Group-International Financial Corporation
WPF-	Working Premises factors

# CHAPTER ONE

## 1. Introduction

This chapter provides a brief overview of the study presented in this research paper by introducing the reader to the key concepts used throughout the paper on background section followed by problem statement, research objective, research hypothesis, significance of the research, as well as the limitations of the research will be discussed. The overview prepare the reader for chapter 2, which is review of literatures.

### 1.1 Background

The organization for economic cooperation and development organization (OECD, 2004) states that:-

*‘Small and medium-sized enterprises (SMEs) are a very heterogeneous group of business firms which are found in a wide array of business activities. It ranging from the single artisan producing agricultural implements for the village market, the coffee shop at the corner, the internet cafe in a small town to a small sophisticated engineering or software firm selling in overseas markets and a medium-sized automotive parts manufacturer selling to multinational automakers in the domestic and foreign markets. The firms operate in very different markets (urban, rural, local, national, regional and international); embody different levels of skills, capital, sophistication and growth orientation, and may be in the formal or the informal economy.’*

Small and Medium enterprises (SMEs) have usually been perceived as the dynamic force for sustained economic growth and job creation in both developed and developing countries (Wei, Y. 2012; OECD 2005). They are playing an important role as the backbone of the economy for both developing and developed nations (OECD 2001). Studies have suggested that development and promotion of SMEs contribute greatly to new jobs creation, and nation’s gross domestic product (GDP) growth (Chong, 2012; Iraj and Besnik, 2011; Aris, 2007). In many developed countries, more than 90% of all enterprises are within the SME sub-sector while 80% of the total industrial labor force in Japan, 50% in Germany and 46% in USA (Ayyagari, *et al.* 2006). Small and medium businesses contribute nearly 39% of

the country's national income (OECD 2001). In emerging Asian countries the percentage of SMEs from all enterprises of Hong Kong, Thailand, Philippines, Japan, Malaysia, Singapore, and Taiwan are 98.0, 99.7, 99.6, 98.9, 99.7, 97.7 and 96.1 respectively and their employment contribution to total employed population is 60.0, 58.0, 70.0, 69.2, 45.0, 57.0, and 68.8 respectively (Jarsa *et al.*, 2011).

According to African Development Bank, ADB (2010) studies: 'The role of the private sector, including SMEs, as engine of growth was illustrated by the postwar recovery in Austria and Germany and by the diverging paths of Central and East European and Baltic countries.'

Despite such vital roles of SMEs in building a competitive private sector and contributing significantly to economic growth and job creation, SMEs are facing numerous challenges around the world in general and in developing countries in particular (OECD 2010).

With increased urban population dynamics of Sub-Saharan Africa (SSA), the importance of SMEs is also growing (Zuzana, 2012). In similar fashion, in cities and towns of Ethiopia, SMEs and the informal sector are the predominant income generating activities and thus they have a significant contribution to local economic development and used as the basic means of survival (Gebre-egziabher and Demeke, 2004). However, in case of Ethiopia despite the enormous potential importance of the SME sector to the national economy with regards to job creation and the alleviation of poverty, many of the SMEs are unable to realize their full potential due to the existence of different factors that inhibit their business performance (Nega and Hussein, 2016).

According to the online business dictionary, business performance is defined as:-

*'Business performance is the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed. In a contract, performance is deemed to be the fulfillment of an obligation, in a manner that releases the performer from all liabilities under the contract.'*

Performance of a SMEs is defined as a firm's ability to create action and acceptable results (Pfeffer and Salancik, 1978). According to Alasadi and Abderahim (2007), the business performance of SMEs can be seen from satisfaction of owners/ managers on profit, turnover and business development.

A Business Performance is an interrelated set of financial and non-financial measures designed to provide managers with vital information about the current state of the business and its future prospects (CPMN, 1999). There exists a variety of business performance indicators or measurements which are broadly categorized as financial and non-financial performance measurements. Traditionally, performance measurement has been assessed on purely financial criteria (Ramsey-Dawber 1995, Peters and Waterman 1982, Eccles 1991). Their main advantage of the financial performance measurement is that they are easily figured out and provide a quantitative output. However, criticisms of the financial measures are growing. For instance, Ashton (1996) states that 'Financial measures have a backward-looking focus that tends to promote a reactive management style and concentrate mainly on immediate rather than long-term goals.'

Among the financial business performance measures developed by different researchers according to Kangari *et al.* (1992). Profitability, Liquidity, and Efficiency (Revenues to working capital), According to Kay (1993) Size: Turnover, Profit, Capitalization; Growth: Sales Growth %, EPS growth %, PE ratio; Added value: Output (revenues), Inputs (labor, capital and material costs); Return: Margin, ROI, ROE, and Shareholder Return. (Kaka *et al.* 1995) Financial Liquidity and activity ratios, Profitability ratios, Coverage ratios

Non-financial measures on the other hand focus on competitive issues, such as product/service quality, customer satisfaction and business processes, has resulted in companies turning to non-financial measures. These measures, in addition to providing the management with a set of tools for continuous improvement, encourage a proactive management style (Bititci 1994). According to Baldrige Award (MBNQA 1988), the 7 pillars Leadership, Information and analysis, Strategic quality control, Human Resource, Management, Process quality, Quality and operational results, Customer focus and satisfaction.

Several previous researches studied and examined various business factors that influence/affect business performance of enterprises. Numerous factors affect the performance of SMEs including entrepreneurial aspect, competency of human resource, innovativeness and sustainability strategy. Among the most recent studies: ‘Business Information Services, Access to Finance, Availability of Management Experience, Access to Infrastructure, Government Policy and Regulations was considered as factors’ (Kamunge *et al.*, 2014). A study in Thailand considers the following as factors that influences business performance of SMEs: ‘SMEs characteristic, management and know how, products and services, Customer and Market, the way of doing business and cooperation, resources and finance, Strategy, and external environment’ (Chittithaworn *et al.*, 2011). A study from Algeria considers Legal and political framework, Access to external financing, Human resources capacities, Entrepreneur characteristics, Management capacities, Marketing skills, Technological capacities, and SMEs internal factors as a factor affecting business performance (Bouazza *et al.*, 2015). Another study from Romania determines the factors as Strategy, Information Technology, Structure, Leadership, Innovation and development, Employees, Corporate governance, quality, Performance measurement and External environment. Another recent study, Admasu (2012) considers ‘Politico-legal factors, Working premises, Technological factors, Infrastructural factors, Marketing factors and financial factors as a factor for business performance.’

## **1.2 Statement of the problem**

Though the contribution of SMEs to nation’s economic development is widely known and witnessed in several European and Asian countries as well as in USA, yet a number of factors challenge their business performance particular for those of the developing countries (OECD, 2010).

There are a number of researches that have been conducted to study the factors that affects the business performance of small and medium enterprises SMEs in foreign country especially in South East Asia countries like Thailand, Taiwan, Malaysia, Indonesia, etc.; in Africa like Egypt, Nigeria, Tanzania, Kenya, Algeria, Namibia etc.; and in Eastern Europe like Romania, Croatia and in some Arab countries like Oman. However, there exists a wider conceptual dimensions on framing the factors affecting SMEs business performance and the dimensions of measurement of business performance from researcher to researcher and

country to country. The definition of small and medium enterprises were also differ from country to country as the definition is highly depends on the economic development of countries.

Trying to access similar researches via digital scholars' articles on Google scholar articles and academic researches in reachable university like AAU digital library, the researcher has found some thesis researches conducted in Ethiopia. However, many of them were about micro and small and only few were on small and medium size enterprises. Among the similar researches that the researcher accessed were MBA thesis submitted to Addis Ababa university entitled 'factors affecting performance of micro and small enterprises in Addis Ababa Lideta and Arada sub city' (Admasu, 2012); "Assessment of the Challenges of Micro and Small Scale Enterprises to Contribute to Sustainable Development: the case of Manufacturing Enterprises in Addis Ababa, Ethiopia" (Yodit Gebreyohannes, 2015); "The Challenges of Micro and Small Enterprises and Business Development Service" (Bizusew Kebed, 2015); "Assessing Factors Affecting Transitional Development Of Small Scale To Medium Scale Enterprise In Sebeta Town: Challenges, Opportunities And Prospects." (Mekonnen Lenjisa, 2014); "Performance of Micro and Small Enterprises and their Role in Enhancing Local Economic Development: A Case Study in Gullele Sub City of Addis Ababa" (Munira Sherefa, 2012); "Problems Of Micro And Small Enterprises In Addis Ababa The Case Of Kirkos, Kolfe, And Yeka Sub Cities" (Weldegbriel Mezgebe, 2012); Entitled "Factors Constraining The Growth And Survival Of Micro And Small Enterprises In Burayu" (Abiyu Jiru, 2011); "Finance As Success Or Failure Factor For Micro And Small Enterprises In Addis Ababa: The Case of Arada Sub-City" (Brhane Tadesse, 2011) and a research MSc thesis submitted to Bahirdar University entitled 'factors affecting the performance of women entrepreneurs in micro and small enterprises in Dessie town' (Mulugeta, 2010) and another MSc thesis submitted to Haromaya university entitled 'performance of micro enterprise and its determinant factors: the case of hosanna town, Hadiya zone' (Abraham, 2013). Mekonnen Lenjisa (2014) has done his related thesis research on small and medium in Sebeta town and others did on micro and small enterprises.

Only few of studies conducted in Ethiopia that the researcher has accessed, had used causal/explanatory research design while most of them used descriptive research design methodology. Most of the researchers do not use the appropriate business performance

measurement and weren't supported by theories and empirical studies. The research study area and study population were also different. Hence, the researcher found that there was research gaps on this particular topic in Addis Ababa in general and Nifas Silk Lafeto sub city in particular.

Moreover, the existence of wider dimensional differences of business performance measurement and its influencing factors exhibited in various researchers, the differences in research results from country to country, the differences in definitions of SMEs indicates that there exists both a conceptual and contextual gaps and I also found that there is research vacuums in the research topic especially regarding the medium size enterprises in Ethiopia specifically in Addis Ababa. Therefore, this thesis proposal is intended to address this vacuum and tries to fill the knowledge gap by providing the key factors affecting the business performance of SMEs operating in Addis Ababa Nifas Silk Lafeto sub city.

### **1.3 Research objective**

The general objective of the study was to determine the factors that influence/affect the business performance of small and medium enterprises operating in Nifas Silk Lafeto sub city of Addis Ababa.

#### **Specific objective**

1. To examine the potential factors that affects the business performance of small and medium size enterprises (SMEs)
2. Ranking/prioritizing the factors based on their intensity to influence/affect the business performance of SMEs
3. To propose potential solutions for overcoming the influence of the factors on the business performance of SMEs

### **1.4 Research hypothesis**

In this study after reviewing multiple theoretical and empirical literatures that have been studied and researched in the area, I developed eight hypothesis that were examined as the influential factors that affects the business performance to SMEs.

Performance has a wide range of measurement dimensions that are categorized as financial and non-financial (Lebans & Euske 2006; Kaplan & Norton, 1992) as well as operational and strategic performance measurements (Wu, D. 2006). Regular indicators used in measuring business performance are profit, return on investment (ROI), turnover or number of customers (Wood, 2006), and design quality and product improvement (Laura et al., 1996). However, in this study business Performance were considered in the dimensions of business profit, sales growth, capital growth, operational efficiency and employee loyalty and turnover. It was based on this business performance measurement dimensions that the factors that affect the performance of SMEs were examined.

The role of finance has been viewed as a critical element for the performance of small and medium sized enterprises. Previous studies have highlighted the limited access to financial resources available to smaller enterprises compared to larger organizations and the consequences for their performance and development (Berger, *et al.* 1998). According to Shah *et al.* (2013), financial institutions behave more cautiously when providing loans to SMEs, and SMEs are usually charged comparatively high interest, high collateral and loan guarantees. In this study financial factors were viewed in the dimensions of Insufficiency of credit institutions, Lack of cash management system, Shortage of working capital, High collateral requirement from banks and other lending institutions, High interest rate charged by banks and, other lending institutions, and Presence of stringent bank and other financial loan criteria.

***H1: There exists a relationship between financial factors and the business performance of SMEs.***

According to Olawale and Garwe (2010), management capacities are sets of knowledge, skills, and competencies that can make the small firm more efficient. Singh *et al.* (2008) emphasize that management skills are necessary for SMEs to survive and achieve growth. Bhide (1996) notes that a shortage of core competence and a skilled top management team is one of the main challenges faced by SMEs. In this study management factors were viewed in the dimensions of Lack of clear division of duties and responsibility, Presence of ineffective communication, Presence of poor employee handling, Lack of well trained and experienced employees, and Lack of strategic business planning.

***H2: There exists relationship between management factors and the business performance of SMEs.***

Marketing skills has been considered as one of the most effective factor to firm survival and growth. According to Van Scheers (2012) the lack of marketing skills has a negative impact on the success of small businesses. Marketing factors such as Inadequate market access for my product/service, Lack of marketing strategy, Lack of market information and demand forecasting, Presence of fierce foreign and domestic competition, Lack of promotion to attract potential customers/users and Poor customer relationship and handling were considered in this study.

***H3: There exists a relationship between marketing factors and the business performance of SMEs.***

According to Morse *et al.* (2007), technological capabilities benefit SMEs in several ways: they enhance SME efficiency, reduce costs, and broaden market share, both locally and globally. In a cross sectional analysis of industries, Birley and Westhead (1990) encountered evidence that supports the hypothesis that firms with newer technology in the major manufacturing lines were associated with higher levels of growth and performance. Lack of appropriate machinery and equipment, Lack of skills to handle new technology, ability to deploy and use information technology and ability to select proper technology were considered as the dimensions of technology factors in this study.

***H4: There exists relationship between technological factors and the business performance of SMEs.***

According to Lumpkin and Dess (1996) the growth of SMEs are affected by its business climate. Davidsson (1989) noted that an unfavorable tax system, complicated rules and regulations can heavily hamper small firms' growth. Krasniqi (2007) showed that corruption is a major source of the rise in unfair competition. The tax system, Bureaucracy in registration and licensing, Lack of government support, Political intervention and corruption and Uneven implementation of government proclamation, regulations and directives related to my business operation were considered as the dimensions of politico-legal factors for this study.

***H5: There exists a relationship between politico-legal factors and the business performance of SMEs***

In the study of Krishna Moorthy *et al.*, (2012) there is a significant negative relationship between ineffective entrepreneurship and performance of SMEs in the manufacturing industry in Malaysia. The entrepreneur's characteristics such as age, gender, motivation, experience, educational background, and risk-taking propensity, preference for innovation, mindset, and personality can have a big influence on the firm's performance and success, and the growth of the SMEs can be hugely dependent on him. In this study Lack of motivation and drive, Lack of initiative to take calculated business risk, Lack of persistence and courage to take responsibility for one's failure, Absence of initiative to assess ones strengths and weakness, Lack of entrepreneurship training, Lack of information to exploit business opportunities/ lack of benchmarking were considered as dimensions of Entrepreneur factors that affects business performance.

***H6: There exists a relationship between entrepreneurial factors and the business performance of SMEs.***

Akinruwa, T. *et al.*, (2013) found a critical factor affecting performance is infrastructure with significant level of 0.001, it shows that with absence of amenities like; power, good road network, effective communication system and readily available market that can absorb the finishing products business may not survive. Frequent Electric Power interruptions, Insufficient and interrupted water supply system, Lack of business development services (supporting institutions), Lack of sufficient and quick transportation service and Lack of appropriate dry waste and sewerage system were considered as the dimensions of infrastructure factors that affects business performance for the study.

***H7: There exists a relationship between infrastructural factors and the business performance of SMEs.***

Heikky N. Amwele (2013) entitled empirical investigation into the factors affecting the performance of SMEs in the retail sector in Windhoek, Namibia; he found that over ninety percent (90.9%) of the 22 respondents, revealed that rent or lease a place for their business

in Windhoek has hinder their performance. He also found that it was expensive to lease a working place for business use in their current locations. Absence of adequate own working premises, Current working place is not convenient, The rent of working premises is too high and access to land for business expansion were considered as the dimensions of working premises factors for this study.

*H8: There exists a relationship between working premises factors and the business performance of SMEs.*

## **1.5 Significance of the study**

The growing intensity of international competition and globalization is affecting the growth of SMEs in developing economies. The SMEs are the engines of growth and development of the developing countries like Ethiopia where poverty and unemployment rates are widespread. Effective functioning and well performing of these enterprises is considered as one of the important strategies to meet the poverty reduction and job creation in the country. The number of SMEs in Ethiopia is steadily growing. But, much more important than their number is their performance, current status, stage and pace of development. The rate of development of SMEs in Ethiopia is very slow. This could be attributed to several factors. The business environment in which SMEs are operating today is different. Considerable changes have taken place in the world economic order during the past two or three decades.

It is generally accepted that SMEs are becoming increasingly important in terms of employment, wealth creation, and the development of innovation. However many problems encounter SMEs and as a result, many firms perform dismally and fail to grow. In addition it is generally known and accepted that there is a high mortality rate of SMEs within the first two years. Given this high failure rate, it becomes vital to research the factors required to enable the SMEs to survive and indeed progress to the growth phase of the organizational life cycle.

Therefore, studying the factors that influence the business performance of firms responsible for job creation, economic development, and innovation is important for both business firms to engage in solving their performance problem by pinpointing and prioritizing the

critical factor influencing the business performance among other factors. It also helps the policy makers to solidify policy ratification as well as amendment and for executers to solidify their support on the most critical performance inhibiting factors for SMEs. The research findings will also contribute for academicians, consultants and institutions to focus on the development of trainings and development program to support the SMEs to overcome their challenges and it may help initiate academic researches to further investigate by widening the study area.

Moreover, the research may fill the research gaps otherwise enrich the existing literature on the area of the factors that affects/influences the business performance of SMEs and it may provide comprehensive understanding on the Ethiopian SMEs context of critical factors inhibiting business performance. The research may also help future researchers in provision of information as secondary data or serve as literature for future use in the academic arena.

## **1.6 Scope and limitation of the study**

This research was entirely focused on the determination of factors that affect business performance of Small and medium size enterprises (SMEs) located and operating in Addis Ababa Nifas Silk Lafeto sub city. The research participants of the study were encompassed the general managers and/or owners of the enterprises. Time, budget and the reluctant behavior of business enterprises managers/ owners to provide information were the limitations for this research.

## **1.7 Organization of the study**

Chapter two dealt with the literature review that discussed about the review of related conceptual and empirical literatures conducted on this specific issue. Section 2.1 of the chapter two discussed the theories existed about small and medium enterprises, Business performance and the factors affecting business performance of SMEs, and section 2.2 of the chapter dealt with the empirical findings of the factors affecting the business performance of business enterprises conducted by different researchers globally. Chapter three dealt with the research methodology used and under this chapter the research approach and design, the sample size and sampling procedure, data sources & data

collection method, the data analysis method deployed, and the reliability and validity of the data collection instrument also explained, analyzed, and discussed. Chapter four deals with the research results and discussion. In this chapter the results of the study were presented, interpreted and discussed accordingly. The findings were presented in tables and diagrams. Both descriptive and inferential statistic results were presented and interpreted in a more logical way. Chapter five dealt with the summary, conclusion and recommendation of the research. The summary of the major findings were presented first and conclusion and recommendation followed.

# CHAPTER TWO

## 2. Literature Review

This chapter presents the review of different theoretical literature and empirical studies in the areas of small and medium enterprises business performance and factors that affect the performance of the enterprises operating everywhere in the world and in Ethiopia.

### 2.1 Theoretical Literature

#### 2.1.1 Definition of Small and Medium Enterprises

Olabsi *et al* (2011) states that ‘There is no single criterion for classifying business enterprises as small or medium scale globally.’ In a study carried out by International Labor Organization (ILO, 2005) over 50 definitions were identified in 75 different countries. The term SME’s universally stands for small and medium-sized enterprises but there is no consensus on the definition of SMEs (OECD, 2010).

However, evidence from literature shows that in defining small- scale business, reference is usually made to some quantifiable measures such as: number of people employed by the enterprises, investment outlay, the annual turnover (sales) and the asset value of the enterprise or a combination of these measures. Thorough the elements to be considered in the course of defining SMEs the definition widely differ in different regions, from country to country because it depends on the phase of economic development as well as their prevailing social conditions. Some common indicators employed in the various definitions include total assets, size of the labor force employed, and annual turnover and capital investments (Baenol, 1994; OECD, 2004). There are several definitions of the term small and medium enterprises (SMEs), varying from country to country.

In Ethiopia according to Ethiopian Federal Micro and Small Enterprises agency (FMaSE, 2011) SMEs are defined by: Small enterprise is those enterprises hired 6 up to 30 employee or total asset amount birr 100,000 up to 1.5 million birr for industry sector and 50,000 up to 500,000 not greater than for services sector. Medium Enterprise are enterprises found in manufacturing and service sectors of the Ethiopian economy with a total asset more than 1.5 million birr and a total asset of more than Birr 500,000 respectively (Addis Ababa

MSE's development agency bureau, 2011 as cited on Addis Ababa Communication office bureau). However, there is no yet a clear separation between a medium and large enterprises in terms of capital, number of workers etc.

### **2.1.2 Business performance**

Performance measuring is usually carried out by subjective evaluation of the business entities themselves, either by evaluating their satisfaction with the achieved indicators of effectiveness and efficiency (meeting expectations, i.e. Plans), or by benchmarking themselves against their competition (Dess, *et al.* 1984)

Lebans & Euske (2006) as it was cited in Corina, G. *et al.* (2011) provide a set of definitions to illustrate the concept of organizational performance:

- Performance is a set of financial and nonfinancial indicators which offer information on the degree of achievement of objectives and results (Lebans & Euske 2006; Kaplan & Norton, 1992).
- Performance is dynamic, requiring judgment and interpretation.
- Performance may be illustrated by using a causal model that describes how current actions may affect future results.
- Performance may be understood differently depending on the person involved in the assessment of the organizational performance (e.g. performance can be understood differently from a person within the organization compared to one from outside).

### **2.1.3 Factors affecting business performance**

SMEs performances according to Komppula (2004) are constrained by two major factors: 'internal factor such as entrepreneur competencies, commitment, resource, strategic choice and external factor like competitors, culture, technology, and infrastructure and government policy.' Understanding determinant factors of SMEs performance is considered as an important area of focus in Enterprises (Rosli, 2011).

Despite the potential role of SMEs to accelerate growth and job creation in developed and developing countries, a number of bottlenecks affect their ability to realize their full potential. SME development is hampered by a number of factors. A set of constraints, which is not intended to be exhaustive, is identified below.

**Input Constraints:** SMEs face a variety of constraints in factor markets (Kayanula and Quartey, 2000).

- **Debt and Equity:** SMEs have limited access to capital markets, locally and internationally, in part because of the perception of higher risk, informational barriers, existence of high collateral to financial institutions, credit rating, accounting and auditing, economies of Scale and the higher costs of intermediation for smaller firms. As a result, SMEs often cannot obtain long-term finance in the form of debt and equity.
- **Labor Market:** An insufficient supply of skilled workers can limit the specialization opportunities, raise costs, and reduce flexibility in managing operations.
- **Information and Technology:** SMEs have difficulties in gaining access to appropriate technologies and information on available techniques. This limits innovation and SME competitiveness. At the same time, other constraints on capital, and labor, as well as uncertainty surrounding new technologies, restrict incentives to innovation.
- **Production inputs:** SMEs face constraints in the availability of production inputs. For instance, better quality raw materials are generally exported or are available only to larger firms and their suppliers tend to be oligopolies. Inadequate infrastructure and weak provision of basic services such as transportation, energy, urban planning and production sites represent particular impediments for SMEs.
- **Lending infrastructure:** The lending infrastructure includes the information environment, the legal, judicial and bankruptcy environment, and the tax and regulatory environments. All of these elements may directly affect SME credit availability by affecting the extent to which the different lending technologies may be legally and profitably employed. The final element, the regulatory environment, may also restrict

SME credit availability indirectly by constraining the potential financial institution structure (Allen and Gregory, 2005).

**Output Constraints:** Access to domestic and international markets can be constrained by factors that relate to the size of SMEs (Kayanula and Quartey, 2000).

- **Domestic Markets:** The diminished role of the state in productive activity and renewed private investment has created new opportunities for SMEs. Nonetheless, limited access to public contracts and subcontracts, often because of cumbersome bidding procedures and/or lack of information, inhibit participation in these markets. Also, inefficient distribution channels and their control by larger firms pose important limitations to market access for SMEs.
- **International Markets:** Previously insulated from international competition, many SMEs are now faced with greater external competition and the need to expand market share. Limited international marketing experience, poor quality control and product standardization and little access to international partners, however, impede expansion into international markets.

**Management Constraints:** The lack of economies of scale and competition for one of the most scarce resources, management know-how, place significant constraints on SME development (Gockel and Akoena, 2002).

- **Management skills and training:** Even though SMEs tend to attract motivated managers, they can hardly compete with larger firms. The scarcity of management talent, prevalent in most countries of the region, has a magnified impact on SMEs.
- **Consulting Services:** The lack of support services or their relatively higher unit cost can hamper SME efforts to improve their management because consulting firms often are not equipped with appropriate cost effective management solutions for the scale of SMEs.

**Regulatory Constraints:** Although wide ranging structural reforms have improved prospects for enterprise development, many issues remain to be addressed at the firm level (Kayanula and Quartey, 2000).

- **Taxation & Tariffs:** Complicated and inefficient tax codes that include cascading sales taxes and stamp taxes are least favorable to SMEs. At the same time, the tariff and non-tariff barriers which favor larger firms that play a role in policy making are often biased against SMEs (Kayanula and Quartey, 2000).
- **Legal:** High start-up costs for firms, including licensing and registration requirements can impose excessive and unnecessary burdens on SMEs. The absence of antitrust legislation favors larger firms, while the lack of protection for property rights limits SME access to foreign technologies.
- **Labor Markets:** Inflexible labor codes and other indirect labor costs bear most heavily on SMEs, raising their cost of doing business and depriving them of the flexibility to adapt.

## **2.2 Empirical literature**

Thibault *et al.* (2002) suggest that ‘factors influencing business performance could be attributed to personal factors such as demographic variable and business factors such as amount of financing, use of technology, age of business, operating location, business structure and number of full-time employees as important factors in examining the performance as small scale business operators.’

The most comprehensive summary of factors influencing performance was noted by Theo, *et al.* (2007) to include: ‘individual characteristics, parental influence, business motivation and goals, business strategies, goals and motives, networking and entrepreneurial orientation. Others include environmental factors.’

Performance can be characterized as the firm’s ability to create acceptable outcomes and actions (Pfeffer & Salancik 1978). Strategically, firm performance is often referred to as firm success or failure (Dess & Robinson 1984; Ostgaard & Birley 1995).

There are a wider dimensional measures of organizational performance (Campbell 1976; Brush & Vanderwerf 1992; Matikka 2002). Performance can be measured by growth (turnover, number of employees, market share), profitability (profit, return on investment), and survival (Storey 1994; Smith *et al.*. 1988; Robinson *et al.*. 1984; Dess & Robinson 1984).

### **1. Financial factors**

Berger, *et al.* (1998) states that: ‘The role of finance has been viewed as a critical element for the performance of small and medium sized enterprises. Previous studies have highlighted the limited access to financial resources available to smaller enterprises compared to larger organizations and the consequences for their performance and development.’

According to Asma Bouazza *et al.* (2015) Lack of access to external financing is considered a major challenge to the growth of SMEs, and it has accounted for high rates of failure among those SMEs. In another study Akinruwa, T. *et al.*, (2013) finance and performance in SMEs are significantly related with 0.000 at 5% significant level. This emphasizes that finance has a determinant effect on the business performance. Banabo, *et al.*, (2011) and Olabisi, *et al.* (2011) also found that finance has a significant effect of the business performance.

Lack of access to external financing is considered a major challenge to the growth of SMEs, and it has accounted for high rates of failure among those SMEs as revealed by several studies. According to Shah *et al.* (2013), financial institutions behave more cautiously when providing loans to SMEs, and SMEs are usually charged comparatively high interest, high collateral and loan guarantees. Krasniqi (2007) finds that loan policies and collateral requirements discourage firms from obtaining loans from banks. Both developing and developed countries, small firms have less access to external financing, which leads small firms to be more restrained in their operations and growth compared to large firms.

A study done by Berger, *et al.* (1998) in developing countries provides further evidence that SMEs face greater financing obstacles than large firms do. Ayyagari *et al.* (2006) showed that financing, crime, and political instability directly affect the rate of growth of small firms, with financing being the most significant constraint affecting small firms’

growth. Rocha *et al.* (2011) analyze the most binding constraint on firm growth in developing countries: they find that each country faces a different set of constraints and that these constraints also vary by firm characteristics, especially firm size. However, across all countries, access to financing is among the most binding obstacle while other obstacles appear to matter much less.

## **2. Managerial factors**

Many SMEs owners or managers lack managerial training and experience. The typical owner or managers of small businesses develop their own approach to management, through a process of trial and error. As a result, their management style is likely to be more intuitive than analytical, more concerned with day-to-day operations than long-term issues, and more opportunistic than strategic in its concept (Aylin, et al. 2013)

Several studies have considered the management capacities of the top management team as key factors for small business growth. According to Olawale and Garwe (2010), management capacities are sets of knowledge, skills, and competencies that can make the small firm more efficient. Singh *et al.* (2008) emphasize that management skills are necessary for SMEs to survive and achieve growth. Aylin *et al.* (2013) state that management skills are a crucial factor for the growth of SMEs and that the lack of management skills is a barrier to growth and is one of the factors that can lead to failure. Pasanen (2007) suggests that the growth pattern of small firms is associated with their managerial capacities. Bhide (1996) notes that a shortage of core competence and a skilled top management team is one of the main challenges faced by SMEs.

## **3. Marketing factors**

The market role of a business entity (Tse and Sin, 2004; Ishaq, 2002; Kotler 1992) can be observed as entity's current position/state which determines the choice of the strategy, but also as its set target/result. Market roles result from the strength of businesses on the market (share size and competitiveness position), and are characterized by the level of innovation and business pro-activeness necessary to achieve and maintain a certain position. Accordingly, in the established division of market roles (Kotler, 2003) two drawbacks can be identified: the role of nicher is defined by the criterion of where/in what market segment certain business operates, and not by its position in relation to its competition; a lack of the monopolist role for situations when an entity is the only one on the market/market segment.

Marketing skills has been considered as one of the most effective factor to firm survival and growth. According to Van Scheers (2012) the lack of marketing skills has a negative impact on the success of small businesses.

#### **4. Technology factors**

Drucker (1985) noted that new technologies improve efficiency, enable greater production, and are a source of profit for SMEs. According to Morse *et al.* (2007), technological capabilities benefit SMEs in several ways: they enhance SME efficiency, reduce costs, and broaden market share, both locally and globally. As noted by Lee (2001), a small business that adopts greater levels of technological sophistication can be expected to grow more rapidly than a similar firm that does not. Romijn (2001), and Yusuf *et al.* (2003) point out that low technological capabilities hinder and discourage SMEs from fully reaching their potential.

Improved technology allows the firm to produce with a more efficient bundle of resources that reduce cost, and/or allows the creation of improved products or even completely new products. Such firm would be more likely to be in a position to surpass competition, reach new markets and expand. Variyan and Kraybill (1994), in a study of firms in Southern United States, found that the majority of managers of firms analyzed considered that the use of technology as a critical element of their competitive advantages. Those firms, which placed more emphasis in the use of new technology, had higher growth rates than firms that did not view technology as a critical factor. Additionally, in a cross sectional analysis of industries, Birley and Westhead (1990) encountered evidence that supports the hypothesis that firms with newer technology in the major manufacturing lines were associated with higher levels of growth and performance.

#### **5. Politico-legal factors**

Research by Asma Bouazza, *et al.* (2015) observes that governments that are not concerned with the promotion of small enterprises should examine the impact of its policies and programs on the small businesses. Robert Galan, *et al.* (2014) makes a similar observation that government regulation about wages, taxation, licensing and others are among the important reasons why the informal sector business develops. Without careful attention, government policies could crush the small business sector in any economy.

According to Lumpkin and Dess (1996) the growth of SMEs are affected by its business climate. Chuthamas C., *et al.* (2011) noted that an unfavorable business climate has negative affect on small firm growth. Brown (2007) identified competition as one of the major hindrances to the growth of small firm. Davidsson (1989) noted that an unfavorable tax system, complicated rules and regulations can heavily hamper small firms' growth. Krasniqi (2007) showed that corruption is a major source of the rise in unfair competition.

## **6. Entrepreneur factors**

Entrepreneur's personality (owner's and/or managers) is a specific internal factor. All studies have shown it has a significant impact on existence and operation of businesses, particularly SMBs (Zhang, *et al.* 2008). Specifically, its strong influence on the business strategic framework has been established (vision, mission, business orientation, culture and goals), which, indirectly and implicitly, affects all the components of the internal environment, strategy and performance. The problem of analyzing this factor is reflected in the complexity of deeper analysis (of motives, attitudes, personality traits ...), that would require an expert psychological approach. Therefore, the analysis is usually reduced to demographic characteristics that certainly cannot give a complete and thorough insight into the personality of the entrepreneur.

Based on their powerful and influential position in their firms, entrepreneurs' subjective worldviews greatly affect their firms' choice of strategic direction (Sidika, I. 2012) and therefore will affect the firm growth. Furthermore, the entrepreneur's characteristics such as age, gender, motivation, experience, educational background, and risk-taking propensity, preference for innovation, mindset, and personality can have a big influence on the firm's performance and success, and the growth of the SMEs can be hugely dependent on him.

Chuthamas C., *et al.* (2011) studied and found Entrepreneurs in successful SMEs and those in failed SMEs thought that pretty much the same factors are the most important for business success, and held the same views on the factors to be avoided in business.

In the study of Krishna Moorthy *et al.*, (2012) there is a significant negative relationship between ineffective entrepreneurship and performance of SMEs in the manufacturing

industry in Malaysia. In his study he found out that an effective entrepreneurship with skills and experiences will lead to a higher innovation as well as competitiveness in the business performance of SMEs, and an ineffective entrepreneurship will lead to bad performance of SMEs. His study was consistent with similar previous study researches of Fairoz *et al.*, (2010) and Talaia *et al.*, (2011).

## **7. Infrastructure factors**

The inadequacy of the physical infrastructure is a principle cause of low levels of investment and unsatisfactory performance of small and micro enterprises. World Bank group international finance corporation enterprise survey 2011 has identified poor infrastructure as a critical factor that constrain business performance in Ethiopia. The infrastructure problem includes poor state of roads, inaccessibility to land, work space, electricity and utility. Lack of allocation of suitable land to SMEs in most urban and rural areas is a major impediment to growth and development. Inaccessibility to land and lack of property rights hamper access to infrastructure and utilities by line SMEs (Mbugua *et al.* 2014). On his study Akinruwa, T. *et al.* (2013) found a critical factor affecting performance is infrastructure with significant level of 0.001, it shows that with absence of amenities like; power, good road network, effective communication system and readily available market that can absorb the finishing products business may not survive.

## **8. Working premises factors**

According to Heikky N. Amwele (2013) entitled empirical investigation into the factors affecting the performance of SMEs in the retail sector in Windhoek, Namibia; he found that over ninety percent (90.9%) of the 22 respondents, revealed that rent or lease a place for their business in Windhoek has hinder their performance. He found that it was expensive to lease a working place for business use in their current locations; therefore most SMEs are unable to grow financially as the large portion of the income goes in the rental expenses. Access to land for business use in Windhoek was one also hinders business. According to the World Bank group international finance corporation enterprise survey report (WBG-IFC, 2011) access to land (working premises) is the second major challenges/inhibiting factors of performance for both small and medium size enterprises in Ethiopia. Different government reports and workshop participants indicated that working premises is the problem for small and medium size enterprises as government focus mainly on micro

enterprises. According to Ethiopian Economics Association (EEA) Research Brief (EEA, 2015) working and selling premises are the problems.

### 2.3 Conceptual framework

The conceptual framework (Figure.1) shows the relationship that exists between small and medium size business enterprises (SMEs) business performance which is the dependent variable and the factors that affects it which are independent variables identified as Financial factors, Marketing factors, Management factors, Entrepreneur factors, Technological factors, Politico-legal factors, working premises factors and infrastructure factors. This conceptual model has developed by previous researchers and the researcher adopts the model with only fewer modification. It was adopted from Admasu Abera (2012).

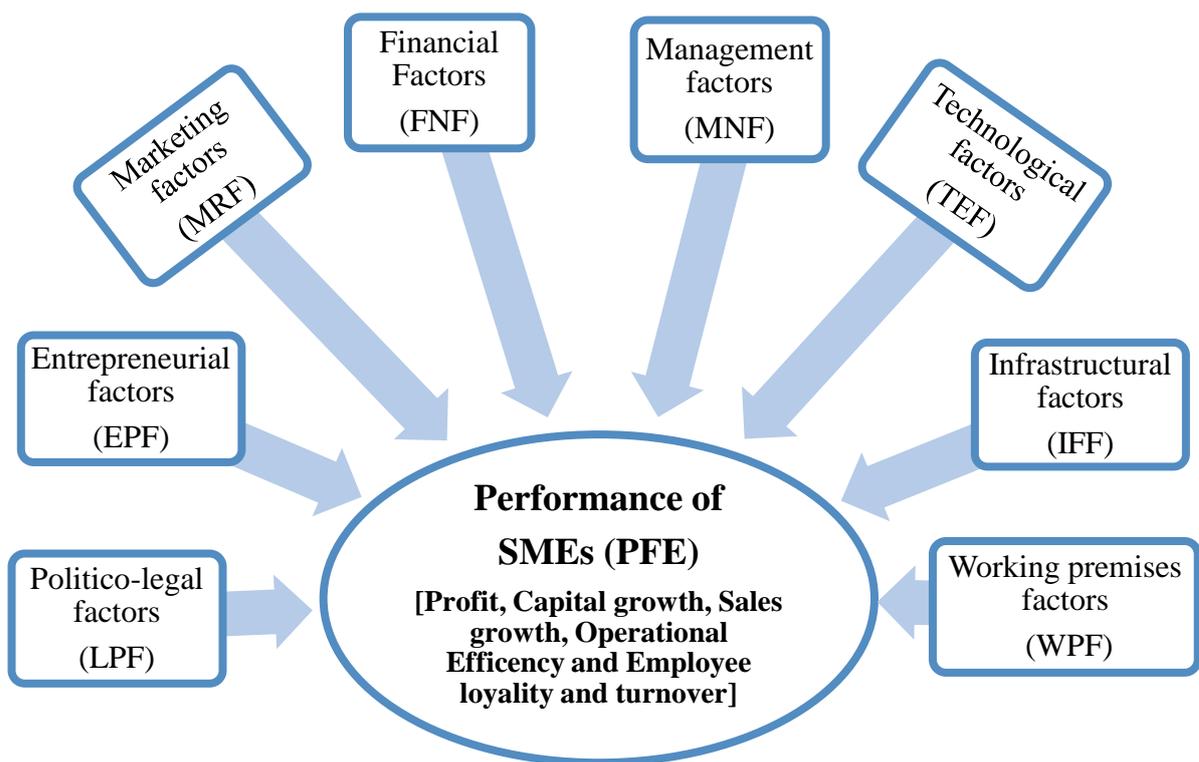


Figure 2-1: Conceptual frame work adopted from Admasu Abera (2012) and few modification by the Author, 2016

## CHAPTER THREE

### 3. Research Methodology

This chapter presented the research methodology adopted in conducting the study in order to achieve the study's objective which was to find out the factors that affect the performance of small and medium enterprises in Addis Ababa city of Nifas Silk Lafeto sub city. The chapter was thus structured into research design, sample size and sampling procedure, data sources and data collection methods and finally data analysis methods.

#### 3.1 Research design

The research approached employed in this study was quantitative research approach that was suitable for the research objective to test the hypothesis. The research design used to test the eight hypothesis that the eight factors has positive effect on business performance of SMEs was causal/explanatory research study concerned with determining the cause and effect relationship but it had also employed descriptive study. However, as the objective of the study was to examine the factors that influences the business performance of SMEs, the study can be considered mainly as explanatory/causal. This study was carried out to ascertain the implication of each independent/predictor variables (financial factors, management factors, market factors, Politico-legal factors, entrepreneurial factors, infrastructural factors, technological factors, and working premises factors) towards the business performance (dependent variable) of SMEs operating in Addis Ababa Nifas Silk Lafeto sub city. The functional or mathematical representation (model) was then formulated in the following form:

SMEs business performance (PFE) = f (Financial factors (FNF), Marketing factors (MRF), Management factors (MNF), Entrepreneur factors (EPF), Technological factors (TEF), Politico-legal factors (PLF), infrastructure factors (IFF) and working premises factors (WPF)). Mathematically this function was expressed as:

$$PFE = \beta_0 + \beta_1 * FNF + \beta_2 * MRF + \beta_3 * MNF + \beta_4 * EPF + \beta_5 * TEF + \beta_6 * PLF + \beta_7 * IFF + \beta_8 * WPF$$

Where:  $\beta_0$ , is the constant which is the intercept of SMEs business performance.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7,$  and  $\beta_8$  are the regression coefficients of the Financial factors (FNF), Marketing factors (MRF), Management factors (MNF), Entrepreneur factors (EPF), Technological factors (TEF), Politico-legal factors (PLF), Infrastructure factors (IFF), and Working premises factors (WPF) respectively.

### 3.2 Sample size and sampling procedure

The study population for the research were SMEs operating in Addis Ababa Nifas Silk Lafeto sub city which were actively operating during the study period were totaled 1282 (according to Nifas Silk Lafeto Sub City office). The total sample size was determined using probabilistic sample size determination method developed by Watson Jeff (2001).

According to Watson Jeff, the probabilistic representative sample for the total study population of 1282 SMEs operating in Addis Ababa Nifas Silk Lafeto sub city was:

$$n = \frac{P(1 - P)}{\frac{A^2}{Z^2} + \frac{P(1 - P)}{N}} = \frac{0.5(1 - 0.5)}{\frac{0.05^2}{1.96^2} + \frac{0.5(1 - 0.5)}{1282}} = 311$$

**Note:**  $P = 0.5, Z = 1.96, A = 0.05,$  and  $R = 0.95$

**Where:**

$n$ = sample size required

$N$ = number of population

$P$ = estimated variance in population, as a decimal: (0.5 for 50-50, 0.3 for 70-30)

$A$ = Precision desired, expressed as a decimal (i.e., 0.03, 0.05, 0.1 for 3%, 5%, 10%)

$Z$  = based on confidence level: 1.96 for 95% confidence, 1.6449 for 90% and 2.5758 for 99%

$R$  = Estimated Response rate, as a decimal

Based on the calculated sample size, the samples of SME's were stratified by their sectors that they are engaged and categorized by the sub city and ministry of trade as Transport service, warehouse service and communication works; Manufacturing; Agriculture, hunting, forestry development and fishing; Mining and quarrying; Electric, fuel and water supplying; Society: Social and private services; Constriction works; Finance, insurance and real estate business; and Retail and wholesale trade, vehicle repair service, home and hotel appliance, fixture and furniture import and export trade. The sample size of each strata/sector of SMEs were determined using population proportionate sampling (PPS) methods in order to represent the total study population (Table 3-1). Respondents were selected from sampling frame using simple random sampling technique from each strata (sector) of small and medium enterprises operating in the sub-city.

Table 3-1: Strata, size of strata and proportionate sample sizes of strata

SN	Business sectors*	Number of business in the sector *	Number of samples to be taken **
1	Transport service, warehouse service and communication works	324	79
2	Manufacturing	105	25
3	Agriculture, hunting, forestry development and fishing	18	4
4	Mining and quarrying	13	3
5	Electric, fuel and water supplying	14	3
6	Society: Social and private services	68	17
7	Constriction works	219	53
8	Finance, insurance and real estate business	263	64
9	Retail and wholesale trade, vehicle repair service, home and hotel appliance, fixture and furniture import and export trade	258	63
<b>Total</b>		<b>1282</b>	<b>311</b>

Source:

\* Figures obtained from Nifas silk Lafeto Subcity

\*\* Figures calculated using population proportionate sampling technique to make sure that the samples represents each strata by Author (2016).

### 3.3 Data Sources and Data Collection Method

The population for this research survey were small and medium size enterprises operating in Addis Ababa city Nifas Silk Lafeto sib city. Simple random sampling technique was

used to select respondents from the target population to ensure that each participant had an equal chance of selection.

Primary data were gathered through the use of highly structured self-administered questionnaire. The questionnaire were consist of three parts. The first part was comprised of the general information on business enterprises including demographic, characteristic, and profile information of the respondents. The respondents were asked to rank statements on contextual condition related to each performance factor faced by the respondents in the part two. This part was consist of questions which were intended to measure factors of business performance adapted from Admassu Abera (2012) and modified by the author accordingly; It used a 5-point liker scale anchored by strongly agree to strongly disagree (**5** = strongly agree, **4** = agree, **3** = undecided, **2** = disagree and **1**= strongly disagree). In the third part, the respondents were asked to score the importance of perceived business performance measurements for their business, using five-point liker scale anchored by 5= strongly agree and 1= strongly disagree were applied to measure the perceived business performance. A total 311 of paper based questionnaires were distributed to SMEs directors, managers or management team.

### **3.4 Data Analysis Method**

The data collected in this study were mainly quantitative but it also had qualitative data that requires the use of both descriptive and inferential statistical data analysis methods.

Therefore, the collected Likert scale data were edited, coded, and finally analyzed by using both descriptive and inferential/parametric statistical tools. For the data regarding characteristics of the SMEs and the general information of respondents, descriptive statistical analysis (frequency, percentage, mode and charts) was employed; and for the data related to the factors affecting the business performance, both descriptive (mean, range, minimum and maximum, SD) and inferential statistics (regression, correlation, t-test, ANOVA and F-test) were employed. Statistical Package for Social Science, (version SPSS 20) was used for facilitating the computation of both the descriptive and the inferential statistical results.

### 3.5 Reliability and Validity

Research should always be carried out by using absolutely accurate and precise measuring instruments, tools or procedures of measurement. For this purpose the acceptability of a measuring instrument should be tested on the principles of adherence to the standards of perfect reliability, confirmed practicality and verified validity.

As this study used multiple Likert items in all its dependent and independent variables, internal consistency analysis was carried out through Cronbach alpha ( $\alpha$ ) reliability tests. Cronbach's  $\alpha$  measure the consistency with which participants answers items within a scale. According to George and Mallery (2003) the Cronbach's  $\alpha$  measure results greater than 0.9 has excellent consistency; greater than 0.8 is Good; greater than 0.7 is acceptable; greater than 0.6 is questionable; greater than 0.5 is Poor; and less than 0.5 is unacceptable. SPSS version 20 has used to produce the values for Cronbach's  $\alpha$ .

The summary of the results of the reliability test of the data collection instrument of the study were presented in (Table 3-2). The result indicates that the minimum Cronbach's  $\alpha$  observed was 0.727 for marketing factors and 0.783 was for management factors both were greater than 0.7 and it was acceptable, Cronbach's  $\alpha$  for financial factors, technological factors, politico-legal factors, and infrastructure factors were greater than 0.8 which was good and Cronbach's  $\alpha$  for entrepreneurial factors, working premises and business performance were greater than 0.9 which was excellent. This means that the internal consistency of the data collection tool/instrument was good enough and considered reliable.

Table 3-2: Reliability Test Results

S.N	Variables	Number of items	Cronbach's $\alpha$
1	Financial Factors	6	0.818
2	Management Factors	5	0.783
3	Marketing Factors	6	0.727
4	Entrepreneurial Factors	6	0.907
5	Technological Factors	4	0.857
6	Politico-Legal Factors	5	0.833
7	Infrastructure Factors	5	0.833
8	Working Premises Factors	4	0.964
9	Business Performance	5	0.934

Validity is the degree to which a measure accurately represents what it is supposed to. It is concerned with how well the concept is defined by the measure(s). Therefore, the researcher tried to address the validity through the review of literature (theories and principles) regarding each predictors and dependent variables, besides that the instrument has been adopted from the previous similar researches with relevant amendments based on the theories and principles accordingly.

## **CHAPTER FOUR**

### **4. Results and Discussions**

#### **4.1 Introduction**

This chapter presents the results of the hypothesized factors that influences the business performance of small and medium size enterprises operating in Addis Ababa specifically in Nifas Silk Lafeto Sub City. It presents the analysis, presentation, discussion and interpretation of the data collected from the administered questionnaires. The collected data was edited and cleaned for completeness in preparation for coding. Descriptive statistics such as frequency, mean and standard deviation were used to analyze the data. Regression analysis was also used to test the relationship between the variables under study in relation to the objectives of the study. Analysis of variance (ANOVA) was used to confirm the findings of regression.

Three hundred and eleven (311) structured questionnaires were distributed across the nine business sectors/strata operating in the sub city; out of which 239 were completely filled and returned, representing 76.85% response rate. Out of the total questionnaires disseminated, 57 were completely unreturned; 11 were incompletely filled and returned; and 4 were inappropriately filled and rejected as a result.

The results were organized and presented in a way that the descriptive statistical analysis of small and medium business enterprises were presented first and inferential statistical analysis of the data about the factors affecting business performance of SMEs were presented following the descriptive analysis.

#### **4.2 Descriptive Statistical Analysis**

In this section the general description of the respondents' business sector, profiles of the business enterprise managers and or business owners was presented and description statistics of predictor and dependent variables was also analyzed and presented.

#### 4.2.1 Frequency and Percentages of SMEs by business Sector

The major respondents of the study as shown in the pie chart below (figure 4-1), 53 were the enterprises engaged on retail and wholesale trade, vehicle repair service, home and hotel appliance, fixture and furniture import and export trade businesses which corresponds for 22% of the total respondent; 51 were engaged finance, insurance and real estate business which is 21%; 49 were engaged in transport service, warehouse service and communication works represents 20.5%; 47 were from construction works (19.7%); 21 were manufacturing (9%); and 15 were from Social and private services (6.3%) the rest sector responds less than two in number.

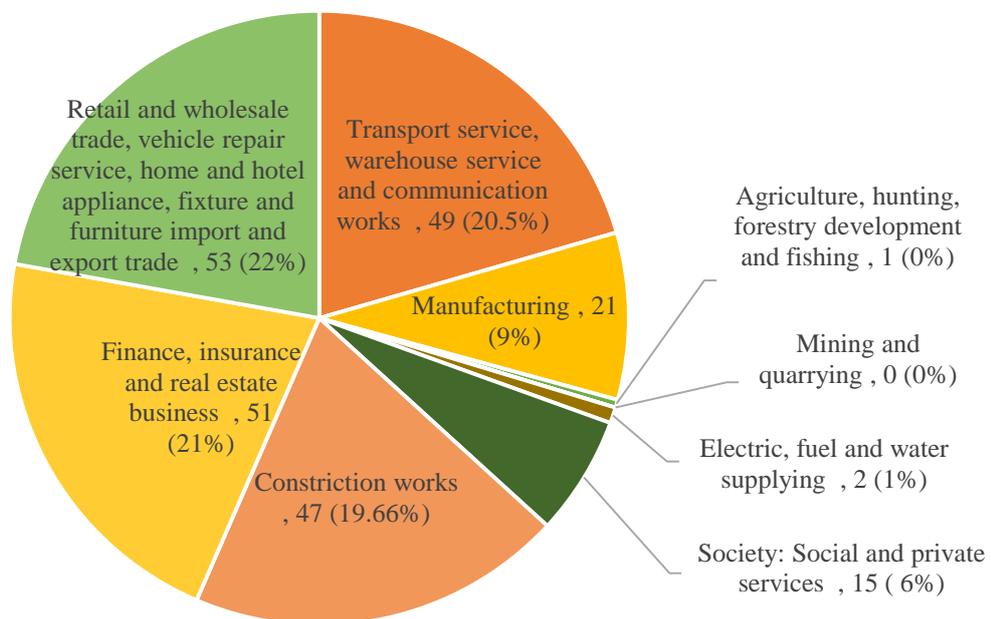


Figure 4-1: Frequency and Percentage of SMEs based on their business sector.

(Source: Survey data 2016)

#### 4.2.2 Descriptive Statistics of Variables

##### Financial Factors:

From the respondents (N=239) the range of mean score of Likert scale anchored by 5= strongly agree and 1= strongly disagree was 2, the maximum and minimum mean score were 5 (strongly agree) and 3 (undecided/ neutral), respectively. The grand mean was 4.2636 at a standard error of 0.0419 and SD 0.6486 (Table 4-1). This showed that SMEs responded that the financial factors had affected their business performance that the grand mean Likert score 4.2636 fall between 5 (strongly agree) and 4 (agree). Finance were therefore, among the key constraints to enterprises, it showed that it is classified as the

major constraints to enterprises business performance This coincides with the study of Wei, Ying Chong (2012), in his study he found the grand mean score 4.06 (SD 0.936) and the result of Mbugua Stephen Kamunge et al, 2014 score mean 4.33 (SD 1.08).

Table 4-1 Descriptive Statistics of factors affecting business performance of SMEs

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
<b>FNF</b>	239	2.000	3.000	5.000	4.2636	.0419	.6486	.421
<b>MNF</b>	239	2.000	3.000	5.000	4.0033	.0424	.6557	.430
<b>MKF</b>	239	2.000	3.000	5.000	3.9442	.0411	.6348	.403
<b>EPF</b>	239	3.200	1.800	5.000	3.3685	.0429	.6634	.440
<b>TEF</b>	239	2.667	2.333	5.000	3.6668	.0381	.5887	.347
<b>PLF</b>	239	2.200	2.800	5.000	4.2930	.0425	.6577	.433
<b>INF</b>	239	2.000	3.000	5.000	4.3707	.0379	.5857	.343
<b>WPF</b>	239	3.000	2.000	5.000	3.9139	.0508	.7857	.617
<b>PFE</b>	239	1.500	3.500	5.000	4.6209	.0324	.5004	.250

Source: Survey data 2016

**Management factors:**

From the respondents (N=239) the range of mean score of Likert scale anchored by 5= strongly and 1= strongly disagree was 2, the maximum and minimum mean score were 5 (strongly agree) and 3 (undecided/ neutral), respectively. The grand mean was 4.0033 at a standard error of .0424 and SD .6557 (Table 4-1). This showed that SMEs responded that the management factors had affected their business performance that the grand mean Likert score 4.0033 fall between 5 (strongly agree) and 4 (agree). Management were therefore, among the key constraints to enterprises in the field survey, it showed that it is classified as the major constraints to enterprises business performance This descriptive statistics result matched with the study of Wei, Ying Chong (2012), mean score 4.37 (SD 0.635) and Mbugua Stephen Kamunge et al, (2014) score mean 3.30 (SD 1.45).

**Marketing Factors:**

From the respondents (N=239) the range of mean score of Likert scale anchored by 5= strongly and 1= strongly disagree was 2, the maximum and minimum mean score were

5 (strongly agree) and 3 (undecided/ neutral), respectively. The mean was 3.9442 at a standard error of .0411 and SD .6348 (Table 4-1). This showed that SMEs responded that the marketing factors had affected their business performance that the grand mean Likert score 3.9442 fall between 4 (agree) and 3 (undecided/ neutral) but close to 4 (agree). Marketing were therefore, among the key constraints to enterprises in the field survey, it showed that it is classified as the major constraints to enterprises business performance. This descriptive statistics result matches with the study of Wei, Ying Chong (2012), mean score 4.17 (SD 0.837).

#### **Entrepreneurial factors:**

From the respondents (N=239) the range of mean score of Likert scale anchored by 5= strongly and 1= strongly disagree was 3.2, the maximum and minimum mean score were 5 and 1.8, respectively. The grand mean was 3.3685 at a standard error of .0429 and SD .6634 (Table 4-1). This showed that SMEs responded that the entrepreneurial factors had affected their business performance that the grand mean Likert score 3.3685 fall between 4 (agree) and 3 (undecided/ neutral).

#### **Technological factors**

From the respondents (N=239) the range of mean score of Likert scale anchored by 5= strongly and 1= strongly disagree was 2.667, the maximum and minimum mean score were 5 and 2.333, respectively. The grand mean was 3.6668 at a standard error of .0381 and SD .5887 (Table 4-1). This showed that SMEs responded that the technological factors had affected their business performance that the grand mean Likert score 3.6668 fall between 4 (agree) and 3 (undecided/ neutral).

#### **Politico-Legal Factors:**

From the respondents (N=239) the range of mean score of Likert scale anchored by 5= strongly and 1= strongly disagree was 2.2 the maximum and minimum mean score were 5 and 2.8, respectively. The grand mean was 4.2930 at a standard error of .0425 and SD .6577 (Table 4-1). This showed that SMEs responded that the politico-legal factors had affected their business performance that the grand mean Likert score 4.2930 fall between 5 (strongly agree) and 4 (agree). The politico-legal environments were therefore, among the key constraints to enterprises in the field survey, it showed that it is classified as the major constraints to enterprises business performance. The previous similar researches (Admasu

Abera, 2012) found the mean of the mean score was 3.62 (SD 1.05) which is below the findings of this study 4.29309 (SD .6577). This slight difference probably comes from the 4 years' time differences between the two studies and that the previous study was conducted on micro and small business enterprises in which the government has given attention than the medium business enterprises.

#### **Infrastructure factors:**

From the respondents (N=239) the range of mean score of Likert scale anchored by 5= strongly and 1= strongly disagree was 2 the maximum and minimum mean score were 5 and 3, respectively. The grand mean was 4.3707 at a standard error of .0379 and SD .5857 (Table 4-1). This showed that SMEs responded that the infrastructural factors had affected their business performance that the grand mean Likert score 4.3707 fall between 5 (strongly agree) and 4 (agree). Infrastructure factors were therefore, among the key constraints to enterprises in the field survey, it showed that it is classified as the major constraints to enterprises business performance This result matches with Admasu Abera's (2012) study who found the 3.73 (SD 1.08) mean of the mean score as compared to this study result 4.3707 (SD .5857).

#### **Working premises Factors:**

From the respondents (N=239) the range of mean score of Likert scale anchored by 5= strongly and 1= strongly disagree was 3 the maximum and minimum mean score were 5 and 2, respectively. The grand mean was 3.9139 at a standard error of .0508 and SD .7857 (Table 4-1). This showed that SMEs responded that the working premises factors had affected their business performance that the grand mean Likert score 3.9139 fall between 4 (agree) and 3 (undecided/ neutral) but close to 4 (agree). Working premises were therefore, among the key constraints to enterprises in the field survey, it showed that it is classified as the major constraints to enterprises business performance This result matches with Admasu Abera's (2012) study who found the 4.0 (SD 1.05) mean of the mean score as compared to this study result 3.9139 (SD .7857). This slight difference may be because of the larger business enterprises incorporated in this study as medium level enterprises are in a slightly better position than micro and small enterprises.

## **Business Performance**

From the respondents (N=239) the range of mean score of Likert scale anchored by 5= strongly and 1= strongly disagree was 1.5, the maximum and minimum mean score were 5 (strongly agree) and 3.5 respectively. The grand mean was 4.6209 at a standard error of 0.0324 and SD of 0.5004 (Table 4-1). This shows that respondents average response that their business performance was very poor and dissatisfying due to the challenges they have faced.

## **4.3 Inferential Statistical Analysis**

### **4.3.1 Pearson's Product Moment Correlation Coefficient (PPMCC) Matrix**

Pearson's Correlation matrix were used for data to see the relationship between variables. In this study Pearson's Product Moment Correlation Coefficient (PPMCC) was computed (Table 4-2) to determine whether there is significant relationship matrix between financial (FNF), management (MNF), marketing (MNF) entrepreneurial (EPF), technological (TEF), politico-legal (PLF), infrastructural (INF), working premises (WPF) and business performance (PFE). The study result indicated that the correlation coefficients for the relationships between performance and its predictor variables were linear and positive ranging from substantial to strong correlation.

According to Evans (1996) the correlation coefficient value close to one considered perfect and close to 0.7 considered strong correlation and less than 0.3 considered week correlation. He further explained that the correlation coefficient 0.00-0.19 is "very weak", 0.20-0.39 is "weak", 0.40-0.59 as "moderate", 0.60-0.79 as "strong" and 0.80-1.0 as "very strong". The Pearson product movement correlation (PPMC) analysis revealed that there was a positive strong correlation between the PFE and FNF ( $r = 0.770$ ,  $p = 0.000$ ), PFE and MNF ( $r = 0.665$ ,  $p = 0.000$ ). The correlation between PFE and MKF ( $r = 0.584$ ,  $p = 0.000$ ) was substantial/moderate and significant. The correlation between PFE and EPF ( $r = 0.250$ ,  $p = 0.000$ ), and PFE and TEF ( $r = 0.202$ ,  $p = 0.002$ ), were week but significant. The correlation between PFE and PLF ( $r = 0.667$ ,  $p = 0.000$ ), PFE and INF ( $r = 0.691$ ,  $p = 0.000$ ), and PFE and WPF ( $r = 0.622$ ,  $p = 0.000$ ) were strong and significant. Overall, the correlations between dependent variable (business performance) were statistically significant at  $p < 0.01$  two tailed and N=239 (Table 4-2).

Table 4-2 Pearson's Correlation Coefficient Matrix

Correlations										
		FNF	MNF	MKF	EPF	TEF	PLF	INF	WPF	PFE
<b>FNF</b>	Pearson Correlation	1								
	Sig. (2-tailed)									
<b>MNF</b>	Pearson Correlation	.614**	1							
	Sig. (2-tailed)	.000								
<b>MKF</b>	Pearson Correlation	.525**	.391**	1						
	Sig. (2-tailed)	.000	.000							
<b>EPF</b>	Pearson Correlation	.405**	.248**	.167**	1					
	Sig. (2-tailed)	.000	.000	.010						
<b>TEF</b>	Pearson Correlation	.218**	-.055	.073	.109	1				
	Sig. (2-tailed)	.001	.397	.263	.092					
<b>PLF</b>	Pearson Correlation	.464**	.368**	.428**	.004	.032	1			
	Sig. (2-tailed)	.000	.000	.000	.946	.627				
<b>INF</b>	Pearson Correlation	.447**	.424**	.308**	.036	.125	.525**	1		
	Sig. (2-tailed)	.000	.000	.000	.584	.053	.000			
<b>WPF</b>	Pearson Correlation	.507**	.507**	.330**	.058	.173**	.320**	.405**	1	
	Sig. (2-tailed)	.000	.000	.000	.376	.007	.000	.000		
<b>PFE</b>	Pearson Correlation	.770**	.665**	.584**	.250**	.202**	.667**	.691**	.622**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.002	.000	.000	.000	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: Survey data, 2016

The result indicated that the correlation between finance and business performance was strong correlation, the correlation between management and performance, Politico-legal and performance, infrastructure and performance, working premises and performance, and marketing and performance are also strong significant correlation. The correlation between technology and performance, entrepreneurial and performance considered weak but significant correlation.

#### 4.3.2 Multiple Linear Regression Analysis and Hypothesis Testing

Regression analysis is a statistical technique of studying the dependence of one variable also called dependent variable (Business Performance of SMEs) on other independent also called explanatory variables (Financial, Management, Marketing, Entrepreneurial,

Politico-Legal, Technological, Infrastructural and Working premises variables). Regression analysis used to estimate the relationship that exists between the dependent variable and the explanatory variable, determine the effect of each of the explanatory variables on the dependent variable, controlling the effects of all other explanatory variables and predict the value of dependent variable for a given value of the explanatory variable.

Table 4-3 Model Summary

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.924 <sup>a</sup>	.854	.849	.1947523	.854	167.657	8	230	.000

a. Predictors: (Constant), WPF, EPF, TEF, MKF, INF, PLF, MNF, FNF

Source: Survey data, 2016

b. Dependent Variable: PFE

A multiple linear regression was calculated to predict business performance based on predictor variables financial factors, management factors, marketing factors, entrepreneurial factors, politico-legal factors, technological factors, infrastructural factors and working premises factors. A significant regression equation was found ( $F(8, 230) = 167.657, p < .000$ ), with an  $R^2$  of 0.854 and adjusted  $R^2$  of 0.849. This indicates that the regression model was accounted for 85.4% of the variations of SMEs business performance (table 4-3).

Participants' predicted Business Performance (Table 4-4) is equal to  $0.322 + 0.184*$  financial factors (FNF) +  $0.127*$  Management factors (MNF) +  $0.108*$  Marketing factors (MKF) +  $0.046*$  Entrepreneurial factors (EPF) +  $0.061*$  Technological factors (TEF) +  $0.183*$  Politico-Legal factors (PLF) +  $0.226*$  Infrastructural factors (INF) +  $0.109*$  Working Premises factors (WPF), where predictor/explanatory and dependent variables were coded or measured 5= strongly agree to 1 = strongly disagree and mean of Likert items score were taken.

Table 4-4 Regression coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.322	.142		2.259	.025
	<b>FNF</b>	.184	.032	.238	5.775	.000
	<b>MNF</b>	.127	.027	.166	4.695	.000
	<b>MKF</b>	.108	.024	.137	4.468	.000
	<b>EPF</b>	.046	.022	.061	2.105	.036
	<b>TEF</b>	.061	.023	.072	2.648	.009
	<b>PLF</b>	.183	.025	.240	7.390	.000
	<b>INF</b>	.226	.027	.265	8.286	.000
	<b>WPF</b>	.109	.020	.171	5.366	.000

a. Dependent Variable: PFE

Source: survey data, 2016

The business performance measurement increased by 0.184 for each financial factors Likert items mean score, 0.127 for each management factors Likert items mean score, 0.108 for each marketing factors Likert items mean score, 0.046 for each Entrepreneurial factors Likert items mean score, 0.061 for each Technological factors Likert items mean score, 0.183 for each Politico-Legal factors Likert items mean score, 0.226 for each Infrastructural factors Likert items mean score and 0.109 for each Working Premises factors Likert items mean score measurements.

All the eight hypothesized factors, financial, management, marketing, entrepreneurial, politico-legal, technological, infrastructural and working premises factors variables were significant predictors of SMEs business performance (table 4-4).

**Model:**

$$PFE = 0.322 + 0.184*FNF + 0.127*MNF + 0.108*MKF + 0.046*EPF + 0.061*TEF + 0.183*PLF + 0.226*INF + 0.109*WPF.$$

Beta (standardized regression coefficients) is a measure of how strongly each predictor variables (financial factors, management factors, marketing factors, entrepreneurial

factors, politico-legal factors, technological factors, infrastructural factors and working premises factors) influences the criterion/dependent variable (business Performance). It is used to comparing the effects of predictor variables on dependent variable (Lin Lin, 2007).

Table 4-5 Ranks of predictor variables based on their strength to influence SMEs business Performance

S.N	Predictor variables	Beta value (Standardized coefficient)	Rank based on influence
1	Financial Factors (FNF)	0.238	3 <sup>rd</sup>
2	Management Factors (MNF)	0.166	5 <sup>th</sup>
3	Marketing Factors (MKF)	0.137	6 <sup>th</sup>
4	Entrepreneurial Factors (EPF)	0.061	8 <sup>th</sup>
5	Technological Factors (TEF)	0.072	7 <sup>th</sup>
6	Politico-Legal Factors (PLF)	0.240	2 <sup>nd</sup>
7	Infrastructure Factors (INF)	0.265	1 <sup>st</sup>
8	Working Premises (WPF)	0.171	4 <sup>th</sup>

Source: Survey data 2016

The beta is measured in units of standard deviation. A change of one standard deviation (SD) in the financial factor will result in a change of 0.238 standard deviations (SD) in the SMEs business performance, A change of one standard deviation in management factors, marketing factors, entrepreneurial factors, politico-legal factors, technological factors, infrastructural factors and working premises factors results in a change of 0.166, 0.137, 0.061, 0.072, 0.240, 0.265, and 0.171 in SMEs business performance respectively (Table 4-5). The higher the beta value the greater the impact of the predictor variable on the criterion variable.

This indicates that Infrastructural factors were the most influencing predictor variable for SMEs business performance followed by politico-legal factors and financial factors. Working premises were at the fourth position in terms of its strength in influencing business performance followed by management and marketing factors. The seventh and eighth ranks were technological and entrepreneurial factors respectively.

Table 4-6 t-Calculated

Model	T	Sig.
(Constant)	2.259	.025
FNF	5.775	.000
MNF	4.695	.000
MKF	4.468	.000
1 EPF	2.105	.036
TEF	2.648	.009
PLF	7.390	.000
INF	8.286	.000
WPF	5.366	.000

Source: survey data 2016

### Financial Factors

The hypothesis testing of variable financial factors to the SMEs business performance,  $t_c$  (95% CI, DF= 8) = 1.86 < t calculated = 5.775 (Table 4-6) at  $p = 0.000$  The result indicates that finance has a significance influences/effect on the business performance of SMEs operating in Nifas silk Lafeto sub city with a chance of less than 1% of rejecting the null hypothesis. That means the easiness to access the finance the better the business performance of the SMEs would be. Finance is one of the key factor that affects the business performance of enterprises. This result supported by the study by the World Bank researchers, Finance is one of the most important functions of any business. Not only is finance a good indicator of the health of the company overall, but it also holds an important role in managing business growth. Whether growth is attributable to a larger market capitalization, and increase employee, a new location, a new product or service offering, or a new demographic, finance is the enabler of such opportunities. This result matches with the results of Chuthamas Chittithaworn *et al* (2015), they found that finance has significant positive effect on business performance of SMEs operating in Malaysia; The result of Mohammed Alakali (2012) also revealed that finance has a positive significant effect ( $p=0.000$ ) on business performance; Simon M. Shiamwama *et al* (2014) found that finance has a significant effect on business performance of SMEs operating in Kenya. Robert Galan Mashenene and Joel Rumanyika, (2014) found finance has a positive significant effect on business performance in SMEs in Tanzania. Akinruwa, Temitope E *et al* (2013) also found

finance has significant effect ( $p = 0.000$ , 95% CI) in his study of Nigeria's' SMEs. The result also coincides with the result of Mbugua Stephen Kamunge et al, 2014 who found finance as a crucial significant effect on SMEs performance ( $p=0.006$ , 95% CI). However this result differs with the results of Woldegebriel (2012) in his study he finds that finance was not a significant factor and rejected from his model. He also found that the regression coefficient was negative.

### **Management Factors**

The hypothesis testing of variable management factors to the SMEs business performance,  $t_c$  (95% CI, DF= 8) = 1.86 <  $t$  calculated = 4.695 (Table 4-6) at  $p = .000$ . The result indicates that management has a significance influences/effect on the business performance of SMEs operating in sub-city with a chance of less than 1 percent of rejecting the null hypothesis. This means that the lack of clear division of duties and responsibility, Presence of ineffective communication, Presence of poor employee handling, Lack of well trained and experienced employees, and Lack of strategic business planning would result in poor business performance (business profit, sales growth, capital growth, operational efficiency and employee loyalty and turnover). This result matches with Mbugua Stephen Kamunge et al, 2014 who found management has significant effect on performance ( $p=0.001$ , 95% CI). However the result differs with the results of Chuthamas Chittithaworn *et al* (2015), they found that management has no significant effect on business performance of SMEs operating in Malaysia,

### **Marketing Factors**

The hypothesis testing of variable marketing factors to the SMEs business performance,  $t_c$  (95% CI, DF= 8) = 1.86 <  $t$  calculated = 4.468 (Table 4-6) at  $p = .000$ . The result indicates that marketing factors (Inadequate market access for my product/service, Lack of marketing strategy, Lack of market information and demand forecasting, Presence of fierce foreign and domestic competition, Lack of promotion to attract potential customers/users and Poor customer relationship and handling) has significance influences on the business performance of SMEs operating in the sub city with a chance of less than one percent (1%) of rejecting the null hypothesis. This means better the marketing factors the better will be the business performance of SMEs (business profit, sales growth, capital growth, operational efficiency and employee loyalty and turnover). This result matches with the results of Chuthamas Chittithaworn *et al* (2015), they found that marketing has significant

positive effect on business performance of SMEs operating in Malaysia. Javed M. J. *et al* (2012) also found similar results that marketing factors has significant effect ( $p=0.002$ , 95% CI) on business performances in their study. The result of this study differs with the result of Mohammed Alakali (2012) that revealed marketing has no significant effect ( $p=0.630$ ) on business performance.

### **Entrepreneurial Factors**

The hypothesis testing of variable Entrepreneurial factors to the SMEs business performance,  $t_c$  (95% CI, DF= 8) = 1.86 <  $t$  calculated = 2.105 (Table 4-6) at  $p = .036$ . The result indicates that Entrepreneurial factors (Lack of motivation and drive, Lack of initiative to take calculated business risk, Lack of persistence and courage to take responsibility for one's failure, Absence of initiative to assess ones strengths and weakness, Lack of entrepreneurship training, Lack of information to exploit business opportunities/ lack of benchmarking) has significance influences/effect on the business performance (business profit, sales growth, capital growth, operational efficiency and employee loyalty and turnover) of SMEs in Lafeto sub city with a chance of less than 1 percent of rejecting the null hypothesis. This means the better the Entrepreneurial factor will result better business performance of SMEs. This result matches with Robert Galan Mashenene and Joel Rumanyika (2014), they found Entrepreneurial factor has a positive significant effect on business performance in SMEs in Tanzania. Akinruwa, Temitope E *et al* (2013) also found Entrepreneurial factor has significant effect ( $p = 0.000$ , 95% CI) in his study of Nigeria's' SMEs. Javed M. J. *et al* (2012) also found similar results that Entrepreneurial factor has significant effect ( $p=0.000$ , 95% CI) on business performances in their study. However, the result of this study differs with the result of Mohammed Alakali (2012) revealed that Entrepreneurial factor has no significant effect ( $p=0.181$ ) on business performance.

### **Technological Factors**

The hypothesis testing of variable technological factors to the SMEs business performance,  $t_c$  (95% CI, DF= 8) = 1.86 <  $t$  calculated = 2.648 (Table 4-6) at  $p = .009$ . The result indicates that technological factors (Lack of appropriate machinery and equipment, Lack of skills to handle new technology, ability to deploy and use information technology and ability to select proper technology) has a significance influences/effect on the business performance of SMEs in the sub city with a chance of less than 1 percent of rejecting the null hypothesis.

This means that absence of problems of technological problems leads to the better business performance of SMES. This result matches with Javed M. J. *et al* (2012) also found similar results that technological factors has significant effect ( $p=0.000$ , 95% CI) on business performances in their study. The study result differs with the result of Mohammed Alakali (2012) also revealed that technology has no significant effect ( $p=0.694$ ) on business performance. This result also differ with Robert Galan Mashenene and Joel Rumanyika (2014), they found technology has no significant effect on business performance in SMEs in Tanzania. Akinruwa, Temitope E *et al* (2013) also found technology has no significant effect ( $p = 0.785$ , 95% CI) in his study of Nigeria's' SMEs.

### **Politico-Legal Factors**

The hypothesis testing of variable Politico-Legal factors to the SMEs business performance,  $t_c$  (95% CI, DF= 8) = 1.86 <  $t$  calculated = 7.390 (Table 4-6) at  $p = .000$ . The result indicates that Politico-Legal factors (The tax system, Bureaucracy in registration and licensing, Lack of government support, Political intervention and corruption and Uneven implementation of government proclamation, regulations and directives related to the business operation) has significance influences/effect on the business performance of SMEs with a chance of less than 1 percent of rejecting the null hypothesis. This means that the better the politico-legal system results the better the business performance of SMEs. This result also supported by World Bank researchers, according to the World Bank's first Assessment of the Investment Climate in 2001/02, high tax rates were the most common complaint of entrepreneurs. Besides high rates, an inefficient and unpredictable tax administration was another frequent complaint. Good economic governance in areas such as taxation, regulations, and business licensing is a fundamental pillar for the creation of a favorable business environment. Effective regulations address market failures that inhibit productive investment. This result also matches with Mbugua Stephen Kamunge *et al*, 2014 who found politico-Legal has significant effect on performance ( $p=0.005$ , 95% CI). The result of this study differs with the results of Woldegebriel (2012) in his study he finds that politico-Legal was not a significant factor and rejected from his model. Akinruwa, Temitope E *et al* (2013) also found politico-Legal factor has no significant effect ( $p = 0.803$ , 95% CI) in his study of Nigeria's' SMEs.

### **Infrastructural Factors**

The hypothesis testing of variable infrastructural factors to the SMEs business performance,  $t_c$  (95% CI, DF= 8) = 1.86 <  $t$  calculated = 8.286 (Table 4-6) at  $p = 0.000$ . The result indicates that infrastructural factors (Frequent electric power interruptions, Insufficient and interrupted water supply system, Lack of business development services (supporting institutions), Lack of sufficient and quick transportation service and Lack of appropriate dry waste and sewerage system) is significance influences between infrastructure and the business performance with a chance of less than 1 percent of rejecting the null hypothesis. This means that the better the presence of infrastructure facilities results the better the business performance of SMEs. A strong infrastructure enhances the competitiveness of an economy and generates a business environment conducive to firm growth and development. Good infrastructure efficiently connects firms to their customers and suppliers, and enables the use of modern production technologies. Conversely, deficiencies in infrastructure create barriers to productive opportunities and increase costs for all firms, from micro enterprises to large multinational corporations. This result matches with Akinruwa, Temitope E *et al* (2013) also found infrastructure has significant effect ( $p = 0.001$ , 95% CI) in his study of Nigeria's' SMEs. The study result differs with the results of Woldegebriel (2012) in his study he finds that infrastructure was not a significant factor and rejected from his model. The result of Mohammed Alakali (2012) also revealed that infrastructure has no significant effect on business performance. This result also differs with Robert Galan Mashenene and Joel Rumanyika (2014), they found infrastructure has no significant effect on business performance in SMEs in Tanzania. Mbugua Stephen Kamunge et al, 2014 also found infrastructure has no significant effect on performance ( $p=0.250$ , 95% CI).

### **Working premises Factors**

The hypothesis testing of variable working premises factors to the SMEs business performance,  $t_c$  (95% CI, DF= 8) = 1.86 <  $t$  calculated = 5.366 (Table 4-6) at  $p = 0.000$  The result indicates that working premises factors (Absence of adequate own working premises, inconveniency of current working place, too high rent of working premises is and access to land for business expansion) is significance influences between working premises and the business performance with a chance of less than 1 percent of rejecting the null hypothesis. This means that the better the working premises results the better the business performance of SMEs. This result supported by the Ethiopian Economics Association research briefs

(EEA, 2015) they found that problems related to working premises is one of the key challenges to SMEs. This result matches with Admasu Abera (2012) on his study Micro and Small Enterprises in Arada and Lideta Sub-Cities of Addis Ababa he found working premises has significant effect on MSEs performance ( $P = 0.000$ ). Mekonnen Lenjisa (2014) in his study on small scale to medium scale enterprise in Sebeta town finds that working place factors was one of the factor that affects the business performance of medium and small enterprises in Sebeta town. However, the degree of influence of working place factor in his study was in the last among other similar factors of this study. This differences on the rank/degree of influencing factor probably due to the location, economy, and administration differences exists between Sebeta, Oromya and Addis Ababa Nifas Silk Lafeto sub city.

#### **4.3.3. Validation of the Regression Model**

There are principal assumptions which justify the use of multiple linear regression models for purposes of inference or prediction. The remaining output were concerned with checking the model assumptions of normality, linearity, homoscedasticity, non-multicollinearity and independence of the residuals.

Regression validation is the process of deciding whether the numerical results quantifying hypothesized relationships between predictor and dependent variables, obtained from regression analysis, are valid and acceptable as descriptions of the data. The validation process can involve diagnosing for multicollinearity, analyzing the goodness of fit of the regression ( $R^2$ ), the randomness of regression residuals, etc. There are many statistical tools for model validation, but the primary tool for most process modeling applications is graphical residual analysis. Different types of plots of the residuals from a fitted model provide information on the adequacy of different aspects of the model. According to the statistical solution ([www.statisticalsolution.org](http://www.statisticalsolution.org)), Numerical methods for model validation, such as the  $R^2$  statistic and multicollinearity are also useful, but usually to a lesser degree than graphical methods.

## Non-Multicollinearity

Table 4-7 Collinearity Diagnostics

	Collinearity Statistics		Collinearity Diagnostics	
	Tolerance	VIF	Eigenvalue	Condition Index
<b>FNF</b>	.374	2.674	8.855	1.000
<b>MNF</b>	.506	1.975	.040	14.915
<b>MKF</b>	.675	1.481	.030	17.149
<b>EPF</b>	.760	1.316	.024	19.093
<b>TEF</b>	.859	1.164	.016	23.629
<b>PLF</b>	.603	1.659	.012	27.493
<b>INF</b>	.623	1.606	.010	30.053
<b>WPF</b>	.624	1.602	.008	33.270

Source: Survey data 2016

Diagnosing for multicollinearity by computing collinearity statistics (Tolerance and variance inflation factor, VIF), eigenvalues and the conditional index of the model there was no multicollinearity problems for the model. According to Marquardt (1970), if any of the VIFs exceeds 10, it is an indication that the associated regression coefficients are poorly estimated because of multicollinearity. The result (Table 4-7) showed the maximum VIF was 2.674 and tolerance was much greater than zero. This indicates that there is no multicollinearity that exists to create a problem. The other diagnostic method is eigenvalue, according to Greene (1993) and Walker (1989) if at least one eigenvalue is close to zero, then multicollinearity does exist. The condition index also measures the existence of multicollinearity that if one of its value exceeds 50 then there exists multicollinearity. The result (Table 4-7) indicated that multicollinearity was not a problem for the multiple linear regression model and the multiple linear regression assumption that non-multicollinearity was not violated.

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

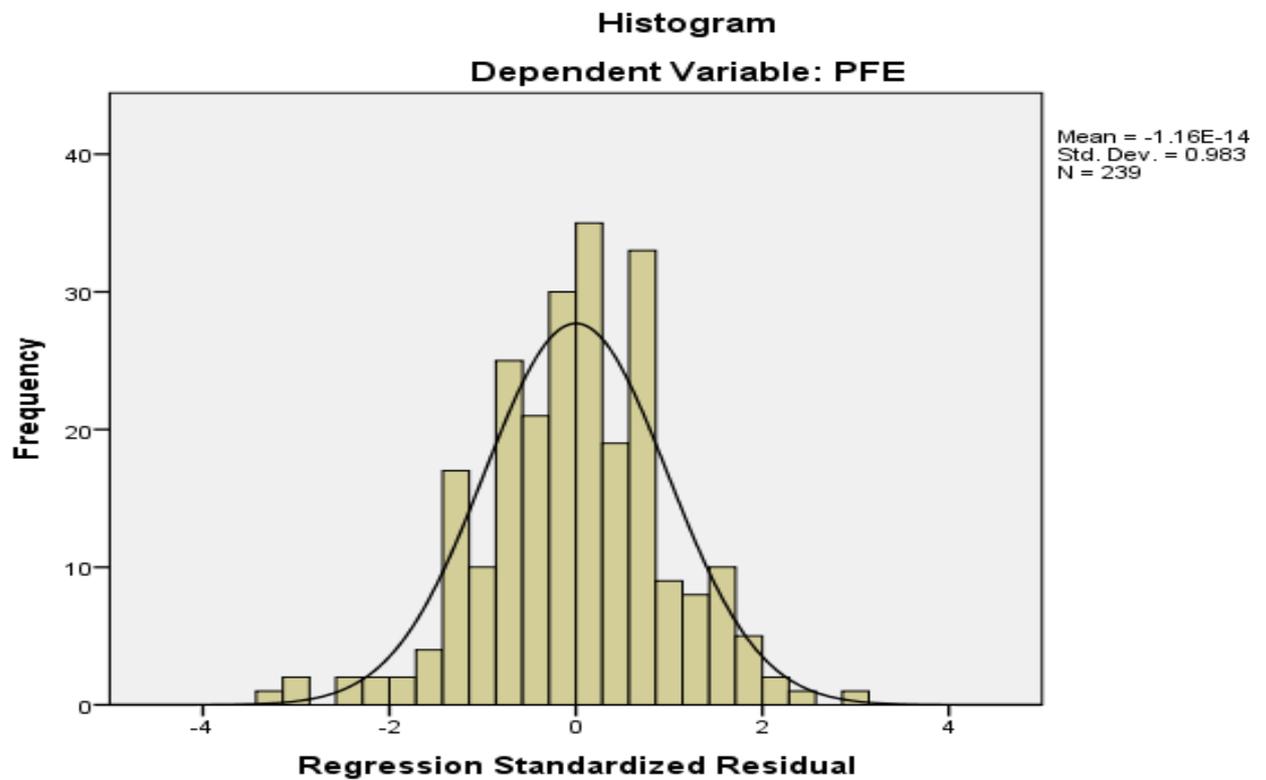
Coefficient of Determination (R-squared) is the “percent of variance explained” by the model. R-squared is the fraction by which the variance of the errors is less than the variance of the dependent variable. The key measure to the validity of the estimated linear line is R-squared ( $R^2$ ).  $R^2 = \text{total variance} / \text{explained variance}$ . In the study the regression model  $R^2$  was 0.854, and Adjusted  $R^2$  was 0.849 this means that about 85% of the total variance is explained with the relationship between business performance and the eight predictors and

only 15% variation of the business performance was due to some noise. This implies that the model is valid.

### Histogram

The histogram is a frequency plot obtained by placing the data in regularly spaced cells and plotting each cell frequency versus the center of the cell. The histogram of the residual can be used to check whether the variance is normally distributed. A symmetric bell-shaped histogram which is evenly distributed around zero indicates that the normality assumption is likely to be true. If the histogram indicates that random error is not normally distributed, it suggests that the model's underlying assumptions may have been violated.

The residual histogram (figure 4-2) illustrates an approximately normal distribution of residuals produced by a model  $PFE = 0.322 + 0.184*FNF + 0.127*MNF + 0.108*MKF + 0.046*EPF + 0.061*TEF + 0.183*PLF + 0.226*INF + 0.109*WPF$ . This indicates that the model do not violates the normality assumption.



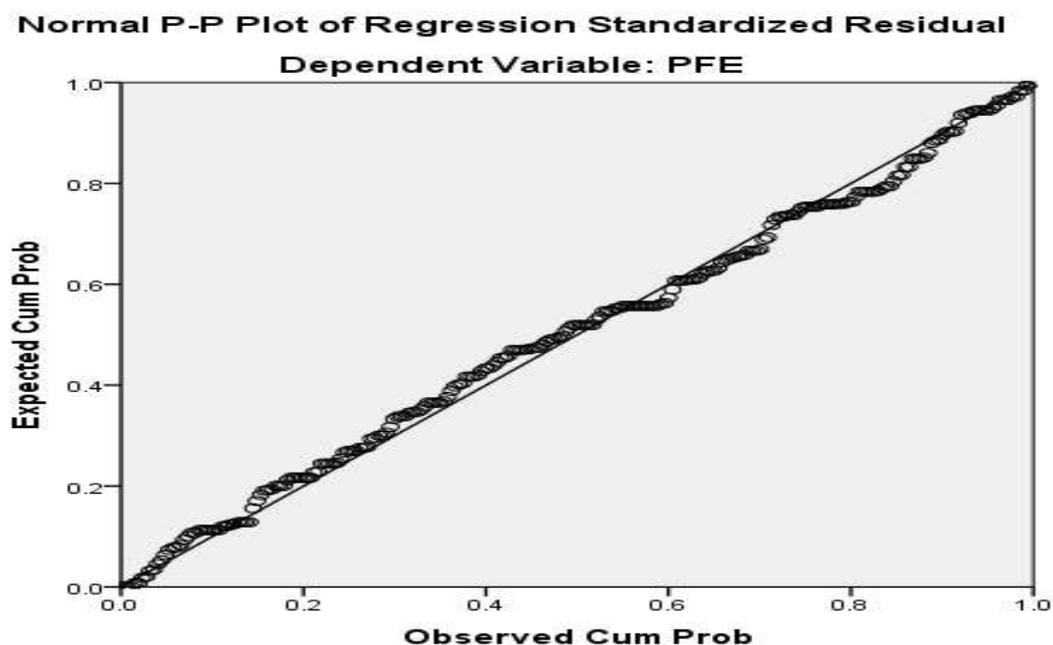
Source: Survey data 2016

Figure 4-2 Histogram of the Residuals showing that the deviation is normally distributed.

### Normal P-P (Probability-Probability plot)

In statistics, a P–P plot (probability–probability plot or percent–percent plot) is a probability plot for assessing how closely two data sets agree, which plots the two cumulative distribution functions against each other. P-P plots are vastly used to evaluate the skewness of a distribution. A normal probability plot of the residuals can be used to check whether the variance is normally distributed as well. If the resulting plot is approximately linear, we proceed assuming that the error terms are normally distributed. The plot is a check on normality; the plotted points should follow the straight line. Serious departures would suggest that normality assumption is not met.

From the plot of the residuals versus predicted PFE, the pattern (figure 4-3) show indicates no problems with the assumption that the residuals are normally distributed at each level of PFE and constant in variance across levels of PFE. The plot is linear and the divaton from the assumption solid linear line was insignificant. This indicates that the model fits with the assumption



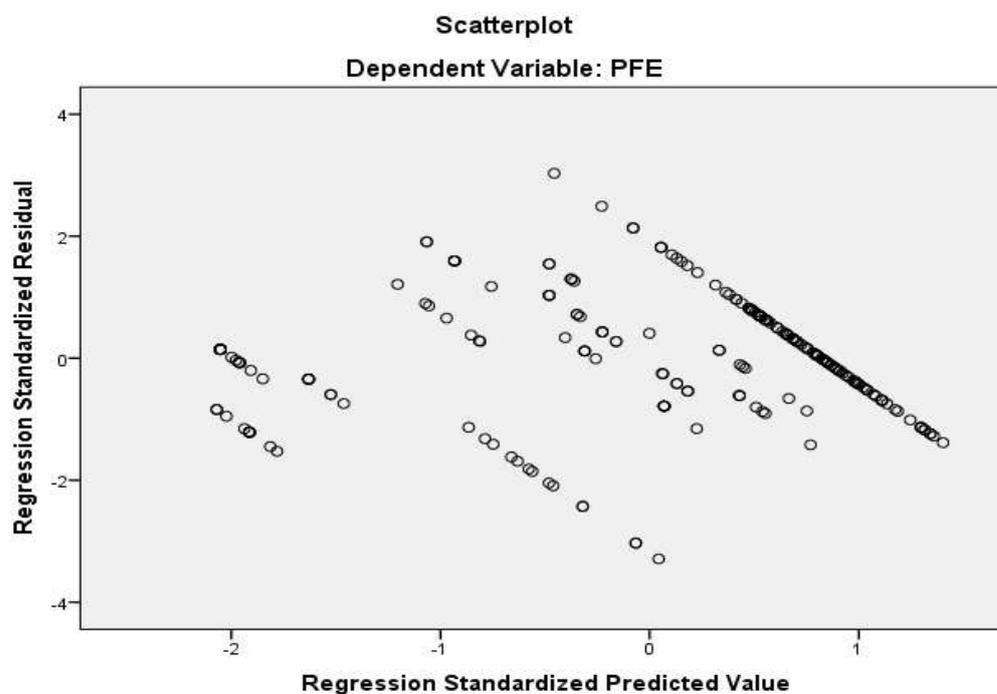
Source: Survey data 2016

Figure 4-3 Normal P-P plot of regression Standardized residual dependent variable

## Scatter plot

The scatterplot of standardized residuals against standardized predicted values should be a random pattern centered around the line of zero standard residual value. The points should have the same dispersion about this line over the predicted value range. Tabachnick and Fidell (2007) explain the residuals and the variance of the residuals should be the same for all predicted scores (homoscedasticity). Any systematic pattern or clustering of scores is considered a violation.

From the figure 4-4 we could observe the dispersion of residuals over the predicted value range between -1 and 1 looks constant, for predicted values below -1 and above +1 there are too few points to provide evidence against a change in variability. We could also observe a certain unclear pattern rather than the expected random distribution, but also didn't look like a certain strong systematic pattern that would indicate a clear relationship. Hence, though not random as it was expected it wasn't also reveals the existence of a clear relationship between the residuals and the predicted values; the density of the scatters around zero and its vague relationship/correlation would slightly consistent with the assumption of linearity (Figure 4-4).



Source: Survey data 2016

Figure 4-4 Scatter Plot

This indicates the model  $PFE = 0.322 + 0.184*FNF + 0.127*MNF + 0.108*MKF + 0.046*EPF + 0.061*TEF + 0.183*PLF + 0.226*INF + 0.109*WPF$  is in line with the assumption and so it is valid to predict.

The model was evaluated against its coefficient of determination, and the above graphical method (histogram, P-P plot and Scatter plot), and it was found valid and useful for predicting the business performance of SMEs operating in the sub-city.

## **CHAPTER FIVE**

### **5. Summary, Conclusion and Recommendation**

In this chapter the summary, conclusions and recommendations are discussed. Based on the findings of the study, and its objectives conclusions were drawn and recommendations are made to government bodies, managers and entrepreneurs of SMEs and finally for suggestion was made for other future researchers of the area.

#### **5.1 Summary**

The study was intended to examine the factors influencing the business performance of SMEs. For this study a total of 311 paper based questionnaire has been distributed to randomly selected SMEs and 239 (76.85%) were completely filled and returned. The study covered all the nine business categories categorized by the sub city and ministry of trade based on their business sectors that they are engaged in such as transport service; warehouse service and communication works; manufacturing; agriculture, hunting, forestry development and fishing; mining and quarrying; electric, fuel and water supplying; society: social and private services; construction works; finance, insurance and real estate business; and retail and wholesale trade, vehicle repair service, home and hotel appliance, fixture and furniture import and export trade. The study has used both descriptive and inferential statistical analysis methods. In the descriptive analysis the responses of the business sector for the each variables were analyzed and the grand mean of financial factors was 4.2636 which falls in between strongly agree (5) and agree (4) which indicates that the SMEs respondents perceived that financial factor affects their business performance. The management factors was 4.0033, which indicates that management was one of the factors that affects their business performance. The marketing factors was 3.9442, which was close to agree (4) that indicates marketing was agreed that it affects their business. Entrepreneurial factors was 3.3685, which falls between agree (4) and undecided/neutral (3) which indicates that entrepreneurial factors has effect on their performance but it is perceived by SMEs that its effect were small as compared to other factors like finance. The grand mean of technological factors was 3.6668, which falls between agree (4) and undecided/neutral (3) which indicates that entrepreneurial factors has effect on their performance but it is perceived by SMEs that its effect were small as compared to other

factors like finance but larger than entrepreneurial factors. The grand mean of politico-legal factors was 4.2930, which falls in between strongly agree (5) and agree (4) which indicates that the SMEs respondents perceive that politico-legal factor affects their business performance. The grand mean of infrastructural factors was 4.3707 which falls in between strongly agree (5) and agree (4) which indicates that the SMEs respondents perceived that infrastructural factor affects their business performance., working premises was 3.9139, which indicates that the respondents perceived that working premises factor affects their business performance. The grand mean response for the business performance was found 4.6209 which falls in between strongly agree (5) and agree (4) which indicates that the SMEs respondents perceived that their business performance was poor.

In the inferential statistical analysis of the study, the result revealed that the correlation between finance and business performance was a strong positive correlation, the correlation between management and performance, politico-legal and performance, infrastructure and performance, working premises and performance, and marketing and performance are also had a strong positive correlation. The correlation between technology and performance, entrepreneurial and performance considered weak but a significant positive correlation. From the multiple linear regression analysis, a significant regression model was found ( $F(8, 230) = 167.657, p < .000$ ), with an R-square ( $R^2$ ) of 0.854 and its adjusted  $R^2$  of 0.849. This indicates that the regression model was accounted for 85.4% of the variations of SMEs business performance. The t-test revealed that all the eight hypothesized factors were found significantly affecting the business performance of SMEs operating in Nifas Silk Lafeto sub city. The comparative intensity of the eight hypothesized factors influencing the business performance were examined and the result revealed that financial factors were the most influencing predictor variable for SMEs business performance followed by infrastructure and politico-legal factors. Working premises were at the fourth position in terms of its strength in influencing business performance followed by management and marketing factors. The seventh and eighth ranks were technological and entrepreneurial factors respectively.

Finally the regression model was evaluated for its validity and usefulness to predict the business performance based on the residual plot techniques and the model was found consistent with the multiple linear regression assumptions and found valid and useful to predict the business performance and 85.4% of the variation was explained by the model.

## 5.2 Conclusion

Small and medium enterprises accounts for the major job creator for citizens. They can also contribute in the nation economy provided that their survival and continual growth is preserved and ensured. Small and medium enterprises are very helpful for Ethiopia and Ethiopian citizens for creating jobs and contributing to the national economy, they could also play a critical role in the course of alleviating poverty. They are also important that their need for capital is smaller as compared to the large capital requirement of large corporations which Ethiopia as a country had a huge shortage of capital. However, the SMEs in the sub city found swallowed by various challenges that this study had revealed. This challenges crush the performance of SMEs in the sub city. The study reveals that all the factors hypothesized in this study were actually affecting the business performance in various intensity. For clarity and simplicity the researcher categorized the business challenging factors as very strong, strong and moderate based on their intensity of influence to business performance of SMEs in Nifas Silk Lafeto sub city.

Among the multiple challenges of SMEs financial factors, Politico-Legal and infrastructural factors had the lion share because they very strongly and adversely affects the business performance. The financial factors (insufficiency of credit institutions, lack of cash management system, shortage of working capital, high collateral requirement from banks and other lending institutions, high interest rate charged by banks and, other lending institutions, and presence of stringent bank and other financial loan criteria) were the major challenge that affects business performance of SMEs. Politico-Legal (the tax system, bureaucracy in registration and licensing, lack of government support, political intervention and corruption and uneven implementation of government proclamation, regulations and directives related to the business operation) and infrastructural factors (frequent electric power interruptions, insufficient and interrupted water supply system, lack of business development services (supporting institutions), lack of sufficient and quick transportation service and lack of appropriate dry waste and sewerage system) were also the major challenges of SMEs that had an adverse influence on their business performance.

Working premises, management and marketing factors were strongly influencing the business performance. Working premises (absence of adequate own working premises, inconveniency of current working place, too high rent of working premises is and access to land for business expansion), management factors (lack of clear division of duties and responsibility, presence of ineffective communication, presence of poor employee handling, lack of well trained and experienced employees, and lack of strategic business planning) and marketing factors (inadequate market access for my product/service, lack of marketing strategy, lack of market information and demand forecasting, presence of fierce foreign and domestic competition, lack of promotion to attract potential customers/users and poor customer relationship and handling) were the challenges that had strong adverse effect on the business performance of SMEs.

Technological and entrepreneurial factors were moderately affecting the business performance of SMEs. Technological factors (lack of appropriate machinery and equipment, lack of skills to handle new technology, ability to deploy and use information technology and ability to select proper technology) and entrepreneurial factors (lack of motivation and drive, lack of initiative to take calculated business risk, lack of persistence and courage to take responsibility for one's failure, absence of initiative to assess ones strengths and weakness, lack of entrepreneurship training, lack of information to exploit business opportunities/ lack of benchmarking) were the challenges that had a moderate effect that adversely influences the business performance.

The multiple regression model was valid and useful to predict the business performance of SMEs. The grand mean of business performance was found 4.6209 at a standard error of 0.0324 and SD 0.5004 which indicates that the business performance of SMEs in the sub city are poor due to the multiple major challenges they face. Therefore, the SMEs were not performing well enough to meet what is theoretically perceived and empirically revealed about the SMEs contribution for job creation, innovation and contribution to national economy as expected. The reports from IMF, and World Bank indicated that the private industry is weak to contribute to the Ethiopian economy as expected.

## **5.3 Recommendation**

### **1. Finance factors**

The study revealed that financial factors were the first strong influential factors that affects the business performance of SMEs operating in Nifas Silk Lafeto sub city. Therefore, government of Ethiopia should create adequate environment to increase the existence and availability of credit institutions, that the institutions must ease or simplify their procedure and lending criteria. The monetary policy of the country must assessed and evaluated well so that it will not hinder the performance of small and medium business performance. The collateral requirement of lending institutions must be reconsidered to facilitate the growth of small and medium business of the country. The entrepreneur and managers should deploy adequate cash management system in their premises so that working capital will be well managed.

### **2. Management factors**

Management factors were revealed as one of the strong influential factor for business performance of SMEs. The entrepreneur/ business owner must clearly and scientifically organize his/her enterprise with clear duties and responsibilities to eliminate confusion and collision among employees that will create hectic environment and affects individual and group performance. The entrepreneur must have training to develop effective communication skills and design a clear means and order for effective communication. The human resource management practice especially employee handling must be improved and they should be motived and compensated to boost the individual and group efforts, to initiate innovation and creativity to solve organizational problems that will lift the business performance of SMEs. The educational institutions must design the curriculum so that students will have a bundle of practical experience with theoretical background that will contribute in the nation building by providing their knowledge to SMEs. A journey without a steering wheel is like walking blindly analogously a business enterprise without strategic business planning is throwing his/her money to air. There must be a clear direction of business and a clear goal to achieve. Therefore, business owners must develop their strategic plan.

### **3. Marketing factors**

Marketing factors were revealed as one of the strong influential factor for business performance of SMEs. Entrepreneurs/ managers must assess the potential markets available for their product/service in domestic or abroad. Government must support the SMEs in finding/ assessing new markets especially in abroad. The entrepreneurs/ managers must developed adequate and appropriate marketing strategy suitable for their product/ service. They must forecast demand based on the adequate information. They must analyze the existing and potential foreign and domestic competition, and device a strategy and tactics to increase their market share. They must improve their customer relationship and handling.

### **4. Entrepreneurial factors**

Entrepreneurial factors was revealed as a moderately influential factors affecting business performance of SMEs. In general entrepreneurs should improve their self-motivation and drive for business success by learning and exercising persistent and courage to take responsibilities for one's failure and to take calculated business risk. Entrepreneurs should assess their strengths and weakness. They must assess the availability of entrepreneurship trainings and take the training. Government must facilitate of institutionalize entrepreneurship training facilities so that entrepreneurs could access the training and contribute much to the national economy. Entrepreneurs must learn and improve to assess and exploit the available business opportunities and good enough to learn and benchmark best practices of others in domestic or abroad.

### **5. Technological factors**

Technological factors was revealed as a moderately influential factors affecting business performance of SMEs. Entrepreneurs/managers must assess and access appropriate machinery and equipment adequate for their business or try to modify accordingly. The government should invest or work on FDI so that the technology manufacturing companies could install their companies in the country that made technological equipment and machineries available in the country at reasonable price, with domestic currency and probably with long term trade loan. Entrepreneurs/managers must train their employees to make them skilled enough to handle new technology and to build their ability to deploy and use information technology and to select proper technology. Technology and engineering institutes must capacitate themselves and expand their service to support

SMEs through availing technological training and provide installation and maintenance services.

## **6. Politico-Legal factors**

The study reveals that politico-legal factors were among the very strong influential factors that affects the business performance of SMEs. The tax system of the country must be revised to facilitate the growth and wellbeing of the business of SMEs. The bureaucracy must be assessed and eased to facilitate the business operation of SMEs. The government must strengthen its support like creating institution to support the business development of SMEs so that they could be capacitated and would contribute in the course of alleviating unemployment problems and poverty. Political intervention and corruption must be resolved as this is considered as cancer for business as well the nation building. Government proclamation, regulations and directives must be uniformly implemented in order to create free competition in this country that this platform will encourage innovation, business growth and reinvestment.

## **7. Infrastructural factors**

The study reveals that infrastructural factors were among the very strong influential factors that affects the business performance of SMEs. The provision of electric power must be well improved. Electric power is a key for almost all business enterprises. The government of Ethiopia must strengthen to eliminate the electric power supplies problems and challenges. The water supply quality and quantity must be improved. Though roads are constructed the transportation service found obstacle to business. The proper dry and wet waste management practices and sites must be identified and practiced.

## **8. Working premises factors**

Working premises factors was revealed in this study as one of the strong influential factor to business performance of SMEs. The government of Ethiopia must create a means for entrepreneurs to make availability of adequate and convenient working premises, and prepare a platform or ratify a regulation regarding business working premises rents or a means to alleviate a high cost of business working premises rent. Government must device a mechanism to avail a land for business expansion.

## References

Abiyu, J. (2011). Factors constraining the growth and survival of micro and small enterprises in Burayu. Thesis submitted to Addis Ababa University

Admasu, A. (2012). Factors affecting the performance of micro and small enterprises in Arada and Lideta Sub-Cities. A thesis submitted to the school of graduate studies of Addis Ababa University. Addis Ababa.

ADB (2010). Determinants of SME startups in Ethiopia: A theoretical exploration Tunis, Tunisia.

Akinruwa, T., Awolusi, O. & Ibojo, B. (2013). Determinants of small and medium enterprises (SMEs) performance in Ekiti State, Nigeria: A business survey approach. *European journal of humanities and social sciences* Vol. 27, No.1, 2013

Anne, N. (2014). Factors affecting the performance of small and medium enterprises in the Jua Kali Sector in Nakuru Town, Kenya. *IOSR journal of business and management*. ISSN: 2319-7668. Volume16, Issue 1.

Aris, N. (2007). SMEs: Building blocks for economic growth. Department of statistics, Malaysia.

Asma, B., Diabate, A. & Othman, A. (2015). Establishing the factors affecting the growth of small and medium-sized enterprises in Algeria. *American international journal of social science* Vol 4, No. 2;

Aylin, A., Garango, P., Cocca, P. & Bititchi, U. (2013). The development of SME managerial practice for effective performance management. *Journal of small business and enterprise development*. Vol 20 (1).

Ayyagari, M., Ash, D. & Vojislav, M. (2006). How important are financing constraints? The role of finance in the business environment. World Bank policy research working paper, No. 3820.

Banabo, E. & Koroye, B. (2011). Sales promotion strategies of financial institutions in Bayelsa State. *Asian journal of business management*. Vol 3(3).

Berger, K., Allen, N. & Gregory, F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of banking and finance* 22.

Bhide, A. (1996). The questions every entrepreneur must answer. *Harvard business review*. Vol 74.

Birley, S. & Westhead, P. (1990). Growth and performance contrast between types of small firms. *Strategic management journal*. Vol 11.

Bizusew, K. (2015). The Challenges of micro and small enterprises and business development service. Thesis submitted to Addis Ababa University.

Brhane, T. (2011). Finance as success or failure factor for micro and small enterprises in Addis Ababa: The case of Arada sub-city. Thesis submitted to Addis Ababa University

Brush, C. & Vanderwerf, P. (1992). A comparison of methods and sources of obtaining estimates of new venture performance. *Journal of business venturing*. Vol 7.

Campbell, J. (1976). Contributions research can make in understanding organizational effectiveness, in *organizational effectiveness: theory research utilization*, S. Spray. The Kent State University Press.

Chuthamas, C., Dayang, H., Muhd, Y. & Aminul, I. (2011). Factors affecting business success of small & medium enterprises (SMEs) in Thailand. *Asian journal of social science* Vol 7(5).

Corina, G., Liviu, I. & Roxana, S. (2011). Determinants of organizational performance: the case of Romania. *Management & marketing challenges for the knowledge society*. Vol 6 (2).

CPMN (1999). Performance measurement audit. <http://www.measure.net/audit/index.htm>. Accessed on 25 August 2016.

Davidsson, P. (1989). Entrepreneurship and after. A study of growth willingness in small firms. *Journal of Business Venturing*. Vol 4.

Dess, G. & Robinson, R. (1984). Measuring organizational performance in the absence of objective measures: the case of the privately held firm and conglomerate business unit. *Strategic Management Journal*. Vol 5.

Drucker, P. (1985). *Introduction, Innovation and Entrepreneurship*. Harper & Row publishers, New York, 1–17.

Walker, M. (1989). Detection of collinearity–influential observations, communications in statistics, theory and methods.

EEA (2015). Research Brief: Small and Micro Enterprises (SMEs) Development in Ethiopia: policies, performances, constraints and prospects. Addis Ababa, Ethiopia.

Fairoz, F., Hirobumi, T. & Tanaka, Y. (2010). Entrepreneurial orientation and business performance of small and medium scale enterprises of Hambantota District Sri Lanka. *Asian Social Science*.

Fredu, N. & Edris, H. (2016). Small and medium enterprise access to finance in Ethiopia: Synthesis of demand and supply. The horn economic and social policy institute (HESPI) Working Paper 01/16

Galindo, Arturo & Fabio, S. (2003). Credit constraints and investment in Latin America. Inter-American development bank, Washington D.C.

Gebreegziabher, T. & Demeke, M. (2004). Small businesses in small towns of the eastern Amhara region: Nature and economic performance. A Research report on IDR, Addis Ababa University.

Heikky, N. (2013). An empirical investigation into the factors affecting the performance of SMEs in the retail sector in Windhoek, Namibia. A Thesis presented for Harold Pupkewitz Graduate School of Business at the Polytechnic of Namibia.

Iraj, H. & Besnik, A. (2011). Entrepreneurship and SME growth: evidence from advanced and laggard transition economies. *International journal of entrepreneurial behaviour & research*.

Ishak, A. (2002). Effects of marketing strategy on performance: A study of Indonesian organizations. Unpublished doctoral dissertation, Curtin University of Technology, School of Marketing.

Javed, M., Ahmed, I., Muhammad, A., Rana, A. & Rauf, A. (2011). Determinants of business success of small and medium enterprises. *International Journal of Business and Social Science* Vol.2 (20).

Kangari, R., Farid, F. & Elgharib, H. (1992). Financial performance analysis for construction industry. *Journal of construction engineering and management*.

Kaplan, R. & Norton, D. (1993). Putting the balanced scorecard to work. *Harvard business review*, September-October.

Kay, J. (1993). *Foundations for corporate success*. Oxford: Oxford university press.

Kay, J. (1995). *Why firms succeed: choosing markets and challenging competitors to add value*. Oxford University Press.

Kotler, P. (1991). *Marketing Management: Analysis, Planning, Implementation and Control* (7<sup>th</sup> ed.), London, Prentice Hall.

Kotler, P. (2003). *Marketing management*. Upper Saddle River, New Jersey, Pearson education

Krasniqi, B. (2007). Barriers to entrepreneurship and SME growth in transition: The case of Kosova. *Journal of developmental entrepreneurship*.

Krishna, M., Annie, T., Caroline, C., Chang, W., Jonathan, P. & Tan, L. (2012). A Study on factors affecting the performance of SMEs in Malaysia. *International journal of academic research in business and social sciences* Vol 2 (4). ISSN: 2222-6990

Laura, B., Shawnee, V. & Cornelia, D. (1996). The contribution of quality to business performance. *International journal of operations & production management*.

Lebans, M. & Euske, K. (2006). *A conceptual and operational delineation of performance, Business performance measurement*. Cambridge university press.

Lee, J. (2001). Education for technology readiness: Prospects for developing countries. *Journal of human development*.

Lumpkin, T. & Dess, G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of management review*.

Lusthaus, C. & Adrien, M. (1998). *Organizational assessment: A review of experience*. Universalialia.

MBNQA (2009). *Criteria for performance excellence*. US national institute of standards and technology, Gaithesburg, Maryland, USA

Mbugua, S., Agnes, N. & Ondabu, I. (2014). Factors affecting the performance of small and micro enterprises in Limuru Town Market of Kiambu County, Kenya. *International journal of scientific and research publications*. Vol 4 (12)

Mekonnen, L. (2014). *Assessing factors affecting transitional development of small scale to medium scale enterprise in Sebeta Town: Challenges, opportunities and prospects*. Thesis submitted to Addis Ababa University

Munira, S. (2012). *Performance of micro and small enterprises and their role in enhancing local economic development: A case study in Gullele Sub City of Addis Ababa*. Thesis submitted to Addis Ababa University

OECD (2004). *Promoting SMEs for development; 2nd OECD conference of ministers responsible for small and medium-sized enterprises (SMEs)*, Istanbul Turkey

OECD (2010). *High-Growth Enterprises: What governments can do to make a difference, OECD studies on SMEs and entrepreneurship?* OECD publishing.

Olabisi, Y., Olagbemi, A. & Atere, A. (2011). Factors affecting small-scale enterprises performance in informal economy in Lagos state, Nigeria. *Africa journal of enterprises*

Olawale, F. & Garwe, D. (2010). Obstacles to the growth of new SMEs in South Africa: A principle component analysis approach. *African journal of business and management*. Vol. 4 (5).

Ostgaard, T. & Birley, S. (1995). New venture competitive strategies and their relation to growth. *Entrepreneurship & regional development*. Vol.7 (2).

Pasanen, M. (2007). SME growth strategies: organic or non-organic? Department of business and management, university of Kuopio, Finland. *Journal of enterprising culture*. vol.15 (317).

Pfeffer, J. & Salancik, G. (1978). *The external control of organization: a resource dependent perspective*. New York: Harper and Row.

Robert, G. & Joel, R. (2014). Business constraints and potential growth of small and medium enterprises in Tanzania: A review. *European journal of business and management*. ISSN 2222-2839 (Online) Vol 6 (32).

Robinson, R., Pearce, J., Vozikis, G. & Mescon, T. (1984). The relationship between stage of development and small firm planning and performance. *Journal of small business management*.

Rocha, R., Farazi, S., Khouri, R. & Pearce, D. (2011). The status of bank lending to SMEs in the Middle East and North Africa region: Results of a joint survey of the union of Arab banks and the World Bank. Policy research working paper 5607.

Romijn, H. (2001). Technology support for small industry in developing countries: A review of concepts and project practices. *Oxford Development Studies*. Vol 29(1).

Shah, S., Nazir, T., Zaman, K. & Shabir, M. (2013). Factors affecting the growth of enterprises: A survey of the literature from the perspective of small- and medium-sized enterprises. *Journal of enterprise transformation*. Vol 3.

Sidika, I. (2012). Conceptual framework of factors affecting SME development: Mediating factors on the relationship of entrepreneur traits and SME performance. Proceedings from ICSMED 2012: International conference on small and medium enterprises development. *Procedia economics and finance*. Vol 4.

Simon, M., Joshua, A. & Mildred, S. (2014). Internal factors affecting the performance of businesses of retirees in Kakamega municipality. *International journal of business, humanities and technology* Vol 4 (2).

Singh, R., Garg, S. & Deshmukh, G. (2008) Strategy development by SMEs for competitiveness: A review. *Bench-marking: an international journal*. Vol 15(5).

Smith, K., Gannon, M., Grimm, C. & Mitchell, T. (1988). Decision making behavior in smaller entrepreneurial and larger professionally managed firms. *Journal of business venturing*. Vol 3.

Storey, D. (1994). *Understanding the small business sector*. London, Routledge.

Tabachnick, B. & Fidell, L. (2007). *Using multivariate statistics (5th Ed.)*. Boston, Massachusetts, Allyn and Bacon.

Talaia, M. & Mascherpa, S. (2011). Entrepreneurial team and performance in Lombard SMEs: An empirical study. A master's thesis, Università Dell' Insubria Facolta Di Economia.

Thibault, M., Wilcock, A. & Kanetkar, V. (2002). An exploratory study of factors influencing sales performance of small and medium sized enterprises. *Proceedings of the administrative sciences association of Canada*. Winnipeg, Manitoba.

Tse, J. & Sin, S. (2004). A firm's role in the marketplace and the relative importance of market orientation and relationship marketing orientation. *European journal of marketing*. Vol 38 (9/10).

Van, S. (2011). SMEs' marketing skills challenges in South Africa. *African journal of business management*. Vol 5(13). Retrieved from <http://www.academicjournals.org> on date September 20, 2016

Variyan, J. & Kraybill, S. (1994). Managerial inputs and the growth of rural small firms. *American journal of agricultural economics*. Vol 76.

Watson, J. (2001). *How to Determine a Sample Size*: University Park, Pennsylvania.

WBG-IFC (2011). Enterprise survey report: Ethiopia country profile. <http://www.enterprisesurveys.org/> Enterprise surveys: Ethiopia -2011. Accessed on date 25 August 2016.

Wei, Y. (2012). Critical Success Factors for Small and Medium Enterprises: Perceptions of Entrepreneurs in Urban Malaysia. *Journal of Business and Policy Research*. Vol 7(4).

Weldegabriel, M. (2012). Problems of micro and small enterprises in Addis Ababa the case of Kirkos, Kolfe, and Yeka Sub Cities. Thesis submitted to Addis Ababa University

Wood, E. (2006). The internal predictors of business performance in small firms. *Journal of small business and enterprise development*. Vol 13(3).

Wu, D. (2006). *The Performance Measurement in SMEs: A New approach. Performance measurement and management: Public and private, Papers from the 5th International conference on theory and practice in performance measurement and management*, London, UK, Cranfield university. ISBN: 09533761 5X

Yodit, G. (2015). Assessment of the challenges of micro and small scale enterprises to contribute to sustainable development: the case of manufacturing enterprises in Addis Ababa, Ethiopia. Thesis submitted to Addis Ababa University.

Yusuf, M. (2003). *Innovative East Asia: The future of growth*. Washington, D. C.: The World Bank, a Co-publication of the World Bank and Oxford university press.

Zhang, Y., Yang, X. & Ma, F. (2008). A quantitative analysis of the characteristic of rapid-growth firms and their entrepreneurs in China. *Journal of small business and enterprise development*. Vol 15 (4).

Zuzana, B. (2012). *On determinants of SME start-ups in Ethiopia: A theoretical exploration*. African Development Bank, Development Research Department, Tunis, Tunisia.

## **Annexes**

### **Annex A. Data collection instrument**

#### **Annex A.1 Data collection instrument (English version)**

### **Thesis Research Questionnaire St. Mary University School of Graduate Studies MBA General Program**

---

Dear respondent, I am a graduate student in master of business administration at St. Mary University. Currently, I am undertaking a thesis research entitled '*Factors Affecting the Business Performance of Small and Medium Enterprises in Addis Ababa: In case of Nifas Silk Lafeto Sub-Cities*'.

Dear sir/Madame, You are one of the respondents selected to participate on this study. I will request your assistance in providing me accurate and complete information so that the finding on the factors affecting the performance of small and medium enterprises in the sub cities will be representative and lead to accurate conclusion. Your participation is entirely voluntary and your personal information and your entire response will be completely anonymous. Finally, I assure you that the information that you provide me through the questionnaire will be kept confidential and only used for the aforementioned academic purpose. No individual's responses will be identified as such and the identity of persons responding will not be published or released to anyone. Thank you in advance for your kind cooperation and committing your time.

Sincerely,

Atalel Fetene

#### **Instructions:**

Please provide your response answers with a check mark (✓) in the appropriate block provided.

## SECTION-1: GENERAL INFORMATION ON RESPONDENTS

1. Please specify the business sector you are engaged in

\_\_\_\_\_

2. Please specify your Gender

A. Male  B. Female

3. Please specify your age

A. Below 20  B. 20-30  C. 31-40  D. 41-50   
E. 51 & above

4. What is your Position in the organization?

A. An owner-manager  B. A professional manager

5. If you are a paid professional manager: How many years altogether have you been in the service of the firm? \_\_\_\_\_ Years

6. What is your highest level of education?

A. First Degree  C. Diploma or TVET  E. Secondary   
B. Master's degree  D. Certificate  F. Elementary   
G. Read and write

If your education level is not included in the above levels, please write the highest grade level you have completed \_\_\_\_\_

7. Experience years \_\_\_\_\_

**SECTION-2: FACTORS AFFECTING THE PERFORMANCE OF SMALL and**

**MEDIUM ENTERPRISES:** The major factors that affect performance of SMEs are listed

below. Please indicate the degree to which these factors are affecting the performance of your business enterprise. After you read each of the factors, evaluate them in relation to your business and then put a tick mark (√) under the choices below.

<b>Where,</b>	<b>5 = strongly agree,</b>	<b>4 = agree,</b>	<b>3 = undecided,</b>
	<b>2 = disagree and</b>	<b>1= strongly disagree</b>	

1. Please indicate the degree to which you agree with the following statements concerning financial factors.

S.N	Financial Factors	5	4	3	2	1
1.1	Credit institutions are insufficient to access loans easily.					
1.2	We have no/poor cash management system.					
1.3	We experience frequent working capital shortage.					
1.4	We are required a high collateral from banks and other lending institutions.					
1.5	The interest rate charged by banks and other lending institutions is unreasonably high.					
1.6	The lending criteria of banks and other financial institutions is stringent.					

2. Please indicate the degree to which you agree with the following statements concerning management factors.

S.N	Management Factors	5	4	3	2	1
2.1	There is lack of clear division of duties and responsibility among employees in the firm.					
2.2	The communication in the firm is ineffective.					
2.3	The employee handling practice is inadequate and improper.					
2.4	There is lack of well trained and experienced employees.					
2.5	There is lack of strategic business planning in the firm.					

3. Please indicate the degree to which you agree with the following statements concerning marketing factors.

S.N	Marketing Factors	5	4	3	2	1
3.1	We have inadequate market access for my product/service.					
3.2	We have problems of formulating marketing strategy.					
3.3	We have lack of market information and demand forecasting practices.					
3.4	There exists fierce foreign and domestic competition.					
3.5	We have lack of promotion to attract potential customers.					
3.6	We have poor customer relationship and handling practice.					

4. Please indicate the degree to which you agree with the following statements concerning entrepreneurship factors

S.N	Entrepreneurial Factors	5	4	3	2	1
4.1	There is lack of motivation and self-drive of business owner.					
4.2	There is lack of initiative to take calculated business risk.					
4.3	There is lack of persistence and courage to take responsibility for one's failure.					
4.4	There is lack of initiative to assess one's strengths and weakness.					
4.5	There is lack of entrepreneurship training.					
4.6	There is lack of information to exploit business opportunities/ lack of benchmarking.					

5. Please indicate the degree to which you agree with the following statements concerning technology factors.

S.N	Technological Factors	5	4	3	2	1
5.1	There is lack of appropriate machinery and equipment.					
5.2	There is lack of skills to handle new technology.					
5.3	There is lack of capacity to deploy and use information technology.					
5.4	We are unable to select proper technology.					

6. Please indicate the degree to which you agree with the following statements concerning Politic-Legal factors

S.N	Politic-Legal Factors	5	4	3	2	1
6.1	The tax imposed on my business is not reasonable.					
6.2	There is bureaucracy in company registration and licensing.					
6.3	There is lack of government support.					
6.4	There exists political intervention and corruption.					
6.5	The implementation of government proclamation, regulations and directives related to my business operation is not uniform.					

7. Please indicate the degree to which you agree with the following statements concerning infrastructural factors.

S.N	Infrastructural factors	5	4	3	2	1
7.1	There is frequent electric power interruptions.					
7.2	The water supply system is insufficient and with frequent interruption.					
7.3	There is lack of business development services (supporting institutions).					
7.4	The transportation service are insufficient and not quick.					
7.5	There is lack of appropriate dry waste and sewerage system.					

8. Please indicate the degree to which you agree with the following statements concerning working place factors.

S.N	Working Premises Factors	5	4	3	2	1
8.1	We have no adequate own working premises.					
8.2	The current/existing working place is not convenient for running business.					
8.3	The rent of working premises we are requested to pay is too high.					
8.4	We are unable to access land for business expansion.					

### SECTION-3: PERCEIVED BUSINESS PERFORMANCE

1. Please indicate the degree to which the following statements concerning Performance of your business.

S.N	Performance Measurement	5	4	3	2	1
1.1	The growth of our business profit aren't satisfactory.					
1.2	Our capital isn't growing well as we expect.					
1.3	We aren't satisfied with the Growth in sales of my products and/or services.					
1.4	We aren't satisfied in our operational efficiency.					
1.5	The company employee loyalty and turnover is disappointing					

At last any comment you have please: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

*Thank you in advance for providing me your precious time!!*

## Annex B. Regression Tables

Correlations										
		FNF	MNF	MKF	EPF	TEF	PLF	INF	WPF	PFE
FNF	Pearson Correlation	1	.614**	.525**	.405**	.218**	.464**	.447**	.507**	.770**
	Sig. (2-tailed)		.000	.000	.000	.001	.000	.000	.000	.000
	N	239	239	239	239	239	239	239	239	239
MNF	Pearson Correlation	.614**	1	.391**	.248**	-.055	.368**	.424**	.507**	.665**
	Sig. (2-tailed)	.000		.000	.000	.397	.000	.000	.000	.000
	N	239	239	239	239	239	239	239	239	239
MKF	Pearson Correlation	.525**	.391**	1	.167**	.073	.428**	.308**	.330**	.584**
	Sig. (2-tailed)	.000	.000		.010	.263	.000	.000	.000	.000
	N	239	239	239	239	239	239	239	239	239
EPF	Pearson Correlation	.405**	.248**	.167**	1	.109	.004	.036	.058	.250**
	Sig. (2-tailed)	.000	.000	.010		.092	.946	.584	.376	.000
	N	239	239	239	239	239	239	239	239	239
TEF	Pearson Correlation	.218**	-.055	.073	.109	1	.032	.125	.173**	.202**
	Sig. (2-tailed)	.001	.397	.263	.092		.627	.053	.007	.002
	N	239	239	239	239	239	239	239	239	239
PLF	Pearson Correlation	.464**	.368**	.428**	.004	.032	1	.525**	.320**	.667**
	Sig. (2-tailed)	.000	.000	.000	.946	.627		.000	.000	.000
	N	239	239	239	239	239	239	239	239	239
INF	Pearson Correlation	.447**	.424**	.308**	.036	.125	.525**	1	.405**	.691**
	Sig. (2-tailed)	.000	.000	.000	.584	.053	.000		.000	.000
	N	239	239	239	239	239	239	239	239	239
WPF	Pearson Correlation	.507**	.507**	.330**	.058	.173**	.320**	.405**	1	.622**
	Sig. (2-tailed)	.000	.000	.000	.376	.007	.000	.000		.000
	N	239	239	239	239	239	239	239	239	239
PFE	Pearson Correlation	.770**	.665**	.584**	.250**	.202**	.667**	.691**	.622**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.002	.000	.000	.000	
	N	239	239	239	239	239	239	239	239	239

\*\*. Correlation is significant at the 0.01 level (2-tailed).

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.924 <sup>a</sup>	.854	.849	.1947523	.854	167.657	8	230	.000

a. Predictors: (Constant), WPF, EPF, TEF, PLF, MKF, INF, MNF, FNF

b. Dependent Variable: PFE

ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	50.872	8	6.359	167.657	.000 <sup>b</sup>
Residual	8.724	230	.038		
Total	59.595	238			

a. Dependent Variable: PFE

b. Predictors: (Constant), WPF, EPF, TEF, PLF, MKF, INF, MNF, FNF

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.322	.142		2.259	.025		
FNF	.184	.032	.238	5.775	.000	.374	2.674
MNF	.127	.027	.166	4.695	.000	.506	1.975
MKF	.108	.024	.137	4.468	.000	.675	1.481
1 EPF	.046	.022	.061	2.105	.036	.760	1.316
TEF	.061	.023	.072	2.648	.009	.859	1.164
PLF	.183	.025	.240	7.390	.000	.603	1.659
INF	.226	.027	.265	8.286	.000	.623	1.606
WPF	.109	.020	.171	5.366	.000	.624	1.602

a. Dependent Variable: PFE

**Collinearity Diagnostics<sup>a</sup>**

Mod el	Dimensi on	Eigenvalue	Condition Index	Variance Proportions								
				(Constant)	FNF	MNF	MKF	EPF	TEF	PLF	INF	WPF
1	1	8.855	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	.040	14.915	.00	.00	.01	.00	.43	.03	.02	.01	.12
	3	.030	17.149	.01	.01	.07	.01	.13	.43	.00	.00	.00
	4	.024	19.093	.00	.00	.00	.09	.02	.04	.14	.02	.50
	5	.016	23.629	.01	.01	.04	.69	.01	.01	.05	.13	.01
	6	.012	27.493	.00	.01	.57	.00	.22	.09	.22	.00	.30
	7	.010	30.053	.20	.34	.00	.11	.01	.11	.19	.10	.04
	8	.008	33.270	.11	.12	.12	.02	.00	.01	.30	.69	.02
	9	.005	41.446	.66	.51	.19	.08	.18	.27	.08	.05	.00

a. Dependent Variable: PFE

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.663774	5.269448	4.620921	.4623281	239
Std. Predicted Value	-2.070	1.403	.000	1.000	239
Standard Error of Predicted Value	.017	.067	.037	.008	239
Adjusted Predicted Value	3.670874	5.275638	4.619809	.4626075	239
Residual	-.6407928	.5901679	0E-7	.1914512	239
Std. Residual	-3.290	3.030	.000	.983	239
Stud. Residual	-3.331	3.140	.003	1.003	239
Deleted Residual	-.6566840	.6338226	.0011118	.1995474	239
Stud. Deleted Residual	-3.407	3.203	.002	1.010	239
Mahal. Distance	.866	27.443	7.967	3.932	239
Cook's Distance	.000	.081	.005	.010	239
Centered Leverage Value	.004	.115	.033	.017	239

a. Dependent Variable: PFE