

**Factors that Affect the Growth of Firms' and Employees Income**  
**(A case of Medium and Large Scale Manufacturing Enterprise in Kolfe**  
**Keranio Sub City, Addis Ababa)**

**A Research Project Submitted to the Department of Management in Partial**  
**Fulfillment of the Requirements for the Award of Degree of Master of**  
**Business Administration (MBA)**

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## ***Abstract***

*The paper investigates firms' growth status, firms' growth factors, employees' salary levels, and employees' salary growth factors in medium and large manufacturing firms in Kolfe Keranio sub city, Addis Ababa. The study includes 18 manufacturing firms and a sample of 252 employees engaged in 9 sectors was taken for the study using stratified and simple random sampling. After the data has been collected, it was analyzed using descriptive statistics (graphs, mean and standard deviations) to analyze the firm's growth status and employees salary level, whereas inferential statistics (multiple linear regression) was used to determine the firm and salary growth determinant factors. The results indicate that, the growth rate performance of sub sectors were weak compared to other developing countries. Firm and salary growth rates run in parallel, although the growth rate of an employees' salary is often higher than that of the firm's growth rate. The relationship between the age of a firm and its growth is found to be inverted U-shaped. Moreover, the growth rate of large firm's is higher than of medium firms. Finally, the results indicate that large firms pay a higher salary than that of medium firms; and also the employees' salary growth rate of large firms' is higher than that of medium firms. The empirical analyses using the multiple regression model, shows that, factors like a firm's age, firm size, level of education and the experience of firm leaders are the major determinant factors for the growth of firms, whereas employees level of education, business related experience and sex of employee were factors that influence income growth. A number of factors are identified that can be used to improve the firm and salary growth rates of employees. Improving the skill of entrepreneur and employee helps to have a better firm's and employee income growth.*

**Key words:** *firm growth, employee income growth, firm characteristics, individual characteristics, medium and large firms, Kolfe Keranio sub city.*

## **Acknowledgement**

Above all, the Almighty God deserves praise for his inexpressible gifts and love. I take this opportunity to express my indebtedness to all those who have extended their help so as to finalize my thesis. To begin with, my sincere appreciation goes to my principal and co-Advisor, D.R Rama Krishnan (PhD) and Emnet Negash (MBA) respectively, who have been very understanding, kind enough, and most importantly, very accessible to devote part of their precious time to respond to all my frequent inquiries from the inception to the end of my study.

My deepest gratitude goes to my family, especially Sajida Akmel, Kamil Lale, Zeynu Lale and Neja Lale. It would not be justified if I do not mention again and again the support of Sajida Akmel (my dear mother, you are so special). It could have been very tricky to bring my progress/success to where it is now, had it not been for the support I got from her. You are my special gift from God.

Finally, my warm thanks and love also go to my friend, Ato Fasil Damtew, management staff and Ato Abdul Kadir Jabir, accounting staff for their encompassing supports. In addition, my heartfelt gratitude also goes to the Ministry of Education for allowing me the scholarship to peruse my education at postgraduate level. I also appreciate Trade and Industry Bureau of Kolfe Keranio sub city for providing me the necessary information concerning medium and large manufacturing enterprises.

Hayru Lale Yesuf

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## Acronym

CIA	Central Intelligence Agency
CSA	Central Statistical Authority
EBDSN	Ethiopian Business Development Services Network
EEA	Ethiopian Economic Association
EPA	Environmental Protection Authority
EPRDF	Ethiopian peoples' Revolutionary Democratic Front
FDRE	Federal Democratic Republic of Ethiopia
GDP	Gross Domestic Product
IGR	Income Growth Rate
MIT	Ministry of Trade and Industry
MLSE	Medium and Large Scale Enterprise
MoFED	Ministry of Finance and Economic Development
MSEDA	Micro and Small Enterprises Development Agency
SDPRP	Sustainable Development and Poverty Reduction Program
SPSS	Statistical Package for Social Science

# CHAPTER ONE: INTRODUCTION

## 1.1. Background of the study

The role of manufacturing enterprises in employment and income generation is increasingly recognized in many developing countries, let alone functioning as a catalyst, agriculture failed to feed and sustain the rural population. This is because of the rapidly growing rural population, poor technology, lack of capital and unfavorable climatic conditions can be mentioned as factors contributing to its low performance. The consequence of such bad performance is an increasing pressure on infant cities of developing countries. In almost all developing countries, the rate of urbanization is exceeding the population growth rate, indicating rural–urban migration as a major factor for such an explosion (Belay, 2012: 1). This aggravates the urban unemployment of the countries; cities are not creating enough jobs and the rural sector is deteriorating.

Firms' growth becomes a pre requisite to reduce urban unemployment and urban managers therefore are confronted with such issues as ensuring job security, poverty reduction and economic growth (Belay, 2012: 1). Recently, a number of sub-Saharan African countries adopted poverty reduction strategies that mainly emphasize promotion of manufacturing firms as a major way to reduce poverty particularly among the urban dwellers (Gebreeyesus, 2007: 1).

According to the International Labor Organization report, (ILO, 2000) urban unemployment in Ethiopia was 24.7% showing the seriousness of the unemployment problem in urban areas. Besides, Ethiopia's Sustainable Development and Poverty Reduction Program (SDPRP) published in July 2002 by the Ministry of Finance and Economic Development, revealed that during the year 2008/09 the proportion of people who were absolutely poor in Ethiopia was 29.6%. The percentage of the population under food poverty in rural areas is about 30.4% where as the corresponding figure for urban areas stood approximately 25.7% (MoFED, 2009: 4).

Poverty reduction and sustainable development in Ethiopia require a transformation from reliance on a traditional agriculture to a rapid expansion of modern agriculture, agribusiness, and the manufacturing sector, which will create jobs for the urban unemployed, new entrants to the labor market and migrant workers from the rural areas. To this effect, the Government of

Ethiopia has taken a number of specific policy measures aimed at the creation of enabling environment for the revival and expansion of the private sector (FDRE, 2010: 2).

The current government, EPRDF, has been ruling Ethiopia since mid 1991 EPRDF follows a market-oriented economy. This policy has encouraged and promoted private investments throughout the country. As a result, many investors have invested their capital in different sectors in the country, including in the Kolfe Keranio sub city. These investors have created more job opportunities and generated substantial income to their employees; this has contributed to the improvement in the living condition of Ethiopia and the adjacent regions. This goes hand in hand with the central aim of the EPRDF government which is to increase employment and reduce poverty (Desta, 2010: 1)

The investment areas can be in any of the three sectors like agriculture, industry, service or any combination of them. These three sectors are the main components of the GDP of Ethiopia MoFED, (2009). The GDP shares of the agriculture, service and industry sectors in 2010/11 were 42%, 45% and 13% respectively; but as of 2011/12, the GDP shares of agriculture, service and industry sectors were 41%, 45.6% and 13.4% respectively. The share of GDP of the agriculture sector was fluctuating, but the share of GDP of the service and industry sectors increased (EEA, 2012: 11-16). The labour force occupation in agriculture, industry and service were estimated at 85%, 5% and 10% respectively (CIA, 2011: 5). These statistics suggest that the contribution of the industrial sector to Ethiopia's GDP and employment is minimal.

Though the contribution is minimal, many job opportunities were created in industrial sectors. For example, in 2011/12 fiscal year, there were 31,863 small scale manufacturing firms in Ethiopia; they created job opportunities for 97,781 persons. On average, each small scale manufacturing firm created job opportunities for 3 persons. In the same year, there were 1,733 medium and large firms, which created job opportunities for 98,986 employees; each medium and large firms has created job opportunities for 57 employees but, in the growth performance of industrial sectors; large and medium industries account 6% for the year 2011/12, whereas small scale industries were 6.5%. This shows the medium and large scale industries growth is weak as compared to small scale industries (EEA, 2012: 345-350).

Therefore, due to huge potential growth opportunity for manufacturing firms in Ethiopia and the government's commitment for its development (the newly developed growth and transformation plan), the study gives great help by identifying the major determinant factors for firm's and employee income in medium and large scale manufacturing industries towards the contribution of GDP and creation of employment opportunity.

## **1.2. Statement of the problem**

The welfare of a society depends upon the economic growth of their industries and their people. Through the creation of new firms and expansion of the existing ones, the economy generates new employment opportunities making possible a more prosperous life for the people. This importance of firms' growth urges politicians, economists and international development agencies to devote on substantial resources to the creation and implementation of programs that assist firms' growth of that economic prosperity is ensured. To bring economic prosperity through the channel of firm growth, the programs designed for the improvement of firm growth must be highly effective and efficient (Revista, 2007: 3-20). Firm growth being prerequisite for the growth of the economy through different channels, it is required to answer which factors affect firm growth in general and the growth of Ethiopian manufacturing firms in particular.

However, bringing industrialization and then enormous employment and prosperity of life is not simple and a onetime phenomenon. A critical development challenge of African economies is to increase the contribution of manufacturing to GDP and world export of manufactures. African manufacturing has not only lagged behind other developing regions, it has also fallen behind its own recent past on both counts (Admasu, 2006: 2). Small domestic market size and poor infrastructure have long been identified as major structural problems in African manufacturing. Recently explanations give reasons of volatile macroeconomic and political environment, and corruption in Africa that render the region's investment climate too risky for the private sector (Gebreeyesus, 2007: 2). This is a valuable insight from macro level explanation by assuming firms to respond as industry/country level incentives and shocks.

Currently, using the advantage of availability of micro data, the research work on the analysis of firm growth plays an important role in the performance and growth determinant at firm level. From a microeconomic perspective, the more continuously firms grow, the higher probability of

survival they have. Furthermore, firms with positive rates of growth will reduce unemployment via creating new jobs, and even push competition in the market. Besides, market concentration is influenced by firm growth in different cohort i.e. if small/large firms grow more quickly than large/small firms, market concentration will tend to diminish/increase. Growth at a high rate will increase the share of a firm and its competitiveness in the market. Therefore, analysis of firm growth in terms of evaluating factors affecting growth becomes extremely important in microeconomics. From a macroeconomic perspective, economic growth is mainly determined the firm's growth.

The population size of urban areas in Ethiopia is expanding. This is due to natural growth [the difference of death and birth rates] as well as migration from rural to urban due to searching of job opportunities. Addis Ababa being the premier city in Ethiopia has a high proportion of unemployed persons, which according to the 2010 Addis Ababa socio economic indicator was found to be 27.9 %. Particularly in recent years, the problem of unemployment is aggravated in the city of Addis Ababa because of rapid migration of people from various parts of the country and high natural growth rate of population. For this and other reasons including in adequate employment opportunities, the ability of the city economy to eradicate the unemployment problem and subsequent abject poverty is severely compromised. This calls for a policy adjustment that provide an enabling environment for business start up and job creation.

Along with wholesale and retail activity, manufacturing creates a number of job opportunities in urban areas. For example, as of 2006, about 22.7% and 15.3% employees were employed in wholesale and retail manufacturing sectors in urban Ethiopia respectively (CSA, 2006: 35). In addition, in 2009 about 20.3% and 18.5% urban employees were employed by wholesale and retail, and manufacturing sectors (CSA, 2009: 153-154).

For the sake of industrialization and creation of more job opportunities in the urban areas, giving due attention to manufacturing sector too is important; but note that giving attention to industrial sector doesn't mean ignoring the agricultural sector, which is the main stay of Ethiopians in general and Kolfe Keranio sub city in particular. Therefore, it is important to see how the manufacturing sector is growing in Kolfe Keranio sub city. That is, to know the employment condition in the urban areas of Kolfe Keranio sub city, understanding the growth status

manufacturing sector is important because employment can help poverty alleviation. Within this context, understanding the factors that can promote or constrain the growth of the manufacturing firms is vital. Moreover, from poverty alleviation point of view, the ultimate goal of employment should be linked with the welfare level of the poor. Hence, understanding the main factors that can increase the income of the employees is also raising interesting question.

### **1.3. Research questions**

1. To what extent the medium and large scale manufacturing sub sectors were growing in Kolfe Keranio sub city?
2. What are the firms' and individual characteristics that affect the growth of medium and large scale manufacturing enterprises in Kolfe Keranio sub city?
3. What was the relationship between firm growth and average annual salary paid by the medium and large scale manufacturing enterprises to their employees?
4. What are the firms' and individual characteristics that affect the income level of employees in the medium and large scale manufacturing enterprises in Kolfe Keranio sub city?
5. What are the possible solutions for the growth of firms' and employees income growth?

### **1.4. Objective of the study**

#### **1.4.1. General objective**

The overall objective of the study is to investigate factors that affect the growth of firms' and employee income in medium and large scale manufacturing enterprises in Kolfe Keranio sub city, Addis Ababa.

#### **1.4.2. Specific objectives**

- ☞ To assess the growth performance of medium and large scale manufacturing sub sectors in Kolfe Keranio sub city, Addis Ababa.
- ☞ To identify firm and individual characteristics that affects the growth of medium and large manufacturing enterprises.

- ☞ To examine the relationship between annual salary paid by medium and large manufacturing enterprise and the growth of the enterprise.
- ☞ To identify firm and individual characteristics that affects the income level of employees in medium and large scale manufacturing enterprise.
- ☞ To give possible suggestions for the growth of firms' and employees income growth.

## **1.5. Significance of the study**

The findings of this study have the following significances to policy makers, the incumbent, prospective firms and individuals in the following way:

Firstly, the government can develop a policy which can help to promote the growth of firms. That is, the government cannot intervene if there is no data that can show growth status of firms. If the firms are liquidated, because of lack of information and support of government, the socio-economic problems can be aggravated in urban Kolfe Keranio sub city. Moreover, government may not collect enough revenues in the form of employment income tax and profit tax. In addition, government can be forced to import goods that could be produced domestically; and this may need hard currency. All these problems can be created when there is no information about the growth status of firms. Hence, because of the availability of information about firms' growth status, government can intervene when necessary in order to protect the above stated problems.

Secondly, it gives a direction how the private and public large and medium scale enterprises are working and give an insight what must be done then to improve their performance and sustenance in the market.

Thirdly, potential investors can understand firm growth status of firms in Kolfe Keranio sub city. Hence, they can be encouraged to invest in the manufacturing sub-sectors that can maximize their benefits. If there are additional investors, employment, government revenue, outputs can be increased. But due to lack of such data, potential investors may not be attracted; as a result, the above stated potential benefits may not be realized. Hence, understanding the firm growth status is important for many stakeholders.

Fourthly, using the thesis result, concerned bodies can better understand the average salary of employees who work in medium and large manufacturing firms in Kolfe Keranio sub city. Moreover, the gender-salary gap, the firms which pay high and low salaries, etc can be checked from the analysis result. The determinants of the employees' salary growth can be traced from the thesis result. Hence, employees can understand the requirements they must fulfill so that to earn higher salaries. Generally, the findings of the thesis can be used by different bodies may be for different purposes.

Finally, there is very limited research output and literature regarding strategic orientation of Medium and large scale manufacturing enterprises in Ethiopia. Academics, consultants, and government agencies may therefore use the study as a stepping-stone for further study in the area at an advanced level. Both graduate and undergraduate students may find the study relevant for their academic work. The findings may also be considered as important additions to the existing knowledge and literature in the area for the public at large.

## **1.6. Scope of the study**

The study is limited to medium and large scale manufacturing enterprises in kolfe Keranio sub city, Addis Ababa. The largest portion of population suffers in Kolfe Keranio sub city, which is one of the ten sub cities of Addis Ababa. Hence, many people from different parts of the nation migrate in search of employment opportunities or to start a business. Factors that promote or constrain firms' and employees' income growth are classified in to three groups: (1) firm characteristics, (2) individual characteristics, and (3) contextual factors.

Therefore, only the firm and individual characteristics that can affect firm and income growths are investigated, other factors were not; they are controlled. The study includes firms and employees older than three years, as of December 2013. In order to identify the sector is growing or not, the average annual growth rate as unit of measurement whereas, the annual income of employee's is stated in gross; it is not net income to measure growth performance.

## **1.7. Definition of term and concept**

### **a. Definition of medium and large enterprises**

Size of employment, capital investment or turnover is used as criteria to categorize enterprises along scales of operation and define micro, small, medium and large enterprises. This categorization is important for functional and promotional purposes to achieve the desired levels of development. In the case of Ethiopia, there is lack of uniform definition at the national level to have a common understanding of the micro and small enterprise sector. While the definition by Ministry of Trade and Industry (MoTI) uses capital investment, the Central Statistical Authority (CSA) uses employment and favors capital intensive technologies as a yardstick (EBDSN 2009:1).

According to the new MSED (2011:27 ) in Ethiopia, the working definitions of enterprises based on the capital and labor force, medium and large enterprise can be defined as an enterprise having the number of employees more than 30 and with capital of exceeding Br 1,500,000 for manufacturing and Br 500,000 for service sector.

- b. Basic salary – refers the regular payment made every year, which excludes commissions, bonuses, professional and hardship allowances.
- c. Sole proprietorship- is a firm owned by single individuals.
- d. Share company- a business whose capital is held in transferable shares of stock by its joint owners.
- e. Private limited company- is a type of incorporated firm that offers limited liability to its shareholders and may sell shares to the public.

## **1.8. Limitation of the study**

The firms growth status and growth determinant factors of enterprises were calculated and recommended based on the data collected from them, but there are firms who were unwilling to provide the necessary information. Due to such limitation of the study, the determinant factors for firms growth that shown in the output of the study may not give a confidence to generalize as a factor for all firms.

The analysis result shows that there is wage gap between male and female employees; the male employees get higher salary than of females. Experiences and education levels are not the main reasons for the income gap. Moreover, the type of profession can be a reason for the gender-income gap. Hence, the main reason for the gender-income gap and the salary difference even in the same gender is not investigated fully. As a result, it may not give concrete and enough information about the reason for income gap of employees.

In addition, lack of previous research experience in the study of factors that determine the growth of firm' and employees income may limit the researcher to accomplish the study as expected.

### **1.9. Organization of the paper**

The paper is organized under five chapters. The first chapter is the introduction part, deals with the general aspect of the study, which includes background to the study, statement of the problem, research objectives, significance of the study, scope and limitations of the study, and organization of the research report. The second chapter is exclusively devoted to the review of related literature on the need to identify critical determinant factors. The third part deals with the methodology part of the paper and it encompasses the study design, sampling technique and, data collection techniques and method of data analysis Chapter four deals with data analysis and presentation of the findings of the study. The last chapter, chapter five, presents the conclusions drawn from the findings, the recommendations made to address the problems uncovered, and the implications of the findings for future research, practitioners, government and other support agencies. All the reference materials used in the study are listed. Finally, background of the study and summary of empirical findings were attached in annex 1.

## **CHAPTER TWO: REVIEW OF RELATED LITERATURE**

### **2.1. Theoretical frame work**

According to Indarti & Langenberg, (2004: 3), firms' and employees' income growth factors are classified in to three groups: (1) firm characteristics, (2) individual characteristics, and (3) contextual factors. While the firm characteristics include firm age, firm size and the like, individual characteristics include variables like age, gender, work experience, education, etc.

#### **2.1.1. Firms characteristics**

Gibrat's law, which is known as stochastic model, assumed that; initial firm size and age cannot be determinants of firm growth; the probability of proportionate change of firms during given time is similar for all firms regardless of firm size and age. Bechetti & Travato (in Laursen, et al., 2000: 1) argued that growths of firm can be stochastic or deterministic; while majority of the firm growths are occurred randomly, startup capital and research developments can determine firms' growth. Moreover, firms' growth is not only determined by observable variables, like location, type of industry, size, or capital; they are also determined by unobservable variables like capacity of management and employees of the firm Jensen & Robert (in Laursen, et al., 2000: 1). Older firms thus have longer-tenure workers, and they are likely to have workers with more overall experience as well. While there is much inter-firm mobility, many workers eventually stay with one firm for much of their work life (Hall, 1982: 716-724). Among observable indicators of worker quality, experience and tenure with the firm are the most obviously related to firm age. Those working for newly-established firms cannot have high levels of tenure.

#### **2.1.2. Individual characteristics**

There are three theories of firm growth: theories of firm and entrepreneur, theories of entrepreneurial choice and theories of stages of development, (Papadaki & Chami, 2002: 4-17). In static theory, managerial ability is a key factor for firm growth; managers with better capacities can be efficient; this can lead to better firm growth Lucas (in Papadaki & Chami, 2002: 4). But firm expansion can limit efficiency of firm, which can reduce firm growth; hence,

managers are required to delegate authorities to capable workers of the firm. In addition to the capacity of the manager and delegation to subordinates, the willingness of managers to take risk during uncertain condition is a factor for firm growth; firms with risk taker leaders can grow better than of firms led by risk averter leaders Kihlstrom & Laffont (in Papadaki & Chami, 2002: 5). The above argument doesn't assume that the capacity of people [managers] could be improved through time; the capacity of people is assumed static. It assumes that capable managers are born. But the firms life cycle of Jovanovic (in Papadaki & Chami, 2002: 5), which depends on learning process, assumes that individuals can learn from their practices through time; this assumes that leaders can be made. Experiences can help to boost the productivity and efficiency of a firm. But the growth of older firms is less than of younger firms. This can happen because the experienced managers can predict precisely which can reduce variability; but, because the predicting capacity of less experienced variables is low, the variance between prediction and the reality can be high which lead to high change in growth Jovanovic (in Rizov & Mathijs, 2003: 229). As a result, the growth rate of older firms is lower than of younger firms. Ericson, et al. (in Rizov, & Mathijs, 2003:229) assumes that efficiency can be realized through human capital formation. But formation of human capital is not easy with in short time; it needs long time to bring difference in efficiency (Rizov, M and Mathijs, E, 2003: 229). Moreover, Jovanovic argues that the growth of surviving younger and small firms is better than of older firms.

According to Ericson (et al., 1998: 1-8) the theoretical models of industrial revolution predict that, small firms die more often than their large counterparts in the same industry. On the other hand, as time goes by, firms would acquire competitive skills and the risk of failure begins to decline. From these models we understand that initial size and age are important predictors of firm survival. On the other hand, the business strategy literature suggests that small firms do not need to grow in size in order to survive.

In the entrepreneurial choice theory, firm growths also depend on the psychological makeup of the entrepreneur; those entrepreneurs who are willing to grow can grow better than of unwilling entrepreneurs Davidson (in Papadaki & Chami, 2002: 6). Davidson also indicates that small business owners are not willing to grow though there is a room for growth; this implies that large firms can grow better than of small ones. Thus, Davidsson argues that growth is a choice of the

owner-manager and that profit maximization is only one of the possible motives for business growth.

The theories of Churchill & Lewis (in Papadaki & Chami, 2002: 7), which is called theories of stage of development; assume that firm's grow step by step. In this theory, there are five stages: existence, survival, success, take-off and growth; in the take-off stage, firms can grow when the owner of the firm is able to hire additional workers and delegate authority to subordinates. In addition, in the take-off stage, there is need of enough financial resource which can help to satisfy demands of customers.

The fact that established firms are more likely to survive has other implications, both for wage levels and for the slope of the wage-tenure profile. Established firms, with more secure survival prospects, would be more likely to honor and so be able to make greater use of these implicit contracts. Once again, this would make the wage-tenure relationship steeper and average wages higher (since these contracts lead to greater effort by workers). Firms whose likelihood of survival is high offer more firm-specific training, which would make wages rise more rapidly with tenure and raise the average level of wages, (Brown & Medoff, 2001: 9). Firms encourage worker effort by promising higher future wages to workers who work harder now, but that these implicit contracts are compromised if the firm has a high discount rate which tempts the firm to renege. Manufacturing plants that have been in business longer are less likely to close, show that older firms are less likely to fail (controlling for plant and firm size, respectively). An emerging literature suggests that older firms pay higher wages, even after other relevant firm characteristics are held constant and, (Davidson, et al., 1991: 404-429), also find that older manufacturing plants pay higher wages, and age remains a statistically significant determinant of wages once industry and size are held constant. Therefore, older manufacturing plants pay higher wages to their production workers, controlling for size, industry, and region, whether or not one controls for the probability the plant will close.

### **2.1.3. Contextual factors**

Business environment is divided in to two: internal and external environment. While the internal environment is under direct control of the firm management, the external environment is beyond the direct control of a given firm management. Here, the contextual factor is related to external

environment variables. According to Story (in Desta, 2010: 18), the contextual factors are like marketing, technology, information access, capital access, social network, legality, government support, etc. Boddy (2008: 93-101) has divided the external environment into competitive and general environment. As the author stated, the competitive environment has direct and immediate pressure on a given firm; but the general environment doesn't have direct and immediate influence on the performance of a given firm. The elements of the competitive environment are like new competitors, substitute products, bargaining power of buyers and suppliers, and rivalry level of existing firms. Moreover, the author indicated that political, economic, socio-cultural, technological, environmental and legal are elements of the general environment that can affect performance of a given firm.

## **2.2. Empirical findings**

Because the thesis investigates how firm and individual characteristics influence firms' and employees' income growth, the influences of the contextual factors on firm and employees' salary are not analyzed. As a result, empirical findings in relation to contextual factors are not discussed. The summaries of findings were attached in annex 1.

### **2.2.1. Factors that promote or constrain firm's growth**

#### **2.2.1.1. Firm characteristics**

##### **i. Firm age and growth**

The relationship between the age of a firm and its level of growth is reciprocal. Indeed, there are empirical findings which suggest that the relationships between firm age and firm growth can be positive, negative or both. Some authors indicate that firm age and growth rate are negatively correlated. For example, (Goedhuys & Sleuwaegen, 2009: 15) found that younger firms grow better than older ones. (Liedholm, 2001: 11), found that firm age and the growth of firms are inversely related. (Gebreyesus, 2007: 6), indicated an inverse relationship between firm age and growth. Their findings suggest that younger firms grow faster than older ones. Based on the study in Ethiopia, the growth of firms less than five years old is two times and four times of the growth of firms between the ages of 6 and 12 years as well as between 13 and 29 years respectively.

On the other hand, there are a number of researchers who find that the age of a firm and its growth rate are positively correlated. For example, (Indarti & Langenberg, 2004: 4) found that the “length time in operation may be associated learning curve. Old players most probably have learned much from their experiences than have done by new comers.

(Bigsten & Gebreeyesus, 2007: 813-840), found no linear relationship between the age of a firm and firm growth. At the early period, there is inverse relationship; in the middle, the relationship is constant [for most periods]; finally, the relationship turns to positive as the firm gets older. Moreover, Indarti et al. (2004: 11) did not find significant relationship between firm age and its growth. Therefore, the relationship between firm age and growth can be positive, negative or booth.

## **ii. Firm initial size and growth**

The initial size of the firm has an inverse relationship with a firm’s growth. That is, initially small sized enterprises have better opportunities to grow than initially large established (Esteves L.A., 2007: 3) and (Coad, 2007:15). On the other hand, different authors argue that firm size is positively correlated to firm growth. (Coad and Tamvada, 2008: 7), indicates that “firms that enter small often remain small, because they face formidable barriers to growth. With this regard large sized firms grow better than the smaller ones. The startup size of the firm is contributes positively for the growth of the enterprise.

The stylized fact of firm size has been found in the industrial economic literature. Small firms grow relatively fast since they have to achieve a minimum efficient size (Audretsch, et al., 2004: 415-433). Similarly, (Yasuda, 2005: 1-15) finds a negative effect of firm size on firm growth in the case of Japanese manufacturing firms. Other studies which incorporated different countries and industries also indicate a negative effect of size on firm growth (Almus, M & Nerlinger,E, 2000: 1-12) and (Calvo, 2006:117-123). In this regard, the study found that small firms grow better than larger ones.

### **iii. Source of capital and access to credit**

The availability of financial resources is crucial for business operation and to the growth of firms. These sources of the capital can be either internal or external. While the internal sources can be one's own savings, the external financial sources includes like financial institutions, traders, individual money lenders, or money from friends, relatives, and families.

Researchers indicate that firms based on external finance grow better than non-external financed firms. For example, the growth of external finance user firms in Brazil, (Saeed, 2009: 131-143) indicated that access to external finance is an important element for growth, though the internal source of finance is also important. Gebreeyesus (2007:16) argues that firm growth is positively correlated with external source of finance (trade credit and other informal sources of finance).

The larger or more profitable firms are likely to have access to a larger pool of earnings that can easily be reinvested in the firm (Okoh & Song, 2000: 15). On the other hand, small firms that are profitable can reinvest retained earnings but are less likely to get access to a broader set of credit instruments, especially from the formal financial market. Explanation for this goes to inadequate collateral, lack of a significant credit history and inadequate equity capital on their balance sheet Liedholm, (2001: 11), which is a serious barrier to accessing credit by small manufacturing firms that might have been indispensable for their growth and expansion. This shows that access to credit is crucial for the growth of firms.

Compared to small firms, medium and large firms in Ethiopia typically have enough financial resources or properties that can be used as collaterals (Saeed, 2009: 132). The findings of Indarti et al. (2004: 11) indicate that the growth of entrepreneurs whose sources of finance from families is better than those who obtain other sources of finance. Firms with sources of capital from family are better than any other. This suggests the importance of external sources of capital for firm growth.

### **iv. Type of ownership and firm growth**

There are a number of different firm ownership styles including proprietary and partnership. Ownership structure has an effect on a firm's growth. Typically, the growth of enterprises owned

by single individuals [sole proprietor] is better than owned by many [partnership] (Coad & Tamvada, 2008: 12).

### **2.2.1.2. Individual characteristics**

#### **i. The education level of firm leaders and firm growth**

The study found no evidence to support a common perception linking formal higher education with higher incidence of business success and growth. In fact, Indarti & Langenberg (2004: 4) founded that, though completion of secondary education is highly correlated with business growth, graduate or post-graduate education does not affect the growth prospect of a business. Some authors argue that secondary education is better for a firm's growth, whereas others argue that tertiary education is better. The findings show that the role of education level on firm growth can be different from place to place. For example, Goedhuys and Sleuwagen (in Belay, 2012: 40), argue that higher education not only raises enterprise performance, but also increases outside options such as wage employment. The authors found that, for Côte d'Ivoire, lower education and vocational training significantly influenced the likelihood of being entrepreneurs rather than wage employees. Higher education was found to influence post-entry firm growth.

There is negative relationship between education level and the ambition to grow (Welter, 2001: 91-147). Though, an entrepreneur with more knowledge is able to make good use of opportunity and resource, more knowledge can also make him/her slow in decision making. An empirical study based on a large longitudinal data set indicates that education and experience affect growth only when accompanied by growth motivation (Wiklund & Shepherd, 2003: 1911-1941). They argue that although highly educated entrepreneurs might be slow in decision making, they are able to make rational decisions which leads to actual firm growth. Therefore, education levels of firm leaders are important to business success, especially completion of secondary and higher education.

#### **ii. Experience/training of firm leaders and firm growth**

The growth of a firm owned by entrepreneurs who have related experience is better than the growth of firms owned by less experienced entrepreneurs (Nichter & Goldmark, 2005:15) and

(Gebreeyesus, 2007:14). The growth of firms owned by people who have pre establishment experience was better than firms owned by entrepreneurs who had no pre establishment experience.

The entrepreneur's experience with industry and any prior entrepreneurial experience have a positive impact on firm performance. (Delmar & Shane, 2006: 215-247), found that entrepreneurial experience and experience with related industry does matter to venture success. Dahl and Reichstein (in Belay, 2012: 41) in a study of the Danish labor market from 1989-2000 noted that, not only was the level of industry experience important but also is the type of spin-off likely to emerge. Spin-offs were defined as firms founded by individuals, which were employed by an incumbent firm in the industry immediately prior to founding the new firm. Dahl and Reichstein found that spin-offs entrepreneurs from surviving parents were more likely to survive and become successful compared to entrepreneurs from exiting parents companies. It has been argued that prior experience in surviving parents facilitates access to knowledge and routines. Thus, the performance of parent firms influences entrepreneurs when they found their new ventures implying not only the effect of industry-experience but also the source of such experience on business success. Specific industry experience is also an important factor of venture success as entrepreneurs directly apply their previous knowledge, networks, routines and all other resources on their venture after start-ups (Baum, et al., 2001: 292-303). Previous entrepreneurial experience provides tacit knowledge of organizational routines and skills by which they know how to find required resources and how these resources can be appropriately utilized for current business. This implies the importance of the right type of experience than just experience from the industry.

Nichter and Goldmark (2005: 15) argue that on-the-job training within the same sector is crucial for the growth of a firm. Moreover, Liedholm (2001: 11) argues that the capacity gap of owners can be filled by having skilled workers. Gebreeyesus (2007: 17) on the other hand found that vocational training was not a significant factor for a firm's growth in Ethiopia. Hence, we can conclude that industry experience has a positive influence on firm growth.

### **iii. Gender of firm owners and firm growth**

Researchers have suggested a number of reasons why female-headed firms grow less. For example, (Liedholm, 2001: 12) add that discrimination against females can be the reason for less growth of their firms. Women may also be more family oriented and be less keen in pursuing economic goals related to expansion of the firm (Brush, 1992: 5-30). Moreover, (Gebreeyesus, 2007:14), also argues that the growth of female-headed firms' can be slow because they have double jobs [home and business] that can dilute their efforts in their business. According to ILO (2004) firms owned by women grow slowly than of males because most of their businesses are located in households with less access to market. Moreover, Nichter & Goldmark, (2005:17) the income generated from such firms is used for household purpose that can slow down growths of firms owned by women. Mead and Liedholm (in Belay, 2012:39) argue that, women entrepreneurs are involved in a narrow range of activities that yield low profit. In their analysis on selected five African countries, they found that female operators were less likely to survive compared to their male counterparts. However, the difference was nullified when business failure was taken into account as a factor explaining closure. The authors observed that women entrepreneurs closed their business not because their businesses failed, but largely due to other household responsibilities. Taking this into account, they found no significant difference between male and female entrepreneurs in terms of closure rates. As a result, the female headed firms cannot be productive.

There is some evidence that banks may impose more stringent requirements on women business owners in regard to collateral for loans, and therefore limit their ability to grow (Riding & Swift, 1990: 5-18). Female had a negative impact on the growth of small ventures but had no impact on the survival of the firm (Cooper, et al., 1994: 371-395). We conclude that male- headed firms grow better and productive than female-headed ones.

### **iv. Age of entrepreneur and firm growth**

Age of the entrepreneur is among the most discussed determinants of entrepreneurial success. It has been argued that younger entrepreneurs possess a higher growth ambition compared to older entrepreneurs and that growth ambition drives success Welter (in Belay, 2012:39). The author

argues that younger entrepreneurs are energetic, determined and willing to test their abilities and hence possess greater growth goals compared to older entrepreneurs.

It is also suggested in the literature that younger individuals may be more willing to assume risks and grow their business. Following Davidsson's argument, a younger individual may have a higher need for additional income. The burden of supporting a family and meeting mortgage payments generally declines with age. An older individual who continues to be the owner manager of a small firm is more likely to have reached his/her initial aspirations. However, while younger individuals have more motivation to expand their business they also may have fewer financial resources and fewer networks. The limited empirical evidence suggests that the owner-manager's age tends to be negatively related to growth (Davidson, 1991: 405-429). Hence, firms owned by younger individuals are more likely to grow than older individuals.

### **2.2.2. Factors that influence the salary of an employee**

There are a number of factors that affect the salary level of an employee. Some of the factors may include firm age and size, entrepreneur sex, level of education, training, and experience. These factors are discussed below:

#### **i. Firm size and wage**

There is positive relationship between firm size and wage; as the firm size increases, wage increases (Soderbom, et al., 2002: 1). They indicate that African manufacturing firm's growth and wage level are positively correlated. Using individual fixed effects to take into account unobservable worker characteristics, they find that large firms pay about 13% more than smaller firms or that the wage increases of about 2% when the size of the firm doubles (Ponte Pietro Bucci Cubo, 2012: 13). Comparing estimates in pooled models with fixed effects estimates, they show that about one-half of the observed firm size wage differentials in pooled data with individual controls are not caused by unobserved individual abilities but are true firm size effects.

On the other hand, (Soderbom, et al., 2002: 1) indicated that a firm's growth is positively correlated with the skill of the employees. This implies that as long as there are skilled

employees, there is firm growth; as long as the firm grows, it requires skilled workers, and the skilled employees can get higher salary as compare to less skilled employees (Muravyev, 2007:2). Therefore, we conclude that large sized firm pays higher wage than small, even if it depends on the skill of employees.

## **ii. Firm age and wage**

Soderbom, et al (2002: 1) indicated that a change in income correlates positively with a change in a firm's age. (Brown & Medoff, 2001: 9) argue older firms pay higher wages than newly established firms. The survival rate of older firms is better than of new ones. This implies that older firms pay higher salary than new ones.

According to Brown and Medoff (2001: 22) indicate that younger firms are more vulnerable to liquidation than older firms. If the firms are liquidated, employees of such firms can be jobless for short or longer periods; as a result, the livelihood of the workers can be harmed. Hence, to attract capable workers and compensate potential closings, newly established firms are forced to pay higher wages than older ones. The reverse is true for older firms; the survival rate of older firms' is better than of new ones. Hence, because of job security, employees are more likely to work at such firms even at lower wage. Moreover, older firms pay fringe benefits like pension and insurance, which can compensate the reduction in wage; such benefits attract high-wage workers. The authors indicate that fringe benefits are not common to newly established firms. Hence, based on the above arguments, the researcher understands that the firm age and wage are negatively correlated.

The most comprehensive study to date on the relationship between firm age and wage is Brown and Medoff (in Fredrik, 2006: 2). Using survey data for the US on about 1,000 individuals, they find that observable worker characteristics fully explain the firm age-wage premium. Controlling a set of employee characteristics, Brown and Medoff report that relationship between age and wage is negative over much of the firm age distribution. Their tentative conclusion, given the limited sample, is that the relationship between firm age and wages is U shaped. This indicates that, the newly established firms pay higher wages at the very beginning; then after the introduction of fringe benefits, the firm age-wage relationship being inverted; the wage level

falls as the age of firms increases; and finally, due to requirement of skilled labor and/or profitability, the older firm pay higher salary for their workers.

### **iii. Gender and wage level**

Different studies show that males get better wages than females even if both genders have similar capacity. For example, based on their studies in Kenya and Ghana, Soderbom, et al., (2002: 1) indicated that female workers are paid less than male workers. (Mumford & Smith, 2004: 5) based on their study in Britain, show that the “female hourly earnings are on average 26.5% below male average hourly earnings.” In Shanghai, (Xiao, 2001: 73-110) found that male workers get 6.6% more than of females. In general, this implies that gender affects the level of income of employees. But there is also empirical evidence that shows that the wage gap is expressed more in terms of the education level of workers; (Jellal, 2009: 3-4) has indicated that there is similarity in wages in lower jobs.

Generally, there are some sources of gender-wage earning gap, like the expected productivity level, exclusion of females from ‘male’ jobs, discontinuous participation of females, and training level. According to Jellal (2009: 3), indicate that firms pay wage to their workers based on the expectation in productivity of their workers. Here it is assumed that males are more productive than females, which leads to wage differences. Moreover, Jellal indicate that the exclusion of “females from male jobs” has increased the supply of females in the labor market, which aggravate the wage gap of females; more females compete for fewer jobs, which can lead them to lower wages. In addition, the “discontinuous participation” of females in work has also contributed for the wage discrimination. This implies that females may not work continuously due to maternal leave, child care, etc, which firms may dislike.

The other author (Chiswick, 2003: 8) adds that females are not interested to take more training, because the probability of dropping out from labor force is high due to ‘child rearing’, and domestic work. Because of the likelihood of discontinuity of females, firms may not be willing to give ‘firm specific training’ for their female workers. This implies that, under normal circumstances, as a result of the low investment in training, female workers can be less capable

which results in them being susceptible to low incomes. This indicates gender income gap, that males earn higher wages than females.

#### **iv. Education and wage level of workers**

There is an assumption that education improves the capacity of people, which can lead to better income. Different authors argue that the level of wage increases as the level of education goes up. For example, (Dumont, 2008: 26) in Belgium from the Structure and Distribution of Earnings Survey show that in the period 1999-2004 gross monthly wages were highly correlated with the level of education. The relationship between wages and the level of education suggests decreasing marginal returns to education up to the first stage of tertiary education and an increasing marginal return between this level of education and the second stage of tertiary education (i.e. mainly Ph.D.). The wage growth of higher educated workers is better than of the lower educated ones.

But the finding of Xiao (2001: 98) doesn't support the above ideas; based on her study in Shanghai, she found that education level had a major role in raising the mean wage of employees, but not on wage growth rate. According to her assessment, firms do not consider the education level in increasing wage level of employees at a later stage; the education level has a positive impact on deciding the wage level at the early stage. Generally, education has a positive contribution in raising the level of income of employed people.

#### **v. Training and wage**

It is generally acknowledged that training adds some capacity to trainees. Hence, as training increases, the working capacity of people increases, which can lead to better income. As there are different types of training, it is better to know the type of training that can increase capacity and therefore income.

According to Brown & Medoff (2001: 28) founded that firm's specific-training increases, when the survival rate increases; such types of training help to increase the wage level of employees. Training is an important tool to improve productivity and the living standard of countries. But all people may not get the same opportunity for training. (Mumford & Smith, 2004: 5), adds that,

during the introduction of new technologies firms give more training to better educated workers. (Almeida-Santos, 2006: 2), such training leads to better positions, higher wages and further training; moreover, this reduces employee turnover of more skilled and educated workers. This implies that more educated workers benefit from training.

The amount of money invested for training and income generated from employment are positively correlated. For example, from her study in Shanghai, Xiao (2001: 99) has found a positive relationship between on-the-job training and wage growth. Her finding shows that manufacturing workers get about 0.90% wage increment from every on-the-job training practice. This implies that more educated people invest much money for training and are therefore about to increase their earnings.

On the other hand, Brown and Medoff (2001: 28) indicated that less skilled and less educated workers do not get as much training and these types of workers are vulnerable to continued low income and an increase probability of unemployment. As a result of the lack or insufficient training, the less educated workers may not be capable enough to increase their productivity level; because of this, firms may not pay enough money for such workers that can help them to stay long in the same firm. As a result, employee turnover and unemployment of less skilled and less educated persons can increase.

#### **vi. Experience and wage**

There are three types of experiences: experience within firm [tenure], sector specific experience, and general experience. While the 'tenure' shows loyalty of a worker for one organization [firm-specific], the 'sector-specific experience' shows the work experience of workers in the same industry [similar firms], but not limited to specific firm. On the other hand, the 'general experience' refers experience of workers outside of the industry.

Sector-specific experience and general experiences have a better impact on wage changes [within job] for more educated workers than for less educated ones (Connolly, H, and Gottschalk, P, 2006: 16). Comparatively, the returns for sector specific and general experiences are greater than of experiences to specific firm. Finally, the contribution of work experience on income decrease

as age increase (Mumford & Smith, 2004: 9). This implies that the earnings increase as working experience increases, but at diminishing rate when workers are getting older.

### 2.3. Conceptual frame work

Based on the above review of related literature (both theoretical and empirical literatures) the researcher has developed the following conceptual framework for the purpose of analysis. As stated above, both firm growth and employee salary level determined by individual characteristics, firm characteristics and contextual factors. However, this particular study was emphasized on firm's growth on the income of employees generated with firm and individual characteristics. Therefore, the finding depends on the relationship and outputs of the independent and dependent variables.

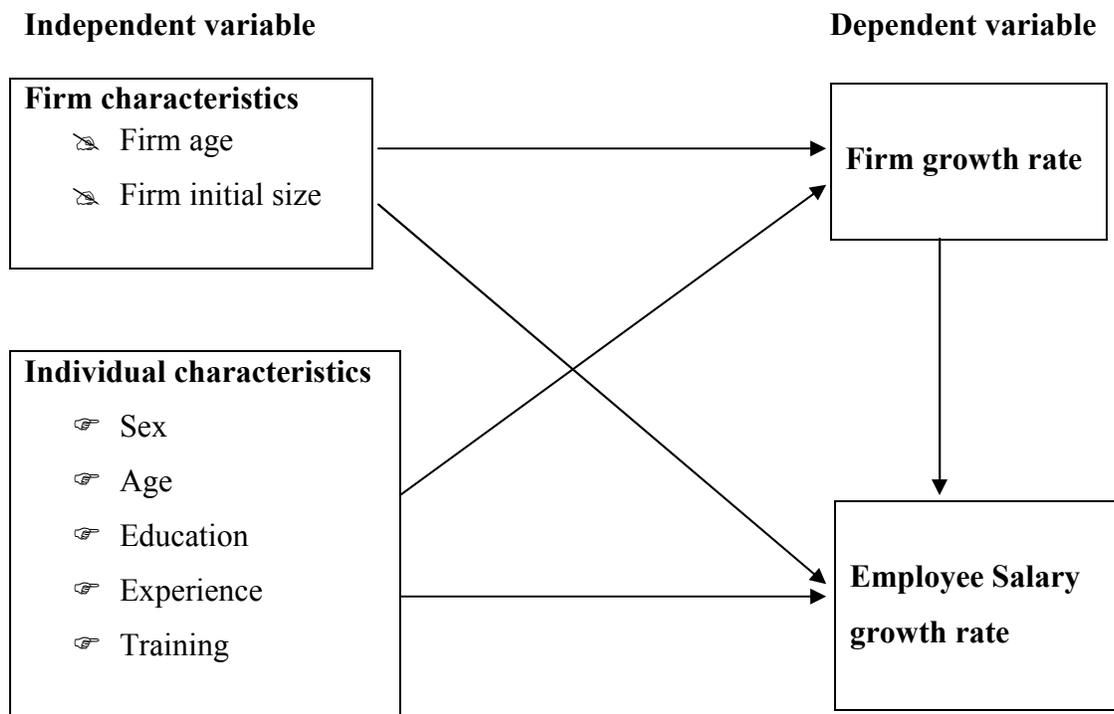


Figure 2. 1: Relationship between independent and dependent variables

## **CHAPTER THREE: METHODOLOGY OF THE STUDY**

In this part, the following methodological issues were addressed. Points that have been incorporated are study design, sampling techniques and size determination, data collection techniques, and method of data analysis and model.

### **3.1. Study design**

The study used survey design method that involves sampling. Survey design is more appropriate to this study which incorporates questionnaire. This survey study employs only quantitative approaches to capture the wider data for the purpose of deep analysis and understanding the effect of medium and large scale manufacturing firm's growth on employee's income.

### **3.2. Sample size and Sampling technique**

The target populations of this study are the medium and large scale manufacturing firms located in kolfe Keranio sub city.

#### **3.2.1. Sample size**

##### **a. Sample size of firms**

There are 22 medium and large scale manufacturing enterprises located in Kolfe Keranio as per the report from ministry of trade and industry bureau, Kolfe Keranio sub city. From these enterprises, two of them were unwilling to provide the necessary information and the other two firms stop their operation, the remaining 18 firms were included in the study.

##### **b. Sample size of employee**

The study of the population consisted of 2830 employees who are working in nine (9) key different sectors of medium and large manufacturing enterprises in Kolfe Keranio sub city, Addis Ababa. From this population, 252 employees were selected as a sample for the study.

### 3.2.2. Sampling technique

The medium and large manufacturing enterprises located in Kolfe Keranio with a paid up capital of more than 1,500,000 Ethiopian birr were included in the study. In order to select employees, who are employed in these sectors, stratified sampling was used in which the 9 key sectors of employees engaged taken as strata so as to give equal chance to each of the sectors. From each stratum, samples were selected using simple random sampling since medium and large enterprises in same category have similar characteristics and operate under similar environment. But from each stratum, proportionate sample size was taken based on the formula shown below. First, sample size for the population of medium and large scale is determined (Cochran, 1963: 53-57) and (Isral, 1992: 39) as follows.

$$n = N / (1 + N(e)^2) \text{ and } n = 2830 / (1 + 2830(.06)^2) = 252$$

Where, n is the sample size of the population of medium and large scale employees, N is the total population and e is margin of error (6%). The following table summarizes the total population in each sector and the corresponding sample taken from each sector.

**Table3.1: Summary of employee’s population and sample taken**

Sub sector	Population/strata	Number of firms	Proportionate sample size from each stratum
Leather	184	1	16
Shoes	350	2	31
Plastic	850	4	76
Soap and detergent	359	2	32
Textile	211	2	19
Food processing	257	3	23
Printing	76	1	7
Bottle and glass	308	1	27
Wood and metal	235	2	21
<b>Grand total</b>	<b>2830</b>	<b>18</b>	<b>252</b>

Source: Klolfe Keranio Ministry of Trade and Industry Bureau, 2013

### **3.3. Data type and collection method**

Both primary and secondary sources of data were used for the study. Primary data was providing empirical data collected through administration of structured questionnaires. The questions were kept short and language used was as simple as possible to encourage legibility and maximize the response rate. The sources of primary data were firms/owners of medium and large scale enterprises and employees who are employed in the enterprises. The secondary source of data was collected from various sources to complement the survey-based analysis mainly from different reports, websites and literatures, which are relevant to the study. The list of medium and large manufacturing firms in Kolfe Keranio sub city was gathered from the Kolfe Keranio bureau of industry and trade.

### **3.4. Firms growth measurement tool**

In the study of firm growth; different researchers use different parameters. Some of the parameters are: number of employees, sales volume, asset, profitability, return on investment, market share, etc.

But, most of the authors come with same measuring parameters. For example, according to Bridges et al. (2003:272), mostly growth of enterprises is measured by employment level. Furthermore, employment growth of enterprises to indicate firm's growth and using annual average growth rate as measurement parameter is important (Gebreeyesus, 2007: 7). The study also uses the AAGR as a firm's growth measurement tool.

The average annual growth rate (AAGR), which is the average increase in the employment over the years since start up measured in percent, is calculated as:

$$[(\text{Current employment} - \text{initial employment} / \text{initial employment}) / \text{firm age}]$$

### **3.5. Method of data analysis and the model**

After the data collected concerning the effects of firm's growth on the income of their employees, quantitative method of data analysis were employed. In order to simplify further tasks and maximize data accuracy, the data collected via questionnaire were coded and filled

with EpiData 3.1, was analyzed by using statistical package for social science (SPSS) version 16. To this end a mix of descriptive statistics and econometrics analysis was used.

### **3.5.1. Descriptive statistics**

The growth rates for 18 manufacturing firms are assessed based on their average annual growth rate, but the employee's income who are working in this sector were calculated based on their annual salary from 2011-2013. Moreover, the data of 2011 is used as a base year to calculate the income growth rate of 2012.

### **3.5.2. Econometric analysis**

In the studies of growth, researchers often used different kinds of econometric models to estimate significant factors for growth. Linear regression models are extremely powerful, and have the power to empirically test out very complicated relationships between variables. Generally speaking, the technique is useful, among other applications, in helping explain observations of a dependent variable with observed values of one or more independent variables. A key feature of all regression models is the error term, which is included to capture sources of error that are not captured by other variables.

#### **3.5.2.1. Multiple linear regression (MLR) analysis**

Multiple linear regression (MLR) analysis is a method used to model the linear relationship between a dependent variable and two or more independent variables. The dependent variable is sometimes also called the predictand (response variable), and the independent variables are called the predictors (explanatory variables). A function of the analysis is to search for predictor variables that help to explain significant variation in the response variable. If a number of significant predictors can be identified, then a decision-maker can manage risks and maximize the odds of favorable outcomes.

Multiple linear regression analysis was chosen because of the growth of medium and large manufacturing firms and employees income used as the dependent variable and takes as a continuous measure. Therefore, for the analysis of determinant factors of firm's and income

growth, multiple linear regression models is used to identify the relationship between dependent and independent variables.

### 3.5.2.2. Model specifications

The model expresses the value of a response variable as a linear function of one or more predictor variables and an error term:

- i. Firm growth determinant factors

$$Y_{it} = \alpha_i + \sum X_{it}\beta + \varepsilon_{it}$$

Where

$Y_{it}$  - is the growth of the firm's at different times

$\alpha_i$  - constant term for 'i' individuals

$\beta_i$  - is the coefficient each explanatory variables

$X_{it}$  - are the explanatory variables

$\varepsilon_{it}$  - is the error term of individual factors at different time

Specifically, the estimated equation in the analysis of the determinants of growth in this study is as follows.

$$EGTH = \alpha_i + \beta_1 (EAGE) + \beta_2 (SEX) + \beta_3 (EDUC) + \beta_4 (EXPR) + \beta_5 (SIZE) + \beta_6 (FAGE) + \beta_7 (OWN) + \beta_8 (TWON) + \varepsilon_{it}$$

- ii. Employees' income growth determinant factors

$$Y_i = \alpha_i + \sum X_{it} \beta + \varepsilon_{it}$$

Where

$Y_i$  - employees' salary growth at different times

$\alpha_i$  - is the constant term for 'i' individuals

$\beta_i$  - is the coefficient of each explanatory variable

$X_{it}$  - are the explanatory variables

$\varepsilon_{it}$  - is the error term

$$SGTH = \alpha_i + (+ \beta_1 (SEX) + \beta_2 (EDUC) + \beta_3 (EXPR) + \beta_4 (SIZE) + \beta_5 (FAGE) + \beta_6 (TWOR) + \varepsilon_{it}$$

**EGTH:** Annual average growth rate in employment for the  $i^{\text{th}}$  firm.

**SGTH:** Average annual salary growth rate for  $i^{\text{th}}$  employees.

**SEX:** Sex or gender of the entrepreneur. (Dummy variable 1, if the respondent is male and 0 if female).

**EAGE:** The age of entrepreneurs. Entrepreneur age is the number of years of existence since birth. (1 for below 20 years, 2 for 21-30 years, 3 for 31-40 years and 4 for above 41years old).

**EDUC:** Highest level of education of the entrepreneur. (Indicator variable 1 for illiterate ,2 for completion of elementary education, 3 for completion of secondary high school ,4 for diploma holders and 5 for first degree and above)

**EXPR:** Availability of related work experience of the entrepreneur. (1 for below 5 year, 2 for 6-10 year, 3 for 11-15 year and 4 for above 16 years).

**FAGE:** The age of the firm. Firm age is defined as the absolute number of years of existence since start-up. (1 for below 5 year, 2 for 6-10 year, 3 for 11-15 years and 4 for above 16 years old).

**SIZE:** The initial size of the enterprise measured in paid up capital during start up. (1 if the firm is large and 2 if the firm is medium).

**TOWN:** Technical training assistance for the owner or manager for the last three years at the time of the study. (Dummy variable 1 for the availability of continuous training for the owner or manager from formal institutions for the last three years at the time of the study and 0 if continuous training is non-existent)

**TWOR:** Technical training assistance for workers for the last three years at the time of the study. (Dummy variable 1 for the availability of training for the work force for the last three years at the time of the study and 2 if training is non-existent).

**OWN:** The formal legal establishment of the firm. (Dummy variable 1, for sole proprietorship, 2 for Share Company, 3 for private limited company, and 4 for firms owned by other forms).

### **Assumptions**

- ➡ The relationship between the dependant variable and the predictors is linear.
- ➡ The explanatory variables in income growth are not correlated each other; if they are not correlated, it is possible to say that there is no multicollinearity. But, in firm growth age of the entrepreneur and business related experience were correlated each other.
- ➡ The normal curves for firm and income growth determinant factors are shown on annex 2. Both curves indicate that the distributions of the error terms are normal.
- ➡ The variance/covariance matrices of variables are homogeneous across groups.

### **3.5.3. Validity and reliability instruments**

#### **3.5.3.1. Validity**

Validity is the degree to which a test measures what it purports to measure (Ahmed, 2007: 93). Validity is defined as the accuracy and meaningfulness of the inferences which are based on the research results. It is the degree to which results obtained from the analysis of the data actually represents the phenomena under study. Ahmed contends that the validity of the questionnaire data depends on a crucial way of the ability and willingness of the respondents to provide the information requested.

A pilot study was conducted to refine the methodology and test instrument such as a questionnaire before administering the final phase. Questionnaires were tested on potential respondents to make the data collecting instruments objective, relevant and suitable to the problem. Issues raised by respondents were corrected and questionnaires were refined. Besides, proper detection by an advisor was also taken to ensure validity of the instruments. Finally, the improved version of the questionnaires were printed, duplicated and dispatched.

### 3.5.3.2. Reliability

Before proceeding to the next statistical analysis, the reliability of the items of the patient satisfaction questionnaire was checked to see whether the questions chosen are consistent with one another. When we have tested and retested we need to look at how strong the relationship is between the scores on the instrument at the two time points. The reliabilities of the variables (data) were checked against the recommended standards (Cronbach's alpha  $\geq 0.70$ ) mainly to ensure that they are reliable indicators of the constructs (Muijs, 2004: 73).

Thus, the Cronbach's alpha calculated for all items confirms that, the items identified as a measures of firm's growth score a Cronbach's alpha of 0.71 and income growth of employees scored a Cronbach's alpha of 0.75, which is consistent enough to adequately represent the firms growth of medium and large scale enterprises and income growth of employees.

**Table 3.2: Reliability statistics of firm growth**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.713	.716	9

Source: SPSS output, 2013

**Table 3.3: Reliability statistics for income growth**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.753	.752	10

Source: SPSS output, 2013

## **CHAPTER FOUR: RESULT AND DISCUSSION**

This chapter deals with presentation and analysis of the data which have been obtained through questionnaire that involves the growth status of medium and large sub sectors, the determinant factors for firms growth, the relationship between firms and salary growth and employees salary level and growth determinant factors. This chapter presents the main body of the paper. To achieve each specific objective of the study, the data obtained from survey are analyzed using different methods of analysis. Descriptive statistics is used mainly to demographic characteristics, growth status of sub sectors and salary growth level of employees but, a combination of both descriptive and inferential statistics is used to identify firm and salary growth determinant factors.

Out of 252 questionnaires distributed to the respondents a total of 233 were collected which accounted 92% of response rate. Among the questionnaires distributed, 19 (8%) of the respondents fail to return the questionnaire. Due to demanding the representativeness of the sample size for the total population, the uncollected questionnaires were replaced from the questionnaires distributed as a contingency

### **5.1. Results of descriptive statistics**

#### **5.1.1. Demographic profile of the respondents**

According to the survey result of the researcher, there were 107 male respondents and 145 female respondents who participated in the study totaling 252 respondents. From this, female respondents account 42.4% whereas male respondents account 57.6%.

As indicated the table below 4.1, the age group has been categorized into four. The cross tabulation result shows, the age group those who distributed below 20 years of age account .4% for both males and females. From the age group 21 to 30 consists of 21% males and the remaining 32.5% females, 31 to 40 years of age account 12.3% males and 15.6% females and the last group is those operators whose age category is above 41 years, which constitute 8.7% male and 9.1% female operators. When we see the aggregate number of operators in the sector, female operators have the highest proportion as compared to male operators, whose proportions are 55.6% and 45.4 % respectively. From the given analysis, we can generalize that most of the

medium and large scale manufacturing enterprise operators were found in economically active working category.

The educational qualification of respondents, those who were reading and writing accounts 2.4 %, for both males and females. From the level of education, 1-8 grades consists of 0.8% males and 10.3% females, 9-12 grade account 8.7% males and 25% females. Almost 21.4% males and 13.9% females were those certificates/ diploma holders and the last level of education were employees who have first degree and above, which constitute 9.1 % of males and 6% of females. From the given analysis we can conclude that, male employees were higher in tertiary education levels than of females.

With regard to business related experience of the respondent, those who have 1-5 service year operation accounts 7.9% males and 15.1% females. The respondents who were 6-10 constitute 11.1% males and 25% females. The next proportions of respondents account 10.7% males and 11 .9% females who had 10-15 year service operation. The remaining 12.7% males and 5.6% females constitute those who had above 16 year service operation. Therefore, male respondents have greater and gave more service year operation than females.

**Table 4.1: Demographic profile of the respondent**

<b>1. Age</b>	Male		Female		Total (%)
	Number	Percent	Number	Percent	
Below 20 year	1	.4	1	.4	.8
21-30 year	53	21.0	82	32.5	53.5
31-40 year	31	12.3	39	15.6	27.8
Above 41 year	22	8.7	23	9.1	17.8
<b>Total</b>	<b>107</b>	<b>42.4</b>	<b>145</b>	<b>57.6</b>	<b>100</b>
<b>2. Level of education</b>					
Reading and writing	6	2.4	6	2.4	4.8
1-8 grade	2	.8	26	10.3	11.1
9-12 grade	22	8.7	63	25.0	33.7
Certificate/diploma	54	21.4	35	13.9	35.3
First degree and above	23	9.1	15	6.0	15.1
<b>Total</b>	<b>107</b>	<b>42.4</b>	<b>145</b>	<b>57.6</b>	<b>100</b>
<b>3. Experience</b>					
Below 5 year	20	7.9	38	15.1	23
6-10 year	28	11.1	63	25.0	36.1
11-15 year	27	10.7	30	11.9	22.6
Above 16 year	32	12.7	14	5.6	18.3
<b>Total</b>	<b>107</b>	<b>42.4</b>	<b>145</b>	<b>57.6</b>	<b>100</b>

### **5.1.2. Growth status of medium and large manufacturing sub sectors**

The firm's of the city who are engaged in different business operation were asked about the type of sector in, and those who are operated the same business were grouped together and coded as follows.

**Table 4.2: Code of sub -sector**

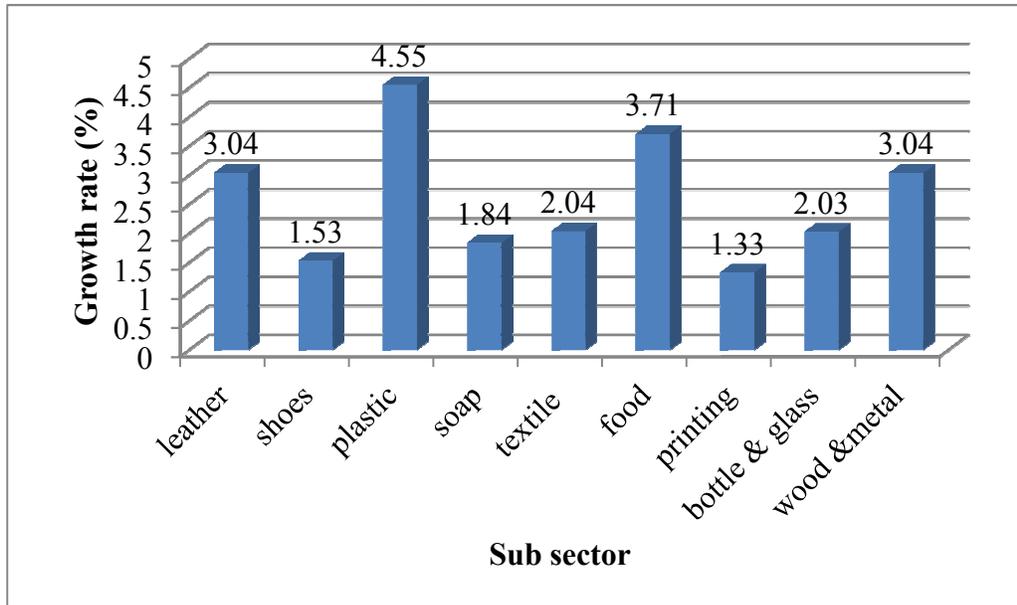
<b>Name of sub sector</b>	<b>Code of sub-sector</b>	<b>Name of sub-sector</b>	<b>Code of sub – sector</b>
Leather	1 or SS1	Food processing	6 or SS6
Shoes	2 or SS2	Printing	7 or SS7
Plastic	3 or SS3	Bottle and glass	8 or SS8
Soap and detergent	4 or SS4	Wood and metal	9 or SS9
Textile	5 or SS5		

Source: own survey, 2013

The growth rate of each firm were calculated and added together based on the type of business in which they are operated in order to identify which firm and individual characteristics affects firms' growth. Whereas the annual salary of employee from 2011-2013 was used to identify the relationship between salary growth rates and individual determinant characteristics.

To calculate the firm's growth rate, the start up and current employees is used in order to get the average annual growth rate of each sub sector. As a result the annual average growth rates of all sub sectors were positive, ranging from 1.3% to 4.6%.

The result indicates that there are sub sectors which showed good performance compared to other sectors in the study. For example the average annual growth rates of plastic, food processing, wood and metal and leather were 4.6%, 3.71%, 3% and 3% respectively, but there are sub sectors which are showing low performance like textile, bottle and glass, and soap and detergent, which account 2%, 2%, 1.8%, respectively, but the rest two sectors printing and shoes account the least average annual growth rate of 1.53% and 1.33% respectively.



Source: own survey, 2013

Figure 4. 1: Growth rates of firms by sub sectors

Growth performance varied across the sampled medium and large manufacturing enterprises which are located in Kolfe Keranio sub city. Most firms grew an average of 3% and 2% average annual growth rate. The maximum annual average growth rate is 4.6% while that of the minimum average annual growth rate is 1.3%. For instance, the manufacturing firms in Botswana, Lesotho, Swaziland and Zimbabwe have grown by 8.4%, 5.9%, 6.6% and 7.4% of annual average growth rates respectively (Menlik Kefale and K.P.M Chinan, 2012: 24). Therefore, the mean annual growth rates (2.8%), indicate that overall growth performance is weak compared to other developing country experiences on the same growth measures.

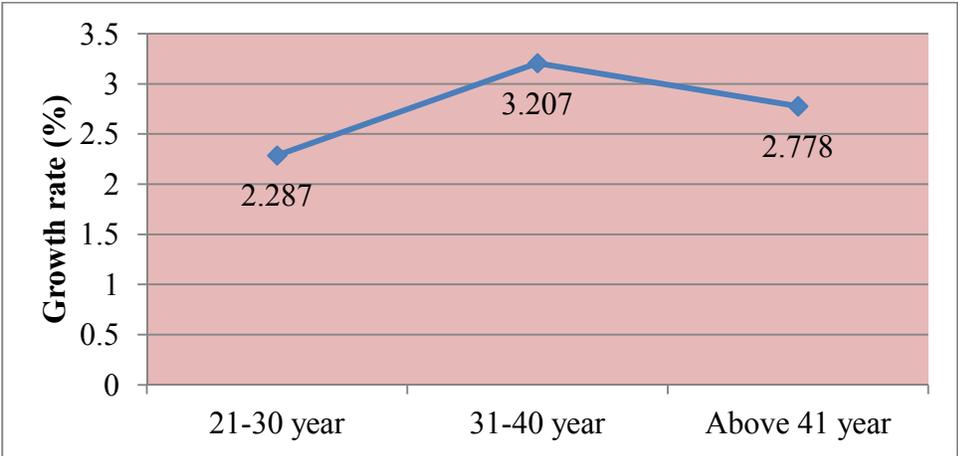
### 5.1.3. Growth determinant factors of medium and large manufacturing firms

There are different variables that affect the growth level of manufacturing firms but, the study focuses on the internal factors that determine firm's growth. The effect of firm age, the initial size of firms, the level of education of firm leaders, the experiences of firm leaders, sex of firm leaders, and the ownership type of the firms are some of the influential factors. Each of these factors is separately investigated in the analysis that follows descriptive statistics and

significance test. The data used in this section is the average annual growth rate of firms to reflect which firms and individual characteristics affect the growth of firms.

### 5.1.3.1. Entrepreneur age and firm growth rate

Age of the entrepreneur is an important factor, for it has something to do with entrepreneurial success through its effect on growth ambition, determination and willingness to test abilities. Different individuals with different age groups can join similar work environment. Therefore, entrepreneurs with similar age group can be grouped and the different growth rates were calculated in order to identify weather they have a positive or negative relationships.



Source: own survey, 2013

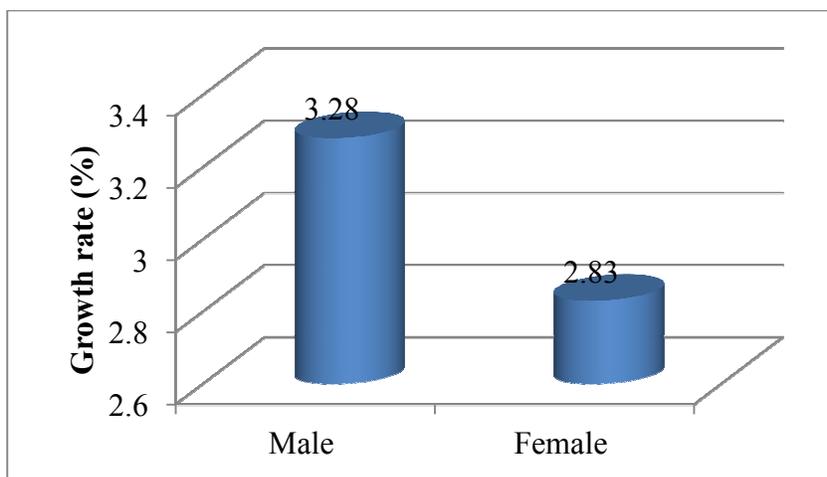
Figure 4.2: Firm growth rates by age

As it is presented in Figure 4.2, the researcher divided entrepreneurs' age into three age groups ranging from 21 to above 41 years, in order to identify age growth relationship. Accordingly, 3.2% of average annual employment growth generated from entrepreneurs under the age of above 31-40 years old, whereas, 2.77% of average growth rate were registered from entrepreneurs at the age group of above 40 years old. The remaining age group between 21-30 years old account 2.3% of average annual employment. This shows that the average annual growth rate increase at an increasing rate when entrepreneur's age up to 40 years old and it starts to declines when it reaches to maximum. Reynolds et al.(in Desta, 2003: 22) indicate that entrepreneurs with age of 25-44 are found to be more successful than other entrepreneurs, while

studies in Indonesia and Ethiopia couldn't find a significant relationship between the age of an entrepreneur and a firm's level of growth (Indarti et al., 2004: 11; Gebreeyesus, 2007:14).

### 5.1.3.2. Firm Sex and growth rate

Sex of the entrepreneur also has an effect on enterprise success in many ways such as through bearing family responsibilities, growth ambitions and location of the enterprises. In this regard the medium and large manufacturing firm leaders were grouped in to male and female, who are operating in Kolfe Keranio sub city.



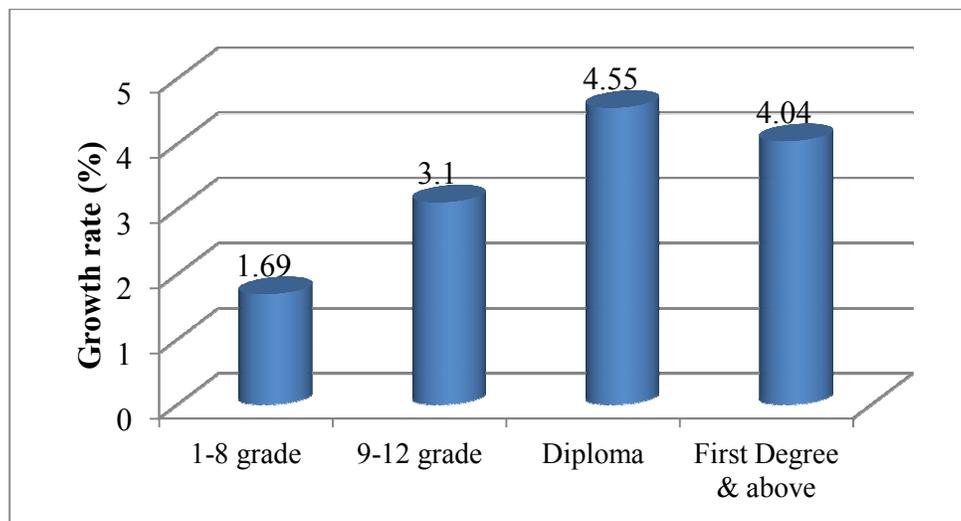
Source: own survey, 2013

Figure 4. 3: Firm growth rates by sex

As one can see from the above figure 4.3, the largest growth rate registered from male headed enterprises accounting for 3.3% but, those female headed were 2.8%. This shows that male headed enterprises are more productive than female headed ones. This is similar to the findings of (Gebreeyesus, 2007:14) and (Liedholm, 2001:12) which argues that the growth of female-headed firms' can be slow because they have double responsibility [home and business] that can dilute their efforts in their business.

### 5.1.3.3. Level of education and firm growth rate

As stated in the literature part, one of the factors of business survivability is educational background of the entrepreneurs. More educated owners seem to have a better chance for business success than younger and less educated people. One might expect that formal education urge the growth of medium and large manufacturing enterprise by providing greater chance to learn production process, product design, and technical knowledge to increase their flexibility. There are believes that older people bring more maturity to a situation and those with more education and experience. With regard to this issue entrepreneurs were asked about their education level.



Source: own survey, 2013

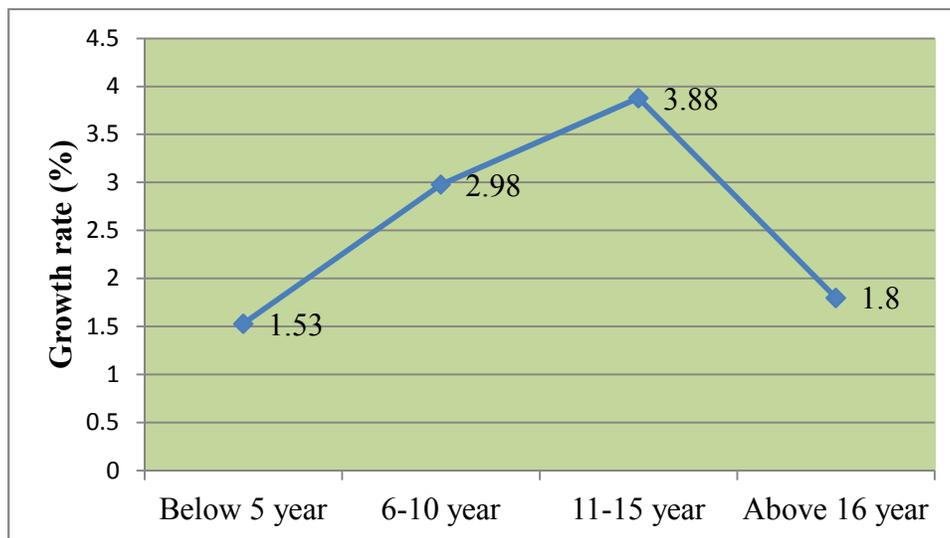
Figure 4.4: Firm growth rates by level of education

As Figure 4.4 indicates, the average Annual growth rates of firms are influenced by the education level of the leaders of the firms. For example, the growth rates of firms which are led by diploma/certificate holder leaders were 4.6% followed by first degree and above which is accounting 4% but, the education group of entrepreneurs of primary and high school leaders constitute 3% and 1.7%. The results also indicate that the growth rates of firms who have tertiary education are greater; but the growth rate of firms led by leaders with a high school education level is low. Therefore, there is a positive relationship between entrepreneurs education level and

firms growth rate. Goedhuys and Sleuwagen, 2009: 15), argue that higher education not only raises enterprise performance, but also increases outside options such as wage employment.

#### 5.1.3.4. Experience and firm growth rate

Indeed, the difference in firm performance emanates out of the human capital which is productive both in managing and in working for others, and which can be acquired most effectively by working initially as an employee and it has a positive impact to start the business of their owns. Skills are invaluable and ingredients helping the businesses to win the game of competition through smoothly working to achieve their objectives to be mutually benefited with customers. Therefore, entrepreneur's who have previous business related experience were identified to understand skill growth relationships.



Source: own survey, 2013

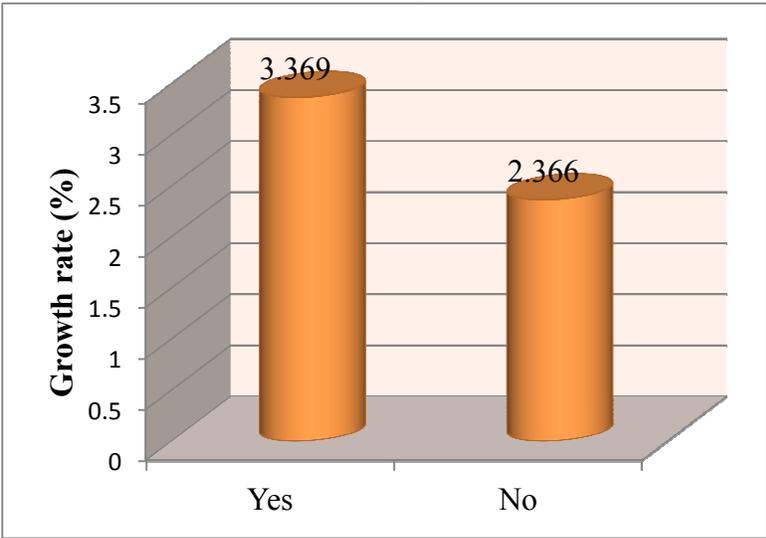
Figure 4.5: Firm growth rates by business related experiences

Figure 4.5 indicates that 3.9% of average annual growth rate of firms led by leaders influenced by who had 11-15 years experience but, the average annual growth rates of firm leaders who had 6-10, above 16 and below 5 years experience were 3%, 1.8% and 1.5%, respectively. As a result the above figure indicates that the firm growth rate increases at an increasing rate up to 15 years internal service and founds to be positively correlated, but it declines after it reaches maximum.

This is consistent with the finding of (Baum, et al., 2001: 292-303), specific industry experience is also an important factor of venture success as entrepreneurs directly apply their previous knowledge, networks, routines and all other resources on their venture after start-ups.

**5.1.3.5. Training and firm growth rate**

Training is a process of acquisition of concepts, skills and changing of attitude of employees or employer systematically to achieve their goal and having knowledge to accomplish effectively and efficiently (Nichter & Goldmark, 2005:12).



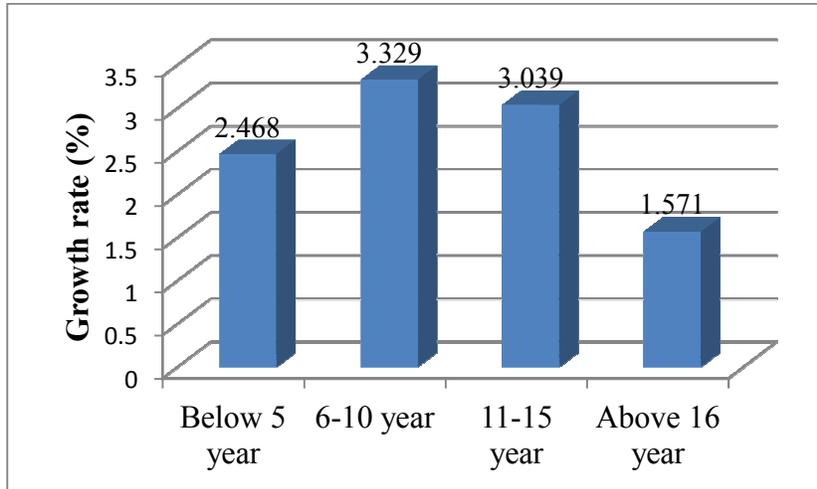
Source: own survey, 2013

Figure 4.6: Firm growth rates and training

Figure 4.6 indicates that entrepreneurs were asked about their business related training which is relevant to run their operation. The firm leaders which acquire training for the last three years were created an average employment of 3.4% but, those who have not obtained training accounts for 2.4%. As a result there is a positive relationship that exists between the firm’s average annual growth rate and training. (Nichter and Goldmark, 2005: 15) argue that on-the-job training within the same sector is crucial for the growth of a firm.

### 5.1.3.6. Firm age and growth rate

The manufacturing firms were grouped in to four age groups; they were: below 5 years; 6 -10 years; 11 -15 years; and above 16 years. In each instance firms with similar age groups are identified and grouped together; then the growth rate for each age group is done using statistical tools.



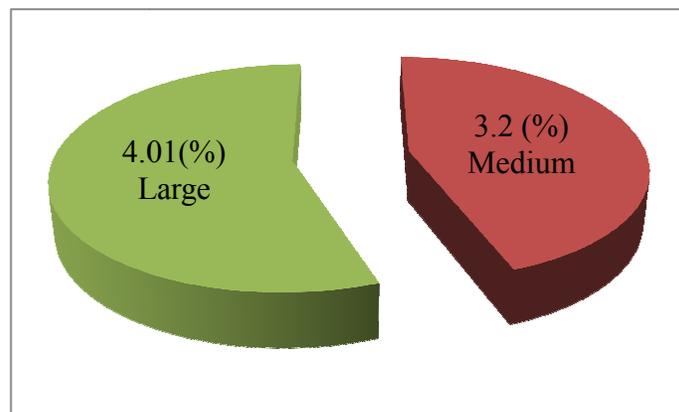
Source: own survey, 2013

Figure 4.7: Firm growth rates by age group

Figure 4.7 indicates that, on average, the annual growth rate of firms with 6 -10 years of operation were higher than the other years, which account 3.3%, followed by 3% who were 11<sup>th</sup>-15<sup>th</sup> years of operation but, firms with 5 and fewer years old operation were 2.5%, which is greater than above 16 years old. Starting with the 11<sup>th</sup> operation year however, the annual growth rate decreases at a decreasing rate. It is important to note that younger established firms grow better than older firms. As a result there was a negative relationship between firm age and growth rate. (Gebreeyesus, 2007: 7), (Liedholm, 2001: 11) and (Goedhuys, M & Sleuwaegen,L, 2009: 15) indicated an inverse relationship between firm age and growth, suggest that younger firms grow faster than older ones.

### 5.1.3.7. Initial firm size and growth rate

Whilst Ethiopia does distinguish between micro, small and medium enterprises using paid up capital, there is no clear distinction between medium and large enterprises. In order to differentiate between medium and large enterprises, the study used the median capital as a benchmark. Accordingly, the median capital of all firms is 8,479,281 birr. Firms with initial capital of less or equal to the median are classified as medium manufacturing firms; firms are classified as large if their initial paid up capital is more than 8,479,281 birr. Using these method 12 firms was assigned as medium firms; and the remaining 6 firms were classified as large.



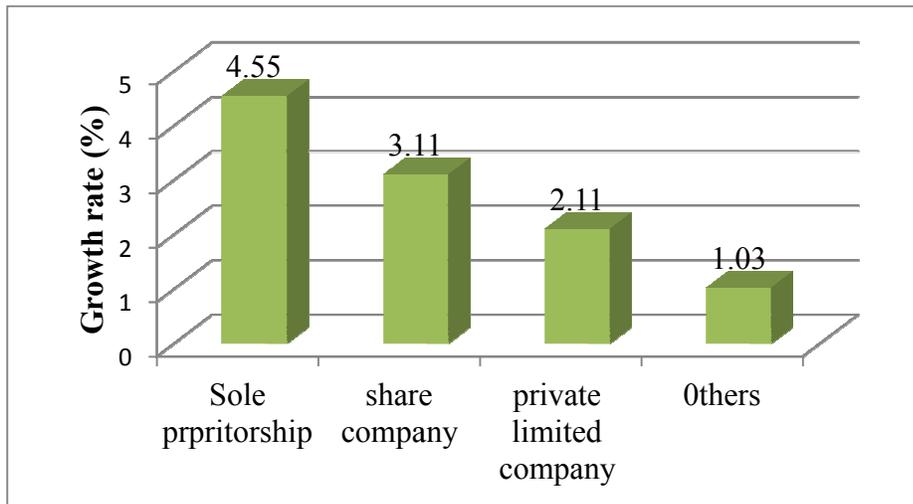
Source: own survey, 2013

Figure 4.8: Firm growth rates by initial firm size

Figure 4.8 indicates that the growth rate of large firms is greater than the growth rate of medium firms. The average annual growth rate of large and medium firms were 4% and 3% respectively. From the result, it is possible to conclude that firm's growth rate correlates positively to the firm size. This finding is similar to (Goedhuys, 2002:15); (Esteves L.A., 2007: 3); and (Coad, 2007:15), who argue that there is positive relationship between firm growth rate and firm size.

### 5.1.3.8. Legal ownership status and growth rate

Enterprises are created having different legal ownership statuses such as Sole ownership, Joint ownership, private limited company, public enterprise and others. The following figure shows the firms' legal ownership status.



Source: own survey, 2013

Figure 4.9: Firm growth rates by type of ownership

As you can see from the above figure 4.9, the average annual growth rate of firms owned by sole proprietorship were 4.6% followed by share companies 3% and private limited company 2%. This indicates that the sole proprietorship form of ownership is better than other forms and provides the best growth rate. This is similar to the findings of Coad et al. (2008:12) who argue that the growth of enterprises owned by single individuals [sole proprietors] is better than of others.

#### 5.1.4. Employee's salary level and growth status

The salary levels and salary growth determinant factors of employee was done using SPSS version 16. In this study, the term 'income' is equivalent to 'salary'. Please note that one US Dollar is equivalent to approximately 18 Ethiopian birr. The annual income represents annual gross salary of each employee. If anyone wants to know the net income of employees, he/she can divide the annual income by 12 months and deduct the personal income tax; the income tax is calculated using the following tax rates shown on Table 4.3 below.

**Table 4.3: Personal income tax rate**

Employment income (per month)		Tax rate (in %)	Deduction in Eth birr
Over Eth birr	To Eth birr		
0	150	Exempted threshold	
151	650	10	15
651	1400	15	47.5
1401	2350	20	117.5
2351	3550	25	235
3551	5000	30	412.5
Over 5000		35	662

Source: Kolfe Keranio Ministry of Finance and Economic Development, 2013

Using data from 2011 to 2013, the annual average salary level and growth rate of employees is analyzed for the workers of all firms in order to identify firm and income growth relationship.

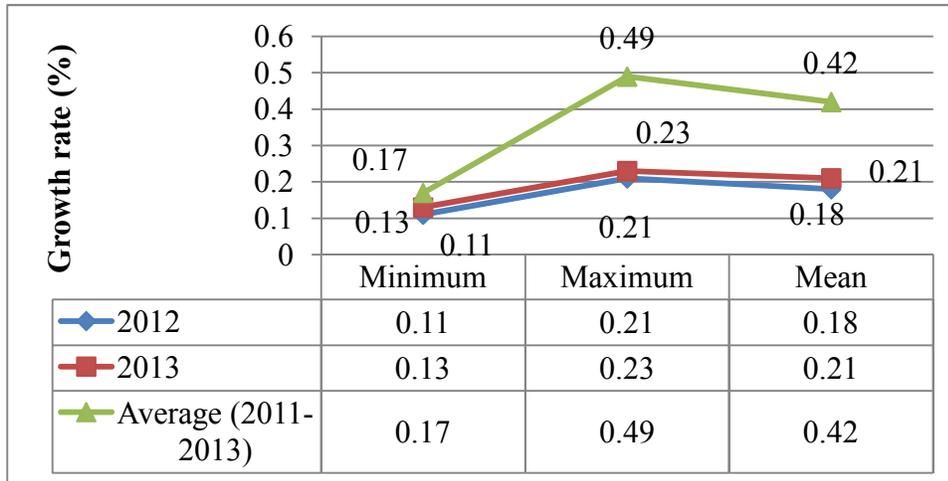
#### **5.1.4.1. Minimum, maximum and mean salary of all employees**

**Table 4.4: Average annual salary of all employees (in birr)**

	N	Minimum	Maximum	Mean	Std. Deviation
Annual salary 2011	252	2,040.00	60,450.00	13,438.8889	12,824.39944
Annual salary 2012	252	2,280.00	73,360.00	15,879.2937	13,820.42600
Annual salary 2013	252	2,880.00	90,000.00	19,106.9841	15,125.62011
Annual salary (2011 - 2013)	252	2,400.00	74,603.33	16,141.7222	13,794.71742

Source: own survey, 2013

Table 4.4 indicates that the average annual salary of one employee for the three years (2011-2013) is 16,141 birr. The annual salary standard deviation is 13,794. This indicates that, on average, the annual salary of each employee deviates by 13,794 birr from the mean annual salary (16,141). This large deviation indicates that there is a high variation in salary rates of employees in Kolfe Keranio sub city.



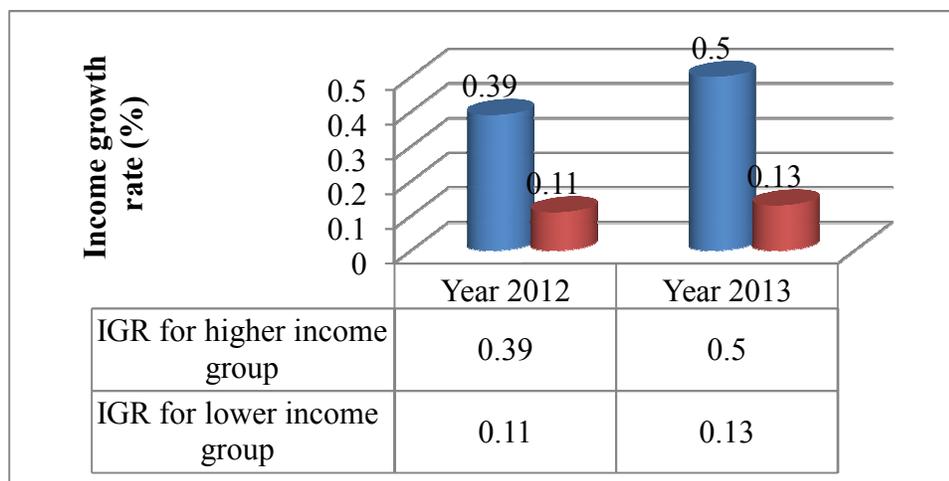
Source: own survey, 2013

Figure 4.10: Annual salary growth rates

Referring to Table 4.4, it is evident that the average annual salary for the employees in 2011, 2012 and 2013 is 13,489, 15,879 and 19,106 birr respectively. Figure 4.10, indicates the mean annual salary of each worker increased by 18% and 21% in 2012 and 2013 respectively. Compared to 2011, the annual salary of each employee in 2013 is higher by about 42%. The annual minimum salaries for the years 2011, 2012 and 2013 are 2,040, 2,280 and 2,880 birr respectively. Compared to 2011, the minimum wage increased by roughly 11% and 13% (in 2008 and 2009 respectively). Compared to 2011, the minimum annual wage is increased by about 17% in 2013. The maximum salaries in 2011, 2012 and 2013 are 60,450, 73,360 and 90,000 birr respectively; the annual salary growth rates in 2012 and 2013 are 21% and 23% respectively. Compared to 2011, the maximum annual salary increased by about 49% to 2013. As Figure 4.10 indicates, it is possible to conclude that the annual salary growth rate of the higher income group is greater than that of lower income group.

#### 5.1.4.2. Salary growth rate for higher and lower income groups

The median annual salary reported over this period is 14,448 birr. In this study, employees with an annual income of less than or equal to the median are considered as low income; otherwise, they are classified as high income.



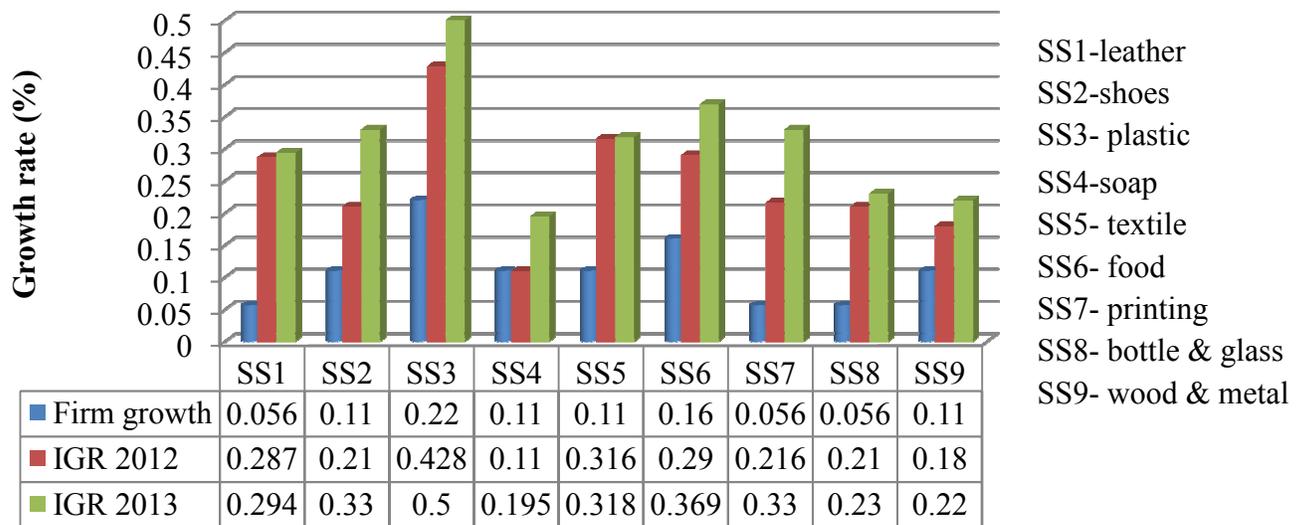
Source: own survey, 2013

Figure 4.11: Annual salary growth rate by income group

The annual salary growth rate for the low income group is 11% (in 2012) and 13% (in 2013). The annual salary growth rates of the high income group for 2012 and 2013 are 39% and 50% respectively. Figure 4.11 indicates that, on average, the income growth rate of higher and lower income group increases over time. But, the annual income growth rate of high income group is greater than that of the low income group. This shows that high income employees are better beneficiaries than of low income employees in terms of mean salary and salary growth rate.

#### 5.1.4.3. Sub-sector wise firm and income growth rates comparison

In order to determine firm and income growth relationship, workers were selected who employ at least for three years (2011-2013), were regrouped in to each sub sectors. The average income growth rate of employee was calculated based on their annual salary. To calculate employee's annual salary growth rate, the 2011 data used as a base to calculate the salary growth rate of 2012 and 2013, but the current and initial number of employees irrespective of firm's age was used to get the total firm. This is done in order to compare the firm and income growth rates throughout the duration of their employment period.



Source: own survey, 2013

Figure 4.12: Firm and income growth rate

As indicated in the above figure 4.12, the employees' income growth for the period 2012 was positive (ranging from 0.11% to 43%). The income growth rate is better in all sub sectors than firm's growth rate except textile sectors. The sub sectors like plastic, food processing, leather, and wood and metal which have higher firm and employee's income growth rate. As a result, when the firm growth rate increases, employee's income also increases.

The sub-sectors positive employee's income growth rates were also experienced in the period 2013 (ranging from 19.5% to 50%). This shows that the income growth rate for the period 2013 is greater than 2012. The sub sectors which have highest growth rate like plastic and food processing had recorded remarkable income growth rate. The same is true for the year 2013 the sub sectors which recorded high growth rate also have high employee income growth rate. This indicates that the income of employees' increases when the firm growth rates increases; when there is better firm growth, there is parallel income growth. Firms may pay salary to their employees' equivalent to other firms thereby to retain their workers; otherwise, employee turnover could increase which can aggravate inefficiency of firms. From this result, it is possible to conclude that the income growth rate increases when the firm growth increases.

## 5.1.5. Employee salary growth determinant factors

### 5.1.5.1. Sex and salary growth rate

The three years' mean annual salary of male employees is 57% higher than that of the female workers. The mean annual salaries of male employees are about 1.84, 1.76 and 1.66 times of the female employees in 2011, 2012 and 2013 respectively. The salary gap decreased in 2012 and 2013 but, the gender-income gap is still higher.

**Table 4.5: Annual salaries of employees by sex**

Sex of employee	Calendar year	Minimum annual income	Maximum annual income	Mean annual income	Std. Deviation of annual income
Male	2011	3,900.00	64,500.00	18,213.8692	13,473.81860
	2012	4,800.00	68,000.00	21,169.2897	14,433.75451
	2013	6,600.00	72,000.00	24,825.9065	15,587.52948
	2011-2013	5,220.00	68,166.67	21,403.0218	14,382.23307
Female	2011	2,040.00	65,450.00	9,915.2828	11,117.17617
	2012	2,880.00	69,360.00	11,975.6414	11,976.49447
	2013	5,400.00	72,000.00	14,886.8138	13,330.20015
	2011-2013	3,640.00	68,936.67	12,259.2460	11,986.77669

Source: own survey, 2013

The annual salary growth rates for the year 2012 for male and female employees were 20% and 17% respectively; but in 2013, the annual salary growth rates for male and female employees were 23% and 21% respectively. The result indicates that the male and female employees' income growth rate increases at an increasing rate; but the income increasing rate of male employees is higher than that of females. This finding is similar to the findings of Söderbom et al. (2002:12), Mumford et al. (2004:5), Dumont (2008:15, 16) and Xiao (2001:96).

### 5.1.5.2. Level of education and salary level

The workers are grouped by level of education; then the mean annual income of each group is calculated and presented in the following Table 4.6 below.

**Table 4.6: Annual salary of employee's by level of education**

Level of education	Calendar year	Mean of annual income	Std. Deviation of annual income
Reading and writing	2011	7,078.1667	5,634.28656
	2012	8,283.0000	5,943.98902
	2013	10,077.6667	6,110.58562
	Annual salary (2011-13)	8,479.6111	5,869.95584
1-8 grade	2011	9,830.1429	11,379.59955
	2012	11,899.8571	12,596.35881
	2013	11,909.2857	13,260.14875
	Average	9,879.7619	12,386.75613
9-12 grade	2011	11,339.5294	5,057.92885
	2012	13,876.3059	5,460.70257
	2013	15,080.5647	6,096.63773
	Annual salary (2011-13)	12,098.8000	5,414.17446
Diploma	2011	14,207.7753	9,388.18558
	2012	17,520.0449	10,356.81537
	2013	21,136.1348	11,139.58312
	Annual salary (2011-13)	17,621.3184	10,060.39127
First degree and above	2011	29,949.1053	18,821.23917
	2012	33,032.1053	19,865.10346
	2013	38,989.5789	20,550.03798
	Annual salary (2011-13)	33,990.2632	19,551.32134

Source: own survey, 2013

Table 4.6 indicates that the mean annual income of employees increases when their education level increases. For example, the income of a worker with primary education level is 16% higher than of reading and writing informally. A worker with secondary education level gets an income of 22% higher than of primary education holder (1-8). A certificate/ diploma holder worker gets 45.6% higher income than of a worker with secondary education level; a worker with education level of first degree and above gets income of 93.2% higher than of a worker with certificate/diploma holders. In general, while salary growth rate of higher education level is higher than of lower educated workers, the gap of the mean annual salary of employee's increases when the education level increases. This finding is similar to the findings of Söderbom

et al. (2002:14), Mumford et al. (2004:9) and Dumont (2008:26), who argue that the wage level of employees increases when the education level increases.

### 5.1.5.3. Year of experience and salary level of the participants

As sex, age and educational qualification of individuals are different; individuals also differ in their work experience durations. Respondents were asked to indicate the experience year they have in business activities and the data collected shows on the following table 4.7.

**Table 4.7: Annual salary level of employee's by years of experiences**

Experience of the respondent	Calendar year	Minimum annual salary	Maximum annual salary	Mean of annual income	Std. Deviation of annual income
Below 5 year	2011	3,000.00	61,450.00	9,977.7069	9,313.56295
	2012	3,000.00	65,436.00	11,626.0690	9,827.76856
	2013	5,400.00	69,228.00	14,309.4483	10,939.21147
	(2011-2013)	4,400.00	65,371.33	11,971.0747	9,906.46359
6-10 year	2011	2,040.00	61,430.00	10,953.0000	9,665.93563
	2012	2,880.00	65,436.00	13,541.2308	10,987.95597
	2013	6,000.00	69,228.00	16,579.0330	12,190.04161
	(2011-2013)	3,640.00	65,364.67	13,691.0879	10,760.17800
11-15 year	2011	3,840.00	65,450.00	13,293.1228	10,557.03643
	2012	4,800.00	69,360.00	16,279.5088	11,173.34974
	2013	5,400.00	72,000.00	19,410.9474	11,653.69914
	(2011-2013)	5,400.00	68,936.67	16,327.8596	10,975.19389
Above 16 year	2011	3,900.00	64,500.00	22,901.3478	19,037.58013
	2012	4,800.00	68,000.00	25,371.4348	20,482.43204
	2013	6,600.00	72,000.00	29,780.3478	22,342.17005
	(2011-2013)	3,640.00	68,936.67	16,141.7222	13,794.71742

Source: own survey, 2013

Table 4.7 indicates that the mean annual income of employees increases when their work experience increases. For example, during the year 2012, the annual income growth rate of

workers with 6-10 years experience is 16.4% higher than experiences that had less or equal to 5 year experiences. An employee with 11-15 years of experience gets 20.2% greater than 6-10 year experience employee. Employees who had above 16 years experience received 55.8% higher than employee's with 11-15years of internal service. This true that for the year 2011 and 2013, when employees internal service increases, their mean annual income increases. As a result salary growth rates of higher experienced workers greater than lower experienced workers. This is consistent with the findings of (Mumford & Smith, 2004: 9), implies that the earnings increase as working experience increases, but at diminishing rate when workers are getting older.

#### 5.1.5.4. Training and wage growth rate

**Table 4.8: Training of the respondent**

Did you acquire business related Training for the last three years?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	139	55.2	55.2	55.2
	No	113	44.8	44.8	100.0
	Total	252	100.0	100.0	

Source: own survey, 2013

As indicated in the above table 4.8, (55.2%) of the respondent replied that they acquire training to run effectively the firms operation whereas, the remaining 44.8% of the respondent replied that they had not taken entrepreneurial training. Therefore, the majority of the respondents were taking training for the last three years.

**Table 4.9: Training given by medium and large scale firms**

If yes which type of training you are taking for the last three years?	Frequency	Percent	Valid Percent	Cumulative Percent
Entrepreneurial management	44	17.5	31.7	31.7
Entrepreneurial marketing	26	10.3	18.7	50.4
Technical training	56	22.2	40.3	90.6
Others	13	5.2	9.4	100.0
<b>Total</b>	<b>139</b>	<b>55.2</b>	<b>100.0</b>	

Source: own survey, 2013

As indicated in table 4.9, 40.3%, 31.7%, 18.3% of the respondents replied that they had taken technical, entrepreneurial marketing and management training respectively. On the other hand, 9.4% of them were only took other kinds of training. The majority of the respondents have taken technical training. This can be explained by the fact that, technical training can be very important for entrepreneurial success followed by entrepreneurial management and marketing.

**Table 4.10: Average annual salary growth by employees training (2011-2013)**

Annual salary growth of employee	Mean	Std. Deviation	Minimum	Maximum
Taking training	19,318.3621	15,571.83828	5,220.00	68,936.67
Not taking training	12,234.1740	9,988.06026	3,640.00	59,333.33
Total	16,141.7222	13,794.71742	3,640.00	68,936.67

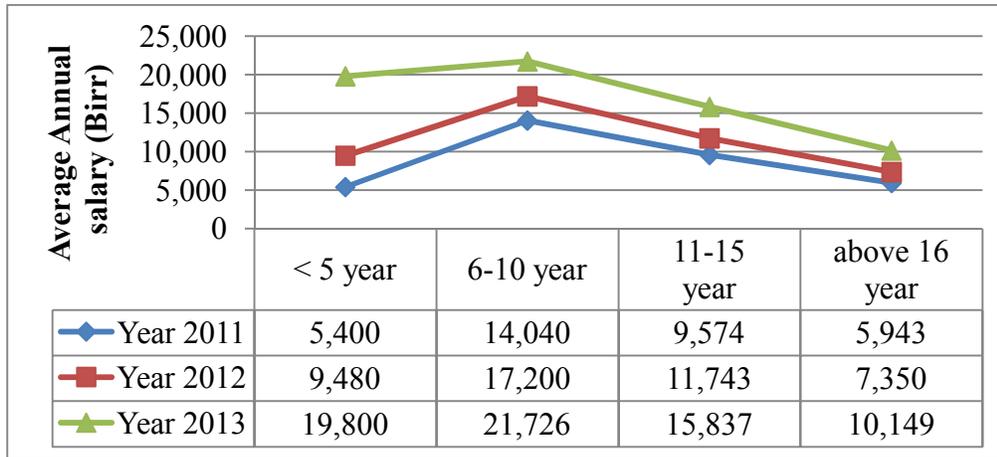
Source: own survey, 2013

As indicated in the above table 4.10, the mean annual income of employees increases when they acquired technical skills. For example, the mean annual average salary of employees who acquired training was 57.7% higher than those who didn't take training. As a result the salary growth rates of trained workers were greater than those who are not. The finding of (Xiao, 2001:

98) shows that manufacturing workers get about 0.90% wage increment from every on-the-job training practice.

### 5.1.5.5. The age of firm and the salary of its employees

Using five years interval, the manufacturing firms are grouped into four time classifications



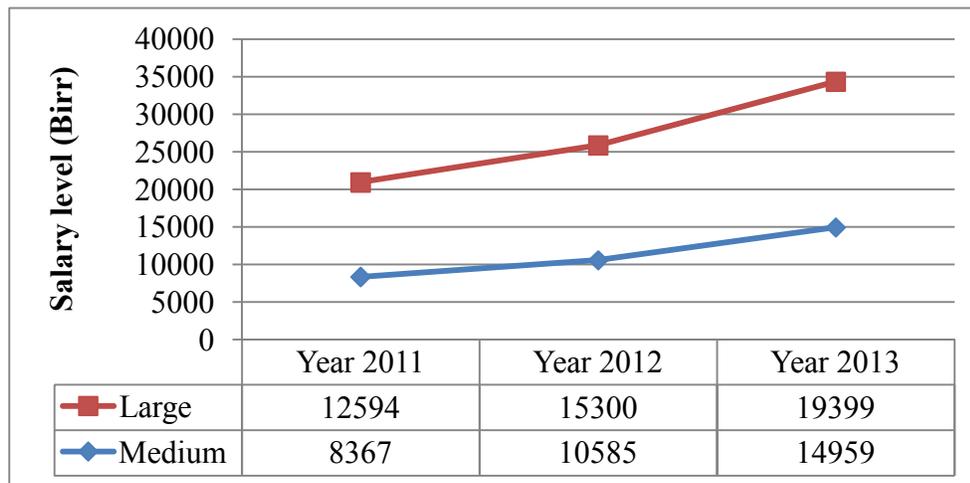
Source: own survey, 2013

Figure 4.13: Firm age and average annual income

Figure 4.13 shows that the salary paid by firms whose age is above 16 years is least except in the year 2011; income growth rates of the employees who work in firms with age of 6 to 10 are the highest. Using the data of 2011 up to 2013, the salary paid by firms with age of above 16 years old is lesser than of firms with age of 6 to 10 and 11 to 15 years. The data of the three years indicate that the average salary of employees' declines again when the firm age becomes 11 to 15 years. But the data of two years (2012 and 2013) indicates that the average salary of above 16 years decreases from less or equal to 5 years. The data of 2011 indicates that the relationship between firm age and salary of employees seems inverted U-shape.

Generally, Figure 4.13 indicates that the average salary paid by firms whose age is more than 16 years is lower than of the firms whose age is less than five years, this is similar to the findings of (Fredrik, 2006: 2), argue that younger firms pay better salary than of older firms.

### 5.1.5.6. Firm size and salary level



Source: own survey, 2013

Figure 4.14: Firm size and average annual income

Based on their initial capital, firms are divided into two: medium and large. The annual income of the employees who work in each firm is averaged for each year for 2011 to 2013. Figure 4.14, indicates on average, the large firms pay higher salaries than medium firms. The income growth rates of employees of medium firms in the year 2012 and 2013 were 21.4% and 26% respectively, but whereas an employee of large firms was 26% and 41% respectively. Moreover, while the employee income growth rate of large firms is greater than medium firms. (Soderbom & Wambugu, 2002: 15) indicate that there is a positive relationship between firm size and wage; as the firm size increases, wages increase.

## 5.2. Econometric results of firm and employee's salary growth determinant factors

This part deals with the identification of the growth determinant factors for firm and employees' salary. The section discusses the firm growth determinant factors initially and then discusses employees' income determinant factors.

### 5.2.1. Determinant factors of firm's growth

The multiple linear regression analysis was used to examine the relationship between the growth of medium and large manufacturing firms in terms of employment using the average annual employment growth rate as a measurement tool with several explanatory variables such as firm age, initial firm size, type of ownership, level of education, experience of firm leaders, sex and age of entrepreneur, and training. The outcome of the analysis described in the table 4.11. The overall of statistics of model used in the SPSS analysis is presented in Annex 2. The dependent variable in the analysis is average annual growth rate.

As stated on the literature and statistical descriptive statistics, there are many factors that can affect the growth of firms. But, in case of Kolfe Keranio, not all influential factors are found to be significant. The factors like initial firm size, firm age, level of education, and experiences were significant and detailed as follows.

**Table 4.11: Econometric results of firm growth determinant factors**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	.094	.045		2.074	.068	-.009	.196
FAGE	-.026	.008	-.396	-3.353	.008	-.044	-.009
SIZE	.035	.005	.692	6.965	.000	.023	.046
OWN	-.011	.006	-.138	-1.810	.104	-.026	.003
SEX	-.006	.011	-.035	-.501	.629	-.031	.020
EDU	.056	.007	.656	7.464	.000	.039	.073
EXP	.010	.004	.129	2.233	.052	.000	.019
TOWR	-.017	.011	-.130	-1.646	.134	-.041	.007

a. Dependent variable: annual average growth rate

➤ At 5% significance level

$$\text{Firm growth} = .094 - .026\text{FAGE} + .035\text{SIZE} + .056\text{EDU} + .010\text{EXP}$$

The Adjusted R<sup>2</sup> value of 0.65 means that about 65% of the variation in average annual growth rate of medium and large firm is explained by the explanatory variables. When we see the standard deviation by holding other explanatory variables constant a standard deviation increase in firm age, on average, leads to a .396 standard deviation decrease in average annual employment. Firm age has more impact on average annual employment for medium and large enterprises than other explanatory variables.

Enterprise age is statistically significant at 5% significance level and negative, indicating a strong inverse relationship between firm age and growth. The magnitude of marginal changes other things remaining the same, an additional year in the firm age imply a reduction of employment growth rate by .026 %. Thus, the younger the firms, the more likely they grow fast. This result is consistent with (Gebreyesus, 2007: 7), (Goedhuys, M & Sleuwaegen, L, 2009: 15) and (Liedholm, 2001: 11) suggest that younger firms grow faster than older ones.

Initial size of a firm is also found to be important in explaining growth. The variable is statistically significant at 5% level and positive, revealing strong direct relationship between initial size and growth. The increment of the initial size of enterprises by one increases the employment growth rate of enterprises by .035%. The larger enterprises at start up thus register high growth rates than their small enterprises. This is consistent with the findings reported by (Coad, 2008: 3). This is because firms that enter small often remain small; because they face formidable barriers to growth.

The firm owner's formal education level is found to have positive effect at 5% significant level for the growth of medium and large manufacturing firms. The increments of education level, on average, annual employment increases by .056 % other variables keep constant. This indicates that education level and firm growths are positively correlated, as education level increase firm growth also increases. This finding is closely related to the findings of the authors (Evangelia & Bassima, 2002: 39) who also argue that completion of secondary education is better in facilitating firm growth.

In addition, the availability of previous related experience that firm owners may have acquired prior to starting up their business have positive influence on the growth of enterprises and found to be significant at 5% level. This shows that increment of additional internal service year, the firm's growth rate increases by .0142%. This implies that entrepreneurs who have industry experience are positive impact on firm growth. Similar findings who argue prior work experience is outside the firm's industry are more successful at raising growth (Nichter & Goldmark, 2005: 15) and Gebreeyesus, 2007: 14).

### 5.2.2. Determinant factors of employee's income growth

There are a number of factors that can affect the employee income growth rate. In the case of Kolfe Keranio, not all influential factors speculated were found to be significant however. Factors like sex of employee, level of education, business related experiences were found to be significant and they are detailed as follows.

**Table 4.12: Econometric results of employee's income determinant factors**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	-.096	.031		-3.101	.011	-.166	-.027
FAGE	.006	.006	.131	1.076	.307	-.007	.019
SIZE	.001	.004	.040	.319	.757	-.009	.011
EDU	.016	.007	.429	2.515	.031	.002	.031
EXP	.019	.008	.411	2.321	.043	.001	.037
TWOR	.009	.006	.120	1.435	.182	-.005	.023
SEX	.056	.016	.356	3.548	.005	.021	.091

b. Dependent variable: salary growth rate

➤ At 5% significance level

$$\text{Salary growth} = -.096 + .016\text{EDU} + .019\text{EXP} + 0.56\text{SEX}$$

There is also evidence that the education level of employees does very significantly affect their income growth at 5% significance level. This shows us, when the education level of employee's increases, on average, the income growth rate by 0.429%. The importance of level of education for workers is perhaps the most important finding for the manufacturing sector from this analysis, as it provides the opportunity for income growth for those who are employed in medium and large manufacturing sectors in Kolfe keranio. This result strongly support the findings of (Dumont, 2008: 26) and (Xiao, 2001: 98), which argues that education level had a positive effect in raising the mean wage of employees.

Business related experience is found to be important in explaining the income of employees. The variable is statistically significant at 5% level of significance and positive. Table 4.12 shows that, on average, the annual salary of employees increase by 0.41%% for each additional internal service year. Sector-specific experience and general experiences" have a better impact on wage grow changes. This implies that the earnings increase as working experience increases, but at diminishing rate when workers are getting older (Connolly et al., 2006: 16).

In addition, sex of employees significantly predicts the income level of employees at 5% significance level. This indicates that, on average, the income of male employees higher than female. This due to that, females may not work continuously due to maternal leave, child care, etc, which firms may dislike (Jellal, 2009: 4).

## **CHAPTER FIVE: SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATION**

### **5.1. Summary of major findings**

There is a difference in growth rate performance of manufacturing sub sectors which are located in Kolfe Keranio and there were sectors which show better growth when compared to others. The relationship between firm age and growth rate were found to be inverted U shape, initially the firm's growth rate increases at an increasing rate and after it reaches maximum it decreases at a decreasing rate. The growth rates of large firm were higher than medium firms. The average annual growth rate increase at an increasing rate when entrepreneur's up to 40 years old and it starts to declines when it reaches to maximum. Moreover, the growth rate of firms led by leaders with certificate/diploma and above is better than of firms led by other education levels; but firms led by certificate/diploma holder leaders grow better than firms led by degree holders. In addition, the growth rates of firms led by leaders with internal experience of 11-15 years are better than of leaders with experience below 11 or above 15 years. Finally, the growth rate of sole proprietorships is better than of other forms of firms.

The average minimum, maximum and mean annual incomes of employees were 17%, 49% and 42% respectively. This shows that, there was an income change from time to time even though there is high variation between the maximum and minimum salary of employees. The salary growth rate of both higher and lower income group increases at increasing rate but, the salary growth rate of higher income group is higher than of the lower income group. In addition, the salary growth rate is higher than of the firm growth rate. When the firm growth increases, the income growth also increases.

The annual salary of male employees' is higher than of females. While the salary growth rate of males and female employees' were increases at increasing rate but, the rate of increase is higher in male employees. Moreover, the salary level of employees increases when education level of employee increases; the annual salary of employees' increases when the experience of workers increases and also employees who acquired training had increase their mean annual salary. The average annual salary paid by firms with age of more than 16 years is least during 2012 and 2013; firms whose age from 6-10 had paid the highest salary. For the year 2011, 2012 and 2013,

the average annual salary of employees who are working in large firms were paid (Birr) 12,594, 15,300 and 19,399 respectively; for the same year medium firms paid (Birr) 8,367, 10,585 and 14,959. Therefore, large firms paid higher salary than the medium firms.

## **5.2. Conclusion**

The mean annual growth rate of medium and large manufacturing enterprise located in Kolfe Keranio were weak, which is on average 2.8% but the growth rates of sub sectors like plastic and food processing were good as compared to others in the study.

The descriptive statistics shows that, the mean annual income of employees who are working in medium and large manufacturing enterprises in Kolfe Keranio was increasing at an increasing rate. Moreover, for the year 2012 and 2013, the income of employees had grown by 18% and 21% respectively and reached an average annual income of Ethiopian (Eth) birr 15,879 and 19,106; for each respective years.

The income growth rate of higher and lower workers' were increased but, the annual salary growth rate of high income group employees is higher than low income groups; This indicates that the higher income workers are more beneficiaries than of lower income workers. The firm growth status can affect the employees' income growth, on average, the income growth rate of employees' is higher when the firm growth rate is higher; but the reverse is also true when the firm growth rate is lower.

The econometric result shows, the relationship between firms' age is negatively related with the growth of enterprise, younger firms grow better than older ones. Moreover, the growth rate of large firm is higher than of medium firms and founds to be positively correlated. The firm leader's education level is found to have positive relationship for the growth of enterprises, the growth rate of firms led by leaders with tertiary education level is better than of firms led by other education levels, but firms led by certificate or diploma holder had grow better than of firms lead led by degree holder. In addition, the entrepreneurs who have business related experience positively contribute for the growth of a firm's i.e. the growth rates of firms led by leaders with this type experience 11-15 years are better than of leaders who had experience of less than 11 or more than 15 years.

Finally, the econometric result also shows employee's education level and some business related experiences were contributing a positive effect for the growth of mean annual salary. The salary growth rate of higher educated and experienced salary level is higher than of lower ones, the gap of the mean annual salary of employee's increases when the respective service year and education level increases. This implies that both level of education and years of experience is an important factor for employee's income growth. The average annual salary of male employees' was higher than that of female employees. Moreover, the income growth rate of male employees' was higher than females. Therefore, male workers benefit more in the medium and large manufacturing firms in Kolfe Keranio than females.

### **5.3. Recommendation**

The findings of this study have important implications for interventions designed to enhance the start up, growth and expansion of medium and large manufacturing enterprise in Kolfe Keranio sub city, Addis Ababa and in similar sister cities with in Ethiopia. Since the creation of new jobs depends on the new entry rates and growth of enterprises, a concerted attention should be given to those factors that influence start up and growth of enterprises.

The growth rates manufacturing sub sectors were weak; therefore, the government needs to consider the heterogeneous nature of the medium and large enterprises as they created a number of job opportunities. Different categories of firm's have different contributions and different potential for growth. The enterprises with high potential to grow might require additional support beyond working capital that might include access to finance for long-term investment, marketing service, and targeted training among others.

The firm growth rates of smaller and younger firms grow faster than large firms, this suggests when the firms reached old age, and this may require further investigation to determine the reason for this situation. Firm growth is highly linked with the tertiary education level of firm leaders. For better firm growth, it may be necessary for firms to be led by tertiary education level leaders. This may imply that education is a necessary requirement for entrepreneurial success and business growth might be given a priority in governments' manufacturing enterprise growth agendas.

The loyalty of firm leaders to their enterprise is also an important factor for the growth of the firm. As their service years increase, the firm growth increases; this may occur because the capacity of leaders increases when they stay longer. But, the longer service year may not necessarily result in an increase in productivity. Boredom and other reasons may occur which result in leaders not being effective and efficient when they stay for long periods. This can also affect the growth rate of firms and further research should seek to investigate this assumption in the Ethiopian context. The finding that relates to business experience associated with new start-ups calls for the promotion of the culture of apprenticeship and intern experience sharing for the young as a possible area of intervention in employment generation schemes to minimize the extent of unemployment.

As indicated above, employees' income growth goes parallel to firm growth. This implies that the income growth rate of employees of younger and older firms is better. This may imply that, for creating employment opportunity and generating income point of view, it can be preferable if the government and other concerned bodies can prioritize their support to such firms.

The income growth rates of male employees are higher than females. Hence, both the management and workers of the medium and large manufacturing enterprises of Kolfe Keranio sub city were supposed to work in harmony for mutual benefits; when the firm grows, the employees may share the benefits equally.

The formal education level of employee is found to be significant for their income growth. This may imply that education is a tool to alleviate poverty through income growth. That is, to increase the income level of employees, there is need of improving the skill level of employees. Moreover, internal experience is also crucial way to increase salary of employees. This implies that loyalty of employees to a given firm can improve their incomes. This can also facilitate the growth of firms; that is, retaining of capable employees can be effective and efficient in their daily activities that can improve the growth of firms.

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## **Appendix**

### **Appendix - 1**

#### **Background of the study area**

Addis Ababa is the capital city of Ethiopia lies at an altitude of 7,546 feet (2,300 meters) and is a grassland biome, located at 9°1'48"N 38°44'24"E Coordinates:9°1'48"N 38°44'24"E. The city lies at the foot of Mount Entoto. From its lowest point, around Bole international Airport, at 2,326 meters (7,631 feet) above sea level in the southern periphery, the city rises to over 3,000 meters (9,800 feet) in the Entoto Mountain to the north.

Based on the Census conducted by the central statistical agency of Ethiopia (CSA, 2007:5), Addis Ababa has a total population of 2,739,551, of whom 1,305,387 are men and 1,434,164 women; all of the populations are urban inhabitants. For the capital city 662,728 households were counted living in 628,984 housing units, which results in an average of 4.1 persons to a household. Although all Ethiopian ethnic groups are represented in Addis Ababa due to its position as capital of the country, the largest groups include the Amhara (47.04%), Oromo (19.51%), Gurage (16.34%), Tigray (6.18%), Silt'e (2.94%) and Gamo (1.68%). Languages spoken include Amharic (71.0%), Oromiffa (10.71%), Gurage (8.37%), Tigrigna (3.60%), Silt'e (1.82%) and Gamo (1.03%). The religion with the most believers in Addis Ababa is Orthodox with (74.7%), Muslim (16.2%), Protestant (7.77%) and Catholic (0.48%).



Source: Finance and Economic Development bureau, 2010

Figure 1.1: Map of Addis Ababa

### **Location and demography of kolfe keranio**

Kolfe Keranio sub-city is one of the newly established ten sub-cities of Addis Ababa. It is located in the western part of the city, between 8°57'00"N and 9°05'24"N and between 38°39'36"E and 38°43'12"E. It is 9.6 km from the centre of the city and has an estimated total area of 65.10km<sup>2</sup>.

According to the census of 2007 Population and Housing Report the population size of the city is 428,654 (FEDB, 2008: 6). As of 2007, the proportions of males and females were 46% and 54% respectively. The largest ethnic groups in the city include SNNP (53.2%), Amhara (27.2%), Oromia (17.6%), and Tigry (1.6%). In the city the almost half (49.6%) are Muslims, 43% are Orthodox Christians, and Protestants and Catholics constitute 4.8% and 2.6% respectively.

### Summary of empirical findings

No.	Authors	Title	Year	Findings
1	Cooper, et al.	Initial human and financial capital as predictors of new venture performance.	1994	<ul style="list-style-type: none"> <li>✎ Female had a negative impact on the growth of small ventures but had no impact on the survival of the firm.</li> </ul>
2	Baum, et al.	A multidimensional model of venture growth.	2001	<ul style="list-style-type: none"> <li>☞ Specific industry experience is also an important factor for venture success.</li> </ul>
3	Brown & Medoff	Firm age and wages.	2001	<ul style="list-style-type: none"> <li>☞ Older firms pay higher wages than newly established firms.</li> <li>☞ Firm specific-training increases when the survival rate increases; such types of training help to increase the wage level of employees.</li> </ul>
3	Welter	Who wants to grow? Growth intention and growth profiles of entrepreneurs in Germany.	2001	<ul style="list-style-type: none"> <li>☞ Negative relationship between education level and the ambition to grow.</li> </ul>
4	Liedholm	Small Firm Dynamics: Evidence from Africa and Latin America.	2001	<ul style="list-style-type: none"> <li>✎ Firm age and the growth of firms are inversely related.</li> <li>✎ Firm size is positively correlated to firm growth.</li> <li>✎ The capacity gap of owners can be filled by having</li> </ul>

				<p>skilled workers.</p> <ul style="list-style-type: none"> <li>☒ Women entrepreneurs are involved in a narrow range of activities that yield low profit.</li> </ul>
5	Xiao	Determinants of employee salary growth in Shanghai: an analysis of formal education, on-the-job training, and adult education with a three-level model.	2001	<ul style="list-style-type: none"> <li>☒ Education level had a major role in raising the mean wage of employees, but not on wage growth rate.</li> <li>☒ Male workers get 6.6% more than of females in China.</li> <li>☒ Positive relationship between on-the-job training and wage growth.</li> </ul>
6	Soderbom, et al.	Does firm size really affect earnings?	2002	<ul style="list-style-type: none"> <li>☒ The firm's growth is positively correlated with the skill of the employees.</li> <li>☒ A change in income correlates positively with a change in a firm's age.</li> <li>☒ Female workers are paid less than male workers.</li> </ul>
7	Wiklund & Shepherd	A spring for and achieving growth: the moderating role of resource and opportunities.	2003	<ul style="list-style-type: none"> <li>☒ Highly educated entrepreneurs might be slow in decision making, they are able to make rational decisions which leads to actual firm growth.</li> </ul>
8	Indarti & Langenberg	Factors affecting business success among SMEs.	2004	<ul style="list-style-type: none"> <li>☒ There is significant relationship between firm age and its</li> </ul>

				growth.
9	Audretsch, et al.	Gibrat's law: are the services different?	2004	<ul style="list-style-type: none"> <li>☞ Small firms grow relatively fast since they have to achieve a minimum efficient size</li> </ul>
10	Mumford & Smith	The gender earnings gap in Britain.	2004	<ul style="list-style-type: none"> <li>☞ The contribution of work experience on income decreases as age increases.</li> <li>☞ Female hourly earnings are on average 26.5% below male average hourly earnings in Britain.</li> </ul>
11	Delmar & Shane	Does experience matter? The effect of founding team experience on the survival and sales of the newly founded venture.	2005	<ul style="list-style-type: none"> <li>☞ The entrepreneur's experience with industry and any prior entrepreneurial experience have a positive impact on firm performance.</li> </ul>
12	Yasuda	Firm growth, size, age and behavior in Japanese manufacturing.	2005	<ul style="list-style-type: none"> <li>☞ Negative effect of firm size on firm growth in the case of Japanese manufacturing firms.</li> </ul>
15	Nichter & Goldmark	Understanding micro and small enterprise Growth.	2005	<ul style="list-style-type: none"> <li>☞ The growth of a firm owned by entrepreneurs who have related experience is better than the growth of firms owned by less experienced entrepreneurs.</li> <li>☞ On-the-job training within the same sector is crucial for the growth of a firm.</li> </ul>

				<ul style="list-style-type: none"> <li>☞ The income generated from female headed firms is used for household purpose that can slow down growths of firms owned by women.</li> </ul>
13	Almeida-Santos	Employee training, wage dispersion and equality in Britain.	2006	<ul style="list-style-type: none"> <li>☞ During the introduction of new technologies firms give more training to better educated workers, such training leads to better positions, higher wages and further training</li> </ul>
14	Gebreeyesus	Growth of Micro-Enterprises: Empirical evidence from Ethiopia.	2007	<ul style="list-style-type: none"> <li>☞ Inverse relationship between firm age and growth.</li> <li>☞ Firm size is positively correlated to firm growth.</li> <li>☞ The growth of a firm owned by entrepreneurs who have related experience is better than the growth of firms owned by less experienced entrepreneurs.</li> <li>☞ Vocational training was not a significant factor for a firm's growth in Ethiopia.</li> <li>☞ The growth of female-headed firms' can be slow.</li> </ul>
15	Bigsten & Gebreeyesus	The small, the young, and the productive: determinants of manufacturing firm growth in Ethiopia.	2007	<ul style="list-style-type: none"> <li>☞ There is no linear relationship between the age of a firm and firm growth.</li> </ul>

16	Muravyev	Firm size, wages and unobserved skills: evidence from dual job holdings in the UK.	2007	<p>As long as there are skilled employees, there is firm growth; as long as the firm grows, it requires skilled workers, and the skilled employees can get higher salary as compare to less skilled employees.</p>
17	Coad & Tamvada	The growth and decline of small firms in developing countries.	2008	<p>The growth of enterprises owned by single individuals [sole proprietor] is better than owned by many [partnership]</p>
18	Saeed	Formality of financial sources and firm growth: empirical evidence from Brazilian SMEs 1999-2005.	2009	<p>Access to external finance is an important element for growth, though the internal source of finance is also important.</p>
19	Goedhuys, M & Sleuwaegen, L	High growth entrepreneurial firm in Africa: united nations university.	2009	<p>Younger firms grow better than older ones.</p>
20	Jellal	Theory of gender wage gap.	2009	<p>The wage gap is expressed more in terms of the education level of workers.</p>

## Appendix- 2

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.903 <sup>a</sup>	.815	.650	.12709

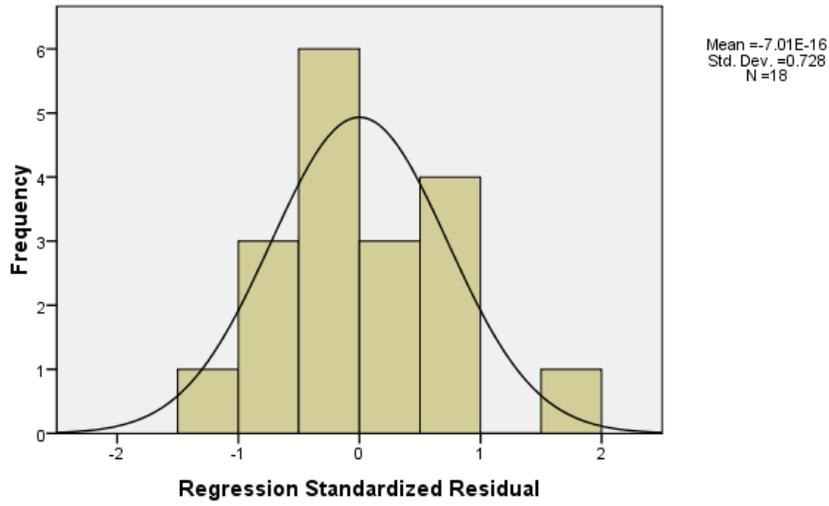
a. Predictors: (Constant), initial firm size, experience of the respondent, type of ownership, training of respondent, gender of respondent, firm age, level of education

### Correlation matrix

	FAGE	SIZE	OWN	SEX	AGE	EDU	EXP	TOWN
FAGE	1							
SIZE	-0.281	1						
OWN	0.037	-0.188	1					
SEX	-0.483	0.347	0.124	1				
AGE	0.297	0.02	0.000	0.088	1			
EDU	0.470	-0.067	-0.058	0.297	0.05	1		
EXP	0.184	0.085	-0.228	0.202	0.606	0.204	1	
TOWN	-0.193	0.016	0.114	-0.130	-0.153	0.003	-0.107	1

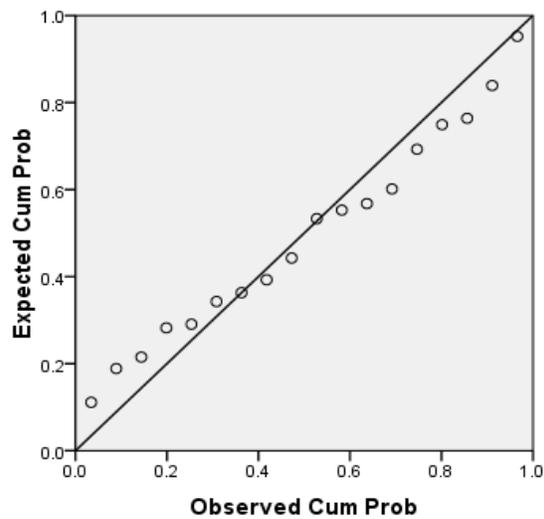
### Histogram

Dependent Variable: Average annual growth rate

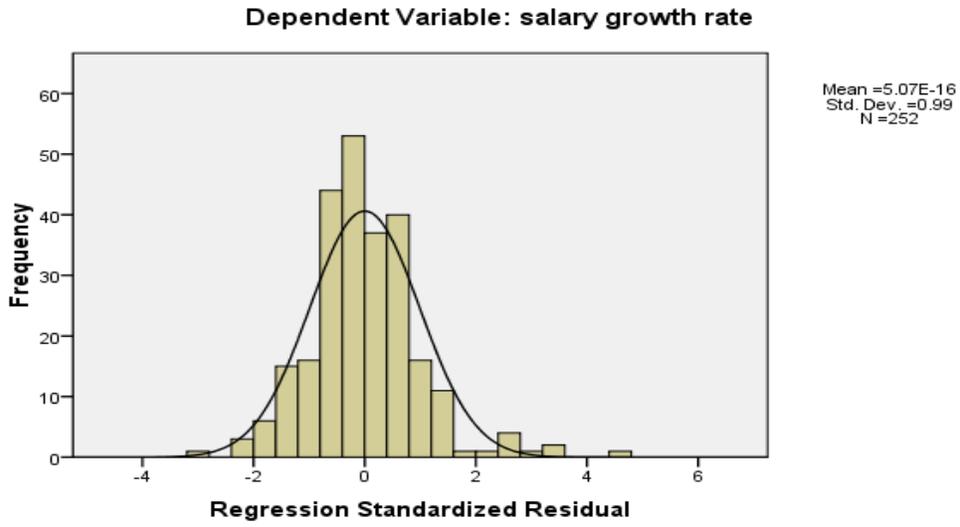


### Normal P-P Plot of Regression Standardized Residual

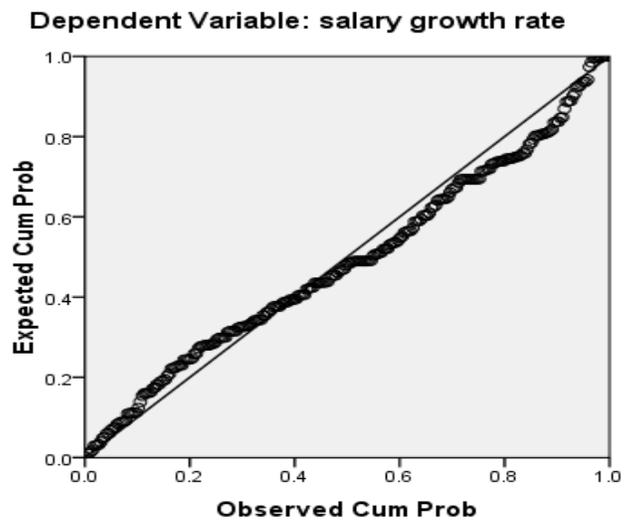
Dependent Variable: Average annual growth rate



### Histogram



### Normal P-P Plot of Regression Standardized Residual



## **Appendix- 3**

### **Jimma University**

#### **College of Business and Economics**

#### **Department of management**

#### **Questionnaire for Firms/Owners**

This questionnaire is designed to investigate the growth status of medium and large scale manufacturing enterprises and firms' growth determinant factors; factors that can promote or constrain the growth of such firms."The researcher kindly reminds the respondents (Firm's/Owners) that the response given by them would be used only as an input for the research work. Therefore, the validity of the research result depends on the validity and completeness of the data gathered from you. Hence, you are kindly requested to provide correct and complete answer for all questions detailed on this questionnaire. In addition the researcher would like to be grateful to the respondents the sacrifices they paid in completing this questionnaire.

#### **Part: 1 company information**

1.1.Full name of the enterprise:

\_\_\_\_\_

1.2.Code of the enterprise (for internal use): \_\_\_\_\_

1.3.Address of the enterprise:

Woreda (District): \_\_\_\_\_

Kebele (Sub-district): \_\_\_\_\_

#### **Part: 2 Individual characteristics that promote for the growth of medium and large scale enterprise**

1.4.Gender

Male  Female

1.5. Age Below18  35-45   
19-25  Above 46   
26-35

1.6. Level of education

Illiterate

Reading and Writing (informally)

Primary (1-8)

High school (9-12)

Diploma

First Degree and above

1.7. Work experience before establishment of current enterprise

Below 5 year  6-10  11-15  above 16

1.8. What sector is your business in?

Leather

Food processing

Shoes

Printing

Plastic

Bottle and glass

Soup and detergent

Wood and metal

Textile

Others \_\_\_\_\_

1.9. What is the status of the entrepreneur/firm in the enterprise?

Owner manager

Unpaid Family member

Hired Manager

Other (specify) \_\_\_\_\_

1.10. If you are 'hired manager,' starting what period has he/she been managing it?

Month	Year

1.11. Did you acquire additional training relevant to his/her activity/firm in the past three years?

Yes

No

**Part: 3 Firm characteristics that promote for the growth of medium and large scale enterprise**

1.12. How much the amount of paid up capital during establishment period? \_\_\_\_\_

1.13. How many years your business start operation as of Dec 2013.

Below 5 year  6-10  11-15  above 16

1.14. What is the legal ownership status of the establishment?

Sole proprietorship

Share Company

Private limited

Other (specify): \_\_\_\_\_

1.15. What was your main source of start-up funding?

Personal saving

Borrowed from friends/relatives

Inheritance

Borrowed from bank

Assistant from NGOs

Other (specify) \_\_\_\_\_

1.16. Number of employees:

At the time of start up	At this time (Current )

# **Jimma University**

## **College of Business and Economics**

### **Department of Management**

#### **Questionnaire for Employees**

This questionnaire is designed to know the wage/salary level of employees who are employed in medium and large scale manufacturing firms and the study will investigate the wage/salary growth determinant factors; factors that can increase or decrease the wage level of employees. Therefore, the validity of the research result depends on the validity and completeness of the data gathered from you. Hence, you are kindly requested to provide correct and complete answer for all questions detailed on this questionnaire.”The researcher kindly reminds the respondents (Employees) that the response given by them will be used only as an input for the research work. In addition the researcher would like to be grateful to the respondents the sacrifices they paid in completing this questionnaire.

#### **Factors that influence employee salary**

##### 2.1. Gender

Male

Female

##### 2.2. Age

Below18

19-25

26-35

36-45

Above 46

##### 2.3. Level of education

Illiterate

Reading and Writing (informally)

Primary (1-8)

High school (9-12)

Diploma

First Degree and above

Other (specify): \_\_\_\_\_

2.4. Work experience before/after joining the current enterprise

Below 5 year  6-10  11-15  above 16

2.5. Do you acquire additional training relevant to his/her job in the past three years?

Yes

No

2.6. If 'yes', which of the following training you acquire?

Technical

Management

Marketing

Others

2.7. Annual salary of the employee

Year	Initial monthly salary	Time of change of salary at different times:		monthly salary after change: (current)	Annual salary
		Month	Year		
2003					
2004					
2005					

Note: Monthly salary is to be converted to annual salary by considering the change of monthly salary.

**ጅማ ዩኒቨርሲቲ**

**አስተዳደር ት/ት ክፍል**

**ድህረ ምረቃ ፕሮግራም**

**ለንግድ ድርጅት ኃላፊዎች የተዘጋጀ መጠይቅ**

ይህ መጠይቅ የተዘጋጀው መካከለኛና ከፍተኛ የሆኑ አምራች ድርጅቶችን የእድገት ደረጃ ለመዳሰስና ለእድገታቸው ዋና ምክንያት የሆኑ ነገሮችን ለማጥናት ነው። በመሆኑም መጠይቁ ለጥናቱ አላማ ብቻ የሚውል መሆኑ ዘንድ በመገንዘብ ለጥናቱ ትክክለኛነት የእናንተው መረጃ ሙሉ መሆን አስፈላጊ በመሆኑ ሁሉንም ጥያቄዎች በጥንቃቄ እዲመልሱልኝ በትህትና እጠይቃለሁ።

**ለሚደረግልኝ ትብብር በቅድሚያ ከፍ ያለ ምስጋናዬን አቀርባለሁ።**

ከዚህ ቀጥሎ በሳጥን መልክ ለቀረቡት ጥያቄዎች (✓) ምልክት በማድረግ ምላሽ ይስጡ።

**ክፍል 1: የድርጅቱ አጠቃላይ መረጃ**

1.1 የድርጅቱ ሙሉ ስም \_\_\_\_\_

1.2 አድራሻ

ወረዳ \_\_\_\_\_

ቀበሌ \_\_\_\_\_

1.3 የድርጅቱ ኮድ (ውስጣዊ መለያ) \_\_\_\_\_

**ክፍል 2: የንግድ ድርጅቱ ሀላፊ ባህሪያት**

1.4 ልጅ ወንድ  ሴት

1.5 እድሜ

ከ20 ዓመት በታች

ከ31 - 40 ዓመት

ከ21 - 30 ዓመት

ከ41 ዓመት በላይ

1.6 የትምህርት ደረጃ

ማንበብና መጻፍ ያልቻለ

ከ9 - 12 ክፍል

ማንበብና መጻፍ የቻለ

ዲፕሎማ የያዘ

ከ1 - 8 ክፍል

የመጀመሪያ ዲግሪና ከዚያ በላይ

1.7 የስራ ልምድ

ከ5 ዓመት በታች

ከ11 - 15 ዓመት

ከ6 - 10 ዓመት

ከ16 ዓመት በላይ

1.8 የተሰማሩበት የስራ መስክ

ቆዳና ሌጦ

ምግብ

ጫማ

ማተሚያ

ፕላስቲክ

ብርጭቆና ጠርሙስ

ሳሙና

እንጨትና ብረታ ብረት

ጨርቃጨርቅ

ሌላ \_\_\_\_\_

1.9 በድርጅቱ ውስጥ ያሉት ስልጣን ምንድነው?

ባለቤት አስተዳደር

ተቀጣሪ አስተዳደር

የቤተሰብ አባል

ሌላ \_\_\_\_\_

1.10 መልስዎ <ተቀጣሪ አስተዳደር> ከሆነ ከመቼ ጀምሮ ነው ማስተዳደር የጀመሩት?

ወር	ዓመት

1.11 ባለፉት ሶስት ዓመታት ለስራዎ ጠቃሚ የሆነ ተጨማሪ ስልጠና ወስደዋል?

አዎ

አይደለም

**ክፍል 3: የግድ ድርጅቱ ወይም ኩባንያ ባሪያት**

1.12 ድርጅቱ ሲመሰረት በእጅ የገባ ጥሬ ገንዘብ ምን ያህል ነበር \_\_\_\_\_

1.13 ድርጅቱ ስራ ከጀመረ ስንት ዓመት ነው

ከ5ዓመት በታች

11 – 15 ዓመት

ከ6 – 10 ዓመት

16 ዓመት በላይ

1.14 የድርጅቱ ህጋዊ ምስረታ ምንድነው?

የግል

ኃላፊነቱ የተወሰነ የግል ኩባንያ

የጋራ

ሌላ \_\_\_\_\_

1.15 ስራዎትን ለመጀመር የተጠቀሙበት ዋና የገንዘብ ምንጭ ምንድነው?

የግል ቁጠባ

ከባክ ብድር

የጓደኛ ድጋፍ

መንግሥታዊ ካልሆኑ ድርጅት

ውርስ

ሌላ \_\_\_\_\_

1.16 ያልዎት የሠራተኛ ብዛት ስንት ነው ?

ድርጅቱ ሲመሰረት	አሁን ያለው

ጅማ የኒቨርሲቲ

አስተዳደር ት/ት ክፍል

ድህረ ምረቃ ፕሮግራም

ለሰራተኞች የተዘጋጀ መጠይቅ

ይህ መጠይቅ የተዘጋጀው በመከለኛና ከፍተኛ አምራች ድርጅቶች ላይ የተሰማሩ ሠራተኞችን የደሞዝ መጠን ለመዳሰስና ለሰራተኞች የደሞዝ እድገት ዋና ምክንያት የሆኑ ነገሮችን ለማጥናት ነው። በመሆኑም መጠይቁ ለጥናቱ ዓላማ ብቻ የሚውል መሆኑን በመገንዘብ ለጥናቱ ትክክለኛነት የእናተው መረጃ ሙሉ መሆን አስፈላጊ በመሆኑ ሁሉንም ጥያቄዎች በጥንቃቄ እንዲመልሱልኝ በትህትና እጠይቃለሁ።

ለሚደረግልኝ ትብብር በቅድሚያ ከፍ ያለ ምስጋናዬን አቀርባለሁ።

ከዚህ ቀጥሎ በሳጥን መልክ ለቀረቡት ጥያቄዎች (✓) ምልክት በማድረግ ምላሽ ይስጡ።

2.1 ጾታ ወንድ  ሴት

2.2 እድሜ

ከ20 ዓመት በታች

ከ31 - 40 ዓመት

ከ21 - 30 ዓመት

ከ41 ዓመት በላይ

2.3 የትምህርት ደረጃ

ማንበብና መፃፍ ያልቻለ

ከ9 - 12 ክፍል

ማንበብና መፃፍ የቻለ

ዲፕሎማ የያዘ

ከ1 - 8 ክፍል

የመጀመሪያ ዲግሪና ከዚያ በላይ

2.4 የስራ ልምድ

ከ5 ዓመት በታች

ከ11 - 15 ዓመት

ከ6 - 10 ዓመት

ከ16 ዓመት በላይ

2.5 ባለፉት ሶስት ዓመታት ለስራዎ ይረዳ ዘንድ ተጨማሪ ስልጠና ወስደዋል?

አዎ

አይደለም

2.6 መልስዎ «አዎ» ከሆነ ለምንደህል ጊዜ ባለፉት ሶስት ዓመታት ስልጠና ወስደዋል?

2.7 መልስዎ አዎ ከሆነ የተኛውን አይነት ስልጠና ወስደዋል?

ቴክኒካዊ ስልጠና

አስተዳደራዊ ስልጠና

የገበያ ስልጠና

ሌላ \_\_\_\_\_

2.8 ዓመታዊ የሥራተኞች የደምዘ መጠን ከ2002 – 2004 ዓ.ም

ዓመት	የመጀመሪያ ወርሃ ደምዘ	የደመወዝ ለውጥ የተደረገበት ወርና ዓመት		ለውጥ ከተደረገ በኋላ ያለው ወርሃ ደምዘ (አዲስ)	ዓመታዊ ደመወዝ
		ወር	ዓመት		
2002					
2003					
2004					

ማሳሰቢያ: የደመወዙን ለውጥ ከግምት በማስገባት ወርሃ ደምዘ ወደ ዓመታዊ ደምወዝ መቀየር አለበት።



# Appendix - 4

**በኢትዮጵያ ፌዴራላዊ ዲሞክራሲያዊ ሪፑብሊክ የንግድ ሚኒስቴር**



**The Federal Democratic Republic of Ethiopia  
Ministry of Trade**

ተቁ	የምዝገባ ስም (አማራጭ)	የምዝገባ ቀን	የንግድ ምዝገባ ቁጥር	የግብር/ከ/መለያ	ህጋዊ ይዘት	ካፒታል	ወረዳ	የስልክ ቁጥር	የቤት ቁጥር
1	ማኅበር ፍ.ዲ.ድ. ኃላፊነቱ የተወሰነ የግል ማህበር	8/27/20 12 0:00	kIk/AA/2/0000493/2 004	000001230 9	ሃላፊነቱ የተወሰነ የግል ማህበር	10500000	ኮልፌ. ቀራንዮ	0113482 382	1875
2	ጉለሌ ሳሙና ፋብሪካ	8/27/20 12 0:00	kIk/AA/2/0000498/2 004	000001250 8	ሃላፊነቱ የተወሰነ የግል ማህበር	5540000	ኮልፌ. ቀራንዮ	0911791 033	336
3	አዲስ አበባ የቆዳ አክሲዮን ማህበር	8/29/20 12 0:00	kIk/AA/2/0000581/2 004	000001718 3	ሃላፊነቱ የተወሰነ የግል ማህበር	17309000	ኮልፌ. ቀራንዮ	0116540 544	780
4	ፈንጌጌ ማተሚያና ፕብሊኪንግ ማህበር	11/14/2 012 0:00	kIk/AA/2/0001726/2 005	000002058 9	ሃላፊነቱ የተወሰነ የግል ማህበር	1500000	ኮልፌ. ቀራንዮ	0911232 976	3250
5	ልኬ የፕላስቲክ ውጤቶች ማምረቻ	8/27/20 12 0:00	kIk/AA/2/0000496/2 004	000002573 6	ሃላፊነቱ የተወሰነ የግል ማህበር	6000000	ኮልፌ. ቀራንዮ	0113481 313	1958
6	ድልብርሀንባቤት ቁብብፍ	8/27/20 12 0:00	kIk/AA/2/0000485/2 004	000002712 9	ሃላፊነቱ የተወሰነ የግል ማህበር	15000000	ኮልፌ. ቀራንዮ	0000000 000	አዲስ
7	የኢትዮጵያ ኮምፒዩተር ድርጅት	11/12/2 012 0:00	kIk/AA/5/0001712/2 005	000003505 1	መንግስታዊ ልማት ድርጅት	2909070	ኮልፌ. ቀራንዮ	0911205 572	821
8	ረዳ ሳሙናና ዲተርጅንት አክሲዮን ማህበር	8/28/20 12 0:00	kIk/AA/3/0000519/2 004	000004178 8	የአክሲዮን ማህበር	65000000	ጉለሌ	0113480 770	አዲስ
9	ቅድስት ኢንተርናሽናል ኃላፊነቱ የተወሰነ የግል ማህበር	11/13/2 012	kIk/AA/2/0001716/2 005	000004303 5	ሃላፊነቱ የተወሰነ የግል ማህበር	3000000	ኮልፌ. ቀራንዮ	0911209 731	3325

