# The Effect of Firm's Growth on the Income of Their Employees (A Case Study of Medium and Large Scale Manufacturing Enterprise in Kolfe Keranio Subcity, Addis Ababa)

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# **1. INTRODUCTION**

Ethiopia is a least developed country with an average GDP per capita income of USD 101.2 and Real GDP growth rate for 4.5% of the period 1991/92-2002/03 (EEA, 2004: 6). More than 85% of the population is engaged in agriculture, which has generated on the average 47.5% of real GDP growth rate for the last twelve years .The industrial sector's contribution to real GDP growth rate is 10.7 % for the last twelve years (NBE 2004: 1). The population size, which is close to 84,734,262, is increasing at a rate of 2.9% per annum (ILo, 2003: 1). According to the International Labor Organization report in 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 1999/2000 in Ethiopia the proportion of people who were absolutely poor was 29.6%. According to MoFED (2004), 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%.

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, 2002: 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 the many of the people 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. According to the Ethiopian ministry of Trade and Industry, manufacturing firms in Ethiopia are classified as both micro and small firms or medium and large firms

based on paid up capital. Firms with paid up capital of more than Ethiopian birr 1, 500,000 are classified as medium and large. 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 and service sectors in 2002/3 were 42% and 45% respectively; but as of 2003/4, the GDP shares of agriculture and service sectors were 41% and 45.6% respectively. In both years, the GDP contributions of the industrial sector were 13% and 13.4% respectively. As of 2002/03, the annual growth rates in the agriculture, industry and service sectors were 6.4%, 4.6% and 5% respectively (EEA, 2004: 10-16).

As per the report of the ministry of trade and industry, the growth rate and share of GDP of the agricultural and industry sector was fluctuating, but the growth rate and share of GDP of the service sector has increased. In the year 2003/04, on average, the real GDP growth was 11.6%; in the same years, the average growth rates in agriculture, industry and service sectors were 14.6%, 6.9% and 13.9% respectively (EEA, 2004: 11-16).

The GDP contribution of the industry sector in the past four years was minimal and varied from 5.2% in 2000 to 13.4% in 2004. As of 2000/01, the labor force occupation in agriculture, industry and service were estimated at 85%, 5% and 10% respectively CIA, (2011). These statistics suggest that the contribution of the industrial sector to Ethiopia's GDP and employment is minimal.

Though the contribution of industry is minimal, many job opportunities were created in such areas. For example, in 2003 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 three persons. In the same year, there were 1,733 medium and large firms, which created job opportunities for 98,986 employees; each firm has created job opportunities for 57 employees. This shows that both types of manufacturing areas are creating equivalent job opportunities (EEA, 2004: 345-350)

Despite huge potential growth opportunity for manufacturing firms in Ethiopia and the government's commitment for its development (the newly developed growth and transformation plan), less is achieved in the growth and expansion of industries in general and the medium and large sized manufacturing in particular towards the contribution of GDP and creation of employment opportunity for generating income. In this regard, this study will be in great help by identifying the major determinant firm's growth factors that affect employee's income in medium and large scale manufacturing industries.

### 2. REVIEW OF RELATED LITERATURE 2.1 Empirical Findings

Because the thesis investigates how firm and individual level characteristics influence firms' and employees' salary 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.

# 2.1.1 Factors that Promote or Constrain Firm's Growth

- a. 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. (Gebreeyesus, 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. Kristiansen, Furuholt, and Wahid (2003) found that length time in operation was significantly linked to business success."

(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) 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 (Liedholm, 2001:11-12; Goedhuys, 2002:15; Esteves L.A., 2007: 3; Coad, 2007:15; Gebreeyesus, 2007:7). On the other hand, different authors argue that firm size is positively correlated to firm growth. (Coad, 2008), indicates that "firms that enter small often remain small, because they face formidable barriers to growth". (Goedhuys & Michelin, 2002:), also found a positive relationship between age and size on Ivorian enterprises; they found that large sized firms grow better than the smaller ones. Moreover, Van Biesbek (2005) and McMahon (2001) have argued that firms initially established larger 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; Goddard, et al., 2002: 415-433; Bottazzi, G & Secchi,A, 2003: 217-232; 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).

According to financial accessibility, Okoh & Song, (2000) larger or more profitable firms are likely to have access to a larger pool of earnings that can easily be reinvested in the firm. 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), 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) 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).

### b. 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, Evangelia & Bassima, (2002) found 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, Alvarez and Crespi (2003) note that small firms owned by highly educated persons do not grow because the owners divert their attention to other issues, like searching and working other jobs. 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). For example, according to Mead and Liedholm (1998) 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) argue that on-the-job training within the same sector is crucial for the growth of a firm. Moreover, Liedholm (2001) argues that the capacity gap of owners can be filled by having skilled workers. Gebreeyesus (2007) 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, Singh et al. (2001) note that female headed enterprises are small and pay less salary to their employees; paying less salary implies that skilled workers do not prefer to join such firms. (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, the income generated from such firms is used for household purpose that can slow down growths of firms owned by women (Nichter & Goldmark, 2005:17). 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.

# 2.1.2 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 size, firm age, and gender, level of education, training, and experience. These factors are discussed below:

# a. Firm Size and Wage

According to Soderbom and Wambugu (2002) indicate that there is positive relationship between firm size and wage; as the firm size increases, wage increases. Moreover, Strobol and Thoronton (2001) and Manda (2002) 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.

# b. Firm age and wage

Soderbom, et al (2002) 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) 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 agewage 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 firma pay higher salary for their workers.

### c. 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., 2002:12) indicated that female workers are paid less than male workers. Moreover, Mumford et al. (2004) 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) 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 genderwage earning gap, like the expected productivity level, exclusion of females from 'male' jobs, discontinuous participation of females, and training level. (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 (Jellal, 2009: 4). This implies that females may not work continuously due to maternal leave, child care, etc, which firms may dislike.

(Chiswick, 2003: 8) and (Jellal, 2009:3-4) add 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.

### d. 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.

### e. 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.

(Brown & Medoff, 2001:5), 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. For example, according to Gershuny (2005) more training is given for more educated workers and who are engaged in complex activities. (Mumford & Smith, 2004: 5), adds that, during the introduction of new

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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) has found a positive relationship between on-thejob 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, Keep (2002) 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.

### f. 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 'sectorspecific 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.

According to Connolly et al. (2006), "tenure, sector-specific experience and general experiences" have a better impact on wage changes [with-in job] for more educated workers than for less educated ones. Comparatively, the returns for sector specific and general experiences are greater than of experiences to specific firm. Moreover, Manning and Robinson (2004) indicate that the return for tenure is small. Finally, (Mumford & Smith, 2004: 9), found that the contribution of work experience on income decreases as age increases. This implies that the earnings increase as working experience increases, but at diminishing rate when workers are getting older.

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

# 3. SAMPLE OF THE STUDY AND SAMPLING METHOD

There are 18 medium and large scale manufacturing enterprises located in Kolfe Keranio. The study consists of all firms who are operating in different sectors of the sub city.

The study of the population will be consisted of 2830 employees who are working in 9 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.

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 manner environment. But from each stratum, proportionate sample size will be taken based on the formula shown below. First, sample size for the population of medium and large scale is determined (Cochran, 1963; Isral, 1992) as follows.

$$n = N/(1+N (e)^{2}$$
 and  $n=2830/1+2830(.065)^{2}$ 

Where n is the sample size of the population of MLSs, N is the total population of MLSs and e is margin of error (6.5%).

The following table summarizes the total population in each sector and the corresponding sample taken from each sector.

 Table 1.1: 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					
Grand total	2830	18	252					

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

To determine whether or not the income of employees is changing, employees were selected who employ in the same firm for at least three years (2011-2013). This is done in order to compare the firm and income growth rates throughout the duration of their employment period. The employees with at least three years of internal service will regroup in two males and females. The sample is selected on all education levels and for both genders for each firm. Moreover, workers with and without external related service years are included. Finally, the representative sample was selected using a lottery method.

# 3.1 Equations and Definitions for Firms and Employee's Salary Growth Determinant Factors

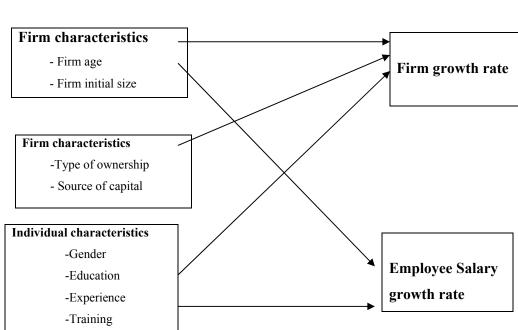
a. Firm Growth Determinant Factors

 $Yi = \alpha_0 + \sum \beta_i X_i + \Box$ 

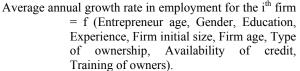
- Where Yi is the growth of the firm
- $\alpha_{o}$  is the intercept term
- βi is the coefficient of xi
- Xi are the explanatory variables
- $\Box$  is the error term

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

EGTH = $\alpha \circ + \beta 1(AGE) + \beta 2(GEND) + \beta 3(EDUC) + \beta 4 (EXPR) + \beta 5 (SIZE) + \beta 6 (AGE) + \beta 7 (OWN) + \beta 8 (CRED) + \beta 9 (TRAN) + \Box$ 



### Independent variable



#### a. Employees' Income Growth Determinant Factors

 $Yi = \alpha_0 + \sum \beta_i X_i + \Box$ 

- Where Yi employees' salary growth at different times
- $\alpha_o$  is the intercept term

 $\beta i$  - is the coefficient of xi

Xi - are the explanatory variables

 $\Box$  - is the error term

SGTH =  $\alpha \circ + \beta 1(AGE) + \beta 2(GEND) + \beta 3(EDUC) + \beta 4$ (EXPR) +  $\beta 5$  (SIZE) +  $\beta 6$  (TRAN) +  $\Box$ 

Average annual salary growth rate for i<sup>th</sup> employee = f (Employee age, Gender, Education, Experience, Firm initial size, Firm age, Training).

### 3.2 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.

# **Dependent variable**

### Fig 1.1: Relationship between independent and dependent variables

# 4. DATA ANALYSIS

### 4.1 Growth Status of Medium and Large Scale Manufacturing Firm

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.

Name of sub sector	Code of sub- sector	Name of sub- sector	Code of sub - sector	
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			

Table 4.1: Code Of Sub -Sector

Source: own survey, 2013

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, shows 2%, 2%, 1.8%, respectively, but the rest two sectors printing and shoes have an average annual growth rate of 1.53% and 1.33%.

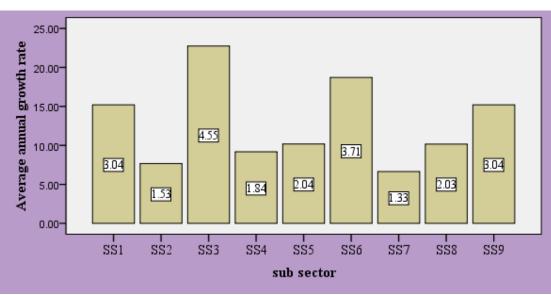


Fig 4.1: Growth Rates of Firms by Sub Sectors

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%. The mean annual growth rates (2.8%), since start up indicate that overall growth performance is weak compared to other developing country experiences on the same growth measures. For instance, 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).

# 4.2 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 the leader of firms, the experiences of firm leaders, gender 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 is used to reflect which firms and individual characteristics affect the growth of firms.

### a. Entrepreneur Age and Firm Growth Rate

Age of an operator 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

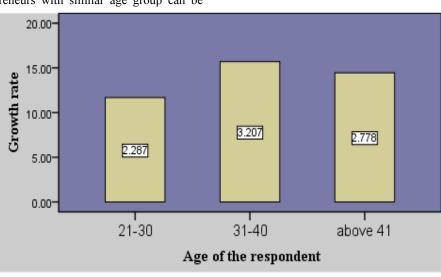


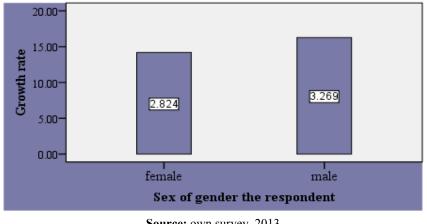
Fig 4.2: Firm Growth Rates by Age Source: own survey, 2013

As it is presented in Figure 4.2, the researcher divided respondents' age into three age groups ranging from 21 to above 41 years in order to identify age growth relationship. Accordingly, 3% of average annual employments generated from entrepreneurs under the age of above 31-40 years old, whereas, 2.7% of average growth rate comes from entrepreneurs were between above 40 age groups. The remaining age group account 2.3% of average annual employment growth rate found between 21-30 years old. This shows the average annual growth rate increase when entrepreneur's age increases. As result entrepreneurs age and firm growth rate were a positive relationship. This similar with the findings of Kristiansen, Furuholt, and Wahid (in Desta, 2003: 22),

entrepreneurs older than 25 years were more successful than younger ones in Indonesia but, in 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).

### b. Medium and Large Manufacturing Firm Leaders Sex and Growth Rate

Gender of an operator 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.

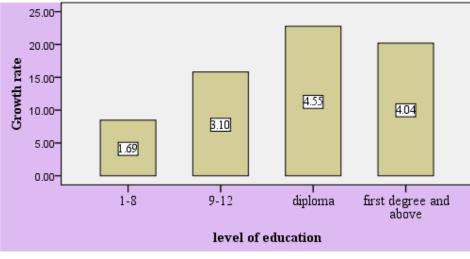


**Source:** own survey, 2013 **Fig 4.3:** Firm Growth Rates by Sex

As you can see from the figure above, the largest growth rate registered from male headed entrepreneurs accounting for 3.3% but, those female headed were 2.8%. This shows that male headed entrepreneurs 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 jobs [home and business] that can dilute their efforts in their business.

### c. 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 operators. 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.



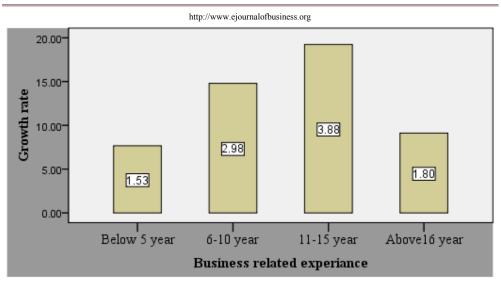
Source: own survey, 2013 Fig 4.4: Firm Growth Rates by Level Of Education

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 for 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. Completion of secondary education is highly correlated with business growth, graduate or post-graduate education does not affect the

growth prospect of a business (Evangelia, P & Bassima, C, 2002: 39).

### d. Experience and Firm Growth Rate

Instead, 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 which have previous business related were identified to understand skill growth relationships. Vol.3, No.5 August 2014 ISSN 2307-2466 International Journal of Economics, Finance and Management ©2014. All rights reserved.



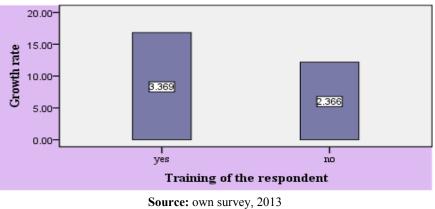
**Source:** own survey, 2013 **Fig 4.5:** Firm Growth Rates by Business Related Experiences

Figure 4.5 indicates that 3.9% of average annual growth rate of firms led by leaders influenced by who have 11-15 years experience but, the average annual growth rates of firm leaders who have 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, but it declines after it reaches maximum. Therefore, the internal service years of leaders and firm growth rate are positively correlated. 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

### e. 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



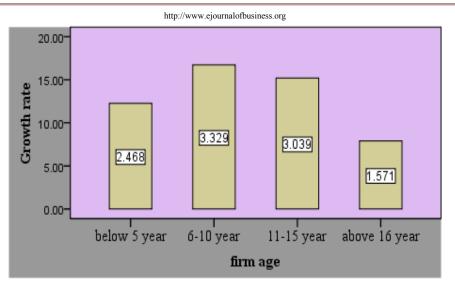
**Fig 4.6:** Firm Growth Rates and Training

Figure 4.6 indicates that entrepreneurs were asked about their business related training which is relevant to run their operation. Vocational trainings are also advocated to help entrepreneurs to get acquainted with new techniques while on the job. The firm leaders which acquire vocational training were created an average employment of 3.4% but, those who have not obtained training accounts for 2.4%. As a result there is no significant relationship between the firm's average annual growth rate and training. This is due to vocational training in Ethiopia is at its infant stage (Belay, 2012: 97).

#### f. Firm age and Growth Rate

The 18 manufacturing firms are grouped in to four age groups; they are: 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.

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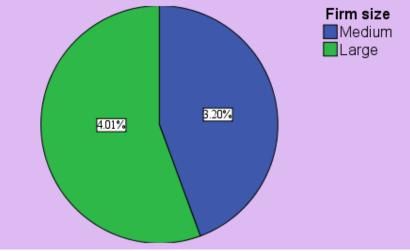


**Source:** own survey, 2013 **Fig 4.7:** Firm Growth Rates by Age Group

Figure 4.7 indicates that, on average, the annual growth rate of firms with 6 -10 years of operation were higher than the later years, which account 3.3%, followed by 3% of  $11_{th}$ - $15_{th}$  years of operation but, firms with 5 and fewer years old operation of a firm were 2.5%, which is greater than above 16 years old. Starting with the  $11^{th}$  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.

### g. 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, I have used the median capital as a bench marker. 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.



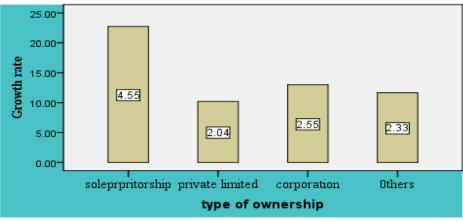
Source: own survey, 2013 Fig 4.8: Firm Growth Rates by Initial Firm Size

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 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.

### h. 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 Fig 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 private corporations 39% and private company 38%. 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.

To summarize, the relationship between firm age and firm growth is U-shaped; at the initial time, firm growth is high; then it declines. Moreover, the growth rate of medium firm is higher than of large firms. 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 of firms led by degree holders. In addition, the growth rates of firms led by leaders with internal service years of 6-15 years are better than of leaders with internal service years of others. Finally, the growth rate of sole proprietorships is better than of other forms of firms.

# 4.3 Employees' Salary Level and Growth Statusa. Maximum, Minimum and Mean Salary of all Employees

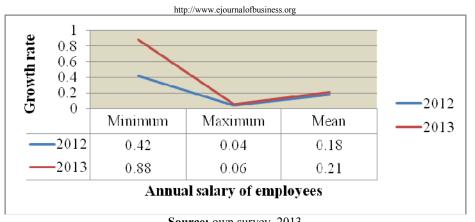
	Ν	Minimum	Maximum	Mean	Std. Deviation
Annual salary 2011	252	2,040.00	65,450.00	13,438.8889	12,824.39944
Annual salary 2012	252	2,880.00	69,360.00	15,879.2937	13,820.42600
Annual salary 2013	252	5,400.00	72,000.00	19,106.9841	15,125.62011
Annual salary from 2011 to 2013	252	3,640.00	68,936.67	16,141.7222	13,794.71742
Valid N (listwise)	252				

Table 4.1: Average A	Annual Salary of all	Employees	(in birr)

Source: own survey, 2013

Table 4.1 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.

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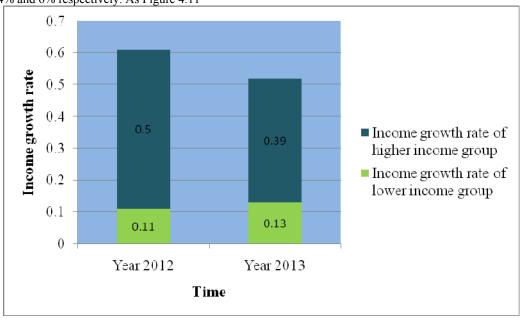
Source: own survey, 2013 Fig 4.11: Annual Salary Growth Rates

Referring to Table 4.1, 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 4.11 indicates the annual salary of each worker increased by 18% and 21% in 2012 and 2013 respectively. The annual minimum salaries for the years, 2012 and 2013 are 2,880 and 5,400 birr respectively. Compared to 2007, the minimum wage increased by roughly 42% and 88% (in 2008 and 2009 respectively). The maximum salaries in 2012 and 2013 are 69,360 and 72,000 birr respectively; the annual salary growth rates in 2012 and 2013 are 4% and 6% respectively. As Figure 4.11

indicates, it is possible to conclude that the mean annual salary growth rate increases from time to time.

# b. 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.



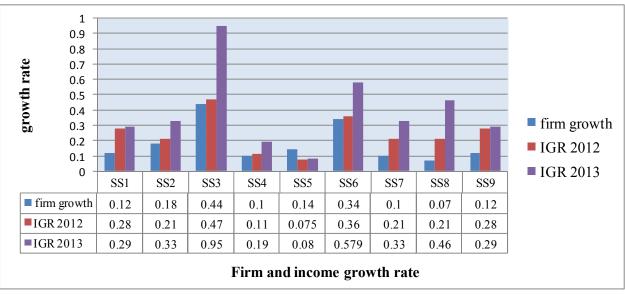
Source: own survey, 2013 Fig 4.12: Annual Salary Growth Rate by Income Group

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 5% and 39% respectively. Figure 4.12 indicates that, on average, the income growth rate of the high income group increases over time; the reverse is true for lower income group. Moreover, the annual income growth

rate for the 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.

c. Sub-sector Wise Growth Rates Comparison using all the Three Years

The total firms and income growth rate was used to identify the growth income relationship. 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 growth.



Source: own survey, 2013 Fig 4.13: Firm and Income Growth Rate

As indicated in the above figure 4.13 the growth rates of all firms were positive ranging from 10%% to 44% but, two sub-sector firms (i.e. plastic and food processing) were recorded higher growth rate when compared to other sectors. The employees' income growth for the period 2012 was positive (ranging from 8% to 47%). 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 8% to 95%). 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 were 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 are 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.

In summary, there is high variation between the maximum and minimum salary of employees. The salary

growth rate of the higher income group is higher than of the lower income group; while the salary growth rate of lower income group increases at increasing rate, the salary of higher income group increases at decreasing rate. In addition, the salary growth rate is higher than of the firm growth rate. When the firm growth increases, the income growth also increases.

### 4.4 Econometric Results of Firm and Employee's Salary Growth Determinant Factors

This part deals with 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.

### 4.4.1 Determinant Factors of Firm 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 measure and 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 4.8. The overall of statistics of model used in the SPSS analysis is presented in Annex. 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 significant. The factors like initial firm size, firm age, age of firm leaders, level of education, and experiences were significant and detailed as follows.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		В	Std. Error	Beta	·	S <b>-B</b> -	Lower Bound	Upper Bound
1	(Constant)	.094	.045		2.074	.068	009	.196
	firm age	026	.008	396	-3.353	.008	044	009
	initial firm size	.035	.005	.692	6.965	.000	.023	.046
	type of ownership	011	.006	138	-1.810	.104	026	.003
	entrepreneur gender	006	.011	035	501	.629	031	.020
	entrepreneur age	.025	.006	.276	3.994	.003	.011	.039
	level of education	.056	.007	.656	7.464	.000	.039	.073
	entrepreneur experience	.010	.004	.129	2.233	.052	.000	.019
	entrepreneur training	017	.011	130	-1.646	.134	041	.007

### Table 4.2: Econometric Results of Firm Growth Determinant Factors

### a. Dependent Variable: Average annual growth rate

Significance at 1% significance level

Firm growth= 0.94 - .026FA + .035FS +.025EA +.056EDU + .010EXP

The Adjusted R<sup>2</sup> value of 0.75 means that about 75% 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 of medium and large firms. Firm age has more impact on average annual employment medium and large enterprises than other explanatory variables.

Enterprise age is statistically significant at 1% 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 are the more likely they grow fast. This result is consistent with (Goedhuys, M & Sleuwaegen,L, 2009: 15), (Liedholm, 2001: 11)and (Gebreeyesus, 2007: 7) model of passive learning model and competitive selection.

Initial size of a firm is also found to be important in explaining growth. The variable is statistically significant at 1% level and positive, revealing strong direct relationship between initial size and growth. The increment of the initial size of enterprises by one increases the growth rate of enterprises by .035%. The larger enterprises at start up thus register high growth rates than their small enterprises. This is because firms that enter small often remain small; because they face formidable barriers to growth. This is consistent with the findings reported by, (Esteves L.A., 2007: 3); (Coad, 2007:15), (Gebreeyesus, 2007: 7) and (Coad, 2008: 3). Entrepreneurial age found to be significant at 1% and positive, indicating a direct relationship with firm's growth rate. This shows when entrepreneurs age increases, on average, the average annual employment creation increases by .025%. This is similar with the findings of (Kristiansen, Furuholt, and Wahid, 2003) which argue entrepreneurs older than 25 years were more successful than younger ones.

The firm owner formal education level is found to be positive effect at 1% significant level for the growth of medium and large manufacturing firms. This is good news for those who hire employees with vocational certified employees. 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).

4.5 Determinant Factors of Employees' 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.

Model		Unstandardized Coefficients		Standardized Coefficients	4	S <b>!</b> -	95% Confidence Interval for B	
		В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	096	.031		-3.101	.011	166	027
	firm age	.006	.006	.131	1.076	.307	007	.019
	initial firm size	.001	.004	.040	.319	.757	009	.011
	level of education	.016	.007	.429	2.515	.031	.002	.031
	experience of the respondent	.019	.008	.411	2.321	.043	.001	.037
	training of respondent	.009	.006	.120	1.435	.182	005	.023
	gender of respondent	.056	.016	.356	3.548	.005	.021	.091

Table 4.9: Econometric Results of Employee's Income Determinant Factors

Dependent variable: salary growth rate

Significance at 1% significance level

Salary growth = -.096 + .016EDU + .019EXP + .056SEX

There is also evidence that the education level of employees does very significantly affect their income growth at 1% 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 1% level of significance and positive. Table 4.9 shows that, on average, the annual salary of employees can increase by

about 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) and (Mumford & Smith, 2004: 9).

In addition, sex of employees significantly predicts the income level of employees at 1% 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).

# 5. CONCLUSION AND RECOMMENDATION

### 5.1 Conclusion

The mean annual growth rate 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.

The relationship between firm age and firm growth is U-shaped; at the initial time, firm growth is high; then it declines. Moreover, the growth rate of medium firm is higher than of large firms. 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 of firms led by degree holders. The entrepreneur's age found to be significant for firms growth. This gives evidence that younger entrepreneurs are energetic, determined and willing to test their abilities and hence possess greater growth goals compared to older entrepreneurs. On the other hand, entrepreneurs older than 30 years were more successful than younger ones In addition, the growth rates of firms led by leaders with internal service years of 6-15 years are better than of leaders with internal service years of others.

The firm growth rate of sole proprietorship is better than of other firms. This implies that, the government should try to encourage the establishment of firms which are owned by single individuals. This may indicate that individual owners can be tools for poverty alleviation in Kolfe Keranio. Individuals can be efficient

and effective because they are the immediate recipients of the fruits of their operation

The mean annual average 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 were grew 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. On average, the income growth rate of employees' is higher when the firm growth rate is higher; but the reverse is true when the firm growth rate is lower. This indicates that the firm growth status can affect the employees' income growth.

The results of the study indicate that 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. This shows male workers benefit more in the medium and large manufacturing firms in Kolfe Keranio than females.

Finally, employee's education level and some business related experience 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.

# 5.2 Recommendation

Policies and support programs need to consider the heterogeneous nature of the medium and large enterprises. Different categories of firm's have different contributions and different potential for growth and poverty alleviation. For the large number of Medium and large firms, that do not expand in terms of employment and concentrate on survival type of activities, survival might be their main objective. This by itself should not be discouraged as it supports a large number of very poor families but the type required assistance might be different from others. 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 determinants of firm growth (employment expansion), econometrically in an extended fashion that include a wide variety of factors that might affect business growth. The study identifies five determinant characteristics. Age of entrepreneur found to be positively related with growth. As a result individuals themselves and the government give much attention to those productive age groups because, they may willing to assume risks and have a higher need of additional income. The firm growth rate of large firms is better than of small firms. This gives evidence that 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, poverty alleviation, 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 and should remain a priority in governments' youth employment agendas.

The loyalty of firm leaders to a specific firm is also an important tool 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 an Ethiopian context.

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, from poverty alleviation program 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 are supposed to work in harmony for mutual benefits; when the firm grows, the employees may share the benefits. To increase income of employees and alleviate poverty, there may be needs of extending supports to such firms, perhaps through government intervention.

The formal education level of employee 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 education 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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