

## External Factors Affecting Firm Growth: Evidence from Small Scale Manufacturing Firms in Tigray Regional State of Ethiopia

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### ABSTRACT:

It is widely agreed that small scale enterprises (SSEs) used to play a crucial role in achieving the industrial and economic development. Though SSEs play indispensable economic role, studies are limited to analyze the external factors that affect the growth of SSEs independently. Therefore, the objective of this paper is to examine the effect of external firm factors influencing small scale manufacturing enterprises in the Tigray regional state of Ethiopia. Data was collected from 259 manufacturing SSEs in Tigray Region through semi-structured questionnaire and interview. The Multinomial logistic regression model was used to examine the effect of explanatory variables on unordered response variable. The result indicates that infrastructural development, competition, and access to market are positively and significantly determines the growth of SSEs. While the level of interest rate influences the growth of SSEs negatively and significantly. The effects of credit access and business development services were statistically insignificant. The policy towards job creation and industrial development can take into consideration these external factors to promote the start up and growth of SSEs.

**Keywords:** *External factors, Growth, Manufacturing SSEs, Multinomial logit*

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### INTRODUCTION

Manufacturing firms are considered very vital to economic growth because by virtue of their nature they create forward-backward linkage in promoting growth. Particularly in developing economies, these firms are believed to be the potential growth channel in contributing to country's export (generating foreign earnings) and employment creation. Supporting this argument, the history of economic development tells us that promotion of infant manufacturing industries is one of the major drivers behind the success of industrialization in developed countries (Rostow, 1960). Moreover, small scale manufacturing enterprises used to play a crucial role in

achieving the industrial and economic development objectives of many developing economies. For instance, SSEs contributes about 80 percent of private sector industrial workers in Japan, and in India it accounts for over 55 percent of the total value of industrial production, 40 percent of the total country's exports and more importantly providing employment opportunities to over 12 million people. Moreover, in Nigeria, it represent about 90 percent of the industrial sector in terms of enterprise, amount to about 70 percent of the national industrial development and contributes 10 percent of the manufacturing sector output contributing significantly to economic

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development through employment, job creation and sustainable livelihood (Stephen and Affolarin, 2013)

Ethiopia is the least developed country, based on agrarian economy in which above 80 percent of its population lives in rural areas. Hence, the agenda of poverty reduction and sustainable development in this country calls a transformation from heavy reliance on traditional agriculture to commercial agriculture and manufacturing sector. To this end, the government has taken a number of policy measures, specifically, through the recent growth and transformation plan, intended to bring about the industry led economy. Hence, the favor towards industrial sector requires promoting and expanding the manufacturing sub sector which is considered as a major source of employment generation and capital accumulation (Andualem, 1977; Abrahm, 1997). In Ethiopia, the size of the labor force continues to grow more rapidly than the ability of the economy to offer new employment opportunities. Unemployment, particularly urban unemployment is becoming one of the critical problems in the country. According to the most recent census result, 50 percent of urban men between ages 15-30 are unemployed. Thus, an effective government policy to reduce unemployment and promote capital formation in the country should stimulate enterprises growth and expand new businesses. To this effect, policy formulation process requires identifying the determinants of firm growth. While a significant amount of researches has been done on firm growth taking internal and inter-firm factors (Mulu, 2007; Rahel and Issac, 2010), however, macroeconomic and external factors have not deserved much attention.

Given the economic significance and important role of SSEs in job creation, innovation, import substitution, ensuring income equality and poverty alleviation, it is very essential to systematically analyze the external factors that affect the growth of SSEs independently. Therefore, the objective of this paper is to examine the effect of external firm factors influencing small scale manufacturing enterprises in the Tigray regional state of Ethiopia.

### Literature Review

Firm growth could be viewed from four main theoretical points of view, namely, the resource-based view, the motivation view, the strategic adaptation view and the configuration view. Such different growth perspectives assumed that firm growth would be influenced by several factors like characteristics of the enterprises, access to resources like finance, quality of business environment, and manpower which influence the growth of the enterprise and separate it from a non-growing enterprise (Assefa, 1997; Khan and Siddiqi, 2008; Habtamu et al., 2013).

The concept growth is complex and has various connotations. Thus, it can be defined in terms of revenue generation, value addition, employment generation and expansion in terms of volume of the business. It can be measured on quantitative basis like employment size; asset/capital growth and sales growth. It can also be measured in the form of qualitative features like market position, quality of product, and goodwill of the customers (Kruger, 2004). Interestingly, there is little agreement in the existing literature on how to measure growth and scholars have used a variety of different measures. These measures include, for example, growth of sales, employees, assets, profit, capital, and others (Holmes and Zimmer, 1994; Berkham et al., 1996; Davidsson and Wiklund, 2000). Moreover, growth has been measured in absolute or relative terms. Perhaps the most common means of operational intone of firm growth is through relatively objective and measurable characteristics such as growth in sales turnover, total assets and employment size. These measures are relatively uncontroversial (methodological) and data tend to be easily available, increasing the scope for cross study comparability (Freel and Robson, 2004). On the other hand, some scholars argue that if measurement error were not a problem, defining growth in terms of sales or profits might be preferable to a labor-based measure from an accuracy standpoint. However, owner/managers are extremely reluctant to give accounting information to external parties (outsiders) (Fioritto and LaForage, 1986). As a result, the measurement of growth in terms of changes in

the numbers of workers is objective.

In fact some studies have found that growth in sales and growth in the number of workers are highly correlated. For instance, Evans (1987) report that firm growth status using employment figures was similar to those using sales. Therefore, in this study growth in employment size is selected as best an estimate of firm growth status and it is computed following Evans (1987) model as:

$$\begin{aligned} \text{Growth of firm} &= \ln \left[ \frac{\text{(current employment size)}}{\text{(beginning employment size)}} \right] \\ &/ (\text{firm age}) \end{aligned}$$

Using this formula to measure of growth, Cheng (2006) classified the growth of firms in to five categories: (1) Highest growth (100% employment growth/more), firms that have double or more than double growth in employment size over time. (2) Fast growth (67-99% employment growth), firms that have more than average growth in employment size over time. (3) Medium growth (34-66% employment growth), firms that have moderate growth in employment size over time. (4) Slow growth (1-33% employment growth), firms that have little growth in employment size over time. (5) Static/declining (0/Negative % employment growth), firms that remain the same in size/about to decline in employment size over time, remains survival. Besides, Khan and Siddiqi (2008) analysed firm growth in terms of employment size expansion (categorized as positive growth, zero growth and negative growth) in which the multi nominal logistic regression was used. They found entrepreneurial and non- entrepreneurial factors were important determinants of employment generation.

**Definition of SSEs:** SSEs can be defined based on various criteria such as employment size, total asset, revenues/sales, etc in different countries. In the case of Ethiopia, paid up capital and number of employees are used to define SSEs. According to the revised micro and small enterprises growth stages guide line No. 004/2011, the revised definition considers employed labor force including family labor; total assets without working building and the division of sub sector in to services and manufacturing are the main criteria. Therefore,

in the industry sector (includes manufacturing, construction and mining sub sectors), small enterprises refers to a business enterprises which employs 6-30 labor force including business owners and family labor and/or the monetary value of the enterprise's total assets ranging from 100,001–1,500,000 birr. While in the service sector, small enterprises are defined as a business enterprise which employs 6-30 labor force including business owners and family labor and / or the monetary value of the enterprise's total assets ranging from 50,001–500,000 birr.

## RESEARCH METHOD

**Research Design:** The quantitative research which follows a positivist view depending on the principles of finding facts, documenting facts and use of scientific method which allow tests of hypotheses and rely on objective measures (data) to support the findings was followed.

**Data and Collection Techniques:** The data that was used in this study were both firsthand data that are primarily derived from semi-structured questionnaire. In addition some of the firm operators were conditionally interviewed. The secondary data was collected from the documents, reports and manuals in the regional investment promotion bureau.

**Sampling:** This study is based on 259 small scale manufacturing enterprises drawn from five towns of Tigray regional state, namely, Mekelle, Adwa, Adigrat, Shire and Maichew.

**Variables:** External factors can be described as all the factors that determine the business environment in which enterprises operate. In most developing countries firms face a wider range of constraints and they hardly able to address the problems they face on their own (CSA, 2005; Michael, 2006; Okpara, 2011). In most of previous studies, access to financial resources, interest rate, level of infrastructural development, degree of bureaucratic red tape, corruption, incentives and regulatory framework were mentioned as main factors contributing towards firm growth. Hence, some of these factors and others were taken into account to examine manufacturing firm growth. In this paper the dependent variable is growth of firm (SSEs) measured in terms of employment size expansion. The explanatory factors (external factors) examined in this study were derived

from literature and included based on the area of studies' context. These were interest rate, access to credit, infrastructural facilities, access to business development services, practice of competitors and access to market. Hence, in line with existing theories and empirical evidences, the following hypotheses were formulated:

**H1:** There is positive and significant relation between access to credit and SSEs growth.

**H2:** There is negative and significant relation between level of interest rate and SSEs growth

**H3:** There is positive and significant relation between infrastructural development and SSEs growth

**H4:** Business development services have positive and significant effect on growth of SSEs.

**H5:** Access to market positively and significantly affects SSEs growth.

**H6:** Practice of competitors negatively and significantly affects SSEs growth.

**Model Specified:** In this paper the dependent variable (SSEs' growth) is measured by expansion in employment size. To examine the probability of SSEs growth in terms of employment size, the multinomial logistic regression by means of maximum likelihood estimation is used. The model is appropriate given the nature of dependent (response) variable which is SSEs growth status categorized in to three categories that doesn't have any natural ordering (Wooldridge, 2005).

Thus Econometrically,

$$Y_i^* = \beta_0 + \beta_1 X_{1i} + \dots + \beta_n X_{ni} + \epsilon_i \dots \dots \dots (1)$$

Where the probability of the response variable ( $Y_i^*$ ) is given by the sign of unobserved latent variable as:

$$Y_i = \begin{cases} 1 & \text{if } Y_i^* > 0 \\ 2 & \text{if } Y_i^* = 0 \\ 3 & \text{if } Y_i^* < 0 \end{cases}$$

$$\Pr(Y_i) = \text{SSEs growth} = \beta_0 + \beta_1 \text{intrst} + \beta_2 \text{credt} + \beta_3 \text{infra} + \beta_4 \text{bds} + \beta_5 \text{mkat} + \beta_6 \text{comptrs} + \epsilon_i \dots \dots \dots (2)$$

Where, intrst = levels of interest rate; credt = access to credit facilities; infra= availability of adequate infrastructures; bds= business development services; mkat = access to market; and comptrs = practice of competitors.

## RESULTS AND DISCUSSION

In this study the main variables included are analyzed from perspective of both descriptive and inferential statistics. Accordingly, SSEs growth rate is computed by taking the natural logarithm of change in employment size over the life of the firm, following Evans (1987). Hence, taking the computed growth rate, the SSEs are classified in to three broad categories i.e., growing (if growth rate > 0), stagnant (if growth rate =0) and declining (if growth rate < 0) following Khan and Siddiqi (2008) growth classification. Thus, out of the total sample 62.16 percent are found growing type (161 SSEs), 2.32 are stagnant (6 SSEs) and the remaining 35.52 percent are found declining type (92 SSEs). As table 1 shows majority (62.16%) of SSEs are found in the growing category and only 2.32 percent are stagnant (neither growing nor declining). This result is consistent with the findings of Kokobe (2013) and Habtamu et al. (2013) in which many of manufacturing SSEs is growing type. Thus, the growing manufacturing SSEs are higher as compared to other Sub Saharan average which ranges from 19.3 – 22.8 percent (Liedholm, 2001). From table 2, it was found that 86.84 percent of growing, 75 percent of stagnant and 76.92 percent of declining SSEs have credit access. Thus, from this descriptive result the growth status of SSEs was credit access indeterministic. Similarly, the majority of growing SSEs (44.55 percent) reported that the level of interest is less while among declining SSEs 46.94 percent claimed that the level of interest rate is very high. Hence, the perception of SSEs towards the level of interest rate matters in financing their business. The interview conducted reveals that due to microfinance higher interest rate most SSEs are not interested to take loan for their business expansion. This might contributed for SSEs business declining.

Table 1: SSEs growth status in Tigray

| SSEs category          | Number of SSEs | Percent (%) |
|------------------------|----------------|-------------|
| Growing                | 161            | 62.16       |
| Stagnant (non growing) | 6              | 2.32        |
| Declining              | 92             | 35.52       |
| <b>Total</b>           | <b>259</b>     | <b>100</b>  |

Source: Survey data (2012).

Table 2: Description result on main variables

| Variables               |                   | SSEs Growth Status |         |          |         |           |         |
|-------------------------|-------------------|--------------------|---------|----------|---------|-----------|---------|
|                         |                   | Growing            |         | Stagnant |         | Declining |         |
|                         |                   | NQ                 | Percent | NQ       | Percent | NQ        | Percent |
| Access to credit        | Yes               | 99                 | 86.84   | 3        | 75.00   | 40        | 76.92   |
|                         | No                | 15                 | 13.16   | 1        | 25.00   | 12        | 23.08   |
| Interest rate           | Very high         | 8                  | 7.27    | 1        | 25.00   | 23        | 46.94   |
|                         | High              | 21                 | 19.09   | 1        | 25.00   | 9         | 18.37   |
|                         | Medium            | 29                 | 26.36   | 1        | 25.00   | 13        | 26.53   |
|                         | Less              | 49                 | 44.55   |          |         | 4         | 8.16    |
|                         | Very less         | 3                  | 2.73    | 1        |         |           |         |
| Infrastructure          | No limitation     | 22                 | 17.6    |          |         | 8         | 0.08    |
|                         | Little limitation | 24                 | 19.2    |          |         | 12        | 0.13    |
|                         | Moderate          | 76                 | 60.8    | 1        | 0.1667  | 27        | 0.30    |
|                         | High limitation   | 3                  | 2.4     | 5        | 0.8883  | 45        | 0.49    |
| BDS                     | Yes               | 108                | 75.00   | 6        | 100.00  | 48        | 57.83   |
|                         | No                | 36                 | 25.00   |          |         | 35        | 42.17   |
| Access to market        | Yes               | 110                | 0.68    | 3        | 0.50    | 32        | 0.35    |
|                         | No                | 51                 | 0.32    | 3        | 0.50    | 60        | 0.65    |
| Practice of Competitors | No limitation     | 117                | 0.73    | 1        | 0.167   | 1         | 0.01    |
|                         | Little limitation | 24                 | 0.15    | 2        | 0.33    | 2         | 0.02    |
|                         | Moderate          | 7                  | 0.04    |          |         | 5         | 0.05    |
|                         | High limitation   | 7                  | 0.04    | 3        | 0.50    | 84        | 0.92    |

Source: Survey data (2012).

Besides, out of growing SSEs, 60.8 percent confirmed that the effect of infrastructure (road, water, and electricity) is moderate while 88.8 percent of stagnant and 49 percent of declining SSEs reported that availability of infrastructure highly limited their business operation. Moreover, regarding business development services, the majority (75 percent of growing, 100 percent of stagnant and 57.83 percent of declining) SSEs are reported that they had been received business development services.

Therefore, the effect of business development services was found to be SSEs growth invariant. Concerning the market access of SSEs, 68 percent of growing SSEs were found to have market access and 65 percent of declining SSEs hasn't adequate market access for their produce. Finally, among growing SSEs, 73 percent reported that the effect of competitors is absent or minimal while majority of declining (92 percent) proved that the effect of competitors is very high on their business.

**Econometric Result and Discussions:** Firm growth has been affected by numerous variables that were tested in many of previous empirical work on the topic. Similarly, in this study the selection and incorporation of explanatory variables (external factors) was guided by review of related literature. A due consideration was given in including variables that are possibly determine SSEs growth particularly in manufacturing sector and could be tested in the current national and regional context. The multinomial logistic regression was used to estimate the potential effect of each explanatory variable on the unordered dependent variable. Before applying the model, various diagnostic tests were used to see the fitness of the model and normality of the data.

The result of multinomial logistic regression is presented in two stages (comparing stagnant SSEs with growing and comparing declining SSEs with growing), i.e., the growing SSEs were taken as a reference category (base outcome). As indicated in the table 3, from the main variables included in the regression model, access to credit and business development services are found statistically insignificant in both stages. In the following paragraphs analysis on significant variables is presented for both stages of comparison.

**Interest rate:** In this study interest rate is found significant factor affecting firm growth. It shows that interest rate is inversely related to SSEs growth for stagnant as compared to growing. The multinomial logit coefficient of this variable (-0.514) shows that if interest is to increase by one unit, SSEs growth rate would be expected to decrease by 0.514 unit for stagnant as compared to growing. The marginal effect also indicates the 1 percent increase in interest rate decreases the probability of SSEs growth of stagnant, as compared to growing, by 2 percent. On the other hand, comparing declining SSEs with growing, the coefficient of -0.101 indicates that, if interest rate were to increase by one unit, SSEs growth would be expected to decrease by 0.101 unit for declining as compared to growing, other factor kept constant. In the same vein, the marginal effect shows that the 1 percent increase in interest rate decreases the probability of SSEs growth of declining, as compared to growing, by 2 percent. Besides, the relative risk ratio (rrr)

shows that if interest rate is to increase by one unit, the relative risk increases by 0.60 and 0.90 for stagnant compared to growing and declining compared to growing, respectively. Therefore, the result showed that the level of interest rate is negatively affected SSEs growth. Hence, the research hypothesis '*there is negative and significant relation between level of interest rate and SSEs growth*' is accepted.

**Infrastructure:** For this variable, the multinomial logit estimate of one point increase in infrastructure for stagnant SSEs relative to growing would be expected to increase SSEs growth by 2.34 units. The marginal effect reveals that 1 percent increase in infrastructural development increases the probability of SSEs growth of stagnant as compared to growing by 16 percent, ceteris paribus. Comparing declining with growing, for one point increase in infrastructure, the multinomial log-odds (SSEs growth) would be expected to increase by 0.76 units. The marginal effect signifies that 1 percent increase in infrastructural development increases the probability of SSEs growth of declining as compared to growing by 15.9 percent. Hence, there is positive and significant relation between infrastructural development and SSEs growth. Therefore, the research hypothesis, '*there is positive and significant relation between infrastructural development and SSEs growth*' is accepted. The result is consistent with prior findings of (Assefa, 1997; Getachew, 1997; Alvaro et al., 2009), which found that the major bottlenecks to SSEs growth were poor utilities and transportation.

**Access to Market:** Market access is found significant at 5 percent in both stages of comparison. The multinomial logit coefficient of this variable (0.88) shows that if access to market is to increase by one point, SSEs growth rate would be expected to increase by 0.88 units for stagnant as compared to growing. The marginal effect shows that 1 percent increase in market access increases the probability of SSEs growth of stagnant as compared to growing by 7.88 percent, ceteris paribus. Likewise, comparing declining SSEs with growing, the coefficient of 0.38 indicates that, if market access increase by one unit, SSEs growth would be expected to increase by 0.38 units, other

factor kept constant. The marginal effect also proves that 1 percent increase in market access increases the probability of SSEs growth of declining as compared to growing by 7.84 percent. The relative risk ratio (rrr) shows that if market access is to increase by one unit, the relative risk decreases by 2.4 and 0.68 for stagnant compared to growing and declining compared to growing, respectively. Thus, market access has significant and positive effect on SSEs growth. Therefore, the research hypothesis, ‘access to market positively and significantly affects SSEs growth’ is accepted. The result is inconformity with Anduaem (1997), in which inadequate market access was the cause of poor SSEs performance.

**Practice of Competitors:** The multinomial logit estimate of this variable reveals the one point increase in competition for stagnant SSEs relative to growing would be expected to increase SSEs growth by 0.88 units. The marginal effect shows that 1 percent increase in competition increases the probability of SSEs growth of stagnant as compared to growing by 8.3 percent, ceteris paribus. Comparing declining with growing, for one point increase in competition, the multinomial log-odds (SSEs growth) would be expected to increase by 0.40 units. Correspondingly, the relative risk ratio (rrr) shows that if competition is to increase by one unit, the relative risk decreases by 0.96 and 1.48 for stagnant compared to growing and declining compared to growing, respectively. Thus, it is found that there is positive and significant relation between competition and

SSEs growth. Therefore, the research hypothesis, ‘practice of competitors negatively and significantly affects SSEs growth’ is rejected. The result is consistent with Nickell (1996) that showed the increase in the number of rival firm makes managers to exerted more efforts and enhanced growth of firms. But, the result contradicts with firm concentration hypothesis.

**CONCLUSION AND POLICY IMPLICATION**

The existing literature shows that the firm growth is complex and has several connotations. Thus, parameters like revenue generation, value addition, employment generation and expansion in terms of volume of the business were used as a firm growth proxy. Hence, this study tries to add in the current body of knowledge in which firm growth is measured in terms of employment growth rate. The study investigated the effect of external factors on SSEs growth using the multinomial logistic regression. The finding indicates that out of SSEs included in the study about 62.16 percent are growing, 35.52 percent are declining, and the remaining 2.32 percent are neither growing nor declining. Out of six main variables included in the model interest rate, infrastructure, market access and competition were found significant. Moreover, interest rate is inversely related to SSEs growth in both comparisons. On the other hand, infrastructural development, market access, and practice of competitors were found positively influence SSEs growth. While the effect of credit access and business development services were found insignificant.

**Table 3: Multinomial logistic regression estimation results**

| Variables        | Stagnant SSEs |         |           |          | Declining SSEs |         |           |          |
|------------------|---------------|---------|-----------|----------|----------------|---------|-----------|----------|
|                  | Coef.         | P > Z   | rrr       | dy/dx    | Coef.          | P > Z   | rrr       | dy/dx    |
| Access to credit | 1.277669      | 0.512   | 0.2786863 | 0.103588 | 0.4993296      | 0.417   | 1.647616  | 0.104399 |
| Interest rate    | -0.5143519    | 0.038*  | 0.5978879 | -0.02128 | -0.1011225     | 0.059** | 0.9038223 | -0.02101 |
| Infrastructure   | 2.341114      | 0.099** | 0.0962204 | 0.160150 | 0.7636922      | 0.089** | 0.4659429 | 0.15894  |
| BDS              | 1.620757      | 0.260   | 0.4141323 | 0.135548 | 0.6812895      | 0.199   | 1.976425  | 0.14488  |
| Market access    | 0.8815697     | 0.027*  | 2.405164  | 0.078868 | 0.3766105      | 0.027*  | 0.6861833 | 0.07843  |
| Competitors      | 0.8776179     | 0.022*  | 0.9618236 | 0.082859 | 0.3957606      | 0.025*  | 1.485514  | 0.082464 |
| _cons            | 21.84562      | 0.011   | 1.25634   |          | -1.332472      | 0.090** | 0.2638243 |          |

Source: Stata result from survey data (2012)

\*, \*\* indicates level of significance at 5 and 10 percent, respectively.

In nut shell, this study tried to investigate the effect of external variables on SSEs growth. Therefore, government and non-government organization that are concerned with reduction of poverty, unemployment and income inequality through promotion of SSEs may take into account the results of this study in formulation of policies, designing appropriate intervention strategies and practical steps that enhance growth of these enterprises.

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#### REFERENCES

- Abraham, T. (1997). Factor Intensity and Efficiency of Small Scale Industries in Ethiopia. In Wolday Amha (eds) (1997). Small Scale Enterprise Development in Ethiopia, Proceedings of the Sixth Annual conference on the Ethiopian Economy, Addis Ababa, pp. 68-87.
- Alvaro, J., Luis, G. and Jorge, P. (2009). Assessing the Impact of Infrastructure Quality on Firm Productivity in Africa. Working Paper, pp. 9-86.
- Andualem, T. (1997). Small Scale Enterprise and Entrepreneurship Development in Ethiopia: Concepts Definitions and Major Issues. In Wolday Amha (eds) (1997). Small Scale Enterprise Development in Ethiopia, Proceedings of the Sixth Annual Conference on the Ethiopian Economy, Addis Ababa, pp. 1-28.
- Assefa, A. (1997). A Comparative Analysis of the Development of Small Scale Industries in Region 14 with other Regions. In Wolday Amha (eds) (1997). Small Scale Enterprise Development in Ethiopia, Proceedings of the Sixth Annual Conference on the Ethiopian Economy Addis Ababa, pp. 88-112.
- Berkham, R., Gudgin, G., Hart, M. and Hanvey, E. (1996). The Determinants of Small Firm Growth, an Inter-regional Study in the U.K., 1986-1990, Sassa Kingsley, England.
- Cheng, R. W. (2006). Determinants of Growth in Small and Medium Enterprise: An Empirical Study on Logistic Industry in Hongkong. (Doctoral Thesis). Curtin University of Technology.
- Davidsson, P. and Wiklund, J. (2000). Conceptual and Empirical Challenges in the Study of Firm Growth: In D. Sexton, and H. Landström, (eds.), *The Blackwell Handbook of Entrepreneurship*, Oxford: Blackwell, pp. 26-44.
- Evans, D. S. (1987). Test of Alternative Theories of Firm Growth. *Journal of Political Economics*, 95 (4), pp. 657-74.
- Fioritto, S. S. and LaForge, R. W. (1986). A Marketing Strategy Analysis of Small Retailers. *American Journal of Small Business*, 11 (1), pp. 7-17.
- Freel, M. S. and Robson, P. A. (2004). Small Firm Innovation, Growth and Performance. *International Small Business Journal*, 22 (6), pp. 561-575.
- Getachew, A. (1997). Micro Business Development in Ethiopia. In Wolday Amha (eds) (1997). Small Scale Enterprise Development in Ethiopia, Proceedings of the Sixth Annual Conference on the Ethiopian Economy, Addis Ababa, pp. 151-172.
- Habtamu, T., Aregawi, G. and Nigus, A. (2013). Growth Determinants of Micro and Small Enterprises: Evidence from Northern Ethiopia. *Journal of Economics and Sustainable Development*, 4 (9), pp. 127-134.
- Holmes, S. and Zimmer, I. (1994). The Nature of Small Firm: Understanding the Motivations of Growth and Non-growth Oriented Owners. *Australian Journal of Management*, 19 (1), pp. 97-120.
- Khan, K. and Siddiqi, W. (2008). Entrepreneurial Factors Contributing towards Firm's Growth in Terms of Employment Generation: A Case Study of Electric Fans Producing Firms in Gujarat District, Proceedings of 2nd International Conference on Business Management.
- Kokobe, S. (2013). Determinants of Micro And Small Enterprises Growth: The Case of Addis Ababa Mses. Unpublished Master Thesis Submitted to Addis Ababa University, Ethiopia, June 2013.
- Kruger, M. E. (2004). Entrepreneurial Theory and Creativity, (Chapter 2), University of Pretoria.
- Liedholm, C. (2001) *Small Firm Dynamics: Evidence from Africa and Latin America*, the International Bank of Reconstruction and Development, Washington D.C., USA: The World Bank. Available:<http://siteresources.worldbank.org/WBI/Resources/wbi37189.pdf> on 26 July 2011.
- Narayana, M. R. (1993). Export Competitiveness, Taxes, and Domestic Welfare in India: Some New Empirical Evidence. *Productivity: A Quarterly Journal of the National Productivity Council*, 34 (1), pp. 390-398.
- Nickell, S. (1996). Competition and Corporate Performance. *Journal of Political Economy*, 104, (1), pp. 724 -746
- Rostow, W. (1960). Growth and Export Expansion in Developing Countries: Some Empirical Evidence. *Journal of Development Economics*, 9 (1), pp.121-130.
- Stephen, E. and Affolarin, B. (2013). The Contribution of Small Scale Industries to the National Economy. *Standard Research Journal of Business Management*, 1 (2), pp. 60-71.
- Wooldridge, J. (2005). *Introductory Econometrics: A Modern Approach*, 3rd ed.