THE ROLE OF SUBSIDY ON THE GROWTH OF SMEs: PARTICULAR FOCUS ON ACCELERATING THE INDUSTRIAL TRANSFORMATION PROCESS OF ETHIOPIA

By

BIRU, Ashenafi Gebremichael

THESIS

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of

MASTER OF PUBLIC POLICY

2013

THE ROLE OF SUBSIDY ON THE GROWTH OF SMEs: PARTICULAR FOCUS ON ACCELERATING THE INDUSTRIAL TRANSFORMATION PROCESS OF ETHIOPIA

By

BIRU, Ashenafi Gebremichael

THESIS

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of

MASTER OF PUBLIC POLICY

2013

Professor Choi, Changyong

THE ROLE OF SUBSIDY ON THE GROWTH OF SMEs: PARTICULAR FOCUS ON ACCELERATING THE INDUSTRIAL TRANSFORMATION PROCESS OF ETHIOPIA

By

BIRU, Ashenafi Gebremichael

THESIS

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of

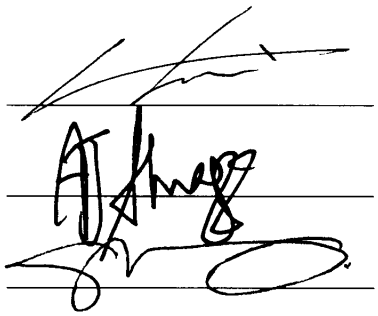
MASTER OF PUBLIC POLICY

Committee in charge:

Professor Choi, Changyong, Supervisor

Professor Shragge, Abraham Joseph

Professor Shun, Wang



Approval as of May, 2013

ABSTRACT

The Role of Subsidy on the Growth of SMEs:

Particular Focus on Accelerating the Industrial Transformation Process of Ethiopia

By

BIRU, Ashenafi Gebremichael

The Ethiopian economy can be largely characterized as an agrarian economy. In spite of the fact that the economic growth performance was poor in the past; the country is experiencing strong economic growth at the current time. The Ethiopian government has drafted and implemented different strategies and programs in line with a poverty reduction program. Especially in accelerating the industrial transformation process, reducing unemployment and alleviating poverty, the government considered SMEs as the strategic sector by recognizing that SMEs play significant role in stimulating business, creating employment and encouraging innovation which is a base for industrialization.

In Ethiopia, the SME sector is the second largest employment-generating sector following agriculture. The active development of the sector depends on the participation and integration of a wide range of actors in an equally wide range of support areas. These range from self-help activities of groups of small enterprises themselves and the abolishing of regulatory obstacles and strong support and subsidy by federal or regional government. However, in some situations, the support and subsidy for SMEs becomes the determining factor in weakening them and make them more dependent.

The major question is whether subsidizing SMEs really helps them to be strong in their business operation and enables them to play a vital role in accelerating the industrialization process or not. The study comes to conclude that the support by the government is more at the lower level of enterprises. But, when the enterprises grow the support decreases accordingly. Thus, as the SMEs have not any incentive to grow, they prefer to stay small rather that grow to medium or large enterprises and this results dependency and inefficiency in the operation of SMEs.

Dedicated to my mother Letensea Abadi

ACKNOWLEDGEMENTS

First of all, I would like to express my sincere thanks to the Almighty God, to making everything possible!

I am grateful to my advisors Prof. Choi, Changyong and Prof. Shragge, Abraham Joseph for their valuable guidance, constant encouragement, constructive criticism and untiring help in finalization of this thesis paper.

With deep sense of gratitude I must specially thank my mother, Letensie Abadi, for her understanding and constant encouragement during the entire period of this investigation and preparation of this study paper.

Finally, I wish to thank all the people who have kindly responded to my queries. There are many colleagues both at KDI School and Mekelle University and in different organization who have offered valuable suggestions. They are too numerous to list here, but will recognize their contributions to this study. Their help is very much appreciated.

TABLE OF CONTENTS

Contents **Page**

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

The Ethiopian economy can be largely characterized as an agrarian economy. More than 85% of the population is engaged in agriculture, which has generated on the average 44.7% of real GDP growth rate for the last seven years. The industrial sector's contribution to real GDP growth rate is 10.9 % for the last seven years. In spite of the fact that the economic growth performance was poor in the past; the country is experiencing strong economic growth at the current time. According to World Bank report, 2009, Ethiopia's annual per capita income is $170. Around 38.7 percent the population lives below the poverty line along with 54.7 years of life expectancy at birth. This ranks Ethiopia as one of the ports countries of the world. Thus, the Ethiopian government has drafted and implemented different strategies and programs in line with a poverty reduction program. Following the strategy of ADLI (Agricultural Development Led Industrialization), which emphasizes on ensuring fast industrial development, a Growth and Transformation Plan (current five years plan) is the main strategy which is considered as a best mechanism to enable Ethiopia to join the middle income countries with in the coming 15 years.

In accelerating the industrial transformation process, reducing unemployment and alleviating poverty, the government considered SMEs as the strategic sector by recognizing that SMEs play significant role in stimulating business, creating employment and encouraging innovation which is a base for industrialization. "Proponents of policies and programs to support small firms have long claimed that they are more labor intensive, efficient, equitable in distributing the income that they generate, widely dispersed geographically, and nurturing of entrepreneurs" (Nichter & Goldmark, 2005, P. 1). Moreover, the micro and small enterprise sector speeds up the competitive strength of a national economy by generating employment opportunities for a lot of the people, adding flexibility and industrial diversification, and making use of resources that may otherwise not be used in the development process (Seleshi, 2001).

Indeed, policies to promote the development of SMEs are common in both developed and developing countries. Policies designed to assist SMEs, especially in developing economies, have been an important aspect of industrial policy to alleviate poverty and accelerate industrialization of a country.

SMEs do not have a universal acceptable definition. In the case of Ethiopian SMEs are generally defined as, Micro business is a business enterprises which involves one up to five ,inclusive, employees and having capital of less than or equal to 50,000birr when the business is in the service sector; and the capital needs to be less than or equal to 100,000birr if it is in industry.

According to the Ministry of Trade and Industry, Small business enterprise in Ethiopia is a business with 6 to 30 employees while the capital is also 50,001birr up to 500,000birr for businesses in the service sector, and capital of 100,001birr up to 1,500,000birr when the business is in industry. "Large and medium enterprises, by default, are those with more than Birr 500,000 in paid-up capital. In terms of employment large and medium enterprises are those with more than 50 employees". The following table shows SMEs Definitions in Ethiopia.

Level of the enterprise	Sector	Human power	Total asset
Micro enterprise	Industry	≤ 5	≤ 10,0000 Birr
	Service	≤ 5	≤ 50,000 Birr
Small enterprise	Industry	6-30	≤ 1.5 million Birr
	Service	6-30	≤ 500,000 Birr
Medium enterprise	Industry	≥ 50	≥ 1.5 million Birr
	Service	≥ 50	≥ 500,000 Birr

Source: Tigray Trade and Industry Bureau, 2010

Where:

I. Industrial sectors referring to: manufacturing, construction and mining:
II. Service sector referring to: retailer, transport, hotel and Tourism, ICT and maintenance service.

When ambiguity is encountered between manpower and total assets as explained above, total asset is taken as primary yardstick.

In Ethiopia, next to the agriculture sector, the SME is the second largest employment-generating sector (Desta, 2002, P. 2). Thus, the government of Ethiopia gave due attention to

the growth of SMEs, especially for women, as a means to reduce poverty and employment creation (Rahel & Issac, 2010). In some developing countries, which have great economic achievement, "SMEs by virtue of their size, location, capital investment and their capacity to generate greater employment, have demonstrated their powerful propellant effect for rapid economic growth" (Zewde and Associates, 2002).

At the regional level, the main objective of the SME in Tigray region is to create conducive environment for the growth of the SME in the region. Only in Mekelle city, which is the capital city of the region, there are around 15,508 SMEs. These SMEs are engaged in are highly diversified in their business operation such as;

No.	Type of business	Percentage hold	Remark
1	Manufacturing	51	The manufacturing sector is mainly grain mills (77 % of manufacturing, metal and wood work 17% and non-metallic products 3% and others 3 %.).
2	Trade	32	
3	Service	17	
Total		**100**	

Due to the scarcity of land, So many unemployed young people who reside in rural areas are considering the establishment of SMEs as a way to generate income and create employment; most of the SMEs are concentrated in urban areas though (Ibid).

Small and Medium Enterprises contribution towards promotion of employment for young entrepreneurs and economic development of the country is widely acknowledged. In contrast, there are strong arguments that supporting and subsidizing SMEs will result in inefficiency, discourage competitiveness and become a bottleneck factor for development of SMEs. Therefore, this paper addresses the effect of subsidizing SMEs in accelerating the industrial transformation process in Ethiopia.

1.1. Statement of the Problem

Micro, Small and Medium Enterprises have a tremendous potential to generate employment for the majority of the urban labor force. In considering the contribution of SMEs in socio-economic improvement and national economic development in general, the growth of SMEs

becoming the center of attention in national policy of Ethiopia. Although many researchers and policy makers emphasize in the contribution of SMEs towards poverty reduction, empowerment of women and job creation, practically SMEs do not get the recognition and support from the government, especially when they grow to the upper stages of business form (Eshetu & Zeleke, 2008).

The SME sector in Ethiopia is tied up with a number of problems that mitigate its growth and expansion, thereby minimize its vital role in national economic development and improve the women's economic empowerment (Zewde & Associates, 2002, p.13). The private sector in Ethiopia remains underdeveloped, which accounts for less than 50 percent of total employment in the formal urban sector. But at this time the situation seems to be changing and the SMEs sector is playing a vital role in the industrial development of Ethiopia. It is recognized that this sector provides not only employment opportunities, but it is also an effective means of alleviating poverty and reducing income inequality.

Unemployment is a big concern in Tigray region. As a matter of fact, the civil service structure in the region is oversaturated. As there are more than 70,000 civil servants (many of them are teachers and development agents). This proportion is highest at the national level. Hence, there is no vacant space to give employment opportunities to the large number of youth expected to graduate from TVETs and Universities (unpublished regional parliamentary report, 2009/10). In a similar fashion, the role of the private sector in Tigray is very limited in generating employment opportunities. Consequently, creating employment opportunities is a hard pressing issue in the region.

SMEs are to be selected as a strategic sector by the government, in terms of formulating an excellent policy, budgeting good finance and overall support from the government's resources and mobilizing external support. The rapid development of SME depends on the participation and integration of all development actors in active and wide range of support areas. This range from the self-help groups of SME themselves and the eliminating of regulatory barriers and strong support and subsidy by federal or regional government. However, in some situations, the support and subsidy for SMEs becomes the determining factor in weakening them and becomes a bottle neck for their promotion and development.

Though different studies have been conducted in regard to the role of SMEs on the employment, income and on the importance of SMEs on social and economic area, it has been said that that the effect of subsidizing SMEs in accelerating the industrial transformation

process in Ethiopia is not yet fully understood and evaluated. In view of this, it will be worthwhile to make an assessment on the subsidy program in SMEs growth and enabling them to accelerate the industrial transformation. But, the major question is whether subsidizing SMEs really helps them to be strong in their business operation and enables them to play a vital role in accelerating the industrialization process or not. This requires a detailed evaluation process of the performance of SMEs activities.

1.2. Objectives of the Study

The main purpose of this study is to analyze the subsidy program for SMEs in Ethiopia in terms of their growth towards accelerating the industrial transformation process. Moreover, the study focuses on analyzing the challenges of SMEs in accelerating the industrial transformation process in Ethiopia. Given the above broad purpose, the study has the following specific objectives:

- To assess the effect of government subsidies to SMEs in creating employment opportunity and increase sales growth;
- To identify ways that government agencies and others can promote SME growth in order to realize the full potential for this sector to alleviate poverty, empower women and improve the national economy and standard of living.
- To identify current problems and opportunities of subsidizing SMEs in accelerating industrial transformation process of Ethiopia, and
- To propose future development interventions that improve SMEs growth and development

1.3. Research Question(s)

Considering the above objectives of the research, the study will attempt to investigate the following research questions:

1. Is subsidizing of SMEs effective in encouraging them to grow and to create more employment opportunity?
2. Does subsidizing the SME sector enable them to play a vital role the industrial transformation process of the country?
3. What are the challenges of SMEs in accelerating industrial transformation?
4. What is the existing performance of SME in Ethiopia?

5. What are the main limitations in government resources in implementing its Policies of supporting SMEs?

1.4. Hypothesis (or Claim)

The study will examine the role of subsidizing SMEs on enabling them to grow and to contribute a vital role in the industrial transformation process of Ethiopia based on the following hypothesis:

- ✧ Subsidizing SMEs increase competition and entrepreneurship and thus have national-wide economic advantage in innovation, efficiency, and productivity growth.
- ✧ SMEs are generally more productive compare to large firms[1]. Thus, subsidizing of the sector will help a country to establish its base for industrialization.

1.5. Significance of the Study

Literature states that SMEs have immense importance in enhancing the socio- economic development of a country, especially developing countries, so as to enable a large number of capital mobilization and innovation, which will help a country to transfer its economies into industrialization. This paper will emphasize on developing a better awareness of the potential and objective of the SMEs subsidy program of Ethiopia in accelerating its industrial transformation plan. Hence, conducting the study will help to obtain a better knowledge of how SMEs efficiency, innovation, and productivity growth of a country can help policy makers and other principal stakeholders in designing more effective SME policies and programs that will be better customized to the industrialization process of Ethiopia. Therefore, this paper will have a crucial contribution on policy implication of the program. Finally, the study will be essential for further investigators who have interest in this field.

1.6. Scope and Limitation of the Study

This study will identify the role of subsidizing SMEs, especially in their future growth and the role they can play in Ethiopian industrial transformation in the case of Tigray Region.

[1] World Bank, 2004, "*SMEs, Growth and Poverty*" The World Bank group, private sector development vice presidency, Note Number 2 6 8

Of the subsidy program undertaken throughout the country for all SMEs, this research is limited to secondary data available at the regional and federal level. Special attention will be paid to the performance report of SMEs, the government's Plan, the form of subsidy given to SMEs and the existing challenges SMEs. In other words, it is to show to what extent SMEs performance has improved due to the subsidy program.

The study will deal with a limited regional and federal data and reports of SMEs. This means that the study will analyze the impact of subsidy and its importance on SMEs growth and its impact on industrialization process. In addition to the data and reports, different theoretical arguments will also be assessed.

2. LITERATURE REVIEW

2.1 Pro-SME View

SME advocates make three core arguments. First, they argue that SMEs enhance competition and entrepreneurship and hence boost economy-wide efficiency and innovation. Intuitively, the entry of small firms – and the threat of new firm entry – intensifies competition and productivity growth throughout the economy. Thus, direct government subsidization of SMEs will help countries exploit the social benefits of a more dynamic corporate sector.

Second, some SME supporters also argue that SMEs are more labor intensive than large firms. Expansion of the SME sector, therefore, will boost employment and hence reduce poverty. This suggests that subsidizing SMEs represents a tool for fighting poverty.

Third, SME proponents frequently claim that SMEs are more productive than large firms, but financial market and other institutional failures impede the formation and growth of SMEs. For example, some financial institutions funnel credit to well established firms with whom they have long-standing relationships, rather than lending money to newer firms with better projects. This socially inefficient allocation of capital slows economic growth and discourages entrepreneurship. As another example inefficient legal systems make it more costly and risky to use formal contracts to finance projects. This may lead financial systems to fund well-established, well-connected firms rather than relying on the formal contracting system to fund new firms with potentially high-return projects. Thus, poorly functioning legal systems encourage socially inefficient entrenchment: Credit flows to the same firms based on historical, and some cases, familial and political ties, rather than to those firms with the best projects

From this perspective, direct government support to productive SMEs will improve the allocation of capital, boost economic growth, and give hope to aspiring entrepreneurs.

Some critics retort that if the problem is poorly functioning financial and legal institutions, then the goal should be to fix these institutions; subsidizing SMEs is an ineffective and potentially counterproductive palliative. Pro-SME proponents, however, respond that it takes an exceptionally long time to build efficient institutions. Thus, from a practical perspective,

governments can circumvent bad institutions and directly fund productivity-enhancing SMEs. Critically, this view assumes that government subsidization programs choose SMEs based on their expected social returns, not based on political connections or corruption.

2.2. Skeptical-SME View

Skeptics challenge the efficacy of targeting assistance to SMEs.

First, some analysts advertise the advantages of large firms relative to SMEs. In particular, large enterprises can exploit economies of scale and more easily undertake the large fixed costs associated with research and development (R&D). Thus, large firms are better than small firms at innovating and boosting productivity.

Second, skeptics challenge the assumption that SMEs are better for labor. Research finds that SMEs are neither more labor intensive, nor better at job creation than largefirms (Little, et al., 1987). Indeed, some researchers find that large firms provide more stable, higher-quality jobs than small firms (Rosenzweig, 1988). Furthermore, problems in financial, legal, and political systems may impede the ability of firms to grow to their most efficient sizes. Thus, lots of SMEs may be a sign of a malfunctioning financial system, not a signal of vitality and innovative activity.

Third, some skeptics of the pro-SME view argue that policy makers should not focus on subsidizing SMEs, but rather on improving the full range of institutions that affect the overall business environment. This involves removing barriers to the entry of new firms, lowering impediments to the exit of failing ones, reducing regulatory, tax, and other impediments to the efficient reallocation of labor, and enhancing the operation of legal and regulatory institutions that affect the financial system and business relations.

Although these policies may boost SMEs, the goal is to make the business environment better for all firms, not promote SMEs per se.

Fourth, critics of pro-SME policies argue that SME subsidization programs are likely to fail in exactly those economies where SMEs most need government subsidies to grow.

The logic is as follows. Countries with poorly functioning political systems (closed, uncompetitive, autocratic political regimes) tend to also have poorly functioning legal and financial institutions. Poor legal and financial systems impede the flow of capital to SMEs and instead channel society’s savings to established, politically connected firms.

Thus, SMEs are most in need of government subsidies in countries with poor political systems. At the same time, however, poor political systems are unlikely to create subsidization programs that circumvent ineffective legal and financial systems and fund sound SMEs. This leads to the conclusion that where SMEs most need subsidies, SME subsidization is likely to operate ineffectively. At a broader level, in countries where small elites run the government, banks, and big industry, government-sponsored SME programs will have a low probability of funding the best firms from a social welfare perspective.

An example from history helps clarify this criticism of SME subsidization policies (Haber, Razo, and Maurer, 2005). In the late 19th century, Porfirio Diaz solidified control of Mexico. To finance government expenditures with loans from banks, Diaz formed one huge bank, Banamex, and allowed the bankers to write the banking laws, which protected the banking system from competition. The board of directors of Banamex included the President of Congress, the Under-Secretary of the Treasury, the Senator for the Federal District, the President's Chief of Staff, and the brother of the Secretary of the Treasury. Moreover, from 1886 to 1901, all of the (nongovernmental) loans extended by Banamex went to the directors! In this type of political-financial system, government run SME programs are unlikely to break the stranglehold on society's savings.

Fifth, skeptics question the validity of considering firm size as a determinant of economic success. For example, the natural resource endowments of a country may give that country a comparative advantage in the production of goods that are produced most economically in large firms (e.g., steel). Other countries may have natural and human resources that give the country a technological advantage in producing products that are most efficiently produced in small firms. Thus, the proportion of SMEs across countries may reflect differences in physical and human capital resources. From this perspective, pro-SME policies could actually distort firm size and potentially hurt economic efficiency.

2.3. What the evidences suggest?

Given the enormous amount of aid supporting SMEs around the world, there is surprisingly little evidence supporting this policy. Although Acs and Audretsch (1987) find that small firms have higher innovation rates in "high technology" skill-intensive industries within the United States, Pagano and Schivardi (2001) show that a larger average firm size is associated with faster innovation rates within Europe. In developing countries, technology transfers from abroad and imitation drive productivity improvement (Rosenberg, 1976; Baumol, 1994).

Furthermore, research indicates that large exporting firms are typically the primary mechanism through which technologies are adapted from abroad to local circumstances. Thus, from a developing country perspective, the firm-level evidence does not favor SME subsidization as a mechanism for boosting innovation and productivity growth.

Similarly, although early work by Birch (1979) argued that small firms are particularly important for job creation; subsequent research has refuted this conclusion. As noted above, microeconomic evidence does not robustly conclude that SMEs boost employment or provide better jobs. Although pro-SME advocates claim that SMEs stimulate competition, innovation, and productivity growth to a greater degree than large firms, the evidence is at best inconclusive.

Rather, an emerging body of research finds that firm size responds to the functioning of national financial and legal systems. For instance, Beck, Demirguc-Kunt, and Maksimovic (2003) demonstrate that financial development eases financial constraints on successful firms and allows them to grow. Kumar et al. (2001) show that countries with better legal systems – legal systems that more efficiently enforce private contracts – tend to have larger firms. Since financial and legal institutions affect SMEs, large firms, and the distribution of firms in the economy, these findings indicate that policymakers should not view SMEs as engines, where pouring in more subsidies fosters growth and alleviates poverty. Instead, this work sheds the policy reform spotlight on regulatory and legal reforms that improve the functioning of financial and legal systems.

Finally, Beck, Demirguc-Kunt, and Levine (2005) provide cross-country evidence on whether SMEs boost economic growth, alleviate poverty, and reduce income inequality.

They find a strong, positive association between the size of the SME sector and the rate of economic growth. But, they do not find that SMEs cause growth. Furthermore, the comparisons do not indicate that SMEs exert a particularly beneficial impact on poverty or income distribution. Although a prosperous SME sector is a characteristic of flourishing economies, the evidence does not support the pro-SME prescription of directly subsidizing SME development to accelerate growth and reduce poverty.

Moreover, even if these studies had found that SMEs cause growth, this would not necessarily support subsidization of SMEs. These studies examine the connection between the SME sector and economic outcomes, not the connection between government subsidies of

SMEs and economic outcomes. Since there are serious doubts about whether government sponsored support programs for SMEs will reach the best firms, this creates further doubts about the efficacy of subsidizing SMEs.

In sum, the econometric evidence does not validate a policy of subsidizing SMEs. Thus, funds currently being devoted to subsidizing SMEs might have a bigger economic development impact if used elsewhere.

2.4. Small Business and Microenterprise: Why Are They Important?

Small business and microenterprise are important because of their role in the economy, their role in the American Dream, and their economic development and self-sufficiency objectives. Part of the American Dream is financial security, and starting a small business provides a pathway for opportunity and achievement. Entrepreneurial spirit is highly valued in America, partly because a successful small business will endure for generations to come. In the United States, nearly all businesses are small (over 99 percent have fewer than 500 employees, figure 1), and small businesses employ half of all workers (figure 1).

Promoting small businesses, especially microenterprises (the smallest businesses), has proven to be a popular antipoverty strategy overseas. International microenterprises, such as those funded by the Grameen Bank of Bangladesh, generate income in places where finding employment is difficult.

Not surprisingly, the different setting for microenterprise programs in the United States brings different obstacles, such as a population with less self-employment experience, higher training and start-up costs, and complex regulatory barriers.

The objectives of small business and microenterprise programs—economic development, job creation, and self-sufficiency make them different from other antipoverty programs. We require more from them than we do of traditional welfare programs, which often have redistribution or a minimum consumption level as their goals. Small business and microenterprise programs, on the other hand, are potentially efficient ways of helping people help themselves. If the ownership society is to be expanded, small business and microenterprise are a natural, but not necessarily easy, place to start.

2.5. SMEs, business environment and growth

Efforts targeted at the SME sector are often based on the premises that (i) SMEs are the engine of growth, but (ii) market imperfections and institutional weaknesses impede their growth. Skeptics question the efficacy of this policy and point to empirical evidence either in favor of large firms or of a size-blind policy approach (see Biggs, 2002 for an overview). While many country-level and microeconomic studies have assessed the importance of SMEs in the economic development and industrialization process (Snodgrass and Biggs, 1996), Beck, Demirguc-Kunt and Levine (2005a) provide the first cross-country evidence on the links between SMEs, economic growth, and poverty alleviation, using a new database compiled by Ayyagari, Beck and Demirguc-Kunt (2003).

Cross-country regressions of GDP per capita growth on SMEs share in manufacturing employment show a strong positive relationship over the 1990s, even after controlling for an array of other country characteristics that can account for differences in growth across countries. Instrumental variable regressions that explicitly control for reverse causation and simultaneity bias, however, erode the significance of the relationship between SMEs and economic growth. The regressions do not necessarily lead to the conclusion that SMEs do not foster economic growth. Rather, they fail to reject confidently the hypothesis that SMEs do not exert a causal impact on GDP per capita growth. This finding is consistent with the view that a large SME sector is a characteristic of fast-growing economies, but not a cause of their rapid growth. Beck, Demirguc-Kunt and Levine (2005a) also do not find any evidence for any association of a large SME sector with faster income growth of the lowest income quintile and faster rates of poverty reduction.

While to our best knowledge there is no robust cross-country evidence on the relationship between the business environment and economic growth, industry-level, firm level and survey evidence consistently show a positive association of a competitive business environment with entry, entrepreneurship and investment.

Klapper, Laeven and Rajan (2006) show that one channel through which the business environment affects economic development is the entry of new firms. Using firm-level data for Western and Eastern Europe, they find that entry regulations, measured as the cost of registering a firm, hamper the creation of new firms, while regulations fostering property right protection and access to finance enhance entry. Further, the effect of depressed entry shows up in lower productivity: value added per employee in natural “high entry” industries

grows more slowly in countries with more onerous regulations on entry. The paper also suggests that in some cases a poor business environment may affect the performance of the SME sector, because restrictions and market imperfections dampen competition and slow firm growth. A comparison of Italy and U.K. illustrates this effect. In Italy, where entry costs are 20 percent of GNP as opposed to 1.4 percent of GNP in U.K., there are many small firms yet slower growth. The problem in Italy is that the SME sector has many old and inefficient firms compared to its UK counterpart. Indeed, firms start out larger in Italy, but grow more slowly so that firms in the U.K. are about twice as large by age ten (Figure 1). These results are very complementary to the findings of Beck, Demirguc-Kunt and Levine (2005a) and may provide one explanation why a large SME size is unlikely to be associated with faster growth, that is, if the large SME sector is a reflection of low entry and turnover of firms.

Firms are not only more likely to enter in countries with better access to external finance and better investor protection, they are also more likely to incorporate than to maintain the legal form of proprietorships. Using firm-level survey data for 52 countries, Demirguc-Kunt, Love and Maksimovic show that one of the reasons for this variation in the likelihood of incorporating is the fact that incorporated firms face lower obstacles to their growth in countries with better developed financial sectors and efficient legal systems, strong shareholder and creditor rights, low regulatory burdens and corporate taxes and efficient bankruptcy processes. Corporations report fewer financing, legal and regulatory obstacles than unincorporated firms and this advantage is greater in countries with more developed institutions and favorable business environments. Further, they find some evidence of higher growth of incorporated businesses in countries with good financial and legal institutions.

Using survey data from interviews with entrepreneurs and non-entrepreneurs in seven cities across Russia, Djankov et al. (2004) provide further evidence for the importance of the business environment for the decision of becoming an entrepreneur. They find that in addition to many personal characteristics the perception of corruption and government officials' attitude towards entrepreneurship affects the decision to become an entrepreneur. Similarly, Johnson et al. (2002) find that entrepreneurs in transition economies are more likely to reinvest their profits if they feel more secure about property right protection in their country, while Cull and Xu (2005) find that Chinese entrepreneurs are more likely to reinvest their profits if they are more confident in the system of property rights protection and have easier access to credit, with this effect being stronger for small firms.

Are different dimensions of the business environment equally important? Using firm level survey data on the business environment across 80 countries, Ayyagari, Demirguc-Kunt and Maksimovic (2005) investigate the impact of access to finance, property right protection, provision of infrastructure, inefficient regulation and taxation, and broader governance features such as corruption, macroeconomic and political stability on firm growth. They show that finance, crime and political instability are the only obstacles that have a direct impact on firm growth and finance is the most robust one among those.

Together, these results suggest that it is important to have a competitive business environment that allows for the entry of new and innovative entrepreneurs resulting in the Schumpeterian process of "creative destruction" rather than simply having a large SME sector, which might be characterized by a large number of small enterprises that are neither able to grow nor to exit. Indeed, a large, but stagnant SME sector may be a by-product of a poor business environment itself.

Furthermore, the existing evidence suggests that access to finance plays a very important role in the overall business environment, potentially constraining both firm entry and growth.

2.6. Stylized Facts on Ethiopian SMEs and the Labor Market

Since Ethiopia's departure from the centrally planned system, its economy has had a unique mixture of features. The predominant role of the state sector in the nonagricultural output, low private job creation, and high unemployment make it akin to an early-stage transition economy. At the same time, Ethiopia is one of the poorest countries in the world, with: (i) a large and dualistic informal sector; (ii) high and almost constant share of agriculture in output; (iii) large labor market frictions, including imperfect information; (iv) rigid business environment; and (v) slow adoption of new technologies.

The sections below highlight main stylized facts about SMEs and the urban labor market.

2.7. Limited Formal Private Sector[2]

The role of the private sector in the Ethiopian economy has evolved in several stages. Economic policy of the Derg regime during 1974-1990 was based on central planning. Private property was nationalized and private sector activities discouraged. When the new government embarked on market reforms in 1991, it aimed at reducing bureaucratic procedures and encouraging the private sector (Geda and Degefe, 2002).

Almost twenty years later, however, the role of the private sector in the economy remains limited – the share of the state sector in industrial output has been around 50 percent since 2000, after a decline from 80 percent in the mid-1990s. While the majority of SMEs are now private, very small firms predominate. Success stories in specific sectors notwithstanding, the highly productive formal SME sector underdeveloped. Only about half of the total urban population employed in the formal sector in mid-2000s was in private sector. The regional distribution has been also uneven, with most of the private sector being concentrated in and around Addis Ababa (UNCTAD, 2002).[3]

2.8. High Unemployment and Low Private Job Creation

The urban labor market has been characterized by persistently high unemployment, disproportionately affecting young people. On the supply side, the urban population more than doubled between 1990 and 2007, from about 6 million in 1990 to 13 in 2007. On the demand side, the slow job creation in the private sector was not able absorb the labor stemming from the fast population growth and the declining public sector. Exit rates from unemployment into the formal private sector have been very low.[4]

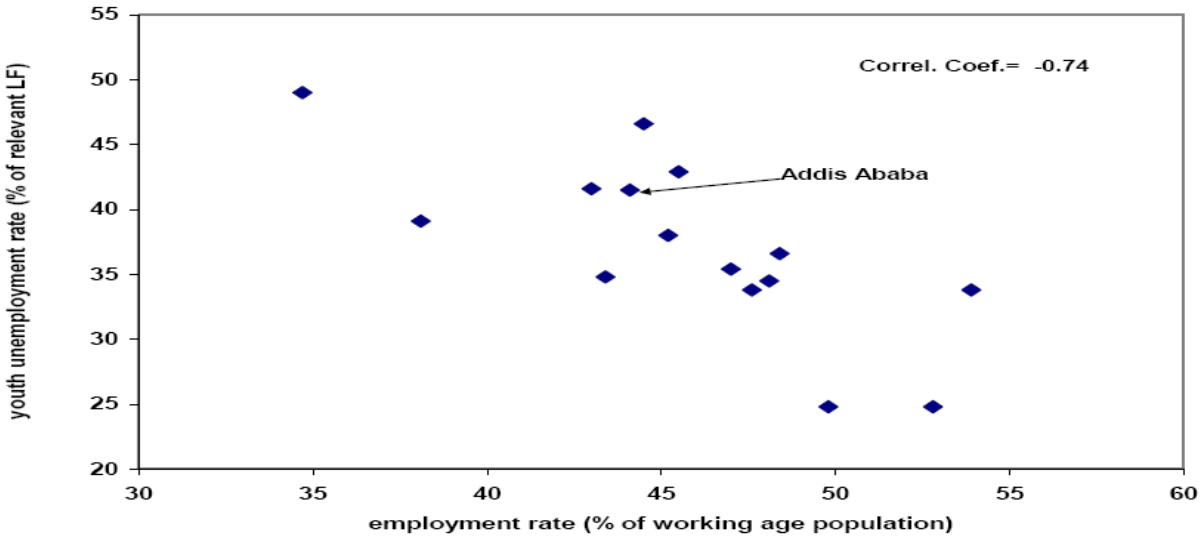
---

[2] The private sector includes all agents in the economy not formally classified as in the public sector that is agents involved in the government, state-owned enterprises or parastatals, and independent public agencies.

[3] In Tanzania, the private sector has been the main driver of growth, and it accounted for about 70 percent of non-agricultural GDP in 2000 (World Bank, 2002). In most transition countries, which started changing from plan to market in early 1990s, the private sector accounted for most of output by the mid-2000.

[4] 30 percent of the unemployed in 1994 were unemployed in 2004; another 22 percent left the labor force. Of those who found jobs 70 percent went to the informal sector, and 17 percent to the formal private sector.

Figure 1a. Employment Rate and Youth Unemployment Rate by Urban Centers, 2005



2.9. Obstacles to SMEs and Private Sector Development

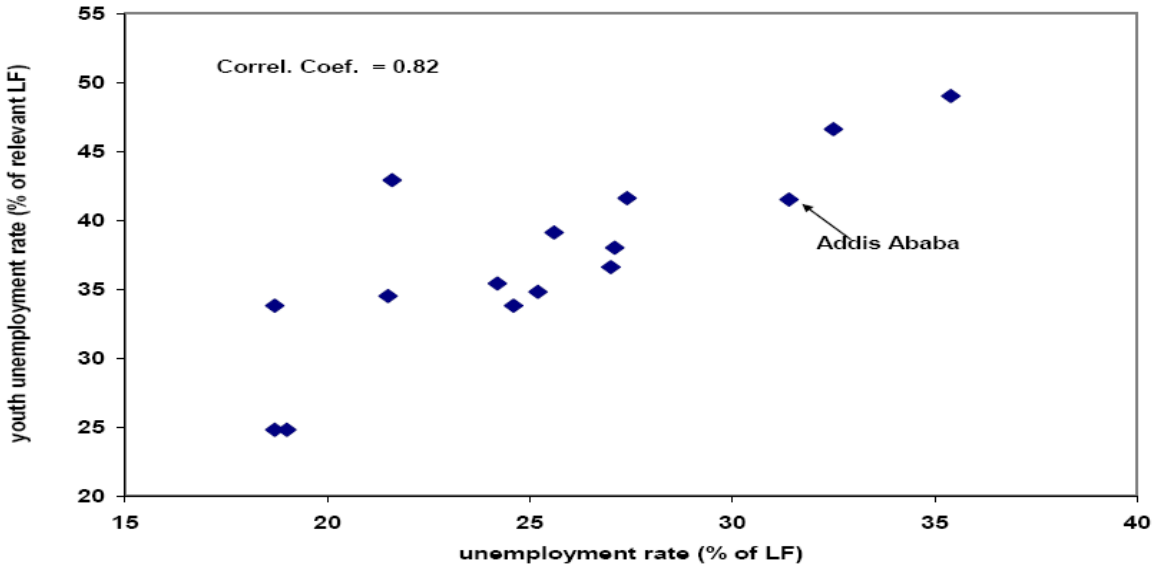
The Ethiopian private sector consists mostly of small-scale, informal, low-productivity firms in services.[5] What then are the factors that have been impeding faster creation of highly productive SMEs in the formal private sector? According to the World Bank's first Assessment of the Investment Climate in 2001/02, high tax rates were the most common complaint of entrepreneurs at the time, cited by 70 percent of respondents. An inefficient and unpredictable tax administration and inadequate access to land associated with the tenure system and unclear property rights were other most frequent complaints. The credit constraint was viewed as important, but somewhat less than the tax regime and land access.[6] The lack of skilled workers affected 20 percent of entrepreneurs surveyed.

[5] The thriving leather industry is one of the exceptions. In the early 2000s, leather-show industry has gained a substantial share in the domestic market, with its growth being driven by new entrants and expansion of incumbents (Sonobe et al., 2009). Recently, with the government support, Ethiopia has been successfully exporting high-value, finished leather products into OECD economies (USAID, 2009).

[6] It is beyond doubt that for new SMEs to grow, easing their access to credit is crucial. While this topic is important, it is beyond the scope of this paper and has been covered elsewhere. See, for example, Brixiova and Kiyotaki (1997) and others.

To ease the tax burden and increase predictability, all firms with annual turnover of less than US$50,000 were since then included under a presumptive tax.[7] According to the 2009 African Competitiveness Report inefficient government bureaucracy has become obstacles (World Economic Forum, World Bank and AfDB, 2009).[8]

Figure 1b. Employment Rate and Youth Unemployment Rate by Urban Centers, 2005



Source: Central statistical office and author's calculations. 1/ Urban centers have above 2000 inhabitants.

2.10. Large and Dualistic Informal Sector

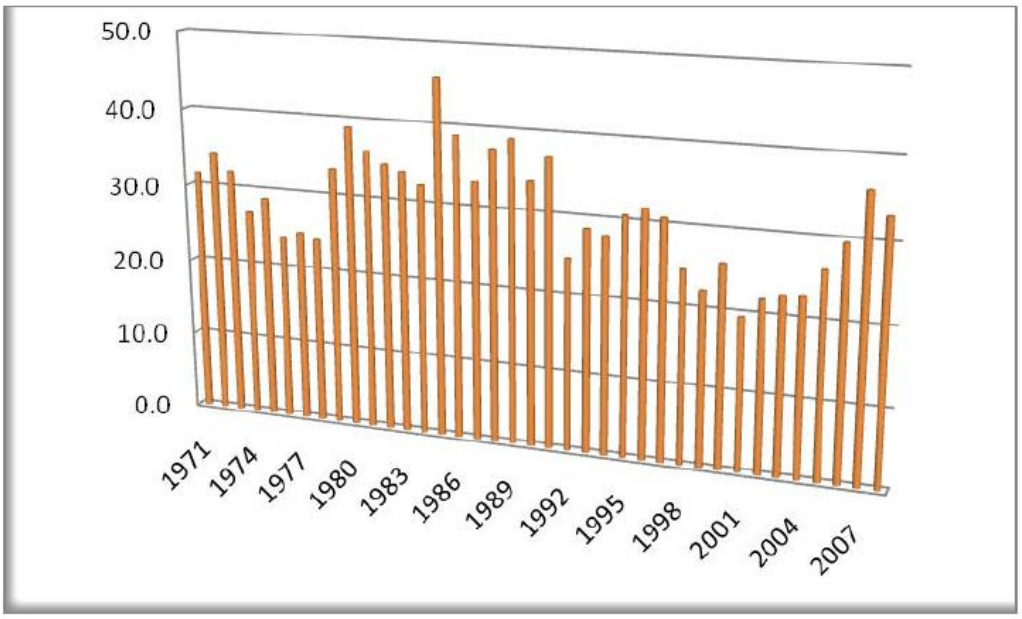
Ethiopia is one of the poorest countries in the world. As common in low-income countries, the informal sector predominates, even though the empirical estimates of its size vary. Various surveys, including World Bank (2008), found that the informal sector accounts for 45-50 percent of employment in all urban areas.[9] This is broadly consistent with estimates in this paper (Annex I), where the informal sector accounted for about 30 percent of the Ethiopian output in mid-2000s (Figure 2). Since the informal sector tends to be labor intensive, the share of its labor force would be above 30 percent.

[7] Their marginal profit tax rates range from 10 percent to 35 percent vs. 30 percent corporate tax rate for other businesses. The progressive tax system could still discourage the creation of highly profitable firms.

[8] This is consistent with findings of the African Development Bank and OECD (2005).

[9] Informal employment amounts to about 35 percent in urban centers, but studies exclude domestic employees, thus underestimating the size of the informal sector.

Figure 2. Share of the Underground Economy, 1971-2008 (% of GDP)



Source: Authors' estimates (Annex).

The majority of SMEs operate in the informal sector (Denu et al., 2005), which consists mostly of low-productive – competitive and largely undifferentiated -- firms concentrated in manufacturing and trade. Still, some highly productive SMEs also operate in the shadow economy, in particular small-scale manufacturing firms.[10] This more dynamic tier typically employs more educated workers. Estimates suggest that this group of SMEs constitutes around 20 percent of the informal sector.[11] The informal sector in Ethiopia is thus dualistic, albeit more stagnant than in, for example, Mexico (World Bank, 2007a).

Of even greater concern than the predominance of the informal sector is its low productivity, which results in low wages, especially for unskilled workers. Urban labor markets in Ethiopia

[10] Gebreeyesus (2008) finds marked differences in productivity across different groups of manufacturing firms in Ethiopia, However, on balance, as Bigsten and Gebreeyesus (2007) state "….the manufacturing sector has performed poorly in terms of output, employment generation, and entry into the global market."

[11] OECD (2009) discusses the duality of the informal sector in developing countries in detail.

are thus characterized by a substantial wage gap between the formal and informal sectors -- estimated at about 1/3 in 2004 (Denu et al, 2005).[12]

2.11. Over view of SMEs in Ethiopia

Small and medium enterprises (SMEs) are a special focus of the government, given that they comprise the largest share of total enterprises and employment in the nonagricultural sectors. In recognition of the important role SMEs have to play in creating income and employment opportunities and reducing poverty, the government drafted its first Micro and Small Enterprise Development Strategy in 1997.

According to the definition of the strategy, micro enterprises are business enterprises with a paid-up capital of less than 20,000 birr, and excluding high tech consultancy firms and other technology establishments. Small enterprises are those business enterprises with a paid-up capital of above 20,000 birr and not exceeding 500,000 birr, and excluding high tech consultancy firms and other technology establishments. Large and medium enterprises, by default, are those with more than 500,000 birr in paid-up capital.

According to the Central Statistical Authority (CSA) survey, there are almost 570,000 MSEs in Ethiopia, 99.4 percent of which are micro-enterprises with fewer than ten employees, accounting for 88.2 percent of private sector employment. The micro enterprises are very small. On average, they employ one and a half workers (this includes the owner and perhaps one occasional helper), and earn an annual operating surplus of 1,300 birr. Sole proprietors operated 82 percent of urban enterprises. Of the total employment in these urban micro-enterprises, family members accounted for 60 percent.

Beyond family members, apprentices constituted a large proportion of the remaining

SME work force (CSA, 2003). The average micro-enterprise has a capital of 3,528 birr, a yearly production value of 2,300 birr and an annual surplus of 1,300 birr. Although significantly more productive and profitable than micro-enterprises, small-scale industries are also very small, with an average of slightly more than three employees, 18,934 birr in annual operating surplus, capital of 38,554 birr, and production value of 68,800 birr.

[12] Wage gaps between formal and informal sector and between public and private sector may play a central role in unemployment (Kingdon, Sandefur and Teal, 2006).

A recent study on SMEs indicated that SMEs in Ethiopia are confronted by many problems. The constraints facing SMEs in most developing economies are similar: unfavorable legal and regulatory environment and, in some cases, discriminatory regulatory practices; lack of access to markets, finance, business information; lack of business premises at affordable rent; low ability to acquire skills and managerial expertise; low access to appropriate technology; and poor access to quality business infrastructure.

According to the CSA report, the major obstacles experienced by small-scale manufacturing industries were the irregular and erratic supply of raw materials and a shortage of suitable working premises. The lack of working premises was also found to present difficulties for the informal sector operators who faced with insufficient capital, were often impeded from the start (CSA, 2003).

The problem of raw material shortages, lack of working capital and effective marketing practices faced by micro and small manufacturing industries result in the failure of these businesses to expand. The same problems, when experienced by informal sector operators, have the effect of preventing their expansion almost from the beginning of their operations. Results of the CSA survey showed that for about 50 percent of informal sector operators, the first major difficulty when starting their operation was the lack of sufficient initial capital. According to their responses, this problem becomes more critical when they intended to expand their businesses.

3. RESEARCH METHODOLOGY

This study focuses on Ethiopian SME's subsidy program and industrial transformation process, considering the case of Tigray Region. The reason is to take the region as a case is due to the fact that it is similar to other regions of Ethiopia in terms of number of SMEs, socio-economic status and the regional government SMEs policies. There are also a number of SMEs which the researcher can have good access to important data and information regarding this research topic. In addition to this, researchers were usually interested to undertake their research in the Central and Southern part of Ethiopia for proximity, infrastructure and budgetary reasons which inevitably led to other research duplication and biases. Therefore, the Northern region is appropriate for this research according to the mentioned reasons.

3.1. Area Description

Tigray region is one of the 9 federal regional states of Ethiopia located in the northern part of the country. It has seven zonal administrations, namely, Western, North-Western, Central, Eastern, South-Eastern, Southern and Mekelle special zones. According to CSA 2007 census (2008), it has a population of 4,314,456, where over 19.53% of the population resides in urban areas. In terms of sex distribution, close to 50% of the population are females. Amongst the urban residents, the female population amounts to 52.76%. This number is slightly greater than females that reside in rural Tigray, 50.26%. Considering age cohort, 51.87% of Tigray population is aged between 15 and 64; whereas over 60% of the urban population is in the working age group.

Figure 3.1: Location Map of the study area

Source: Based on data from the Central Statistical Authority

According to Household, Income and Consumption Expenditure (HICE) 2004/05 survey (CSA, 2007), average household size in Tigray is estimated at 4.6. Approximately, 45% of male population is illiterate and slightly below 70% of the female population is illiterate. Agriculture is the mainstay in Tigray which accounts to more than 75%; the rest are engaged in handicraft, manufacturing, construction, petty enterprise and service-related activities (CSA, 2006).

Urban employment to population ratio in April 2006 was estimated at 44.3%, which rose from 34.8% in October 2003 (CSA, 2007).

3.2. Sampling Procedure

In order to achieve the research objectives and come up with possible answers to the research questions, data was gathered from the regional and federal ministry of trade and industry annual reports from 2008 to 2011. Moreover, to come with strong arguments and concepts of SMEs, the researcher has read different articles and studied some background information about the condition of SMEs in Tigray region and Ethiopia.

After the region and the annual reports were selected, a stratified random sampling was employed to select the type of SMEs. There are four types of SMEs in Ethiopia including, Manufacturing (Industrial), Wholesale and Retail trading, Agricultural and Service sector SMEs. For the purpose of this study, these SMEs were organized into different strata based on establishment year, start-up capital, and number of members in the group. The reason to consider these variables are because we can analyze the growth level of SMEs based on these variables. Thus, they can provide more information than these which do not involve in the subsidy program activities.

3.3. Methods and Tools of Data Collection

Both primary data and secondary sources of data are utilized for the study. **The primary data** were collected from the Ministry of Trade and Industry annual report since 2008~2011 about the amount of subsidy, number of SMEs graduated to the next level, their capital, employment level, SMEs contribution in accelerating the industrial transformation process, etc. In addition to the annual report survey, focus group discussion, observation and informal discussions with some key informants were conducted to obtain primary data that supplement the annual report.

Focus group discussion: to complement the official annual report and to get in-depth insight in the changing nature of SMEs, a focus group discussion covering different topics was carried out with the key informants. These include 3 SMEs promoters, 3 extension experts, and 1 SMEs director. This helped to get some ideas that were not clearly acquired from the interview. This information was collected using checklists and an interview schedule.

Observation: Direct field observation by the researcher also contributed in supplementing and verifying the information obtained through the other methods. With regard to this, observation was conducted on the current condition of the SMEs and their management, the impact of different strategies such as the subsidy program on innovation and accumulation of capital, the condition of their employment standard and the member's attitude and their knowledge towards SMEs contribution in accelerating industrialization.

Informal Discussion: Informal discussions were also carried out with different key informants: young entrepreneurs, SMEs experts, local leaders and social workers to get the overall general information on SMEs and the subsidy program and the check the information collected from other respondents.

Secondary data include both published and unpublished information which is related to; employment level and SMEs activities were collected from the ministry office. Secondary data have been collected from sectoral reports, manuals, policy documents, and previous research works, library, SMEs development and promotion bureaus, Central Statistics Authority (CSA) and other research centers/institutions.

3.4. Data Analysis

All the data are organized, analyzed and expressed using descriptive as well as econometric analysis. The descriptive analytical techniques employed include independent t-test to distinguish differences in the mean of one variable between two groups of respondents. A Chi-square test was run to identify any systematic associations between specific household characteristics and the dependent variables. Percentages, Frequency, ratios, means and other descriptive statistics techniques were used to compute for different variables.

With regard to econometric analysis the most celebrated model, i.e., the logit model analysis to address the growth rate of SMEs with the subsidy program has adopted. The data analysis was carried out using STATA version 11 and SPSS Version 17.

3.4.1. Conceptual Framework

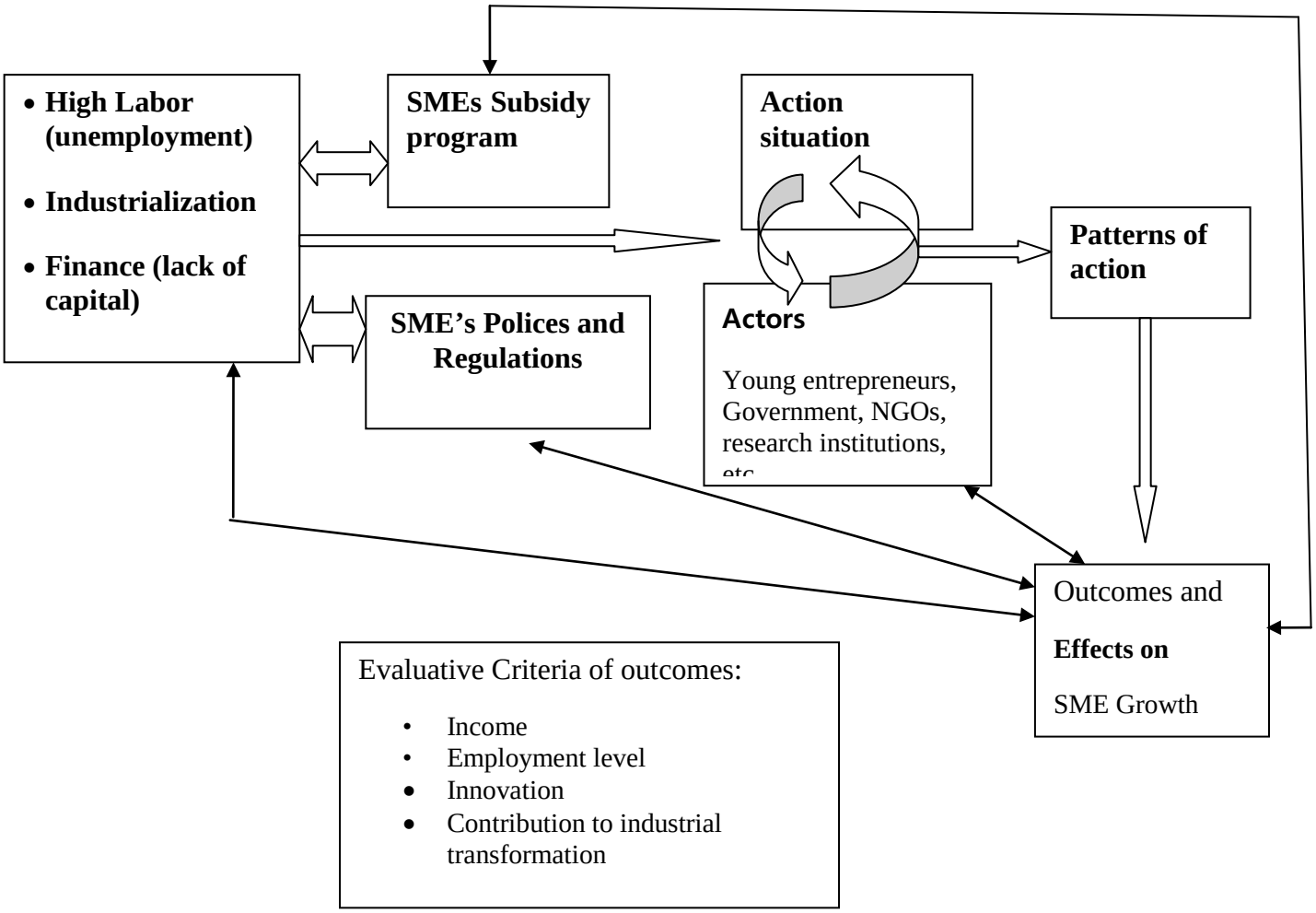
The conceptual framework illustrates the structure and elements of the paper. Its main intention is to offer a direction for conducting a research on the role of the subsidy program in SMEs growth in terms of their contribution to accelerate the industrial transformation process.

To analyze how the subsidy programs influence SMEs performance, the framework differentiates between the “context” and the “action arena” section. The “context” deals with the first factors that create up the opportunity set for possible action. Five main features of the context are recognized for assessment of their role in SMEs growth and their relationship to the SMEs subsidy program: Unemployment rate, the industrialization plan, the shortage of capital, the SMEs subsidy program and SMEs legal framework.

The “action-arena” indicates how various actors, including organizations, individuals and government make use of and change institutions to the development and growth of SMEs.

The results of action situations, which are of particular interest in our analysis, can be notable between structural outcomes, which influence the existing context, including SMEs subsidy program, and outcomes which influence the situation of the SMEs and the industrialization process. These five criteria are: income, employment level, innovation and contribution to industrial transformation.

Figure 3.2. Conceptual framework on SMEs subsidy program, SMEs growth and Industrial transformation Process



3.4.2. The Econometric Framework

The outcomes of subsidy program on SMEs growth and enclosure to accelerating industrial transformation is hypothesized to be a function of consisting of the following components. These and other components are applied throughout the study.

Model Specification

Empirically, growth of small and medium enterprises broadly discussed in terms employment of growth. According to Liedholm and Mead (1999) cited Solomon (2004), there are three ways of defining employment growth which describes as Annual Compound Growth Rate

(ACGR), and Average Annual Growth Rates (AAGR) measured in percent and Average Annual Growth in jobs (AAGRJ) since start up the business measured in number of jobs created. But the Compound Annual Growth Rate (CAGR) is more popular, as much more precise assessment of the timing of employment growth effects and it deals with a rate of growth what an enterprise will be reached growth in employment over the years on an annually compounded basis measured in percent. In this case, the model of firm growth becomes (Liedholm and Mead 1999).

$$Y_i = \left[\left(\frac{X_i}{X_t} \right)^{1/\alpha} \right] - 1 \quad (1)$$

Where

Y_i = employment growth rate at the moment

X_i = current employment size of the enterprise

X_t = initial employment size of the firm

α = age of the enterprise

According to Fantu (2001), growth in terms of employment is considered as dichotomous variables 1 and 0, and used a logistic regression model where 1 refers the availability of growth and 0 not. For that matter, growth to medium level enterprise or reached to exist the number of employees will be increased by more than 50% now from the start up time. The objective of this study focus on the effect of government subsidy on SME's growth, the appropriate method of estimation is maximum likelihood that analyzing the probability of non growing firm via proxy factors of which inhibited for growth of SMEs and the model specification will be.

$$y^* = X_i \beta_i + u_i \quad (2)$$

$y^* = 1$, SMEs non growth

$= 0$, growth

y^* is the underlying latent variable that indexes the measure of probability of non growing firm, U_i is the stochastic error term, X_i a column vector of explanatory variables and β_i is regression coefficient to be estimated. Following (Green, 2003), and

$$P(y^* = 1/X_i) = \frac{\exp(X_i\beta)}{1+\exp(X_i\beta)} \quad (3)$$

For any vector β the probability of observing y* conditional on X_i in a likelihood function expressed as

$$L(\beta/X_i) = \prod_{i=1}^{n} P_r(y^* = 0)^{1-y^*} * P_r(y^* = 1/X_i\beta)^{y^*} \quad (4)$$

The over all probability of observing a sample is simply the product of the individual probabilities (being non growing firm and growing firm) and estimated by transferring in to log likelihood function.

$$\ln L(\beta/X_i) = \sum_{i=1}^{n}(1-y^*)*\ln P_r(y^* = 0/X_i\beta) + y^* \ln P_r(y^* = 1/X_i\beta)$$

(5)

Coefficient of the above result shows only the sign effect of the variables on the probability of non growing firm. Then, the marginal effect of a particular independent variables X_i on the probability of the occurrence of the response is given by (Vebeek, 2004, Green 2003, Madalla, 1999)

$$\frac{\partial P(y^* = 1)}{\partial X} = \frac{\exp(X_i\beta)}{1+\exp(X_i\beta)} * \beta$$

(6)

Finally, unlike to OLS in which the minor effects are constant, in the case of logit model, we have to calculate them at different levels.

4. RESULT AND DISCUSSION

4.1. Characteristics of SMEs

4.1.1. Size Distribution of SMEs by Sector

In this section, we shall present a brief description of SMEs characteristics in the business sector, employment creation, and type of enterprises, and current SMEs capital. Table 3.1 below presents the size distribution of SMEs in terms of employment and capital. It shows that the construction sector has created jobs for 6257 employee, in 498 enterprises, which account 42.75% of the total jobs created by the participant SMEs. This is nearly 13 employees per enterprise on average. Trade seems to have created next higher job opportunities, 3150 employees (21.50%) in 820 enterprises. This is nearly 4 employees per enterprise on average. The service sector has also created jobs for 2900 employees (19.82%) in 457 enterprises which are above 6 employees per enterprise on average. The least contributor to job opportunity in this study is the handicraft sector, for only 45 employees (0.30%) in 20 enterprises. A textile is also another sector which does not contribute much to job opportunity; 345 employees (2.40%) in 190 enterprises.

Ayyagari and colleagues (2011, p.23) found that small firms are important contributors to total employment and job creation. The author's result further shows that the contribution of SMEs to increase productivity is not high as the large enterprises. SMEs are sources of employment for a large number of people compare to large firms though (p.24).

With regard to enterprises' mean capital, three sectors have high and relatively similar means irrespective of the number of their participants. That is, the capital means for construction, urban agriculture, and handicraft are 137,715.94 and 149,481.48 respectively. The capital mean shows that even though the handicraft sector does not soak up more employees, least contributor to job creation, it owns or mobilizes huge capital.

Table 4.1 SMEs Size Distribution by Sector

Sector	Size				
	Number of employees	**Percentage**	**Mean**	**Number of Enterprises**	**Capital Mean**
Construction	6257	42.75%	12.56	498	137,715.94
Metal work and wood	587	4%	4.70	125	125,998.30
Service	2900	19.82%	6.35	457	131,049.14
Urban agriculture	1350	9.23%	4.29	315	143,761.21
Textile	345	2.4%	1.82	190	72,237.70
Trade	3150	21.50%	3.84	820	213,883.96
Handicraft	45	0.3%	2.25	20	149,481.48
Total	14634	100	35.81	2425	974,127.73

Source: Primary data collected through annual report survey

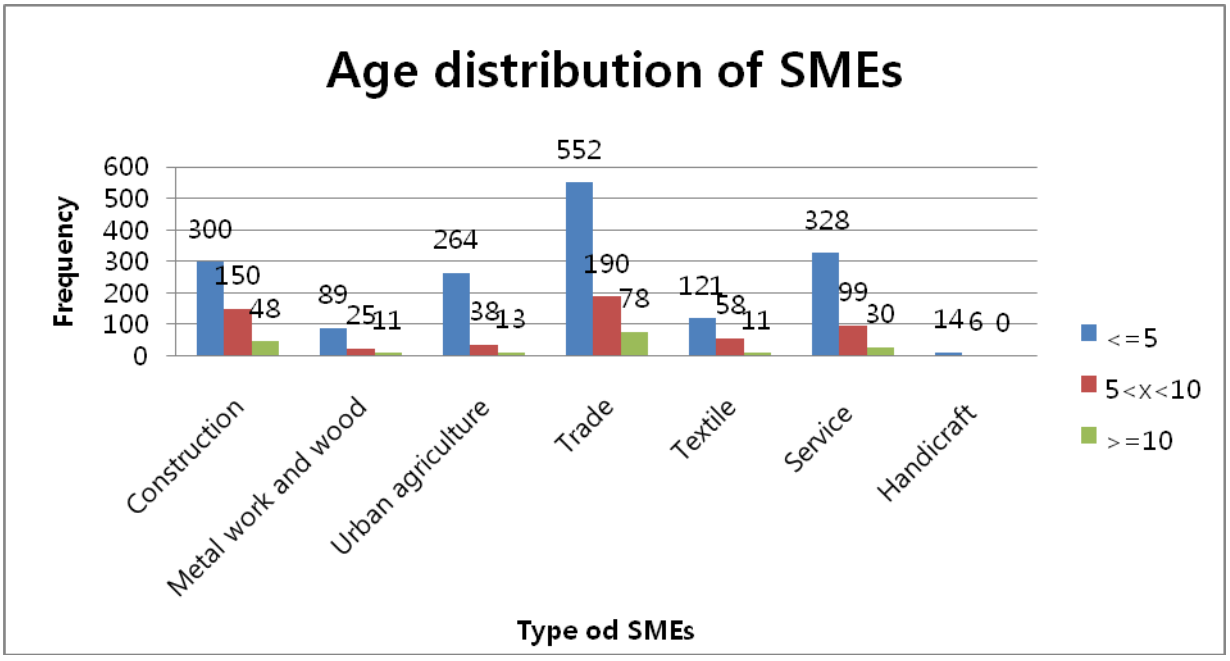
Unlike its job creation contribution (about 4 employees per enterprise), urban agriculture also contributes much capital on average. These are because such sectors need much capital with relatively less labor. For instance, the handicraft sector occupation of gold smith needs much capital with few employees. The size distribution of SMEs indicates that the textile sector is relatively low, contributing in both job creation (below 2 employees per enterprise on average) and capital contribution (capital mean = 35,008.705).

The role of SMEs in employment and income generation is increasingly recognized for the unemployed people, especially for women, and has become a major playing field for policymakers and donors with dual objectives of enhancing growth and alleviating poverty (Rahel & Issac, 2010, P. 233).

4.1.2. Firms' Age and Sectoral Distribution

Figure 3.1 shows the life span of SMEs in each sector. Ages of SMEs are simply classified into four: ≤5, 5 < x ≤ 10, and > 10 years of age. The ages of SMEs are calculated from their year of establishment. Figure 2.1 depicts that, there are more young SMEs in the age range of three years and below. One can observe that more SMEs are established in the last five years especially in the trade (552 enterprise/ 67.31%) construction (300 enterprises/ 60.24%) and service (328 enterprises/ 71.77%) sectors. As already seen in Table 3.1, construction and service sectors are best contributing to job opportunity and diversifying in these sectors may be more advantageous. Scholars wrote on average that young enterprises rapidly grow and contribute more as compared to older enterprises. The relationship between age of enterprise and growth of small enterprise in developing countries is particularly strong (Nichter & Goldmark, 2005, p. 24; 2009, p. 1456). These writers found out that on average young SMEs grow considerably more rapidly than old small enterprises. This may inform policymakers and administrators to always have newly established or young enterprises (SMEs) in selected sectors.

Figure 4.1. Firms' Age and Sectoral Distribution



Source: Primary data collected through annual report survey

4.1.3. SMEs Business Ownership (Legal Status)

Table 3.2 shows that most of the participant SMEs are sole proprietorships (1377 enterprises or 56.78%) and cooperatives (853 enterprises or 35.18%). Most of the participants from the construction sector are cooperatives (451 enterprises or 90.56%). Most of the participants from the trade and urban agriculture sectors are sole proprietorships (666 enterprises or 81.22%, 196 enterprises or 62.22%). All construction and most of the service, textile, and metal and woodwork SMEs have legal status. Relatively high numbers of urban agriculture and trade sectors have no legal status. Informality of SMEs decreases the probability for growth, and is related with various other characteristics that make growth of SMEs difficult (Nichter & Goldmark, 2005, p.24).

Table 4.2 SMEs Ownership (Legal Status)

Sector	Sole proprietorship	Simple partnership	Cooperatives	No legal status	Total
Construction	34	13	451	0	**498**
Metal work and wood	49	8	63	5	**125**
Service	269	27	152	9	**457**
Urban agriculture	196	3	90	26	**315**
Textile	152	9	26	3	**190**
Trade	666	23	69	62	**820**
Handicraft	11	1	2	6	**20**
Total	1377	84	853	111	**2425**

Source: Primary data collected through annual report survey

4.2. Government subsidy to SMEs Growth

The Ethiopian government has tried hard to establish a conducive environment that encourages and supports SMEs. The growth of the small and medium-sized enterprise (SME) sector remains limited, though. Subsidizing SMEs may not only encourage start-ups, but it will also support firms to grow from their informal business position to the formal sector

position. The government is well informed about the positive social and economic contribution that small and medium-sized enterprises (SMEs) can play in the development of the country. The contributions of SMEs in increasing innovation, adopting new technology and know-how, creating jobs and in diversifying business risks are well recognized. When SMEs lunch new products, the benefits can be extended to other sector of the economy. According to Brixiova (2009), "the role of the private sector, including SMEs, as engine of growth was illustrated by the postwar recovery in Austria and Germany and by the diverging paths of Central and East European and Baltic countries".13

The government encourages SMEs through providing credit access at low or zero interest rates, free land accessibility, tax exemption, priority in government bids, technical and managerial support. However, the government's support to SMEs declines gradually when they show growth. This means that the support is highest when the business is at starter level, then lesser support when it grows from starter to growing; and even from growing to maturity this may encourage dependency than doing for growth. If the SMEs wouldn't grow; the number of medium level enterprises couldn't increase consequently. According the group discussion with key informants, thus, the SMEs have not any interest to grow more and accumulate capital. This obviously led to dependency on government and others which provide subsidy to them.

4.2.1. SMEs Credit Support Mechanism

With cooperation of governmental banks and other financial and intermediary banks, the government provides credit access to micro and small enterprises at low or no interest rates. In other words, the credit support can be considered as financial support on government or bank loans.

In order to encourage the infant SMEs the government has signed agreements with banks so as to create financial access at an agreed interest rate to eligible SMEs where eligibility rules are pre-determined by Ministry of Trade and Industry and the banks together. The SMEs are responsible to pay back the principal amount to the credit provider institutions at the specified payback period. The government will pay the interest cost to the banks and other financial institutions, which provide credit access to SMEs at no or low interest rate.

---

13 Zuzana Brixiova, 2009. "On determinants of SME start ups in Ethiopia: A theoretical exploration": African Development Bank, Development Research Department, Tunis, Tunisia

Such support is provided to SMEs when they got legal certificate and legal personality in conducting their business from the appropriate body of the government. Informal sectors are not subject to be supported by the government and other institutions.

The government provides different financial support programs on various aspects of SMEs such as employment creation, export development, infrastructure, industrialization and the machinery and equipment for food sector. Moreover, to encourage value add activities and increase competitiveness in production and to help SMEs to produce standardized products; the government facilitate credit accesses and other necessary supports.

4.3. SMEs Contribution to Regional Economy and Performance

In the previous decades, the contribution of SMEs in national economy has been undermined and even interpreted in wrong way. SMEs were believed to slow down the economic growth by drawing scarce resources from their large business firms (Audretsch, et al., 2000). Until 1960s, big corporations capitalizing on generating economies of scale were considered as a driving force of development and industrialization. However, the emergence of new technology and computer-based production system, information and administration has reduced the contribution of economies of scale in many large business sectors. Different studies such as Acs & Audretch, 1993, have indicated that a shift in industrial structure from centralization and greater concentration towards less concentration and decentralization, which ensures the increasing role of small business firms. This shift has occurred due to the systematic change in production technology, labor supply, consumer demand, the interest of flexibility and efficiency. In turn, these changing factors led to the new structure and reducing the size of large firms and reduces the entry barriers of new firms to the market. Furthermore, evidences became available to show that the economic activities shifted away from the big to small firms, mostly SMEs.

Then, considering the changing pattern of consumer's demand and expenditure, SMEs are the driving forces and key elements in creating employment and ensuring economic growth and development. In the other way, this pattern shift has achieved a renewal contribution in the growth of SMEs and entrepreneurial development at regional, national and international levels.

Now a days, so many researchers have came up to ensure that SMEs can play an important role in contributing to the overall national economic performance, thereby reduce poverty in general and unemployment in particular (Dean et al. 1996; Karlsson et al. 1993). SMEs can

play a vital role in community development by tempting investments back into poor and backward areas and expand the advantages of economic growth to poor people and places where too often left behind. When the capital investment increases, SMEs can create huge employment and opportunities that can develop and build communities and social activities in rural areas as well as in small towns. Therefore, the economic contribution of SMEs to social, economic growth and employment opportunity is now well recognized and establish its strong base in the literatures.

This section presents the role of SMEs in economic growth in terms of employment creation, contribution to GDP, income distribution, and women's empowerment.

4.3.1. Employment by Size Category

As can be seen from table 3.3, firm share of employment is 1969(82.98%2), 392(16.52%) and 12(0.5%) in micro, small and medium business enterprises respectively. Considering capital per firm, the average capital for micro, small and medium firms is 24,379.81 Birr, 133,647.45 Birr and 8,145,100 Birr respectively.

This insightful result gives more information on the role of this sector to job creation and total output of the region.

Table 4.3. SMEs Employment and Capital Share

Firms type	**SMEs employment range**	**Firms share of employment**	**Firms share of capital**	**Average capital per firm**
Micro	1-20	1969(82.98%)	48,003,854.00	24,379.81
Small	20-50	392(16.52%)	52,389,800.00	133,647.45
Medium	>50	12(0.5%)	97,741,200.00	8,145,100

Source: Primary data collected through annual report survey

4.3.2. Skill Structure of Workers

According the Trade and Industry annual report, 2010, entrepreneurs of the SMEs qualify most of their workers as skilled for the responsibilities they achieve. It is stated that the construction sector is employed relatively the highest percentage of unskilled workers. Particularly, our results indicate that more than 93% of the workforce in the sample is semi-skilled with the highest percentages of both skilled and unskilled workers being in the construction sector. What is special is that, trainees do not constitute a major part of employment. They comprise only 0.5 % of the entire workforce.

Table 4.4 Skill Structure of the Workforce

Sector	**Skill Structure (%)**		
	Semi -skilled	**Unskilled**	**Total**
Construction	24.6078	3.378922	27.98673
Metal work and wood	18.16171	0.100563	18.26227
Service	10.13	0.4325	10.564
Urban agriculture	4.806919	1.257039	6.063958
Textile	10.99155	0.020113	11.01167
Trade	4.25382	0.150845	4.404665
Handicraft	5.201	0.734	5.923
Total	93.49356	6.506436	100

Source: Primary data collected through annual report survey

4.3.3. Sectoral Contribution

In this sub section, an interesting finding of the survey under discussion was that the SMEs contributed more than 188.4 million Birr to the regional economy. Those who tend to look down on small and medium industries may be shocked to note that small enterprises contribute more to the economy than large firms. Small enterprises are credited for having contributed 82.98 percent share of the total SMEs contribution to the economy, followed by medium enterprises contributing 16.52 percent (for details, refer Table 4.5).

Table 4.5 Contribution per Person Engaged by Firm Size

Size	Value-added per person engaged
Small	**25319.624**
Medium	**498.471**
Large	**273.78**
Total	**26,091.875**

Source: Primary data collected through annual report survey

4.3.4. Women's Empowerment

Women play a significant role in every country's economy, and as their literacy rate is often low and their social and economic status in the society is usually lower they participate in businesses which do not require high professional skill and education. This situation makes women highly present in the micro and small enterprises sub-sector.

Lack of women's empowerment is a major factor in extreme poverty; in turn, a focus on improving the socio-economic status of women helps to alleviate poverty and ensure security for women, their families and whole communities. Participation of women in SMEs is a tool to achieve the goal of empowerment. Social empowerment, followed by economic benefits to the people from small business enterprises, and supplemented by net profits from sale of services and produce of the SMEs have all increased their stakes. The ability to decide and plan their own development interventions, through program plans executed with the cash from revolving funds of their own, is their biggest source of empowerment. According to the research done by Mekelle University in SMEs development in Tigray region, the number of women who participate in SMEs is improving from time to time. This is due to the fact that the existing environment becomes more conducive for women to have the opportunities to trade their services and products they produce and the exposure they receive enables them to involve themselves in different business activities.

Moreover, the study has reported that since women account for half or more of the population and constitute a significant part of the SME entrepreneurs in total (27.92%), this study try to assess the benefits and barriers specific to women entrepreneurs.

The issues such as the need for permission to start up an enterprise, perception of women entrepreneurs on gender issues such as equality and decision making and general living standards of females are the main focus factors.

Women entrepreneurs face many challenges and constraints from their families when they attempt to begin a business. While some families are strongly against the idea of women lead and setting up a business enterprise, others give big support. The research finding indicates that more than half of the participant women entrepreneurs (51.13 %) did not consult or get need permission from their families to start up an enterprise. Besides, the majority of women entrepreneurs (84.4%) perceived that there is improved access to use and control resources due to their participation in SME.

The government support to encourage women to improve their socio-economic status is vital. Thus, Ethiopian government gives due attention to women's participation in SMEs. For example, some sectors such as car parking services and solid waste collection are predetermined for women. Members of the enterprise should include 50% of women. This is because the activities are fully outsourced by government.

4.4. Determinants of Performance of SMEs (Econometric Investigation)

Econometric method is employed to estimate the factors affect growth performance of the SMEs by running the following regression equation:

$$y^* = X_i \beta_i + u_i$$

Where, y* is the underlying latent variable that indicates the compute of probability of non growing firm, Ui is the stochastic error term, Xi a column vector of explanatory variables and β_i is regression coefficient to be estimated

To the measure of growth performance of SMEs in terms of employment growth[14] and the explanatory variables are:

[14] Different authors use different dependent variables such as employment, sales, productivity, value added growths

- Age and SMEs capital, the logarithm of the enterprise age, and the logarithm of initial capital, are included in the analysis to examine the dependence of an enterprise's growth on its age and initial size.
- The sector dummies are considered in the analysis in order to get any possible effects of working in the other subsectors contrasted with the construction as the base sector.
- Business ownership type: the reason of adding the business ownership dummies partner and cooperatives is to examine whether any major effects of being registered as partnership, sole proprietorship, or limited liability on enterprise growth compared to corporations as the base exists. The data of unregistered enterprises are not included from the sample due to the number of unregistered enterprises is too small.
- Access to credit is considered in the analysis model in order to examine the effects of credit support by the government.
- The government facilitates linkage of SMEs with other private and governmental organizations. Thus, linkage is considered since being related with other business organizations may have positive contribution on growth of SMEs in terms of market opportunities which could create new markets opportunity or increase productivity.
- Technology is a dummy variable that has direct relationship with growth of small firms.

Estimation Result

Applying linear regression to estimate the parameters of the model, both Breusch-Pagan and White tests for heteroskedasticity rejected homoskedasticity. As a remedy White standard errors have been computed and the results are reported in Table 3.8

Table 4.6 Regression Results

Dependent Variable: Sales growth

Independent variable	Coefficients
Age	-.0003665 (.0009564)
Log of Initial Capital	.2226491** (.0559804)
Linkage	.680456 (.0502878)
Credit facility	.733363** (.0525662)

Technology	.6185513* (.1921606)
Partnership	.2372483 (.580942)
Cooperative	.7907937 * (.27109)
Sole proprietorship	.333363 (.4225662)
Handcraft	-.5037278 (1.17442)
Metal and Wood	-1.282027* (.4322037)
Trade	-.726415 (.3775554)
Service	-.647896 (.3234759)
Textile	-1.116324 (.5344333)
Urban agriculture	-1.282563 ** (.3257294)
Constant	8.105526** (.5991336)
Observations R-Squared Adjusted R-Squared	337 0.2762 0.2377

***Notes: Values in brackets denote standard errors; one and two asterisks denote significance at 5, and 1 percent levels respectively.*

As can be seen from Table 3.6, the conclusion reads that credit facility; initial capital and linkage variables are significantly correlated with growth of SMEs. SMEs with credit accessibility, high linkage and higher initial capital tend to have significantly higher growth rates than SMEs with lower linkage, credit access and initial capital. Putting it differently, other factors being equal, SMEs that have government support and subsidy have higher average growth rates than SMEs without government support. Besides, the technology dummy shows that SMEs that use modern technology (equipment) do have higher growth rates, other factors influencing growth remaining constant. There are, however, a number of other variables that show a significant correlation with growth. Initial capital is a most significant variable.

Two things are worth nothing from Table 3.6. First, as indicated by the cooperative dummy, cooperatives tend to have higher sales growth than sole proprietors and there is no difference in sales growth between sole proprietorships and partnerships. This finding has an important policy implication. Second, the business line/sector in which SMEs operate has a significant impact on growth. Holding other factors constant, SMEs operating in the construction and manufacturing sectors do have higher average growth rates than SMEs operating in other sectors. These findings are similar to the findings of (Rietveld & Schipper, 1994)

4.5. Institutional Linkage of SMEs

Support provision by public institutions, technology transfer centers, legal aid centers, business leadership coaching, market information centers have a direct relationship with SMEs' development in capacity building. Besides, having market information access or new innovation may help small enterprises react to new opportunities, while the absence of all above have negative impacts and are comprehended as constraints on SMEs' growth and sustainability (Field, Hitchins, & Bear, 2000; Gbson, Hitchins & Bear, 2001; Lusby & Panlibuton, 2002).

There are divergent views on whether the expansion of markets encourages SME growth and sustainability (Steen et al., 2005).

Table 4.7 shows the linkage of SMEs with various partners and with varying levels of linkages expressed in terms of percentage. The table shows that most of the enterprises have low linkage with various partners.

83.95% of the participants of SMEs have no linkage with universities and research centers; 88.36% of them have no linkage with companies outside the region; 81.59% of the participants SMEs have no linkage with NGOs. On the other hand, a considerable proportion of SMEs (30.41%) is highly linked with other companies in the region (suppliers, customers, partners etc.). Next to this partner, public institutions of Tigray region are highly linked with 25.96% of the participant SMEs. 19.54% of the participant SMEs are also highly linked with Regional colleges/TVETs/.

Table 4.7. Institutional Linkage

Linkage with various partners	Level of linkage (in percentage)		
	No linkage	**Moderate linkage**	**Highly linked**
Public institutions of the region	59.79	14.25	25.96
Regional colleges/TVETs/	67.77	12.69	19.54
Universities and research centers	83.95	9.28	6.77
Other companies in the region (suppliers, customers, partners etc.)	50.79	18.8	30.41
Technology transfer centers	74.76	10.69	14.55
Companies outside the region	88.36	6.69	4.95
NGOs	81.59	8.17	10.24

Source: Primary data collected through annual report survey

4.6. Industrial Growth

The manufacturing sector in Ethiopia is quite small and accounts for around 11% of the GDP and an even lesser proportion of total employment. The vast majority of manufacturing establishments are small and cottage types. The modern manufacturing sector, which includes medium and large-scale private units, employs only one-fifth of the manufacturing labor force but generates the largest share of value added manufacturing. It is, however, difficult to go much beyond these indicative figures about the relative importance of different plant size classes in the manufacturing sector because of the lack of comprehensive data and ambiguities surrounding any classification of industries by plant size.

When there is high proportion of SMEs product for further production, their contribution to industrial growth is expected to be high. With regard to the customers of SMEs in the study, 65.92% are urban and the remaining 34.08% are rural customers, respectively. As can be seen from Table 3.8, on average 70% of SMEs are involved in producing products for final consumption while 20% of them produce for further production and the remaining 10% for both production and final consumption purpose. Sector wise, the construction sector is relatively contributing better i.e., 29.7% in producing for further production. On the other

hand, handicraft and textile sectors contribute 0 and 5.32% respectively to further production. From this we can infer that the forward linkage of the participant SMEs with industries is weak.

Table 4.8. Purpose of the Produced Product

Sector	For final consumption		For further production		Both		Total
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	
Construction	323	64.85	148	29.70	27	5.45	**498**
Metal work and wood	89	71.45	25	20	11	8.55	**125**
Service	379	82.88	55	12.06	23	5.06	**457**
Urban agriculture	192	61.01	58	18.65	65	20.34	**315**
Textile	175	92.03	10	5.32	5	2.65	**190**
Trade	551	67.25	157	19.08	112	13.67	**820**
Handicraft	16	80	0	0	4	20	**20**
Total	1725		453		247		**2425**

Source: Primary data collected through annual report survey

4.7. Problems facing the SMEs sector

It is obvious that micro and small enterprises face so many challenges to be successful in their business operation and they failed to address the challenged they face by their own due to their lack of capacity. some of the constraints are lack of access to market, lack of business information, lack of finance, business premises, lack of adequate managerial skill, lack of access to appropriate technology, lack of necessary infrastructure and some bureaucratic and discriminatory legal practices are the main constrains that can be mentioned towards SMEs.

Inadequate financial access

As per the study result by Nichter and Goldmark, 2009, due to lack of access to finance micro and small enterprises face so many problems, while there is a financial policy biases which favor large enterprises. Generally, policies in most of developing countries favor large enterprises and SMEs have difficulties growing due to high transaction cost, inadequate collaterals, and lack of capability to deal with the complexity of financial institutions (Harvie, 2005; APO, 2001; Leopairote, 1997). The annual reports in Tigray region confirm this problem by stating that commercial banks and other financial institutions in Ethiopia focus on large enterprises and the reason why it is more problematic for SMEs in Ethiopia to get loan is that they don't have the capacity to provide collateral which is required by financial institutions, lack of managerial skills and accounting system and they are considered as high risk enterprises. Moreover, the regional Trade and Industry office declared that lack of credit access is the major problem for SMEs to grow and usually entrepreneurs are forced to use personal financial sources to start up their small business and to expand their business size.

Competition

The less competitiveness of SMEs in terms of technical and managerial skill, value-adding production, use of new technology and knowledge, makes Competition one of the major factors hampering SMEs growth in Ethiopia. However, the competition is not from domestic business; it is from imported products from other countries such as China producing at low cost, though the product quality is lower than domestic quality. Due to customers' sensitivity to price, the domestic products produced by SMEs have lower demand. In addition, different research works confirmed that due to different constraints SMEs are weak in market competition compare to large firms and low in value-added production.

Trade Barriers

The other constraint, which hinders SMEs to grow in Ethiopia, is technical constraint to trade. The competition is increasing from giant firms that have advantage of high levels of know-how within management due to FTA (OSMEP, 2007 a). According to the annual report of the Tigray region 2010, SMEs are facing difficulties related with trade barriers from both domestic large companies and imported goods.

Inflation

According to Cheah and Cheah (2005), study result, economic crisis has hampered the development process in many developing countries and SMEs are more exposed to economic crisis, due to limitation in resources and their small size. It is obvious that almost all SMEs facing difficulties from the current increasing inflation rate due to the increasing prices of raw material and the increasing currency exchange rate. Unstable currency exchange rates have a great influence on their businesses operation. Furthermore, the appreciation of the Ethiopian Birr affects SMEs business since some customers prefer buying goods from international competitors instead (World Bank, 2009).

Marketing problem

Lack of marketing access is the most important factor which affects the development of many enterprises, especially SMEs (Brush et.al, 2009; APO, 2001). Institutions like World Bank indicated that lack of marketing strategies and knowledge is one of the major problems which hinder SMEs to grow. Lack of effective and efficient distribution system, lack of communicating characteristics regarding services and products, inadequate market information or knowledge, poor capacity to innovate new way of production and doing business, lack of infrastructure are some of the problems of SMEs in relation to marketing. In addition, many SMEs considered marketing as unnecessary cost and unwilling to invest in marketing.

Lack of management competence

Macpherson and Holt (2007) and Thassanabanjong et al. (2009), conclude that firm growth is dependent on managerial knowledge. Lack of managerial skill is one of a considerable issue for many of SMEs in Ethiopia since most of the SMEs do not have adequate knowledge and expertise on how, when and why they produce their products and apply their existing capacity in more efficient way. Moreover, most individual entrepreneurs in SMEs start up their business before they develop basic management competences which are required to operate a business. Due to lack of managerial skill, SMEs are weak in production and in market competition. Furthermore, the annual reports have mentioned that SMEs do not use appropriate accounting system; they lack the basic know how to manage their inventory, costs and financial system. As a result, poor management competence has been identified as one of the most internal problem which constrains the growth of SMEs in Ethiopia.

Lack of skilled manpower

Sleuwaegen and Goedhuys (2002) stated that lack of skilled manpower is a hampering factor for SMEs growth in most of developing countries. Moreover, Holden et al. (2007) and APO (2001) claimed that SMEs do not have the capacity to attract a highly educated skillful people to their business due to the fact that they are not in a position to offer better benefits compare to large firms. People in Ethiopia with high level of educational background prefer working for large companies rather than for the SMEs since large companies can offer better salary and better social welfare conditions. The World Bank, 2009, further explained that shortage of high qualified skilled manpower is one of the major problems which are hindering the growth of SMEs in Ethiopia.

Research and Development - Innovation

Innovation is the result of a linkage between scientific research and industrial R&D (Morrison, 2006). According to Raymond and St-Pierre (2004), put emphasis on how the effect of globalization has forced SMEs to more demands.

On the other way, due to lack of financial and technical capacity, Ethiopian SMEs could not invest the required amount of capital on innovation and the government is not very supportive in terms of motivating SMEs to conduct more research and development activities (OSMEP b, 2007).

The other reason mentioned in the annual reports is that SMEs do not have the expected ability to innovate and not only they are reluctant to invest but also they have financial limitation to engage in research and development activities. Furthermore, the relative importance of research and development towards production, marketing and organization is limited to SMs due to the fact that limited finance and poor level of awareness and interest. Moreover, their linkage with local and international universities and institutions is weak or non-efficient.

Lack of appropriate Technology

Due to using out dated and back warded technology in production, SMEs tend to have low productivity. They do not increasing machinery utility and do not improve technology due to limitation of finance (OSMEP, 2007 a). They lack the knowledge and capacity on how to

choose the right alternative for production, on how and where to look for information regarding technology and market competition. In addition, though they have the knowledge to choose the appropriate technology, they have limited resources to invest in new technology. Many research papers have mentioned that SMEs do not have adequate financial capacity to invest in technology and R&D, which makes it difficult to adopt new technology.

5. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusions

Exploring the role of subsidy on SME growth in Tigray, as in any part of the world, is a broad concept and engulfs multifaceted issues. This study employs many-sided methods of data collection, analysis and presentation in order to address immense issues pertinent to SMEs. This study examines the importance of government support to SMEs in the region. In this context, contribution of this sector to the macro economy of the region in terms of employment generation, income distribution and output, prevailing markets and industrial linkages, and determinants of SMEs growth, are thoroughly discussed.

We employed descriptive and econometric statistical analysis to fully discuss the objectives under consideration. It is strongly believed that the methodologies we executed and the models employed would allow comprehending the full picture of SMEs in the region. The study come up with concluding result of the role of SMEs in economic growth in terms of employment creation, contribution to GDP, income distribution, and women's empowerment in Tigray region is encouraging. But regarding institutional linkage of SMEs, the result shows that most of the enterprises have low linkage with various partners.

The result showed that SMEs generating more employment compare to large firms. The reason is that the government's conducive policy to support and encourage SMEs. The study revealed that the government is well attentive of the positive contribution that micro, small and medium enterprises (SMEs) can play in the economic growth and development and encourages them through providing different supports, their dependency level is increasing. This is due to the reason that the government's support to SMEs declines gradually when they show growth from micro to small, small to medium and medium to large enterprises. Thus, they don't have any incentive to grow more, rather results dependency.

With regard to SMEs contribution towards industrialization, the study come up with the result that when there is high proportion of SMEs product for further production, their contribution to industrial growth is expected to be high. More than 54% of the SMEs productions have to undergo one or more stages for processing before they reach the consumer.

In the linear regression analysis, SMEs' initial capital, credit accessibility, linkage and technology affect SMEs employment growth positively. In addition, cooperatives do have higher average sales growth than others do. The same is true for SMEs operating in the construction sub sector. According the group discussion with key informants, the study reach into conclusion that Access to credit and need-based training are other important determinants of small business growth and sustainability.

With regard to SMEs constraints and barriers to their development, lack of startup and working capital, inability to compete with existing large firms, lack of market linkage and information access, inadequate product/or service demand and inadequate working premises are the top five ranked barrier to SMEs growth and sustainability.

5.2. Recommendations

It is highly recommended that the regional government in cooperation with development partners promote small and medium enterprises in the region, as they are important sources of regional income; reduce inequality and employing significant number of persons. Besides, the regional government has to continue its efforts to organize and help cooperatives. The support given to SMEs has to be comprehensive ranging from providing start-up capital to introducing better technology.

The contribution of textile, metal and wood work and service to the regional economy in terms of output is low. However, these subsectors can perform better and even generate a considerable amount of foreign exchange if they can be supported and promoted to an acceptable level. The findings of the study recommend regional and woreda SME offices and policymakers to focus on manufacturing, construction, service, and urban agriculture because of their contribution to job opportunity and to accelerating industrialization. As SMEs are important means of livelihood and sources of women empowerment, women entrepreneurs who are engaged in SMEs should get special attention.

The regional government should foster a culture of innovation and establish a framework conducive to innovation, including measures to inject the spirit of innovation into education and training. Universities, TVETs and research centers should gear up their research findings towards innovation by building SMEs related to innovation dimensions into their research framework, and by stimulating the development and spread of good practice in technology transfer, and in the nurturing of innovating enterprises.

SMEs are expected to grow and transfer from micro to small and then to medium and large. To realize this, SMEs should have linkage and coordination with other SMEs, industries, institutions, marketing promotion agencies, wholesalers, and donors. Thus, it is better if the regional government facilitate to SMEs to establish technical and market linkage with those relevant bodies.

The regional government should establish new technology incubation and development centers and technology parks for the adoption, adaptation, and dissemination of new technology and promoting indigenous innovation. Government should encourage using modern tools/instruments to all enterprises irrespective of the type of the sector though the degree may differ from one sector to the other. Besides, awareness has to be created so that SMEs can instill the habit of continuously training and developing their owners/managers and employees in order to build comprehensive capacity for maintaining their competitiveness.

Technical and business training should be given to SMEs in a regular and well-organized way. That is, the regional government should establish well-organized and specialized training centers at least at regional and zonal level. Hence, the training centers will be responsible to plan and execute need-based training. Particularly, a system of providing BDS including keeping records during the stage of starting-up as well as during later phases of expansions.

5.3. Suggestions for further research activities

This thesis has studied about the role of subsidy in SMEs growth in Ethiopia, the case of Tigray Region. Different published and unpublished documents of Institutions and organizations related with SMEs have also contributed a lot in the research and development in order to reach on a better understanding of the subsidy program in SMEs growth and the

growth bottleneck factors for SMEs in Ethiopia. During the study the authors have came up with various area of research interest that would be attracted for further investigation. As this thesis is stated that there are several factors, which can improve and hinder the growth of SMEs in Ethiopia though there effect vary within the different sectors.

In this research area, further research could also be conducted to compare the existing situation of SMEs with different countries. For instance, this thesis could be used in a further study where the role of subsidy on SMEs growth in neighboring countries could be compared.

REFERENCES

REFERENCES

Ayyagari, M., Demirguc-Kunt, A., & Maksimovic, V., (2011). Small vs. Young Firms across the World Contribution to Employment, Job Creation, and Growth. The World Bank, Policy Research Working Paper 5631.

Central Statistics Authority (CSA), 2003. Retrieved December 10, 2003, from http://www.csa.gov.et/text_files/2003_national_statistics.htm

Central Statistics Authority (CSA), 2006. Retrieved December 10, 2006, from http://www.csa.gov.et/text_files/2006_national_statistics.htm

Central Statistics Authority (CSA), 2007. Retrieved December 10, 2007, from http://www.csa.gov.et/text_files/2007_national_statistics.htm

Desta Solomon, (2002). The Establishment of Network of Micro and Small Enterprise Support Institutions in Tigray. GTZ-MSE Programme.

Eshetu B. & Zeleke W., (November 2008). Women Entrepreneurship in Micro, Small and Medium Enterprises: The Case of Ethiopia. Journal of International Women's Studies, 10 (2).

Eshetu, B. & Zeleke, W. (2008). Factors that affect the long term survival of Micro, Small and Medium Enterprises in Ethiopia. South African Journal of Economics, 76(3).

Gebrehiwot, A. & Wolday, A., (2006). Micro and Small Enterprises (MSEs) Finance in Ethiopia: Empirical Evidence. Eastern Africa Social Science Research Review, 22 (1), pp. 63-86, Michigan State University Press, DOI: 10.1353/eas.2006.0002.

Green, C. J., Kirkpatrick, C. H., & Murinde, V., (2006). Finance for Small Enterprise Growth and Poverty Reduction in Developing Countries. Journal of International Development, J. Int. Dev. 18, 1017–1030, Wiley InterScience, DOI: 10.1002/jid.1334.

Haftu Berihun, et. al., (2009). Financial Needs of Micro and Small Enterprise (MSE) Operators in Ethiopia. Occasional Paper No. 24, AEMFI, Addis Ababa.

ILO (2003). Ethiopian Women Entrepreneurs: Going for Growth. Jobs Gender and Small Enterprises in Africa.

Marcucci, P. N., (2001). Jobs, gender and small enterprises in Africa and Asia: Lessons drawn from Bangladesh, the Philippines, Tunisia and Zimbabwe. Series on Women's Entrepreneurship Development and Gender in Enterprises – WEDGE, International Labor Office, Geneva.

McClelland, S. D., (2002). A Training Needs Assessment for the United Way of Dunn County Wisconsin. Unpublished MSc Thesis, University of Wisconsin-Stout.

Mead, D. C. & Liedholm, C. (1998). The dynamics of micro and small enterprises in developing countries. World Development, 26(1), 61–74.

NBE (2004). Ethiopian National Bank Annual Report 2002/2003 (Ethiopian Fiscal Year 1995).Economic Research Department, National Bank of Ethiopia, Addis Ababa.

Nichter, S. & Goldmark, L. (2005). Understanding Micro and Small Enterprise Growth. USAID, Development Alternatives, Inc. microREPORT #36.

Nichter, S. & Goldmark, L. (2005). Understanding Micro and Small Enterprise Growth. USAID, Development Alternatives, Inc. microREPORT #36.

Nichter, S. & Goldmark, L. (2009). Small Firm Growth in Developing Countries. World Development 37 (9) pp. 1453–1464, Elsevier Ltd.

Organization for Economic Co-operation and Development,OECD, (2002). High-Growth SMEs and Employment.

Rahel W. and Issac P., (2010). Growth Determinants of Women-Operated Micro and Small Enterprises in Addis Ababa. Journal of Sustainable Development in Africa, 12(6). Clarion University of Pennsylvania, Clarion, Pennsylvania.

Rahel W. and Issac P., (2010). Growth Determinants of Women-Operated Micro and Small Enterprises in Addis Ababa. Journal of Sustainable Development in Africa, 12(6). Clarion University of Pennsylvania, Clarion, Pennsylvania.

Schorling, Anne, (2006). The Involvement of Women and Men in Micro & Small Enterprises (MSEs) in Nefas Silk Lafto Sub City: Discussion Paper & Guideline to Construct a Gender-Sensitive "Job Market". Addis Ababa.

Seleshi Lemma, (2001). Subcontracting Strategy for the Ethiopian Micro and Small Enterprises.

Small and Medium Enterprise Development Authority of Pakistan (SMEDAP) (2002). Creating a conducive policy environment for micro, small and medium-sized enterprises in

Solomon Agaje, 2004. “Socio economic determinants of growth of small manufacturing enterprises in Addis Ababa.”: School of graduate studies; Addis Ababa University

Pakistan. SEED working paper number 29. Geneva: International Labour Office.

Trade and Industry Bureau Addis Ababa (June 2005).The working definition of MSE in Ethiopia is based on capital.

Uzor, O., (2004). Small and Medium Scale Enterprises Cluster Development in South-Eastern Region of Nigeria. Institute for World Economics and International Management, Universität Bremen.

World Bank, 2004, “*SMEs, Growth and Poverty*” The World Bank group, private sector development vice presidency, Note Number 2 6 8

World Bank, 2009. SMEs and the Millennium Development Goals. Washington, DC: World Bank

Zewde & Associates, (2002). Jobs, Gender and Small Enterprises in Africa: Women Entrepreneurs in Ethiopia. Preliminary Report, SEED-ILO Addis Ababa.