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Publication date:
2009

Document Version
Publisher's PDF, also known as Version of record

Link to publication from Aalborg University

Citation for published version (APA):
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DIIPER RESEARCH SERIES
WORKING PAPER NO. 11

ISSN: 1902-8679
Promoting micro, small and medium Enterprises (MSMEs) for sustainable rural Livelihood

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Abstract
The landmark Agricultural Development Lead Industrialization (ADLI) policy of the Ethiopian government was introduced in 1994 with a view to alleviate key strategic challenges such as food insecurity, abject poverty, reliance on foreign assistance and unemployment. Although ADLI has been implemented for over 14 years now, it has produced poor results so far. The failure of ADLI is attributed to lack of political commitment and vital resources that are required for the successful implementation of the policy. The country still depends on food charity and handouts from foreign donors as a means of alleviating shortage of food among the poorest of the poor. Food charity does not always solve problems such as decline in agricultural productivity. Neither does it improve the level of income of poorly skilled and under-resourced peasants. This study shows that micro, small and medium enterprises have the potential to fill the gap by alleviating extreme poverty among the masses, and by generating employment opportunities for the poor. The study is based on a 6-year follow-up study of a random sample of 500 small businesses selected from five major cities of Ethiopia, and identifies key predictors of viability and long term survival. Results from binary logistic regression analysis and Kaplan-Meier survival probability curves show that access to credit, innovation, and the presence of an enabling macroeconomic environment are essential for ensuring sustained rural development and livelihood in Ethiopia. The development of thriving agribusiness enterprises is critical for facilitating linkage between the agricultural sector and the rest of the economy.

Keywords: MSME, agriculture, finance, forward and backward linkage, odds ratio

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1. Introduction
Poverty in Ethiopia is widespread and remains a major challenge of sustainable development and stability (Lutheran World Federation of Ethiopia, 2006; Easterly, 2002). It is estimated that close to half of the population in urban and rural areas of the country live in absolute poverty due to lack of economic opportunities, governance crisis, inadequate basic household income, and poor means of survival (Mammo, 2008; Serneels, 2004; EEA, 2001). A study conducted in 2003 and 2004 by the Ethiopian Economic Association and the report by the Lutheran World Federation of Ethiopia (2006) shows that nearly half of the 71.3 million Ethiopians live below the absolute poverty line, lacking an average income of 1 American dollar per day as a means of acquiring basic necessities of life. Currently, 50% of the rural and urban population of the country in the age group between 15 and 30 years is unemployed due to lack of opportunities (Serneels, 2004). In Ethiopia, there can be no credible sustained national development policy unless otherwise the needy population are fed first and foremost.

The structure of the Ethiopian economy indicates that agriculture is critical to the Ethiopian economy. According to Hassan (2006) the sector directly supports about 85% of the population in terms of employment and livelihood. Although the contribution of agriculture to GDP has decreased in recent years, it remains the largest sector, estimated at about 40% in 2006, and generating about 88% of export earnings. However, the agricultural sector is characterized by small scale farming, highly fragmented landholdings, traditional farming technologies, heavy reliance on rainfall, low input and low productivity.

In order to bring about economic growth and development in the country, although the current government has pursued a new economic policy followed by reform programs which have given top priority to the agriculture sector, the number of hungry people have not grown less over time since this regime came to power in May 1991 (Mammo, 2008). The same report indicates that every year, an average of 7.5 million people have always relied on food aid from outside irrespective of the availability of rain, poor harvest or drought. The future for the agricultural sector, therefore, determines whether or not Ethiopia can break out of the vicious circle of food dependency. According to the UNDP (2003), a comprehensive and integrated system of agricultural production along with good governance is necessary for ensuring food security in the country. To this end, the development of the agribusiness MSME sector is crucially important for reducing abject poverty among the masses.

This paper is based on a 6-year long study of 500 small businesses and enterprises randomly selected from five diverse geographical regions of Ethiopia (Addis Ababa, Awassa, Bahir Dar, Nazareth and Mekele), and aims to identify
influential factors responsible for poor linkage of MSMEs and the agriculture sector. Data was gathered on a large number of socio-economic and demographic variables from each of the 500 enterprises over the study period (1996 to 2001). Binary logistic regression analysis was used for identifying key predictors of viability and long term survival.

The Ethiopian agriculture sector faces a two-fold challenge: firstly, the task of increasing productivity in food supplies so as to meet the demand for food from a rapidly growing population; and, secondly, the task of creating employment opportunities to a young and uneducated population. The literature suggests that the promotion of vibrant agribusiness firms should be one of the important priority strategies for addressing the persistent unemployment and poverty problems in Ethiopia due to its multidimensional economic and social significance (World Bank, 2007; ILO, 2004; Asena & Edward, 2004; Degefe, Nega & Tafesse, 2001). This priority is based mainly on the important role of thriving MSMEs in economic dynamism, diversification, productivity, competition, research and development, innovation, and ultimately the reduction of poverty among the poorest of the poor. These firms include crop production, livestock, fishery, forestry, vegetables, fruits, feed processing and supply of fertilizer, improved seed, biotechnology, pesticide and medicine. Many development economists, including the World Bank have shown that thriving MSMEs are essential for the sustainable development of a country, and that the importance of providing strategic support to the development of the agriculture sector cannot be overemphasized. Such economists argue that the challenges experienced by the agricultural sector can be alleviated through promoting agribusiness enterprises with suitable macroeconomic policy tools and adequate financial and policy support from the national government.

Although a growing number of researchers have suggested that the prospect of development in the agricultural sector tends to increase along with development in the MSME sector, until recently MSMEs have not been a major area of focus in Ethiopia (Alemahehu, 2006; Negash & Kenea, 2003). Although the government has issued a national MSME development strategy for the promotion of MSMEs in 1997, the success achieved so far is not much. Often essential services required by MSMEs are not available at all or delivered by limited capacity and competence (Negash and Kenea, 2003; MTI 1997). For instance, MSMEs struggle to have access to finance at favorable terms of credit in spite of the recent increase in the number of banks and micro financiers in the country (Alemahehu, 2006). In fact, the economic significance of the MSME sector is often debated among policy makers. Some argue that although MSMEs can expand very fast, most of them are vulnerable to challenges related to basic infrastructure and high technology, macroeconomic policy, good governance, the availability of resources, etc, and that they run a sizeable risk of failure
within the first three years of their existence (Dunne & Hughes, 1994; Dunne et al., 1989; Little, 1987).

There is a large body of literature on the Ethiopian agricultural sector. However, few studies have attempted to analyze the strategic importance of linking the MSMS sector with agriculture. This study argues that the development of agribusiness firms in Ethiopia is critical for the development of agriculture. This paper is organized as follows: Section two analyses background problems related to the ADLI strategy and describes the development and current situation of agribusiness firms along with the kind of support required from the national government support for alleviating constraints in agribusiness firms. Section three presents methods and materials that are used for data analysis in the study. Sections four and five provide results estimated from models used for data analysis. Finally, section six concludes the paper.

2. Background of problem

2.1. Agriculture
Agriculture is critical to the Ethiopian economy, with about 85% of the population depending on it for their employment and livelihood; contributes about 40% of the country’s GDP; generates about 88% of the export earnings; and supplies around 73% of the raw material requirement of agro-based domestic industries (Hassan, 2006). In addition to this the sector is expected to play a key role to speed up the country’s overall socio-economic development. According to Abegaz (2006), in Ethiopia and many African countries political governance is inseparable from economic governance. Thus, broadly speaking the economic reform programs and the sector performances of the Ethiopian economy can be viewed in terms of the three regimes that ruled Ethiopia since 1960. Since the mid-1970s, Ethiopia has experienced two major political power shifts and subsequent economic reforms in the economy. The first occurred in 1975, when the Derg (a group of military officers led by Colonel Mengistu Hailemariam) overthrew the imperial regime of Emperor Hailesilassie I, and implemented a communist-inspired and centrally controlled socialist economic policy. The second, a more market-based economic policy reform took place in the early 1990s with the fall of the Derg regime through the violent transfer of power to the Ethiopian Peoples Revolutionary Democratic Front (EPRDF). In fact, even today, with the democratic government, it is far to say that Ethiopia has developed a democratic political culture where political power transition can take place without deception and violence by mounting proper discussion, conversation, debate, policy distillation and finally by means of votes and elections that are conducted with rules, norms and procedures that are open and
accountable, as they are free and fair both in reality and perception (Mammo, 2008; Geda and Degefe 2002).

The last decade of the imperial regime of Emperor Hailesilassie I (1965-1974) was characterized by a liberal system or a market based economic policy. The regime promoted a relatively greater involvement of the private sector and international investors to bring capital and skills into Ethiopia, and participate in the local economy (Kebede, 2002). As a result, direct foreign investment activities were implemented in sectors such as large commercial farming, manufacturing, education, banking, insurance, transportation and textiles. The share of foreign capital in manufacturing industries during this time amounted to about 41% of the total paid-up capital. According to Keller, (1998) and Bekele, (1995) based on the data from the Central Statistical Agency of Ethiopia (CSA) indicate that the economy achieved sustained economic growth between 1965 and 1974, where real GDP grew by an average of 4.4% per annum while per capita income grew at a rate of 1.5%. The agricultural production increased at an average annual rate of 2.1% between 1965 and 1973, and these outcomes were much better than those achieved between 1975 and 1991, a period in which agricultural production increased at an average annual rate of 0.6%. According to Geda and Degefe (2002), during the early 1970s for example, Ethiopia’s economy not only grew fast, but also diversified into areas such as manufacturing and services. For instance, the share of the agricultural sector to GDP steadily declined from nearly 70% in 1960 to about 50% in 1974.

During this period, even if the economy was being transformed structurally, while output rose and the economy was diversified, the development of the agricultural sector was retarded by a number of factors: First, there was a tenancy and land reform problems; Second, agriculture sector received relatively less amount (less than 2% ) of government's budget allocation; Third, the sector characterized by lack of technological development; and fourth, small scale agribusiness firms received relatively little attention in terms of policy and support compared to large enterprises (John, 1979). The policy selectively supported large enterprises as they were perceived more important in terms of GDP growth, employment generation and productivity contribution to the economy. In fact, as in many other developing countries, in Ethiopia too, interest in exploiting the full potential synergy of MSMEs and commitment for promoting the sector using policy as an instrument was kept at bare minimum. As a result government’s effort to introduce programs that aims to improve agricultural productivity, which includes Minimum Package Program (MPP), Chilalo Agricultural Development Unit (CADU), and Extension and Project Implementation Department (EPID) does not bring the desired level of progress inn the sector. None the less the sector grow at an average annual rate of 2.1%, albeit below the population growth rate 2.6% between 1965 and 1973.
Derg regime replaced the relatively liberal economic policies of the imperial era with a centralized policy that discouraged free market economy and large private investment. Restructuring the economy through socialist development ideology and realizing sustained economic growth were the main objectives of the Derg regime (Ageba and Amha, 2004). In view of to realize sustained economic growth through public ownership of resources, the state nationalized domestic and international private medium and large enterprises, financial institutions such as private banks and insurance companies, and rural and urban land fell under the ownership of the state. Small farmers were forced to join farming cooperatives that were obliged to sell farm product to the government at discounted selling prices (Kassahun, 2002). During the Derg era, the Ethiopian economy became one of the most heavily regulated in terms of policy. The government used restrictive policies such as introducing a policy of price controls, quota restriction of certain sectors of the economy, excessive tariff, strict licensing, limitation on foreign exchange, and the imposition of cumbersome legal requirements on the private sector. The state planned means of production, production targets and allocates resources. Production of large-scale goods was almost entirely state owned. As a result, there was little room for private sector development. This ultimately resulted in a sharp decline in agricultural output as well as other sectors of the economy, including died out of the direct foreign and private investment into local economy (Rahmato, 2004; Kassahun, 2002; Geda and Degefe 2002).

During this period (1974-1990), the economy failed to realize macroeconomic stability. GDP declined by 5% in real terms, inflation soared by nearly 23%, the trade balance deteriorated, unemployment remained high. According to Geda and Degefe (2002) growth rate decelerated to 2.3% (the per capita income declined by 0.2% per annum). In the late 1980s, average GDP growth remained very low at less than 2%, while population increased at an average annual rate of 2.6%. According to Kassahun (2002), despite the economic reform, the overall structure of the Ethiopian economy remained more or less the same throughout the period. For instance, in 1974, when the Derg regime came to power, agriculture accounted for about 52.5% of real GDP, industry for 11.5%, and the services sector for 36%. In 1974, 85% of the population depended on agriculture for livelihood. Besides policies and regulations which were openly aimed at curtailing the private sector development and participation in the local economy there were other factors that contributed for the poor performances of the economy. These include: the unstable political climate; lack of good governance, the dislocation of the rural community caused by resettlement and villagization, and the overall low level of technology and inputs.
The Ethiopian Peoples Revolutionary Democratic Party (EPRDF) came to power in May 1991 through violently overthrowing of the Derg regime. The EPRDF focused on reorienting the economy through market reforms and structural adjustment, backed up by the IMF and the World Bank. According to Dercon (2002), the first set of reform measures included the reduction of the state’s role in economic activity, liberalization of foreign exchange markets, the reduction of tariffs, the relaxation of quota constraints, simplification of licensing procedures, liberalization of foreign exchange control, removal of restrictions on international and domestic trade, opening up of financial markets, abolishment of compulsory cooperative memberships and grain delivery, privatization of a few state owned enterprises, and improvement in investment policies. The government has also promoted the widely publicized Agricultural Development Led Industrialization (ADLI) policy since 1994 for the purpose of stimulating growth by increasing productivity in the agricultural sector as well as sustained industrialization in the country. However it has so far failed to realize its intended goals including the reduction of extreme poverty and food security in the country (Geda, Shim eles & Weeks, 2003). The proportion of people living in rural and urban areas without securing basic livelihood and under poverty is increasing at an alarming rate.

It is a paradox while the present government of Ethiopia has given top priority to the agriculture sector and has taken steps to increase its productivity, what lacks to the sector so that it makes the nation dependent on foreign food aid? A closure observation of the sector indicates that there are various problems that are holding back good performance in the sector. Empirical evidence from developed countries indicates that a successful strategy for transforming the agriculture sector requires a simultaneous development in the manufacturing and service sectors along with modernizing the agriculture sector. One major factor that improves production and productivity in the sector is R&D, which often yields better quality and quantity of production. Researchers indicate that in a country like Ethiopia, where the land per hectare is shrinking, for instance per capita land area has fallen from 0.5 ha in the 1960s to only 0.2 ha by 2005, the R&D center allow small farmers to overcome problems related with economies of scale and economies of scope (Mammo, 2008). The farmers and small and medium sized processors may not have the capacity and skill to R&D processes due to capacity and financial constraints.

Strong forward and backward linkages between agriculture and other sectors of the economy in supply of raw materials and, in turn, facilitate market for the output goods and services. In this regard, promotion of thriving MSME sector in the economy is critically important for off-farm employment opportunity, income and value addition to agricultural products, and for providing goods and services for sector. Hence the MSME and the agricultural sectors have to be
viewed as complementary to each other with respect to facilitating overall economic growth and the structural transformation of the economy. However, in Ethiopia until recently to a large extent, developing off-farm activities to support the growth of the agricultural sector via forward and backward linkages has been overlooked.

Several developed nations have had to diversify their economies in order to reduce the relative share of the agricultural sector in the overall GDP. In most cases, the share of agriculture was replaced by the industry and services sectors. Figure 1 below shows that contrary to the situation in Sub-Saharan Africa, the Ethiopian economy relies quite heavily on a poorly modernized or traditional agricultural sector, and that other sectors play a minimal role in the Ethiopian economy. The figure also shows that the contribution of the manufacturing and services sector to the national economy has remained very small compared to the rest of the world. In 2002, the share of industry was about 12% which amounted to one-fifth of the share of agriculture. This indicates that Ethiopia needs to modernize its agriculture sector along with diversify its economy from agriculture to the industry, manufacturing and services sectors in order to reduce poverty and attain sustained economic growth.

**Figure 1: Average annual % of GDP contribution of sectors (1990-2002)**

Source: Ethiopian Economic Association, 2004

A careful look at the Ethiopian manufacturing sector indicates that it is one of the least industrialized sectors in the world in its structure, employment, and technological content (EEA, 2003/04; Demeke, Adenew, Deiniger, Gebre-Selassie & Jin, 2003). The sector is operating using a primitive production technology and less skilled manpower. Consequently, it produces less quality and quantity of products that have less capacity of export earnings. The EEA, (2003/04) report indicates that the average value-added share of the sector in GDP declined from 11.4% during the Derg regime to 10.7% during the EPRDF
regime. According to MOFDE (2002) report 70% of newly established firms produced non-metallic mineral products, food and beverage, furniture, leather and textiles. This indicates that the Ethiopian manufacturing sector is characterized by predominantly consumer good industries that have limited potential to compete in the global economy. Based on the Labour Force Survey conducted by the Central Statistics Authority in 2003, Demeke, Guta and Ferede (2003) have shown that the number of jobs created by the manufacturing sector has declined on average by 0.6% per year since 1994.

In Ethiopia, the services sector accounted for 46.3% of GDP on average in the period between 1991 and 2002 (EEA, 2003/04). During this period, the sector showed an increase of 14.3% in terms of its share of GDP on average (NBE, 2003/04). For instance, table 3 below shows that between 1995 and 2001, the contribution of the services sector to GDP increased from 38.6% in 1996 to 45.7% in 2001, while the contribution to GDP by the agricultural sector declined by 7.5% during the same period (National Bank of Ethiopia, 2003/04). The trends in sectorial output share of GDP shows that the contribution of agriculture to the country’s total GDP shows is declining. However, the decline is not by structural transformation of the economy as it is desired for economic growth, rather it is associated with the poor performance of the sector.

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<td>Agriculture &amp; allied activities</td>
<td>50.9</td>
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<td>Industrial sector</td>
<td>10.5</td>
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<td>Service sector</td>
<td>38.6</td>
<td>43.3</td>
<td>43.9</td>
<td>45.7</td>
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Source: National Bank of Ethiopia, 2003 /04

In the case of Ethiopia, the relationship between the performance of agriculture, climate and the total economy is well established in the literature (Hassan, 2006). The contribution of the agricultural sector for overall economic growth has decreased due to drought and famine over the past several decades. In 2001, the contribution of the agricultural sector was very low. In 1996, the general climatic condition was good, and hence the contribution of the sector had improved remarkably. This shows how severely climate affects Ethiopia’s economic growth as the country is almost entirely dependent on an agricultural sector that depends on rainfall. This suggest that diversifying the economy thorough promoting small scale enterprises is critically important to avoid over-dependence on the agriculture sector for employment and livelihood.
The pace of job creation and sectorial distribution of the labor force in figure 3 below shows that successive economic reforms of the governments have failed to produce a significant change in promoting off-farm job activities in the economy. In 1999, agriculture and its allied activities accounted for about 76.6% of the labor force, followed by 18% of the services sector while manufacturing accounted for 4.4%, and construction for only 0.9%. Over the past several years, the number of employment opportunities in manufacturing industries and construction has remained very low and stagnant. An examination of the global economy shows that promoting the MSMEs sector has the potential employment and income generation that result in significant structural changes in the overall economy. The extent to which the MSMEs sector has grown over the past several years globally is quite phenomenal. Unfortunately, Ethiopian MSMEs have failed to benefit from this phenomenal growth in the MSME sector mostly due to lack of promotional policies, access to finance, good governance, R&D activities, infrastructure, foreign direct investment, technical skills and institutional support in terms of policy and regulations and others.

Figure 2: Employment shares of major economic sectors (%)

Source: Demeke, Guta and Ferede (2003)

2.2. Development of Agribusiness Firms (MSMEs)

According to FAO, (1997) the agri-business sector is regarded as having the potential to accelerate the development of the agricultural sector and generate economic growth. In many developing countries the interest to promote the agri-business enterprises is usually associated with its potential to create forward and backward linkages that in turn generate demand amongst smallholder farmers for agricultural inputs as a result of higher income and value addition of the primary agricultural products. The MSMEs are regarded as suitable strategy capable of stimulating growth and development as they are in line with the scarce resources that developing countries comprise. Literature indicates that MSMEs are important vehicle for addressing the challenges of unemployment, poverty and economic growth in the country (MTI, 1997).
In recent years, the significance contribution and the potential of the MSMEs sector has been recognized in Ethiopia. Accordingly, the government has adapted the new micro and small enterprises development strategy to promote the sector. The policy document highlighted the crucial contributions of the sector in Ethiopian economy and the government’s commitment for improving their constraints (MTI 1997). The White Paper on the promotion of the MSME sector is an important step, which indeed shows government’s attention to the promotion of and development of the sector. However, while the document gives much attention to the potentials contributions of the sector, regrettably there is no clear and systematic approach to alleviate constraints of the sector. Many challenges still exist. The existing reality shows that the development prospects of the sector is constrained by several factors including the high competition from international and domestic large firms.

In Ethiopia in order to improve productivity and production in the agriculture sector in an environmentally sustainable way, modernizing of the current agricultural production techniques is critical. In this regard MSMEs play significant role in innovation through technological change and innovation adoption. It is their role in agricultural research and technology adoption that will drastically affect the Ethiopian agricultural production system. For instance food processing sector and furniture making the patterns of innovation and diffusion is frequently changing. Innovation among small enterprises enhances improvements in production processes and products in the sector. For Ethiopia to move from food dependency to food security, it requires to build a national R&D centre capable of disseminating innovative ideas to the agrarian system to establish food security on a sustainable development. Which include a systematically creating a comprehensive biotechnological revolution using modern information technology systems and diffusing them across the breadth and depth of the land. This will create a rapid growth in agricultural enterprises if agriculture and innovative small enterprises are linked in mutually beneficial forms of networking. Most agribusiness companies provide a wide range of extension services to farmers, which include, new technologies, market information, inputs, provide credit, market for products and reduce their market risk. Therefore emerging of vibrant agribusiness MSMEs could play a crucial role in improving labor productivity, crop and animal yields, products safety and the commercialization level, and eventually increase farmers’ income.
2.3. Policy Support
Numerous policies have been introduced by the government to support the development of MSMEs. For example, in order to promote the key sectors related to agriculture, some enterprises could receive financial subsidies from the government to attract more enterprises to enter into the agriculture sector and to improve their competitiveness under the free market in the distribution of agricultural inputs and marketing of most agricultural outputs. For example improved and high quality hybrid seeds can be produced by MSMEs and can also enter the hybrid market to compete with state-owned companies. In addition, fostering a beneficial linkage between MSMEs and farmers should not only raise MSMEs profit, but also bring high income to farmers. However, according to Mammo, (2008) and Abegaz, (2006) the existing ethnic-vernacular pattern of political arrangement has been hindering the support as well as the performance of the sector.

The ethnic pattern of administration and lack of good governance in the country could potentially create barrier in information exchange, mistrust among nationals not to mobilize resources and create suspicion. This may exacerbate unequal treatment in areas of basic support needed and diverse groups could be undermined. This is one of the barriers to unite the people and the nation to address poverty, which is the most important problem of the country without making it a habit to beg others. What kind of confidence can the investors have, if Ethiopia continues to suffer from ethnic politics and lack of the good governance?

The regime would have brought into systemic connection national policies, institutions, knowledge and research, incentives to come to bear and address the vital matter of agricultural transformation. It will have a methodology of learning from implementing both from specific sector -specific national strategies as well as micro- foundational local-level mobilizations and actions. Both mistakes and successes will be sources of learning and constant iterative feedback will be used to inform policy to make the system as a whole responsive to the needs and wellbeing of the people for whom Governance is meant to serve and support (Mammo, 2008; Addison & Geda, 2001; Degefe, 1995).

The World Bank (2005) has reported that poor countries such as Ethiopia are usually more heavily regulated in terms of policy. In these countries struggling MSMEs have one of two options: compliance with regulation or operating in the informal sector. However, neither of the two options is strategically beneficial for small businesses and enterprises as the options fail to meet the basic needs and requirements of small firms. In view of the fact that MSMEs in Ethiopia are over-regulated and under-resourced, compliance with existing regulations does not provide MSMEs with competitive market conditions that
are essential for profit making and fund raising. The second option of operating in the informal sector denies MSMEs access to benefits such as loan from formal money lending institutions such as commercial banks, business related trainings, technical assistances and work-place related problems. According to Lowery, (2005) in countries where there is good macro economic policy, MSMEs flourish and operate at full potential, conversely in countries where macro economic policy is not favorable, MSMEs struggle to survive, and fail to play a prominent role in the national economy.

3. Methods and materials

3.1. Data
Longitudinal data was gathered from the 500 MSMEs in the study over the 6-year period of study (1996 to 2001). The MSMEs were selected at random from five different geographical regions of Ethiopia. The regions include Addis Ababa, Nzareth, Mekele, Awassa and Baherdar. The MSME sector constitutes the bulk of the economic activities in Ethiopia. However, sustained growth and expansion in the sector could only be attained through creating competitive and thriving MSMEs in the economy. The sector can be generally classified into 4 major categories: manufacturing, wholesale and retail trading, construction, and service sector activities. Agri-business firms include crop production, livestock, fishery, feed processing and supply, vegetables, fruits, seed development biotechnology and medicine. In this study, the service sector represents the majority (46.4%) of MSMEs, followed by the trading sector (40.0%), the manufacturing sector (9.2%) and the construction sector (4.4 %). According to Belay (2000), 98% of business firms in Ethiopia are micro and small enterprises out of which small enterprises represent 65% of all businesses. The fact that the majority of firms are micro and small shows that established firms find it difficult to grow to the next higher level due to lack of an enabling environment for sustained growth.

4. Results of analysis
In this study, 74% of respondents mentioned legal and regulatory problems as major obstacles to efficient operation in the sector. The respondents stated that bureaucratic registration requirements for licensing, high policy control, over-regulation, corruption, high tariffs and unfair tax were major policy-related constraints that adversely affecting the sector. 43% of respondents indicated that the free market policy has exposed them to international competition, a fact that has had a significant negative impact on their activities.
High level of human capital and research and development are positively associated with the performance of firms. They promote the growth of firms from low level of activities to large and better enterprises. In our study the majority (88.56%) of entrepreneurs or owners of MSMEs have educational status that is below high school. Only 11.44% of respondents have completed college and university level education. The decline of participation in MSME activities at the secondary and tertiary level of education could be attributed to the absence of an educational system that adequately prepares young graduates for MSME related ventures. For instance, until recently, the high school curriculum of education in Ethiopian schools does not provide formal training on the acquisition of basic business and technical skills needed for promoting successful MSMEs (Gebeyehu and Assefa, 2004; Ermias, 2001). In addition to the above fact, lack of on-the-job training opportunities for managers of MSMEs is limited.

Good infrastructure facilitates the R&D activities and has a positive effect in reducing the cost of operation. In this survey, 74.6% MSME owners indicated that lack of efficient, reliable, safe and affordable infrastructure is their prominent problem. The mentioned physical infrastructure facilities are not adequately developed and expand in Ethiopia to meet the growing demand of MSMEs activities. 69.4% of firms reported that they have problems related to business premises such as an increase in house rent, lack of basic services such as telephone lines, electricity supply, sewerage and water services.

The study indicate that most (87.5%) of the firms reported that there is poor linkage between enterprises. For instance 63.2% of MSMEs indicated that they have a major market problem in their operation. Despite the existing market problems, only 14.26% of respondents considered linkage as being important for development. One factor that could explain this low level of partnership and other forms of business undertakings could be the capacity of MSMEs in Ethiopia. The limited number of medium and large size enterprises in the country conical the mutually benefits that could be derived from undertakings of partnership and linkages.

A closer look at the 500 small businesses and enterprises in this study and the products and services they offer shows that the majority of MSMEs produce or give services of similar products in a limited domestic market. Most of them do not seek new possibilities and new opportunities outside the local markets. This has resulted in the over-crowdedness of local markets with similar products or services. The level of competition among local producers of goods and services is intense, and the returns are fairly low. Based on results from this survey, 69% of MSMEs claimed that they are at a disadvantage due to stiff competition from local and foreign products. In deed due to globalization, world trade is
becoming intense and moving rapidly. According Gebeyehu and Assefa, (2004) countries with rich experience in R&D and efficient production system and business information center can export the products that are competitive in terms of price and quality. In Ethiopia at present there are no adequate R&D centers as well as market information center or system that would furnish productivity and market related information such as prices, sources of inputs, potential markets, and consumer needs.

Financing is one of the crucial elements to undertake R&D activities that determine the development of MSMEs. According to Wole (2004) while encouraging strides have been made in liberalizing the domestic financial sector, still it is a bottleneck for the rapid growth and development of the sector. In the study, 79% of MSMEs stated that getting credit finance from formal financial institutions is a key problem. It is obvious that inadequate access to credit limits the expansion of firms, choice of technology, hiring suitable premises and the employment of skilled personnel. This hinders the potential to adequately meet the needs of consumers. Access to credit on favorable terms is essential for initiating new business ventures, fulfilling working capital requirements, as well as for expanding existing businesses. In this regard, the formal financial institutions are reluctant to avail credit facilities the sector. Formal financial institutions such as commercial banks are reluctant to lend small amounts of money to small businesses because the cost of administering the loan exceeds the benefits accrued to them. Results from Pearson’s chi-square tests of association have shown that the source of initial start-up capital (P=0.040) and the amount of start-up capital (P=0.032) are both significantly associated with survival of business firms. An examination of the MSMEs in this study shows that the average registered start-up capital of starting a business was about $3,000 (this figure actually varies with the type of firm). Table 2 shows the principal sources of start-up capital for the 500 small businesses and enterprises in this study. A large proportion (41%) of respondents started business with their own money, out of which 43.4% started business with inadequate savings. This was followed by money obtained from relatives and friends (18%), iqqub schemes (social capital) at 11.8%, microfinance institutions (9.2%), banks (8%), and private money lenders (7.2%). This indicates that although money raised from iqqub schemes (social capital) is not a major source of start-up capital, its contribution is quite significant. According to Wole (2004) the high rate of interest which is higher than the lending rate of formal banks and the small size of the loan (a maximum of 5000 birr = 400 USD) inhibit their effectiveness in addressing the financial needs of MSMEs.
VI. Results estimated from data analysis

6.3. Results from binary logistic regression analysis

Binary logistic regression analysis was performed on 19 dichotomous independent variables that affect the survival of small businesses. The outcome variable of study has 2 categories (1 and 0). The value 1 indicates that the business has ceased operation. The value 0 indicates that the business was still functioning at the end of the study period. Results obtained from binary logistic regression analysis are shown in Table 3 below:

<table>
<thead>
<tr>
<th>Source</th>
<th>Micro</th>
<th>Small</th>
<th>Medium</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks</td>
<td>1.9</td>
<td>14.8</td>
<td>36.7</td>
<td>8</td>
</tr>
<tr>
<td>Microfinance</td>
<td>17</td>
<td>7.4</td>
<td>33</td>
<td>9.2</td>
</tr>
<tr>
<td>Legible schemes (social capital)</td>
<td>13.2</td>
<td>12.1</td>
<td>33</td>
<td>11.8</td>
</tr>
<tr>
<td>Friends and/or relatives</td>
<td>11.3</td>
<td>19.2</td>
<td>23.3</td>
<td>18</td>
</tr>
<tr>
<td>Own savings</td>
<td>40.6</td>
<td>42.9</td>
<td>23.3</td>
<td>41</td>
</tr>
<tr>
<td>Donation</td>
<td>5.7</td>
<td>3.0</td>
<td>16.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Moneylender</td>
<td>10.4</td>
<td>6.9</td>
<td>3.3</td>
<td>7.2</td>
</tr>
<tr>
<td>Total</td>
<td>21.2</td>
<td>72.8</td>
<td>6.0</td>
<td>100%</td>
</tr>
</tbody>
</table>
### Table 3 Results from binary logistic regression analysis

Dependent Variable: Survival of businesses (1, 0)

### Estimates from binary logistic regression analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Odds ratio</th>
<th>P. value</th>
<th>Confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>4.10347</td>
<td>0.005</td>
<td>1.543269</td>
</tr>
<tr>
<td>Start up capital</td>
<td>2.980587</td>
<td>0.018</td>
<td>1.951924</td>
</tr>
<tr>
<td>Competition</td>
<td>2.09768</td>
<td>0.117</td>
<td>5.239522</td>
</tr>
<tr>
<td>Investment</td>
<td>6.795496</td>
<td>0.000</td>
<td>9.561280</td>
</tr>
<tr>
<td>Management</td>
<td>4.174381</td>
<td>0.000</td>
<td>9.300159</td>
</tr>
<tr>
<td>Iqub</td>
<td>5.963177</td>
<td>0.014</td>
<td>8.096280</td>
</tr>
<tr>
<td>Profit</td>
<td>4.489346</td>
<td>0.000</td>
<td>9.492308</td>
</tr>
<tr>
<td>Bankrupt</td>
<td>6.745541</td>
<td>0.000</td>
<td>8.492402</td>
</tr>
<tr>
<td>Business type</td>
<td>0.6205086</td>
<td>0.182</td>
<td>1.249925</td>
</tr>
<tr>
<td>Family labour contribution</td>
<td>1.049043</td>
<td>0.891</td>
<td>2.078857</td>
</tr>
<tr>
<td>Enabling environment</td>
<td>2.082496</td>
<td>0.036</td>
<td>1.552867</td>
</tr>
<tr>
<td>Institutional support</td>
<td>1.015138</td>
<td>0.968</td>
<td>2.09791</td>
</tr>
<tr>
<td>MFI credit</td>
<td>1.120024</td>
<td>0.071</td>
<td>4.74765</td>
</tr>
<tr>
<td>Access to market</td>
<td>.8660625</td>
<td>0.711</td>
<td>1.852904</td>
</tr>
<tr>
<td>Linkage</td>
<td>2.2189884</td>
<td>0.047</td>
<td>2.20411</td>
</tr>
<tr>
<td>Customers</td>
<td>.7263092</td>
<td>0.544</td>
<td>2.04131</td>
</tr>
<tr>
<td>Inputs</td>
<td>.5954573</td>
<td>0.197</td>
<td>1.309164</td>
</tr>
<tr>
<td>Business location</td>
<td>4.717198</td>
<td>0.000</td>
<td>9.488096</td>
</tr>
<tr>
<td>Plan</td>
<td>1.87254</td>
<td>0.185</td>
<td>4.734522</td>
</tr>
</tbody>
</table>

Adjusted R-Square: 0.7774

In binary logistic regression analysis, influential predictor variables are characterized by odds ratios that are significantly different from 1, 95% confidence intervals of odds ratios that do not contain 1, and P-values that are smaller than 0.05, at the 5% level of significance. Accordingly, access to credit, linkages, and an enabling macroeconomic environment are found to be highly influential at 5% level of significance.

**Interpretation of odds ratios**

The most influential independent variable over the survival of a business firm is the variable “enabling business environment” as it has an estimated odds ratio of 6.80, a 95% confidence interval of odds ratio of (2.36, 9.56), and a P-value of 0.000. Innovation is the second influential variable with an odds ratio of 6.75 and a P-value of 0.000. Access to credit is the 3rd influential variable with an odds ratio of 6.0 and a P-value of 0.014.

1. The odds ratio of the variable “enabling environment” is 6.80. This indicates that the odds (risk) of failure of a business firm that operates in a non-enabling macroeconomic environment are 6.80 times higher in comparison with businesses that operate in favorable environments. An
enabling macroeconomic environment encourages investors to make business decisions based on prevailing market conditions.

2. The odds ratio of the variable “linkage” is 2.21. This indicates that the odds of failure of a business firm that has no link with other businesses is 2.21 times higher in comparison with a business firm that has business linkage. Linkage provides vital business information and skills to networking parties.

3. The odds ratio of the variable “access to finance” is 6.0. This indicates that the odds of failure of a business firm whose owner does not have adequate finance are 6.0 times higher in comparison with a business firm whose owner has adequate access to credit.

The fitted logistic regression model has explained $0.7774 = 77.74\%$ of the variability in the dependent variable of study (survival of MSMEs). The P-value from the likelihood ratio test is equal to $0.0000 < 0.05$. This shows that the predictor variables used in the logistic regression model are jointly efficient in explaining the survival of MSMEs.

6.4.2. Kaplan-Meier survival probabilities and life tables
Kaplan-Meier survival probability plots are used to compare the survival probabilities of MSMEs with regards to key variables of interest such as geographical region, level of education, gender of owner, participation in iqqub schemes and type of sector. Figure 3 below shows Kaplan-Meier survival probability curves by region. The figure shows that MSMEs in Mekele have the highest survival probabilities, and that MSMEs in Nazeret have the smallest survival probabilities.

Figure 3: Kaplan-Meier survival estimates, by region
5. Discussion and conclusion
Thriving agribusiness firms can be a main force in upgrading the agricultural structure, and improving the income earning potential of farmers. However, a more enabling policy environment is needed to create thriving MSMEs that significantly contribute for overall socio-economic growth in the country. Government should take more efficient policy supports to alleviate their constraints and build better circumstances for their development and innovation and R&D activities. Experience shows that utilizing agricultural research outcomes such as improved seed, cultivation technique, pesticide, fertilizer, machinery, food processing and vaccines have significantly contributed for the performances of the sector. MSMEs enable framers to acquire vital information, skills, access to new markets, new technology, credit, and facilitate co-operative ventures, thereby improving performance in the agriculture sector. This in turn increases the quality of agricultural products and the quantity of food production in the country. Moreover, it would enable the nation to feed its population adequately, and compete favorably in international markets. However, poor governance, poor linkage, lack of experience, low level of research and development in innovative skills have adversely affected the performance of the sector. As a result, the performance of the agricultural sector has stagnated to the extent that the country has become dependent on food aid and charity from donor organizations. Long-term charity corrupts long-term growth. To break this vicious circle developing countries such as Ethiopia need good governance that can foster investor confidence at local and international levels. Macroeconomic policy has to be attractive enough for potential investors. This study suggests that further research is required for exploring the full potential of small businesses and enterprises in Ethiopia in view of the fact that the MSME sector should be able to play a vastly improved role in alleviating constraints in the agricultural sector of Ethiopia.
References


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