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Dynamics of Scaling Firms and their Contributions for Social and Economic Transformation

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Abstract

The role of scaling firms for poverty reduction and pro-poor growth is indisputable. Most scholars declared that those firms are the veritable socio-economic engines for sustainable income, employment-generation and social-transformation. The main objective of this study is therefore, to investigate the dynamics of scaling firms and their contributions for socio-economic transformation. To be specific, the study intends to verify whether firms are consistently taking its critical part for improving the living conditions of the poor, and driving employment growth and social wellbeing, and if not, why, and also to identify the possible remedial measures. By making use of the Binary logistic regression analysis, OLS and fixed effect models, the study has made thorough investigation of the determinant factors for firms' entry, survival and growth. Besides, descriptive statistics was used for analyzing the individual owners and firm level characteristics and their relationship with the form and or nature of the business firms and its sources of funding. Virtually, the study found that scaling firms have played and continue to play significant roles in improving the socio-economic lives of the poor. The firms, on average, generated higher rate of annual employment growth (8.5 percent), capital accumulation (41.6 percent), ROI (7.8 birr) and income and assets growth rate (26.8 percent). On the other hand, firm operators were able to reduce the marginal cost of production by 7.8 birr, by virtue of efficient utilization of resources and effective production system. Overall, scaling firms - enabled the poor to realize better social wellbeing by means of reducing socio-economic inequality and vulnerability. In spite of the fact that scaling firms have had an immense potential for wealth accumulation, poverty reduction and employment generation, the sector did not yet realize its vibrant role due to a range of problems and constraints affecting its survival and growth. The most out of which, includes, uneasy access to funding, lack of access to market, poor infrastructural facilities, which tend to escalate costs of operation, bureaucratic support and inefficiency in the administration of incentives and support facilities. The poor intra and inter-sectorial linkages within which access to raw materials and final products are at the verge of dare obstacles could also pledge restricted access to market and other business information.

Keywords: Access to finance; Employment; Market access, Scaling firms; Socio-economic transformation

Introduction

Poverty in Ethiopia is both deep and widespread and remains to be a major economic hurdle [1]. It is estimated that more than half of the population live in absolute poverty due to lack of economic opportunities, governance crisis, inadequate household income, and poor means of survival. The per capita income of the country, though it showed improvement in recent years, is only 210USD as at the end of 2010 [2]. This is very little earnings to cover daily meal, let alone health, education and other emergency expenses, which make the poor highly vulnerable to unforeseen illness and others chronic diseases. There is also high level of unemployment even among the skilled labor force. Currently, 50% of the rural and urban population of the country in the age group between 15 and 30 years are unemployed due to lack of opportunities. Unemployment has been widely expanding for the reason that the rate of population growth exceeds the growth rate of employment in the country [3].

Most of the urban settlers in Ethiopia earn an income that barely enables them to survive. Considering the high living costs, most urban residents resort to undertake scaling firms to acquire additional income. Scaling firms[1], therefore, has been an important source of supplementary income not only for the unemployed and destitute but also for the urban wage earners who found their salaries depressed as a result of the fall in real incomes. In Ethiopia, there can be no credible and sustained national development policy unless otherwise the needy population is fed first and foremost.

The Government of Ethiopia gave due attention to the development of scaling firms, especially for women as a strategy for poverty reduction and increasingly employment creation. The issuance of the -National Micro and Small Scale Development and Promotion Strategy in 1997 which aims to empower the poor by flourishing the conditions for equal access to resources and participate in valuable economic activities. Despite this recognition and its significance for local and national economic development, the sector could not yet realize its vibrant potential for the social and economic transformation of the poor. Prevailing evidences have shown that various factors are responsible for the undermined role of scaling firms for poverty reduction and empowering the poor. With this backdrop, the main objective of this

[1]Scaling firms refers to micro, small and medium scale enterprises characterized by varying business Features and scale.

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study is - to thoroughly investigate the dynamics[2] of scaling firms and their potential contributions for socio-economic transformation.

Problem Statement and Rationale

A long history of the poor macro-economic policies, economic mismanagement, internal instability and recurrent drought are the main causes of dire situations in Ethiopia. The structural characteristic of the economy by itself manifests the predominance of subsistence activities, narrow production base, neglected scaling firms, lop-sided development and weak institutional capacity. In order to bring about economic change, though the current government has pursued a new economic policy followed by reform programs, which have given top priority to the development of scaling firms and agribusiness sector. To this end, the development of those firms is crucially important for reducing abject poverty among the masses in Ethiopia.

The role of scaling firms for employment creation, economic empowerment and poverty alleviation (as opposed to being viewed as marginal and unproductive, tax evader, and with limited contribution to economic growth) has received due recognition as it deserves, as explicitly stated, in the firms Development Strategy and the Federal Food Security Strategy. Hence, the Governments at Federal and Regional levels through budgetary allocations, policies and pronouncements have vested signified interest and acknowledgement of the crucial role of the scaling firms and hence made policies for energizing the same. Besides, there have also been fiscal incentives, grants, bilateral and multilateral agencies and specialized institutions all geared towards making firms grow more vibrantly [4,5].

Despite this, however, countervailing evidences reveal that scaling firms have not performed creditably well and never - realized its vibrant role for economic growth and development of the country. This situation has been of great concern to the government body, and various development agencies. Virtually, the dynamics of scaling firms have not yet been adequately studied. Noticeably, relevant, sufficiently detailed and timely empirical data help to underpin policy making as well as designing appropriate strategy for interventions. Bearing this in mind, the main objective of this study is to investigate the entry, survival and growth of scaling firms and their gigantic contributions for improving the socio-economic lives of the poor. It also aimed to identify the most relevant factors limiting the poverty reduction and growth potentials of the scaling firms.

Objectives of the Study

General objective

The overall objective of this study is to thoroughly investigate the dynamics of scaling firms and their potential contributions for socio-economic transformation of the poor.

Specific objectives

To explore the dynamic nature of scaling firms in terms of examining the key factors determining firm's entry, survival and growth.

To assess the vibrant contributions of scaling firms for income generation, employment opportunity and wealth accumulation.

To identify the most relevant factors limiting the poverty reduction and growth potentials of scaling firms.

[2]The word dynamics refers to the behavior of firms entry, survival and growth and its trends overtime

Research Questions

- What are the characteristic nature and key factors explaining scaling firm's entry, survival and growth?
- To what extent do scaling firms contribute to employment and income generation, social wellbeing and wealth accumulation?
- What are the critical problems and constraints affecting the growth and development of scaling firms?

Definition of Basic Terms and Concepts

There is lack of uniform definition and common understanding with regard to the MSME[3] sector in Ethiopia. Various bodies, organizations and institutions have defined firms differently on the basis of their purpose, objective and use. The level of employment and capital investment or turnover is some of the predominantly used criteria to categorize and define scaling firms. For instance, the definition by the Ministry of Trade and Industry uses the level of capital investment, which was used to develop MSME development strategy in 1997, whereas, the Central Statistical Authority (CSA) uses employment and favors capital intensive technologies as a yardstick. Basically, the categorization is used as an important tool for functional and promotional purposes to achieve the desired levels of firm vibrancy for responsive pro-poor growth and poverty reduction [5].

According to MOTI,

- Micro Enterprises: are those businesses enterprises, in the formal and informal sector, with a paid up capital not exceeding Birr 20,000 and excluding high tech consultancy firms and other high tech establishments.
- Small Enterprises: are those business enterprises with a paid up capital of above Birr 20,000 and not exceeding Birr 500,000 and excluding high tech consultancy firms and other high tech establishments.

For this research purpose, the following definitions given by CSA have been adopted. Accordingly, enterprises are categorized into different scales of operation on the basis of the size of employment and nature of equipment used for running the business operation.

- Micro enterprises are businesses that are independently owned and operated, have small share of the market, managed by the owner and employing up to 10 workers and capital reaching up to a maximum of 20,000 birr.
- Small businesses are those enterprises that employ 6 to 49 employees. They share the same characteristics with micro enterprises in other aspects.
- Medium scale enterprises are those enterprises which have a relatively higher share of the market, are independently or jointly owned or managed by the owner or by appointed executives and employ 50 to 99 persons.

Review of Empirical Evidences

Cunningham and Maloney explored heterogeneity among scaling firms using firm-level data of 11,000 enterprises with firms employing less than six individuals. They identified several distinct subsectors according to the firms' characteristics as productivity, demographic and reason for entry, revealing normal levels of heterogeneity expected in any small-firm sector rather than the standard view of a dualistic labor

[3]Refers to the micro, small and medium scale enterprises.

market. Although their empirical evidence shows the sector served as a refuge of those unable to get salaried jobs, it also presented that the majority of the subsectors expressed to be voluntarily self-employed in search of independence and higher earnings (ibid). This heterogeneity explaining firm's growth can be explored from different points of view. It is convenient to identify those factors associated to the individual characteristics of the entrepreneur, and those to the characteristics of the firm [6].

Nichter and Goldmark identified factors associated with small firm's growth by gathering significant empirical evidence from previous studies. They argue that given developing countries with low levels of education, owners and workers tend to follow this trend since poor people often create survival oriented small-firms due to the lack of alternative employment opportunities [7].

Nichter and Goldmark argue that women own the majority of scaling firms in many developing countries, however, they typically face unequal access to the household's resources and asymmetrical obligations within it, challenging their firms potential to grow [7]. At the same time these women-owned firms play a crucial role in increasing and diversifying their households' income. As a consequence of this survival strategy, women's firms tend to grow more slowly; previous studies show that male-headed firms grow on average 11 percent a year, versus 7 percent for female-headed firms [8]. There is also an evidence showing female headed MSMEs tend to be concentrated in a narrow band of sectors or activities being also more likely to operate from their home. This makes them appear hidden or overlooked, increasing their likelihood to be "invisible entrepreneurs" [9].

The owner's age is another key characteristic used to describe firm's performance given access to finance and human capital accumulation. Although early postulations claimed that young people are likely to be less risk-averse, later on this was explained by a component in which binding liquidity constraints may make individuals to delay or miss profitable business opportunities, taking time to accumulate physical capital or networks to diminish this constraints [10].

Finally, two additional factors determining entrepreneur characteristics are its marital status and the household's income-wage. Spanish empirical data show that men who are married may be more risk-averse [11]. On the other hand, households' wage-income can be a source of firm's growth, since there is evidence showing that the households earning is a source of investment for informal businesses [12].

Certain firms characteristics may help disentangle explanations for firm's investment performance or the lack of it. There are two main variables that may influence the cost of capital; the firm size and age. The first one measured by the number of workers could be a proxy for the cost of capital. If this is the case, larger firms would be expected to have more access to capital market by facing lower costs of capital. In this situation, size should affect the propensity to invest. The second variable to be considered is the age of the firm, in the same line as with the age of the owner, older firms should be able to accumulate capital and experience. If the firm´s age is a proxy of capital, it should also affect the decision to invest.

Bigsten et al. find that for four African countries the size and age of the firm are highly significant determinants for the decision whether to invest, where larger firms are more likely to do so while older firms are less likely [13]. Although - for firms with less than 10 employees - there is no empirical evidence regarding the effect of their age and size on their investment decisions, the relationship with firm's growth in terms of employment has been explored. Additionally - the average growth rate of firm's decreases with age as cited in Nichter and Goldmark. This last case evidences that for Latin American firms' productivity diminish as they grow older, what may be explained as a consequence of firms failure to invest sufficiently in existing and emerging technologies, leaving them with relatively outmoded equipment and hindering productivity levels relative to those of younger firms (ibid) [14,7].

Another variable explaining firm's investment performance is their access to finance. An IFC study for 10,000 firms in 80 countries found that credit is mentioned more frequently by owners of small firms as constraints on their firm's growth [15]. Moreover, given the fact that developing countries often have imperfect financial markets, which structures do not reach small firms easily, small firms in these countries usually do not apply for formal loans and rather rely on other types of informal sources of credit or informal loans [16].

Materials and Methods

This research project was conducted in the southern part of Ethiopia. It is based on a large set of primary and secondary data generated from various sources. The Primary data were generated through surveying a sample of 75 different scaling firms with varying business activities and operating in diverse geographical locations, both at Zonal and District level.

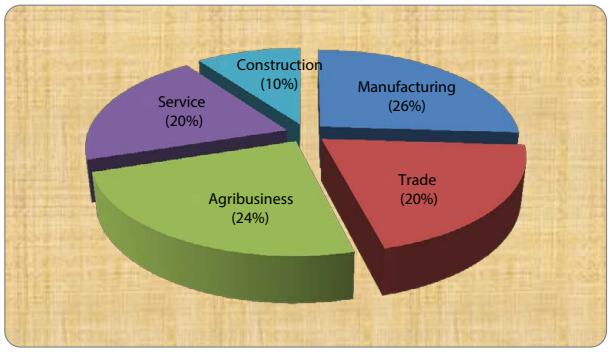
Most importantly, Panel data about the firm level investment dynamics, financing mechanisms, the firm's entry, survival, and growth were also collected out of the 2010 Regional Enterprise Survey data and other official report accessible from the Regional Trade and Industry Bureau. Further documents on policy initiatives, and enterprise development strategy papers were also thoroughly reviewed [17-19].

Survey Design

Detailed questionnaire survey containing both open and close-ended questions mainly in quantitative terms were administered among 375 firm operators and generated adequate exploratory data about the entrepreneurs and firm level characteristics including age of the entrepreneurs and firm, sex, household size, educational background, managerial and entrepreneurial ability, earnings history, initial capital, business commitment, and the firm level performance in terms of capital accumulation, profit/income, and or borrowing, cost of production, and earnings, asset accumulation, income generating activities, venture asset structure, capital structure, facility development, training and marketing issues. Besides, major binding constraints that hinder the firms entry, survival and growth ranging from entry- to- survival- to- growth barriers including taxes, regulation, finance, business development services, to enforcement mechanisms, marketing, relation with suppliers and clients, etc., were also thoroughly explored [20].

Moreover, Focus Group Discussion (FGD) was held among the firm operators or entrepreneurs under study. The participants were also grouped based on the type of firms they owned. The FGD also sought to collect qualitative data from the owner's real life experiences and achievements. Moreover, data could also be cross validated through the key informants who include officials and team of experts from Trade and Industry offices, managers and operation officers from the Omo Microfinance Institution (Figure 1).

The major firm's activities were identified on the basis of a reconnaissance and a pilot survey. The type of activities in which the study firms were engaged can be generally classified into five major categories: Manufacturing, Trade, and Agribusiness, Construction,



Source: SNNPR Trade and Industry Bureau, 2013

Figure 1: Composition of the sample firms by their activities.

and Service sector [21]. The manufacturing firms represent the majority (26%), followed by the agribusiness firms (24%), the trading and service firms constitute (20%) each and construction (10%).

Model Specification

The growth of firms is empirically represented in the form of the following specifications,

$$G_i = ln\left[\frac{S_t}{S_{t'}}\right] / \left[t - t'\right] = \beta' X_i + U_i$$

Where is S_t the current business size, whereas S_t' is the size of startup business, t–t is the number of years between the two periods. X′ refers to a vector of explanatory variables including access to finance (Credit), level of education, managerial and entrepreneurial ability, business linkage and access to information, competition and market strategy, business location, investment feasibility, government commitment or Policy initiatives, business type or level of risk, training and technical support, availability and cost of input, Bankruptcy, startup capital, firm age, family or household size, business innovation and market access. β′ is a vector of regression coefficients, and is a zero mean, constant variance disturbance term [22].

The problem with the above equation is that the dependent variable is observable only for firms that existed in both period t and t. For firms that already gone off between these two dates, growth rate is not observable. Estimating the regression coefficients under this condition would not have been a problem if firm exit was a random process or the rate of exit is empirically insignificant. However, as studies in this field have underscored, slow growing small firms are most likely to exit the market than slow growing large firms. Such non-random attrition effect introduces a selection bias in our sample even before we start the analysis.

Heckman's two-step estimation method has been widely used to correct for sample selection bias. It starts by first estimating a selection model using the probit estimator. Let's rewrites the growth regression again [23]. The empirical specification for firms' entry or Survival model is given as follows;

$$Y_i = \alpha' Z_i + V_i$$

Where z_i is a vector of explanatory variables, α' is a vector of coefficients, and $V_i \sim N(0,1) \text{and} corr(u_i, v_i) = \rho$.

Notice that z_i May include X_i.

The dependent variable consists of binary outcomes (1 and 0) meaning that either favorable or unfavorable outcomes are the composite function of all the determinant variables considered in the model. Hence, an outcome 1 demonstrates the maximum likelihood of failure of a business enterprise, zero otherwise.

The growth rate is observable if $y_i>0$, Heckman selection model therefore, estimates the expectation of growth conditional on the firm's entry or survival.

$$=\beta' Xi+E$$

$$E[G_I/Y_i>0]=E[G/V_I>-'Z_I]$$

$$= \beta' X_i + E\left[\frac{U_I}{V_I} > -\alpha' Z_I\right]$$

$$= \beta' X_i + \rho\sigma_i\varphi_i\left[\frac{-\alpha' z_i}{\sigma_{it}}\right]$$

$$= \beta' X_i + \beta_i\varphi_i\left[\frac{-\alpha' z_i}{\sigma_{it}}\right] + W_i$$

Where $\phi_i(\cdot)$ representing the inverse mills ratio $\frac{\varnothing(\alpha' Z_i / \sigma_{it})}{\varnothing(\alpha' Z_i / \sigma_{it})}$, Æ(·) and Æ(·) represents the normal density and the cumulative density functions respectively. The above equation therefore, transforms what was a sample selection bias into an omitted variable bias, the omitted variable being $\varphi_i\left[\frac{-\alpha' z_i}{\sigma_{it}}\right]$. Notice that a positive correlation between the stochastic disturbances in equations (8) and (10) will lead to an upward bias in firm growth. A zero correlation (ρ=0) would mean that there is no selection bias although initial size and age may be significant in both the growth and survival equations.

Results and Discussions

Descriptive statistical analysis

Before stepping into discussing the regression results, it is quite imperative to see the results of descriptive statistical analysis. As shown in Table 1, the individual operators and firm level characteristics across each salient indicator do significantly vary in between the deceased and performing firms. On the other hand, it appears that there are significant variations in between the characteristic and business nature of the already deceased and performing firms across most of the indicators, except age and sex of the entrepreneurs, the level of business risk and uncertainties, government support, and amount of levied tax [24].

Apparently, the average size of scaling firms, operators years of education and household size, initial capital, credit access, average hours worked, market access, return on investment, number of employees, age of the firm do significantly vary in between the deceased and operating firms. This shows us that the success and failure stories do vividly vary between the two groups of firms. Apparently, those characteristics in both sides could tightly determine the respective firm's entry, survival and growth conditions.

Initial Investment by Firm Size and Year

Figure 2 presents distribution of scaling firms by their investment year and size/business scale. Composition of the years of investment and firm size reveals heterogeneous assortment, which are composed of four consecutive investment years and 3 enterprise forms. Even if there is an increasing number of scaling firm's overtime, the majority under study were considered from earlier year of investment so as to reveal considerable business outcomes. Hence, 90 percent of the

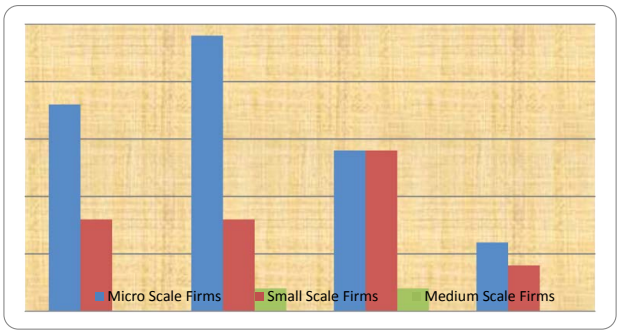
Indicators	Deceased Firms		Performing Firms		t-stat P-value
	Mean	SD	Mean	SD	
Firm size in capital	37,200	17,540	45,490	12.431	0.004
Years of Education	5.567	2.534	5.988	2.310	0.011
Startup Capital	22,000	9.998	37,500	12.876	0.001
Annual credit Access	17, 500	6,465	47,620	18.908	0.013
Sex	0.977	0.004	0.012	0.089	0.876
Age of the Entrepreneur	25.265	8.245	27.042	10.32	0.467
Household size	5.600	0.564	4.529	1.987	0.045
Government support	0.0145	0.001	0.9564	0.987	0.053
Average Hours worked per day	4.455	2.090	6.879	3.767	0.022
Market Access	0.3551	0.986	0.7688	2.564	0.012
Business Risk or loss	0.0142	0.656	0.006	0.865	0.564
Return on investment	7.620	2.423	15.334	4.345	0.009
Number of employees	2.50	0.065	8.670	2.908	0.002
Age of the firm	2.20	2.120	3.630	1.402	0.007
Levied Tax	600.24	324.91	2,100	343.08	0.871

Source: Computed from Survey Data

Table 1: Characteristics of firm owner's &their business attributes.

sample firms are composed of those ventures established in at least one year ago and above.

Figure 2 reveals that about 98% of the scaling firms are micro and small in size out of which, small firms represent 65% of all the firms under study. The fact that the majority of firms are micro and small which shows that established firms find it difficult to grow to higher level due to lack of an enabling business environment. During the initial year of investment, majority of the firms were found to be micro level. Overall, 62 percent of the firms were initially established as micro level. The remaining 34 and 4 percent were characterized by small and medium scale firms respectively [25]. In 2000 and 2001, micro firms were composed of 18 and 24 percent respectively; while small firms were 8 percent in both years.

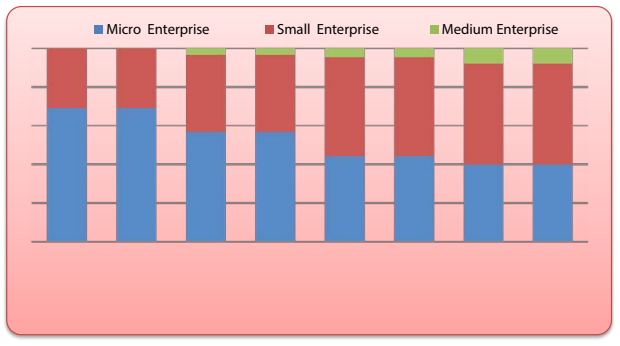


Source: Computed from Survey Data

Figure 2: Proportions of firms by year of investment and firm size.

Firm level Growth and Business Transformation

Evidence on the growth and transformation of scaling firms, presented in Figure 3 reveals quite a remarkable outcome. As shown in Figure 2, the form of scaling firms registered during the corresponding years of investment is composed of micro firm (62%), small scale firms (34%) and medium scale firm (4%). It appears that entry does not seem to be a major problem among the scaling firms. However, survival is very difficult particularly for small firms as the risk of failure is higher among them. Small firms grow faster than medium scale firms even after controlling for the sample attrition (Figure 3).



Source: Computed from Survey Data

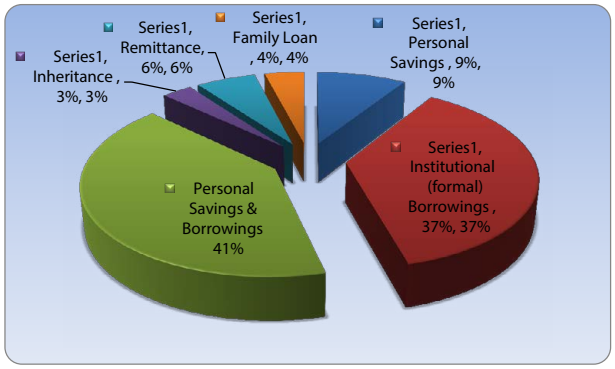
Figure 3: The trends of firm growth and transformation.

As shown above, scaling firms have noticeably realized significant growth and transformation over the 4 years of business operation. Out of the 31 initially registered micro level firms, 11 had been solidly transformed in to small scale level at the end of 2003, of which, 4 micro firms were from among the 2000 (21-17=4), and 2001 (24-20=4) entry each and 3 of them were from the 2002 entry (23-20=3). Hence, the average growth rate of micro firms in to small one over the 4 years period was above 10 percent. Above and beyond, 2 small firms had been dramatically transformed in to medium scale firms. Hence, unlike other forms of private and public enterprises, firms have been vividly growing and realizing tremendous business successes.

Initial Sources of Capital

It is a well-known fact that finance is the life blood of any business organization. The composition of capital and or asset structure significantly determines the success of any business venture. According to this study, 41 percent of the firm operators replied that their initial sources of capital to start own business were both the personal savings and loan from microfinance institutions. Borrowings from the formal financial institutions, particularly Omo microfinance were comprised of 37 percent and regarded as the second most prominent source of startup capital (Figure 4).

The other important sources of finance to start business firms were personal savings, loan from family/friends, remittances, and



Source: Computed from Survey Data

Figure 4: Firm's initial sources of capital.

inheritance, which fall at 9%, 4%, 6%, and 3% respectively. Virtually, microfinance loan/borrowings are the main sources of finance for the vast majority firm operators as they do not have any collateral guarantying credit access from the formal banking system.

In spite of the presence of Banks and other financial agencies, the procedures and formalities to obtain loan, especially collateral requirement, inhibits the poor from getting access to credit. It appears that absence of accessible financial institutions is the major obstacle to establish scaling firms.

According to the firm operators, despite the conditions under which access to business loan and startup capital has been improving overtime, the procedures and formalities to get the loan and start up own business has yet been vastly painful. On the other hand, there had been encouraging conditions for the unemployed youth to start own business and participate in different economic activities via the support of trade and industry office of the government bureau.

Performance of Firms and their Socio-Economic contributions

Plenty of theoretical and empirical evidences have got strong conviction that scaling firms could generate an overriding economic opportunities in terms of generating forward and backward market linkages, thereby contributing towards the development of the overall economy by virtue of generating lively employment opportunity and growth in production efficiency. These potential contributions of the scaling firms cannot be ordinarily milked without incurring substantial amount of venture cost. Unless the manner and direction of their activities are cautiously watched over, they may end up with complete collapse or incompetent to achieve the very root of economic progress.

The descriptive statistics as shown in Table 2 reveal that scaling firms had contributed about 8.5 percent average annual employment growth rate. Even if the rate of employment growth significantly varies among the scaling firms, the rate reveals high level of significance for far-reaching economic growth and industrial transformation. The average profitability or ROI earned amounts 15 birr, which is higher than the average interest rate of banks and other formal financial institutions (14 percent) i.e., the opportunity cost of money. There are considerable heterogeneities of the returns earned among the firms. Firmly, it appears that scaling firms have had the most reserved and profitable investment opportunity.

As business risks and uncertainties vary across different forms of scaling firms, the returns could significantly deviate by 9 percent

Items	Min	Max	Mean	S.D
Average Employment Growth Rate	2	20	8.5	3.496979
Average Return on Investment (RoI)	2	45	14.9546	9.250907
Innovation and Technological Capability	1	5	2.88636	1.224097
Reducing Marginal Cost of Production	2	17	7.79546	3.296083
Average Income/Assets Growth Rate	5	74	26.8182	18.50867
Average Rate of Capital Accumulation	5	95	41.5909	25.57189
Fulfilling Basic Necessities of Life	1	5	3.09091	1.197248
Index of Average Social Wellbeing	1	5	3.75	1.943151

Source: Computed from Survey Data

Table 2: Performance of Firms and their Socio-Economic contributions.

from the mean. Scaling Firms could enable the operators to reduce the marginal cost of production by 7.8 birr on average by virtue of efficient utilization of resources and effective production function. The average annual income/assets growth rate reveals 26.8 percent. The rate of capital accumulation amounts to 41.6 percent on average. On the basis of the weighted average measures of social wellbeing, operators or firm owners rated that they are on average, well-off in their social conditions. Moreover, the findings also reveal that firm owners are highly resilient in such a way that they can easily cope up with any business risks and uncertainties and other survival shocks as well.

Apparently, the findings reveal that scaling firms do not only improve economic life of the poor, but also it creates enabling conditions for sustainable business opportunity and socio-economic transformation. To conclude, scaling firms are the socio-economic engines to realize better socio-economic needs.

What Determines Most, the Firms Entry, Survival and Growth?

The result of the OLS and fixed effects model reveal almost similar. All the explanatory variables are highly and statistically significant. The variables such as access to finance, operator's level of education, startup capital and market access are the foremost influential indicators of the success of firms. Virtually, the likelihood of success of educated entrepreneurs is on average 5.7 times higher than uneducated one. The result is statistically significant at 1 percent level of significance (Table 3).

Access to finance is also the most influential indicator as it has a higher estimated odds ratio of 6.3, which is significant even at 1 percent level of significance. It appears that the likelihood of survival of scaling firms with better access to finance is, on average, 6 times higher than firms with no access to finance. Likewise, startup capital could also considerably impacted on survival and or the success of scaling firms. Immensely, market opportunity is the second most influential variable with an odds ratio of 5.231 and a P-value of 0.000.

Availability and the cost of input is the other key predictor for the growth and success of any business firm. On average, firms with better access and lower cost of input substantially grow 4 times higher than its counterparts. Similarly, firms with better infrastructural facility could also be well flourished as almost same as the effect of having better access into and lower cost of input. On the other hand, the level of business risk and or investment feasibility significantly determines about two fold the success of scaling firms. Government and or institutional support are also the other crucial predictor variables which could certainly determine survival of the firms [26].

Extent of Problems and Constraints affecting the Growth and Development of Scaling Firms

Unlike the private and public business organizations, MSE are

Regressors	MLE[1]	OLS[2]	FE[3]
Access to Finance (Credit)	6.325***	3.245***	0.927***
Level of Education	5.658***	1.234**	0.242**
Managerial and Entrepreneurial Ability	1.967***	0.234***	0.785**
Business Linkage and Information	0.006	0.864**	0.234**
Competition and Market Strategy	1.346*	0.353**	0.341**
Business Location	1.004	0.231**	0.871*
Investment Feasibility	2.769**	1.345***	0.561**
Institutional/Government Support	2.678***	0.343**	0.541***
Business Type or Level of Risk	2.080***	0.120**	0.321**
Training and Technical Support	1.097	3.256***	1.762***
Availability and Cost of Input	4.046**	0.522**	0.423**
Collective Business Effort	3.342**	0.971*	0.321**
Infrastructural facility	3.465**	0.456**	0.431*
Initial/Startup Capital	4.675***	3.562***	1.861***
Family or Household Size	1.020	0.564*	0.233*
Demand for Goods and Services	3.240*	0.642**	1.541**
Number of Business hours	1.021	0.164*	0.334*
Market Access	5.231***	0.241**	1.081***
Levied Tax	0.234	0.079	0.641*

[1]MLE refers to the maximum likelihoods estimation model i.e. the binary logistic regression analysis

[2]OLS refers to the ordinary logistics regression analysis

[3]FE is the fixed effects model

Source: Model Output

Note: *** is significant at 1 percent level, ** at 5 percent and * at 10 percent level. The number of observation was 75 firms, out of which 30 firms were attrited. The fitted logistic regression model has explained 84.5 (the adjusted R^2= 0.845) percent of the variability in the firms survival. The adjusted R^2 virtually confirmed that the predictor variables are jointly efficient in explaining survival and growth of the firms.

Table 3: Results of the determinants of firms' entry, survival and growth.

usually diverse and socio-culturally embedded. They mostly employ locally available resources to produce their products, without having to spend too much on production. These characteristics give MSE relative edge over the private organization counterparts. These features of the enterprises may help them to protect against any unforeseen social unrest, disintegration, and economic downturn. It will also help to restrict over reliance of scaling firms on expensive raw materials imported from urban side and outside of the country. Since the opportunities and constraints facing these businesses largely differ from other private enterprises, government's support to promote MSE should, as a matter of necessity not overlooks the contexts within which the MSE are operating. Provisions of an enabling policy environment that ensure that gains from such enterprises do not fritter away, is essential.

Scaling firms are generally regarded as strategic and essential fulcrum for any nation's economic development and growth. Many factors have been identified as the possible causes and or contributing factors for the premature death of scaling firms in Ethiopia. Key among these factors includes increasing raw material cost, lack of feasible business strategy, inability to engage or employ the right caliber staff, cut-throat competition, shortage of managerial and entrepreneurial skills, infrastructural inadequacies (water, roads, preservation, processing and storage and facilities etc.), uneasy access to funding, poor policy implementation, restricted market access and weak demand for products, dearth of intra and inter-sect oral linkages, lack of managerial and technical skills and experiences, price instability, absence of long-term finance to fund capital assets and equipment, weakness in organization, marketing, information-usage, processing and retrieval, personnel management, accounting records and processing, etc., due to inadequate educational and technical background on the part of the promoters and their staff, lack of entrepreneurial spirit, poor capital structuring as well as poor management of financial, human and other resources (Table 4).

Normally, lack of government commitment, bureaucratic administration and weak organizational linkages are also the critical problems affecting the aliveness of scaling firms. Moreover, there are substantial problems related to inadequate technological capability and or intellectual resources. In spite of the fact that the aforementioned several problems are highly accountable for the existence and or failure of scaling firms, it has got due importance to reveal the extent or degree of effect of each problem in order to promptly solve with the available resources and capacity on hand. Hence, the researcher has made use of the five scale likert questions and then computed the weighted average score while measuring the degree of effect of each problem. Accordingly the results are shown in the following table.

Prevailing evidences have shown that the severe problems which entail an urgent solution for the liveliness and sustainable firm growth include uneasy access to startup capital, restricted access to market and information, low technical skills and inadequate educational background, limited access to long run funding and lack of government commitment mainly due to the lengthy procedures and bureaucratic arrangements in support of the scaling firms, poor intra and inter-sect oral linkages with in which access to raw materials and final products are at the verge of dare obstacle, thereby pledged restricted access to market and other business information. Beside the superseding institutional, legal and administrative hurdles, allied operational difficulties were also found to be serious, meaning that they require demanding solutions for stimulating overall production efficiency and operational effectiveness.

Apparently, the threats for firms entry, survival and growth may also be fairly explained through lower demand for goods and services, higher business risks and uncertainties, higher cost of production and low profitability due to lower economies of scale, shortage of raw materials and cost, and poor infrastructural facility (power, water, telecom, and processing and storage services) and meager innovation market research [27].

Conclusion and Some ways forward

Scaling firms have had immense and broader contributions in the Ethiopian Economy. The development of which have been identified as an authentic economic strategy to foster employment generation and poverty reduction. Existing evidences reveal that manufacturing, agribusiness, service, construction, and petty trade are the prominent scaling firm activities with enormous potential for the country's poverty reduction.

The findings of this study proved that firms are key economic engines, through which substantial employment growth rate had been realized, which is 8.5 percent on average higher than the overall national employment growth rate (2.9 percent). The average ROI earned amounts 15 birr, which is higher than the opportunity cost of money. Hence, it may be concluded that firms have got the most profitable investment opportunity. Virtually, entrepreneurs could reduce the marginal cost of production by 7.8 birr due to efficient mobilization and or utilization of resources and effective production function by taking advantage of the economies of scale. The annual growth rate of income and wealth accumulation of the firm operators reveal 26.8 percent and 41.6 percent on average respectively. It appears that, above

Problems and Constraints	Ordinary (1)		Moderate (2)		Severe (3)		$WI = \frac{\lvert\sum f_i w_i\rvert}{N}$	Rank
	N	%	N	%	N	%		
Limited access to long term funds	5	6.7	25	33.3	44	58.6	83.03	4
Low technical and educational background	17	22.7	33	44.0	35	46.7	83.6	3
Uneasy access to startup capital	3	4.0	17	22.7	55	73.3	89.77	1
Poor inter and intra-sect oral linkages	17	22.7	23	44.0	35	46.7	83.6	3
Limited market access and information	5	6.7	20	26.7	50	66.7	86.73	2
Lack of government and or institutional support	10	13.3	23	30.7	42	56.0	80.9	5
Shortage of raw materials and cost	22	29.3	18	24.0	35	46.7	72.47	8
Poor infrastructural facility	18	29.3	33	44.0	25	33.3	72.4	9
higher cost of production and low profitability	16	21.3	30	40.0	29	38.7	72.47	8
Weak managerial and entrepreneurial skills	17	22.7	30	40.0	28	37.3	71.53	10
Higher business risks and uncertainties	20	26.7	20	26.7	35	46.7	73.4	7
Poor innovation and market research	25	33.3	27	36.0	23	30.7	65.8	13
Lower demand for goods and services	15	20	21	28.0	39	52.0	77.33	6
Limited access to vital business information	25	33.3	22	29.3	28	37.3	67.93	11
Poor financial mgmt and capital structure	25	33.3	25	33.3	25	33.3	66.6	12

Table 4: Problems affecting the growth and development of scaling firms.

and beyond improving the economic life of the poor, firms would be able to guarantee drastic business and economic transformation. Overall, scaling firms can be considered as the veritable milestones to steadily improve social wellbeing, reduce inequality, and improve the level of resilience and vulnerability.

There is strong evidence that micro firms had been considerably transformed in to small and medium scale level for the duration of the study. 11 micro firms had been solidly transformed in to small scale level. Accordingly, there was about 10 percent average growth rate of micro firms. Moreover, 2 small firms had been dramatically transformed in to medium scale firms. Thus, scaling firms have had untouched potential to vibrantly grow and shortly ensure tremendous business successes, thereby contribute towards industrial developments, technological innovations and export promotion.

According to the results of the binary logistic regression model, the most influential factors that determine the survival of scaling firms are access to finance and market, the entrepreneur's level of education, the cost of raw materials, business risks and uncertainties, and the formal institutional support. The effects of all these influential variables reveal an estimated odds ratio exceeding 4. Access to finance and level of education are the two notable indicators as they have a higher estimated odds ratio of 6.3 and 5.7 respectively, with a 95% confidence interval and a P-value of 0.000. Hence, the average likelihood of failure of MSE with educated owners and better access to finance is on 6.3 and 4.7 times lower than firms with uneducated owners and no formal financial access. Moreover, lack of Market access and institutional support were also found to be influential factors with an odds ratio of 5.23 and 4.68 respectively, with a P-value of 0.000. Hence, we can firmly conclude that the survival of firms is highly likely to be determined by those influential factors.

The basis for this notable evidence is that there is a need for further government intervention so as to flourish the growth and development of scaling firms in the country. The intervention should be designed in a manner that could shape the operation of firms to be more complimentary to other sectoral activities and capitalize on mutual benefits. This requires exploring the objective realities of the country in terms of the extent and effect of the prevailing problem, its long term development perspective, the different alternative opportunities, the social and political economy and similar other factors.

Unlike other forms of enterprises, scaling firms continue to face a number of problems and constraints which limit realization of their potential as sources of growth and employment. Until recently, several theoretical and empirical evidences have proved existence of very restraining business environment. The very serious problems which entail prior attention for the liveliness and sustainable scaling firm growth are Lack of effectiveness in implementing the government administrative framework or dearth of commitment to solidly support and sustain firms' development in the country. The most out of which includes, uneasy access to funding, which can be traceable through the reluctant financial institutions that couldn't extend adequate credit to firm operators, poor infrastructural facilities, which tend to escalate costs of operation, bureaucratic support and inefficiency in the administration of incentives and support facilities, poor intra and intersect oral linkages within which access to raw materials and final products are at the verge of dare obstacle, thereby pledged restricted access to market and other business information. The threats of scaling firms against sustainable business operation may also be fairly explained through shortage of raw material and cost, higher cost of production, scanty managerial and entrepreneurial skills, unwise and unfair competition and lower demand for goods and services.

There is an urgent and dire need for the government to revamp scaling firms in order to redress the growing unemployment rate in the country, reduce abject poverty, enhance the betterment of the poor in particular and stimulate economic growth and development in general. The government as a matter of necessity shall prioritize firms' critical needs due its pivotal attention with a view to making it virile, vibrant, focused and more productive. Overall, the era of 'lip service' attention to the scaling firms should be done away with.

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