Effect of Resources and Entrepreneurial Orientation on Growth of Small Enterprises in Tigray Regional State, Ethiopia

By

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Submitted in Accordance with the Requirement

for the Degree of

Degree of Business Leadership (DBL)

at

School of Business Leadership, University of South Africa (UNISA)

Advisor: Dr. Tilaye Kassahun (Associate Professor)

August 2015

Candidate's Declaration

I, **Aregawi Ghbremichael Tirfe,** a DBL-SBL student with student No. 72412496, do hereby declare that this research entitled **"Effect of Resources and Entrepreneurial Orientation on Growth of Small Enterprises in Tigray Regional State, Ethiopia",** is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I have not previously submitted this work, or part of it, for examination at UNISA for another qualification or at any other higher education institution.

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Supervisor's Certification

I hereby certify that **Aregawi Ghbremichael Tirfe,** a DBL-SBL student with student No. 72412496, has conducted his research entitled **"Effect of Resources and Entrepreneurial Orientation on Growth of Small Enterprises in Tigray Regional State, Ethiopia"** under my supervision. I further confirm that the research is his own original work and that all sources that he has used or quoted have been duly acknowledged.

Dr. Tilaye Kassahun (Associate Professor)

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Loose copy of the summary

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Effect of Resources and Entrepreneurial Orientation on Growth of Small Enterprises in Tigray Regional State, Ethiopia

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vii) **Summary:**

The primary objective of this study was to examine how and to what extent entrepreneurial orientation, firm internal resources and capital structure decisions affect growth of small enterprises, following the resource- based view on determinants of growth and static trade-off theory of capital structure as theoretical frameworks.

In this mixed explanatory cross-sectional research, systematic random sampling techniques and structure questionnaire were applied to collect primary data from 333 small enterprises operating in five urban towns of Tigray region. Dependent variable of the study was growth of small enterprises, defined as logarithm of change in number of employees at the time of establishment and time of survey. The explanatory variables comprise of entrepreneurial orientation with three dimensions, tangible and intangible resources under the control of a given enterprises, capital structure decisions, external factors such as marketing related problems cost and accessibility of infrastructure, government policies and bureaucracy, business development services were also included in the regression model. Descriptive statistics, statistical difference tests, multiple regression analysis and Propensity Score Matching were applied for the purpose of data analysis with the help of Stata version 12 software.

Majority of the small enterprises demonstrated moderate degree of entrepreneurial orientation. Moreover, entrepreneurial orientation, location nearer to major customers, strong financial position, access to credit and leverage have statistically significant positive effect on growth of small enterprises which support the resource based view and static trade-off theory of capital structure as well as the perceived hypothesis. On the other hand, consistent to the hypothesis, age and size of small enterprises showed negative significant effect on growth, that supports Jovanovich's learning model but against the Girbat's law of proportionate effect. Moreover, the relationship between education and growth was found to be non-linear or volatile, that is, growth of SEs tend to declined until certain level, reached a minimum level after which SEs with more educated owners tend to grow faster. This implies that unless owners' years of education reach a very high level of schooling, a given increase in years of schooling could not necessarily result into higher growth rate. Based on the findings, the researcher suggests (i) in order to solve financial constraints of SEs, stakeholder need introduction of National Credit Guarantee Fund, Promotion of non-bank financial services, introduce Mandatory Minimum Bank Loan to small enterprises, establish specialized banking system that specifically support the small enterprise sector, (ii) provide working premises such as shades at concessional cost, (iii) facilitate establishment of small enterprise commercial centers, (iv) strengthen the clustering practices,(v) facilitate provision of adequate infrastructure at reasonable price, (vi) as TVET completed individuals outperform in growth rate, educational institutions in Ethiopia need to incorporate competence based training system and entrepreneurship into their syllabus by strengthening the industry university linkages

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Acronyms

BDS: Business Development Services.

BoTI: Bureau of Trade and Industry.

CSA: Central Statistics Agency.

ECA: Economic Commission for Africa.

EDRI: Ethiopian Development Research Institute.

EO: Entrepreneurial Orientation.

EPS: Earning Per Share.

FDRE: Federal Democratic Republic of Ethiopia.

FeMSEDA: Federal Micro and Small Enterprises Development Agency.

GTP: Growth and Transformation Plan.

ILO: International Labor Organization.

MoFED: Ministry of Finance and Economic Development.

MoTI: Ministry of Trade and Industry.

MSEs: Micro and Small Enterprises.

PCA: Principal Component Analyses.

ReMSEDA: Regional Micro and Small Enterprises Development Agency.

ROA: Return on Assets.

ROI: Return on Investment.

ROS: Return on Sales.

SBs: Small Businesses.

SEs: Small Enterprises.

SMEs: Small and Medium Enterprises.

TVET: Technical and Vocational Education and Training

USAID: U.S. Agency for International Development.

Declaration

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Dedication

I dedicate my dissertation to my loving parents, late father Ghebremichael Tirfe and late mother Etay Zewdu. Words cannot express how grateful I have been for your care and understanding. Unlike many other parents in rural communities of our locality, you were committed to send me to school though you had not had such opportunity. Thank you from the bottom of my heart for your support and moral. May your soul rest in Heaven!

Your lovely son Aregawi Ghebremichael Tirfe

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Thank you all.
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Abstract

The primary objective of this study was to examine how and to what extent entrepreneurial orientation, firm internal resources and capital structure decisions affect growth of small enterprises, following the resource- based view on determinants of growth and static trade-off theory of capital structure as theoretical frameworks. Regardless of the number of earlier study, there is no consensus among scholars on determinants of growth due to the existence of different theories and metrics of growth. Moreover, as the earlier studies were undertaken in developed countries, their research findings could not permit generalization on the effect of the explanatory variables on growth in less developed countries like Ethiopia. Therefore, this research tried to fill the gap in the existing body of knowledge on determinants of growth by contextualizing the association of growth with firm specific factors and EO from the Ethiopian context, more specifically from the context of Tigray Regional State. Besides, extra variables that were either not considered or might have been tested separately in earlier studies in Ethiopia were integrated into the regression model. In this mixed explanatory cross-sectional research, systematic random sampling techniques and structure questionnaire were applied to collect primary data from 333 small enterprises operating in five urban towns of Tigray region. Dependent variable of the study was growth of small enterprises, defined as logarithm of change in number of employees at the time of establishment and time of survey. The explanatory variables comprise of entrepreneurial orientation with three dimensions, tangible and intangible resources under the control of a given enterprises, capital structure decisions, external factors such as marketing related problems cost and accessibility of infrastructure, government policies and bureaucracy, business development services were also included in the regression model. Descriptive statistics, statistical difference tests, multiple regression analysis and Propensity Score Matching were applied for the purpose of data analysis with the help of Stata version 12 software. Majority of the small enterprises demonstrated moderate degree of entrepreneurial orientation and location nearer to major customers, entrepreneurial orientation, strong financial

position, access to credit and leverage have statistically significant positive effect on growth of small enterprises which support the resource based view and static trade-off theory of capital structure as well as the perceived hypothesis. On the other hand, consistent to the hypothesis, age and size of small enterprises showed negative significant effect on growth, that supports Jovanovich's learning model but against the Girbat's law of proportionate effect. Moreover, the relationship between education and growth was found to be non-linear or volatile-growth of SEs tend to declined until certain level, reached a minimum level after which SEs with more educated owners tend to grow faster. This implies that unless owners' years of education reach a very high level of schooling, a given increase in years of schooling could not necessarily result into higher growth rate. Based on the findings, the researcher suggests (i) in order to solve financial constraints of SEs, stakeholder need introduction of National Credit Guarantee Fund, Promotion of non-bank financial services, introduce Mandatory Minimum Bank Loan to small enterprises, establish specialized banking system that specifically support the small enterprise sector, (ii) provide working premises such as shades at concessional cost, (iii) facilitate establishment of small enterprise commercial centers, (iv) strengthen the clustering practices,(v) facilitate provision of adequate infrastructure at reasonable price, (vi) as TVET completed individuals outperform in growth rate, educational institutions in Ethiopia need to incorporate competence based training system and entrepreneurship into their syllabus by strengthening the industry university linkages

Key Words: *Entrepreneurial orientation, Firm Resources, Growth of Small enterprises, Resource based view, Static- trade theory, Theory of capital structure, Tigray Regional State- Ethiopia,*

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Chapter One: Introduction

The overall objective of this study aimed at investigating the effect of Resources and Entrepreneurial orientation on Growth of Small Enterprises in Tigray Regional State of Ethiopia. Accordingly, this chapter presents the background of the study, statement of the problem, Research questions and objective of the study, summarized hypothesis of the study, significance of the study, scope and limitation of f the study and at the end organization of the study.

1. An Overview of the Study

The importance of small enterprises sector has been recognized as an engine of economic growth and poverty reduction due to its role in generation of employment and income. Accordingly, countries have been forced to undertake different strategies and policy measures to promote and develop the micro and small enterprise sector. Moreover, the growth of small enterprises has attracted academicians and researchers as the result of which different research findings have been published recently. However, despite the increase in research volume, recent review of the literature on growth of small enterprises showed that little is known about this phenomenon (Wiklund, *et. al* 2009). Scholars could not reach into consensus on the determinant factors of growth of small enterprises. This was because, due to the multidimensional nature of firm growth, different scholars have used different measure of growth and different theoretical frameworks and which made them arrive at results. This makes comparison of research outputs difficult (Delmar, Davidson, and Gartner,2003; Davidson, Steffens, Fitzsimmons (2005). Different theories, for example the resource based view (RBV) and industrial organization (IO) model have been developed in relation to the determinants of growth of small enterprises which indicate different results.

Therefore, in order to enrich the existing body of knowledge, it was found imperative to systematically investigate the factors that influence growth and survival of small enterprises. Following the resource based model/theory; this study examines how entrepreneurial orientation and internal tangible and intangible resources influence the growth of small enterprises.

This research paper is organized in six chapters. Chapter one deals with introduction part-general background, statement of the problem, research questions, broad and specific objectives, significance of the study; and delimitation, and ethical considerations. Chapter two covers theories on determinant of growth of small enterprises. Review of related literature such as, role of small enterprises, growth and metrics of growth, RBV and growth of SEs, empirical evidence on determinants of growth are presented in chapter three. Chapter four discusses research methodology. This chapter consists of (i) research design (research paradigm and research strategy); (ii) variables of the study and conceptual/theoretical framework as well as measurement of variables; (iii) Hypothesis of the study; (iv) research methods; (v) sources of data; (vi) data collection methods and soundness of measures; (vii) procedures of data collection; and (viii) methods of data analysis. Discussion and Analysis of results are made in chapter five. The last chapter, chapter six, is a concluding chapter. In this chapter summary of research findings and concluding remarks, research implications and recommendations are presented.

1.1. General Background of the Study

Hard look into the existing body of knowledge in SEs sector and the day-to-day observation the realities on the ground reveal that SEs do have a number of benefits.

The small enterprises sector has been considered by academicians and policy makers as an engine of economic growth, poverty reduction, and social development due to its effect on employment and income generation, import substitution, its role as a springboard to entrepreneurship and industrialization, input distribution for large industries and distribution of their products through linkage and sub-contracting, and income distributions among different sections of the society (Mead & Liedhom, 1998; Liedholm, 2002; Bekele and Worku, 2008; Kabongo and Okpara, 2009). For instance, the sector takes 48% of the labour force in North Africa, 51% in Latin America, 65% in Asia, 72% in Sub-Saharan African Countries (USAID, 2002). Mead and Liedholm, (1998) found that MSEs in five African countries (Botswana, Kenya, Malawi, Swaziland, and Zimbabwe) generate nearly twice the level of employment that registered by large-scale enterprises and the public sector. According to Goldmark and Nicher, (2009), while over 96% of businesses are small enterprises in USA, approximately 97% of firms in Mexico and Thailand are MSEs.

Besides, their contribution to the employment, income generation and GDP of a country, small enterprises play considerable role in economies of the world. For example, they complement the large enterprises by providing raw materials and taking sub-contracts of some of their; serve as training ground for entrepreneurship and managerial development and enable motivated individuals to find new avenues for investment and expanding their operations (Negash, 2006); generate simple technology which is easier to acquire, transfer and adopt at affordable cost (Bekele & Worku, 2008).

According to the Ethiopian Central Statistical Authority (CSA, 2003), almost 50% of all new jobs created in Ethiopia are attributable to MSE sector. According to Aregash (2005) cited in Bekele and Worku (2008), 98% of business firms in Ethiopia are micro and small enterprises, out of which small enterprises account for 65% of all businesses. In Ethiopia, MSE sector is the second largest employment generating next to agriculture. Report of FeMSEDA released in April 2013 indicated that the MSE sector created 1.5 million new

job opportunities and about 4 billion birr loan was provided by microfinance institutions during the years 2006-2010. According to Mead and Liedholm (1998) MSEs that add labor force make a major contribution to the economic growth of the country and helping more of these enterprises to grow or add worker makes great contribution to poverty reduction and economic development through reduction in unemployment and income.

Recognizing the significance of this sector as a key factor for rapid economic development, the Government of Ethiopia issued Micro and Small enterprises Strategy (FDRE, MTI, 1997). Besides, the Growth and Transformation Plan (GTP) of Ethiopia has envisaged the promotion of micro an small enterprises as one important tool of poverty reduction (FDRE, MoFED, 2010). To this end, the government has established several agencies and offices that support the operation and development of micro and small enterprises. The most important ones are Federal Micro and Small Enterprises Development Agency (FeMSEDA) at federal level; Regional Micro and Small Enterprises Development Agencies (ReMSEDA) at regional levels and Wereda (district) small enterprises promotion offices. In addition to creating an enabling institutional and policy environment, the government has also developed different assistance packages so as to streamline the provision of credit; vocational training; technical and managerial advice; specific business tailored short-term training to the operators (owners) and their employees; facilitating marketing services and forging marketing linkages and development of appropriate infrastructures. These federal and regional agencies and offices provide various support services to the sector, some of which are discussed below (report of FeMSEDA, 2013).

1. Human Resources Development (HRD) support in developing attitudinal change and provision of training through TVET colleges and institutions.

2. Technical support incorporates such support as selecting appropriate technology, developing and distributing project profiles, providing heavy machines on the basis of fair fee or rent which could not be affordable if the small enterprises intend to buy.

3. Industrial Extension services. These services include providing organized information, training on entrepreneurship and trade management, technological development and experience sharing and transfer of best practices, BDS and KAIZEN services.

4. Market Development and marketing support System. Within this package, the sector receives such important market related services as subcontracting and outsourcing, supply of raw materials, construction and organizing market centres, preparing exhibition and bazaars of MSEs.

5. Finance and credit service support system. This incorporates such diverse services as developing financial management skill and saving culture, facilitating and formulating systems that help enterprises to carry out credit services on the basis of their growth level, and lease machine support.

6. One centre service delivery: registration and identification of unemployed people who can be potential small enterprise operators, and preserving data about those involved in business, facilitate establishment of small enterprise operators' cooperatives, registration and provision of trade license, registration of tax return, and facilitate bookkeeping and auditing services.

Definition of MSEs in Ethiopia

According to the revised Micro and Small Scale Enterprises Growth Stages Guideline No.004/2011, the revised definition considers employed labor force including family labor; total assets without working building and the division of sub sector in to services and manufacturing are the main criteria.

The revised definition of Micro Enterprises:

A. **Industrial sector** (includes manufacturing, mining and construction sub-sectors) comprises of a business enterprise which employs not more than five labor force including business owner and family labor and/or the monetary value of the enterprise's total asset is not more than 100000 Br.

B. **Service sector** (includes retail trade, transport, hotel and tourism, information technology and repairs) includes a business enterprise which employs not more than five labor force including business owner and family labor and/or the monetary value of the enterprise's total asset is not more than 50000 Br.

The revised definition of Small Enterprises:

A. Industrial sector: (includes manufacturing, construction and mining sub sectors)

A business enterprise which employs 6-30 labor force including business owner and family labor and/or the monetary value of the enterprise's total asset ranging100001-1500000 Br.

B. Service sector: (includes retail trade, transport, hotel and tourism, information technology and repairs)

A business enterprise which employs 6-30 five labor force including business owner and family labor and/or the monetary value of the enterprise's total asset ranging50001-500000 Br.

Table 1.1: Classification of MSEs

Enterprise Size	Sector	Asset in Birr (excluding working building)	Number of Workers (including involved family members)
Micro	Service	Not more than 50000	Not more than 5 individuals
	Industry	Not more than 100000	
Small	Service	50001-500000	6-30 individuals
	Industry	100001- 1.5 million	

Source: MSEs' Development, Support Scheme, and Implementation Strategies: FDRE, January 2011, Addis Ababa

Recognizing its role in economic growth and poverty reduction growth of small enterprises has attracted considerable attention of researchers in recent years. However, despite the increase in research volume, recent review of the literature on growth of small enterprises suggested that little is known about the phenomenon (Wiklund *et.al*, 2009). Scholars did not agree on the determinant factors of growth of small enterprises because, due to the multidimensional nature of firm growth, different scholars have used different measure of growth based on different theoretical frameworks which make them reach into different results. This makes comparison of research outputs difficult (Delmar, *et.al* 2003; Davidson *et.al* 2006). Existence of diverse theories on determinants of firm growth, for instance stochastic theory, Javonovic's learning model, resource based theory, and industrial organization (IO) model and deterministic approach, have been identified as the major sources/causes for different research findings. The other sources of difference emanate from the use of heterogeneous growth metrics, such as sales turn over or sales revenue, employment, assets of initial investment, profits, market share and subjective measure such as satisfactions of objectives. Difference in routes of growth (organic versus acquisition), specific formula used to calculate growth (absolute or relative growth) have also created difference in research findings.

In the current literature there are two dominant models on determinants of growth of small enterprises: the industrial organization (IO) model and the resource based view (RBV) (Hitt, Ireland, and Hoskin, 2009*)*. IO suggests that return is determined primarily by external characteristics rather than by firm's unique internal resources and capabilities. On the other hand, the resource-based model adopts an internal perspective to explain how a firm's unique internal resources and capabilities serve as a basis for earning above average returns. This theory considers firm internal resources and capabilities as sources of variations in the growth of small enterprises to the extent that these resources are valuable, rare, imperfectly inimitable, and non-substitutable (Barney, 1991).

The other factor that should be considered by management of small firms is the capital structure of the firm. Managements of small firms, once investment decision has been determined, should consider the capital structure of their firms. Firms should determine their optimum capital structure in order to maximize return to owners and enhance their ability to deal with the competitive environment. Capital structure refers to a mix of different securities that a firm can choose among many alternatives of financing the firm. It is a mix of debt capital and equity capital. There are two broad theories with regard to the impact of capital structure on firm performance: capital structure irrelevance theory and capital structure relevance theory. The first theory argues that value of the firm is determined by its existent assets, not by the type of securities it issues to finance its operations.

However, different studies proved that the irrelevance theory to be unrealistic because its assumptions were unrealistic that do not hold true in the real world. Once failure of this irrelevance theory had been proved, capital structure relevance theory emerged. The main ones are the trade-off theory, and the pecking-order theory. The static-trade theory argues that as firm's capital structure has both benefits and costs, a firm can borrow up to the point where the tax benefit from an extra debt is exactly offset by the cost that comes from the increased probability of financial distress.

Building on prior researches and resource based view as well as static trade theory of capital structure; this research aims at empirically investigating to what extent firm specific resources and entrepreneurial orientation affect the growth of small enterprises, measured in terms of change in employment.

1.2. Statement of the Problem

Because of the aforementioned importance of the sector, a number of researches have been undertaken in relation to growth of small enterprises. However, knowledge about growth of small enterprises is still very little and there are no adequate studies on growth of Small Enterprise (Wiklund, Patzelt, & Shepherd, 2009).

First, scholars could not come into consensus on objective measurements and determinants of growth of small enterprises because the multidimensional nature of firm growth made comparison of research outputs difficult (Delmar, *et.al* 2003; Davidson *et.al* 2006). The major causes of differences came from existence of different theories on determinants of firm growth, the use of heterogeneous growth metrics (such as sales revenue, employment, profit, market share), differences in routes of growth, organic versus acquisition, specific formula used to calculate growth (absolute or relative growth). Besides, as the earlier studies on determinants of growth of small enterprises were made in developed countries it is necessary to examine if the previously used theories and evidences on determinants of growth of small enterprises can also be applied in the context of less developing counties like Ethiopia.

Second, none of earlier researches was similar to this research in terms of objectives or research questions, methodology, and theoretical framework. See Appendix III for lists of studies, summary of their objectives and findings, and relationship/difference between these studies and the current study). Our theoretical framework is a combination of resources based view on growth of small enterprises and static trade theory of capital structure. In terms of research methodology, unlike earlier studies in Ethiopia, we applied propensity score matching (PSM) techniques in order to rigorously examine the impact of capital structure (intervention) on growth of small enterprises. The PSM is a non-

parametric estimation technique which is widely used in non-experimental impact evaluation studies-to estimate the average treatment effect on the treated (ATT) due to a given treatment or intervention (capital structure in our case).

Third, much of the focus of previous studies on resources based view and growth of firms were on large firms of developed countries. But, as small firms in developing countries like Ethiopia also need to acquire and use critical resources, the effect of internal resource and capabilities on growth of small enterprises have to be tested in view of developing countries like Ethiopia (Barney *et.al,* 2001). To the best knowledge of the writer, this theory has never been applied in the earlier researches.

Fourth, we observed that most of the related reviewed studies in Ethiopia (e.g. Negash, 2006; Mulu, 2007; Bekele & Worku ,2008; Mulugeta ,2008; Mohamodnur, 2009; Beyene, 2010) were mainly descriptive in nature and focused on identifying/assessing challenges/constraints, opportunities, and status of micro and small enterprises (MSEs). They did not show to what extent growth of the small enterprises was explained by these factors. Besides, they were inconsistent and contradictory in identifying and ranking the serious constraints. One factor is indicated as most severe problem in one study but it is found as less severe in another. These show how the findings were inconsistent and contradictory among different studies. One can understand the inconsistency in the findings from the following table. (See Table 1.2 below).

Fifth, though they are very limited in number and scope, some researchers such as Bekele and Worku (2008) employed regression and econometric models but they did not integrate many important variables in their regression equation. Unlike the previous studies, this research integrated as many explanatory variables as possible into one equation to get complete picture on the determinants of growth of small enterprises. This study examined additional explanatory variables that were either not considered or might have been tested separately in earlier studies. For example, entrepreneurial orientation, motivational factors, human capital (level of education and prior start-up experience), location, size and age of enterprise, financial conditions, capital structure, and gender of owners, as well as

environmental or external factors and other firm level variables were incorporated into one regression.

Table 1.2: Studies on Challenges and Opportunities of MSEs.

Author and date	**Constraints ranked according to their seriousness to growth/failure**
Negash (2006)	Lack of market demand , lack of premises, lack of capital, lack of inputs, insufficient demand, lack of knowledge and skill
Bekele and Worku (2008)	lack of capital, inability to convert part of profit back to investment poor managerial skills, shortage of technical skills, low level of education
Mohamodnur (2009)	Lack of finance, lack of premises, lack of skill, lack of market demand.
Mulugeta(2008)	Lack of capital, lack of business plan, high taxes, lack of premises, poor market, high rent charges, and wrong pricing
Beyene (2010)	Limited access to premises, limited access to finance, limited access to BDS, limited access to market, unfavorable government policy, and weak institutional linkage.

Sixth, while this study relied on data collected from small enterprises only, neither of earlier studies in Ethiopia examined the small enterprises separately from micro enterprises, and medium enterprises, even though these enterprises are different by their characteristics.

Therfore, taking the resource based view and static-trade theory of capital structure, as its theoretical framework, this study applied statistical models to examine how and to what extent the firm growth was affected by firm specific tangible and intangible resources, entrepreneurial ordination, motivation of owners, controlling environmental variables, by raising the following major questions.

1.3 Basic Research Questions

1. To what extent are EO dimensions of proactiveness, innovativeness, and risks taking get demonstrated by small enterprise owners?
2. How and to what extent does entrepreneurial orientation influence growth of small enterprises?
3. How and to what extent do intangible resources of the firm (especially human capital) affect growth of small enterprises?
4. To what extent do physical resources (finance and location) of a firm have significant influence on growth of small enterprises?
5. How is growth affected by financial preference of owners?
6. Is growth significantly influenced by firm characteristics (age and size)?

1.4. Research Objectives

1.4.1. General Objectives of the study

The primary objective of this study was to examine how and to what extent entrepreneurial orientation and firm internal resources and characteristics influence growth of small enterprises.

1.4.2. Specific objectives

1. To explore to what extent SE owners (managers) demonstrate dimensions of EO (proactiveness, innovativeness, and risks taking) in their strategic posture.

2. To examine to what extent entrepreneurial orientation influence growth of small enterprises.

3. To discover and find out how and to what extent the intangible resources of the firm (especially human capital) affect growth of small enterprises.

4. To explore the degree of influence of physical resource (finance and location) of on growth of small enterprises.

5. To examine if growth of small enterprises is affected by financial preference of owners (capital structure).

6. To test if firm characteristics (age and size) have significant influence on growth of small enterprises.

1.5. Research hypothesis

A hypothesis can be defined as a logically supposed relationship between two or more variables expressed in the form of a testable statement (Sekeran, 2003). The researcher's hypotheses are listed below (see chapter 4 detail hypotheses with justification).

H1: Entrepreneurial orientation has universal significant positive effect on growth of small enterprises.

H2a: Financial difficulty/constraint has significant negative influence on growth of small enterprises

H2b: Access and availability of credit have significant positive influence on growth of small enterprises.

H2c: Growth rate of debt financed (leveraged) SEs is higher than those equity financed (unleveraged) SEs.

H3: Owners' years of education has significant positive influence on growth of small enterprises

H4: Prior start-up experience of owners/managers of SEs has significant and positive influence on growth of small enterprises. That is growth rate of SEs owned by inexperienced or less experienced is less than those SEs run by more experienced owners.

H5: Growth rate of small enterprises operating nearer to potential market (customers) is higher than the growth rate of those far from potential customer (market).

H6: There is inverse relationship between growth of small enterprises and their age and size of initial number of employees/capital.

1.6. Significance (Rational) of the study

As the paper has examined the effect of firm's resources, entrepreneurial orientation or strategic posture, it is expected that it will contribute to the literature and building up of existing body of knowledge. The theoretical contribution of this study is that it provides additional insights to the existing body of knowledge in entrepreneurship research by investigating the importance of EO and firms specific resources on growth of SEs. To the best knowledge of the writer, such effects have not previously been investigated in this way. For this reason, it id hoped that this study encourages researchers to further examine the impact of different resources and capabilities on firm growth.

Findings of this study are expected to contribute to policymaking efforts in several ways. For policy makers, this research will have implications by identifying the underlying resources and capabilities affecting growth of small firms that can be used as additional information for their policy decisions and appropriate interventions. SE operators will also benefit from this research because it helps them understand the importance of growth oriented strategy and firm specific variables that are critical to their growth and survival.

Moreover, it will be a basic source of information for concerned academicians, researchers, and consultants for their further study, and also a good reference material for post graduate students.

1.7. Scope and limitation of the study

The study was confined only to sample of non-farm urban small enterprises that operate in five major towns (Mekelle, Wukro, Adigrat, Adwa, and Axum). The towns were purposely selected based on the intensity of operations of small enterprises and zonal representation.

During the sample determination only small enterprises that had at least an age of three years as of January 01, 2013 were considered. According to Mead and Liedholm (1998) those SEs which do not operate at least for three years are considered to be in critical sage as a result of which firms could not show any change in terms of employment size or unable to grow. Thus, to be included in this study, a small enterprise is expected to have at least three years of operation.

Besides, only small enterprises operating in all sectors (Manufacturing, Construction, Merchandising and service sectors) established in the form of sole proprietorship were considerd in this study. Though it is well recognized that external factors can influence growth of small enterprises and are included in the regression equation, the analysis will focus on the effect of EO and internal resources on growth of small enterprises. Considering that the research approach is cross-sectional and questionnaire based data was used, it has some accepted limitations, for example, the sample used in the research may not be representative of the total population of small enterprises (see limitation section of chapter 6 of this paper).

1.8 Ethical consideration and Dissemination

A questionnaire was prepared in such a way that it briefly explained (i) the purpose of the research is for academic use only; (ii) outcome of the research will benefit all stakeholders including the respondents; (iii) that survey answers will be kept secret; and(iv) access to respondent identification is restricted.

After informed consent was obtained from respondents, data was collected only from those who had given consent, and names of respondents. Documents such as questionnaire, reports will be kept in a safe place and destroyed after seven years. Output will be presented to stakeholders (university community, representative of operators, government officials, NGO representatives, BDS providers). Copies of the document will also be available on electronic media so that participants will have the opportunity to access it. A peer reviewed article on the research topic will be published in a reputable international journal.

The Ethical compliance notification of the Graduate School of Business Leadership Research Ethics Review Committee (SBL RERC) is attached herewith this paper.

Chapter Two: Theories on Determinants of Growth: A Conceptual Framework

The main focus of chapter two is on explanations of different theories on determinants on determinants of firm growth or performance. Specifically, it discusses the Stochastic Theory, Jovanovich learning Model, Deterministic Approach, Industrial Organization (IO) Model, and Resource Based View (RBV)

Introduction

What factors cause the growth rate of small enterprises? Why do some SEs grow while others remain passive and some others die? To date there is no universally accepted theory on the determinants of growth of SE because different authors identified different factors. Nevertheless, it is important to review the existing theories on firm growth in order to guide research analysis: (1)Stochastic theory, (2) learning model, (3) Industrial organization (IO) model, (4) resource based theory and (5) deterministic approach are some of the theories in the area of small enterprise growth.

2.1 Stochastic Theory

According to this theory, which stems from Gibrat's law of proportionate effect; there are a large number of factors which affect growth and, thus, there is no single factor that is responsible for the growth of the firm. Proponents of this model argue that all changes in growth are due to chance and, thus, size and age of firms have no effect on growth of small enterprises. According to this theory the growth or decline in a firm depends on the quality of its management, customers' preferences, policies and strategies of the government, but the effect of each variable on growth is insignificant (Dobbs & Hamilton, 2007).

Though the Gibrat's Law of proportionate effect is popular, a number of empirical studies rejected its argument. Many researchers (e.g. Evans 1987; Mcperson, 1996; Mead & Liedholm, 1998; Liedholm, 2002; Lotti *et.al*, 2003; Dobbs &Hamilton, 2007) found that firm size and growth were inversely related.

2.2 Jovanovich Learning Model/Theory

Jovanovich's "Learning Model" of 1992 was one of the models that prove stochastic model (McPherson, 1996) to be outmoded. This theory gives more weight to efficiency of management of small firms in explaining the determinants of firm growth. Firms with able managers grow over time and expand each period (McPherson, 1996). According to this theory, firms enter into a market without knowing its own potential growth. Once firms are established in the industry, then they learn about efficiency based on previous performance, and ultimately least efficient firms would be forced to exit and allow more efficient managers to learn about their efficiency and to adjust their scale of operations accordingly, because of competition.

Furthermore, the learning model and other studies found that annual growth rate of a firm has inverse relationship not only with its size but also with its age (Evan, 1987; McPherson, 1996; Mead & Liedholm, 1998; Liedholm, 2002)

In spite of its usefulness in understanding the dynamics of small firm growth, the learning model has been criticized because of its failure to account for direct intervention of human capital (McPherson, 1996; Mashyo, 2006). In that model, mangers are born with an efficiency level, and while they learn that level is over, they cannot alter it (McPherson, 1996). Park and Ericson (1987) cited in McPherson (1996) and Mashayo (2006) extended the model to include the influence of human capital on growth of small firms. According to them, human capital development increases efficiency, which in turn brings rapid growth in small firms.

2.3 Deterministic Approach/Theory

The objective of deterministic approach is to identify set of variables that can explain differences observed in growth of firms (small enterprises). Dobbs and Hamilton (2007) based on their summary of 34 studies, published since the mid-1990, and summarized the variables that explain growth of Small Enterprises into four categories: Strategies of the

management, characteristics of owners, external environment or industrial factors, and characteristics of the firm.

Management strategies include policies and procedures of the owner-manager of Small business in running their entities. Growth objectives, employee recruitment and development, financial resources, internationalization and business collaboration, and flexibility are among the common factors within management strategies that play a role in determining the growth of Small business. Characteristics of small enterprises include those factors that have a potential influence on the abilities and behavior of the business owner such as motivation, educational background, skill and knowledge, experience, gender, size of founding team and age of the owners.

Environmental /industry specific factors are external constraints and opportunities that influence the strategy and growth of SEs. External factors include, among others, overall state of an economy, government rules and regulations (policies), and cost and availability of resources such as infrastructure, labour, raw materials, as well as level of competition. Finally, characteristics of firm comprise firm specific/internal factors like size, and age (Dobbs and Hamilton, 2007).

Therefore, according to these writers the factors can be categorized as internal and external factors. Management strategies, characteristics of the owners/managers, and the firm characteristics and are internal factors while environment/industry specific factors are external.

2.4. The Industrial Organization (IO) Model

The industrial organization model sees growth of firms from an external perspective, that is, environmental/external factors, instead of resources and capabilities that are internal to the firm, dominant role on a company's growth and strategic actions of a firm (Hitt, *et.al*.2009). The IO model is based on the following assumptions (ibid):

1. External environment obliges a given firm to implement specific strategies that will result in superior profits.

2. Firms within a given industry control *similar resources* and pursue *similar strategies* in light of these resources as the result of which all firms in the industry possess *similar capabilities.*
3. Firm resources are highly *mobile* across firms. According to this statement, any significant difference in possession of strategic resources among firms disappears soon because of this mobility as they are acquired and learned by other competing firms.
4. Decision makers are assumed to act *rationally in order to achieve* profit-maximization objective

According to this model a business enterprise must first consider the external environment (the industry in which it operates) and search the one that is most attractive to the firm and design a strategy that fits to (is required by) the characteristics of the industry. Then it must be able to successfully implement that strategy to increase its level of competitiveness so that it generates above average return.

2.5. Resources based-view (RBV)/Theory

The RBV theory tries to answer the following question: "Why do firms in the same industry vary systematically in terms of competitiveness or performance?" Why do some SEs grow while others remain passive and some others die? The RBV's explanation for this is that the intra-industry variation in competitiveness is based on each firm's unique bundle of resources and capabilities (Barney 1991, Peteraf 1993, Wernerfelt 1984).

After Wernerfelt (1984) Barney (1986) initiated the resources based view (RBV) in the mid 1980s, it has become one of the dominant approaches to the analysis of sustained competitive advantage. Barney (1991) criticized the IO model because of its simplified assumptions concerning firm resources: 1) firms within an industry are identical in terms of the strategically relevant resources they control and the strategies they pursue and 2) due to their intrinsic high mobility characteristic; resource heterogeneity leading to sustainable advantage will be short lived. However, according to Barney (1991) and other followers of RBV (e.g. Wernerfelt, 1984; Peteraf 1993), differences observed in performance and

growth of firms are primarily due to the heterogeneous distributions of unique resources and capabilities across firms, not due to the characteristics of the industry.

The RBV, unlike the IO model, argues that (i) firms in an industry control heterogeneous or unique resources and capabilities and pursue different strategies (i) resource heterogeneity can be long lasting and therefore produce sustainable advantage since these resources may be (a)valuable (in a sense that they exploit opportunities and/or neutralize threats in the firm's environment, (b) not perfectly mobile across firms, (c)rare among a firm's current and potential competitors, (d) in inimitable and (e) non-substitutable. A central premise of the resource-based view is that firms in an industry operate in the same external environment that provides both opportunities and threats to all firms in the industry. However, within this given external environment, some small enterprises grow while others remain passive and some others even die. The resource-based view tries to answer the following question "Why do firms in the same industry vary systematically in terms of competitiveness or performance?" The RBV's explanation for this is that the intra-industry variation in competitiveness is based on each firm's unique bundle of resources and capabilities (Barney 1991, Peteraf 1993, Wernerfelt 1984). Given an external environment with opportunities and threats, firms with strong internal resources and capabilities not only exploit environmental opportunities but can also succeed to challenge any external threats and challenges. This implies that while firms with unique resources and capabilities earn superior profits, firms with marginal resources can only expect to breakeven (Barney, 1991, Petraf, 1993), i.e, firm internal resources and capabilities are sources of variations in the growth of small enterprises to the extent that these resources are valuable, rare, imperfectly inimitable, and non-substitutable (Barney, 1991).

According to Hitt et al. (2009), resources inputs into a firm's production process. Barney (1991) classified these resources as tangible and intangible resources. Tangible resources include those assets that can be seen and quantified. These intangible resources comprise of (i) financial resources, (ii) planning, controlling and reporting structure (iii) such physical resources as location, plant, equipment and access to raw material (iv) technological resources. On the other hand, intangible resources include assets that are rooted deeply in

the firm's history and have accumulated over time (Hitt et. al, 2009). These assets include: (i) human resources of the firm (ii) innovation resources (iii) such reputational resources as reputation with customers, brand name, and customers' perception on quality, durability and reliability of products/service.

Chapter Three: Review of Related Literature

Chapter three aims at reviewing literature and empirical evidence visa- vis the broad research objectives. Accordingly, the following topics are discussed in detail in different sections of the chapter: Role of Small Enterprises, Growth and Growth Metrics, Resource Based View and Growth of Small Enterprises, Empirical Evidence on the relationship between RBV and Growth of Small Enterprises, Empirical Evidence on the effect of external factors on Growth of Small Enterprises

Introduction

The literature review provides with a theory base, a survey of published works that are relevant to the investigation and analysis of a given research. This chapter covers such topics as (i) Role of small enterprises, (ii) Growth of small enterprises and its metrics, (iii) RBV and growth of small enterprises (iii) empirical evidences on determinants of growth of small enterprises.

3.1. Role of Small Enterprises

The small enterprises sector has been considered by academicians and policy makers as engine of economic growth, a source of income and employment (Bekele and Worku, 2008; Kabongo and Okpara, 2009). The roles that SEs play in an economy can be briefly summarized below.

Enhancing employment: One of the main objectives of governments is to enhance employment. Since SEs use labour-intensive technology, they enhance employment opportunities at relatively low capital cost, i.e, SEs employ more people per unit of capital investment in machineries and other fixed assets. According to Mulu (2009), non-agricultural employment of micro and small enterprises is significant in the developing world. It ranges from 48% in North Africa, to 51% in Latin America, 65% in Asia and 72% in *Sub*-Saharan Africa. Mohamodnur (2009) indicated that in Ethiopia, the contribution of MSEs to the manufacturing sector employment is 99%. According to Liedholm (2002) while nearly 80% of new employment in the US is generated by the SEs, more than 50% of the manufacturing employment is contributed by micro, small and medium enterprises in

Taiwan. This employment yields income to owners and their families as well as workers employed by the SEs operators, improve their capital accumulation and asset holdings that can be applied in productive activities whose ultimate effect is economic growth and development.

Effective use of local resources: SEs tend to be more effective in utilizing and adding value to local resources like capital (such as family saving) using simple and affordable technology. One of the constraints of economic growth of developing countries is shortage of capital. On the other hand, due to weak financial markets, there is reserves of idle savings that could be applied into productive activities if the owners are given the opportunity to set up business venture based on their will and capacity. Therefore, one of the roles of MSEs is that they mobilize local resources into productive activities.

Rural development: Generally, large and medium industries concentrate in few urban centres, which may involve migration of rural people to these towns, which could accelerate urban unemployment. On the other hand, small enterprises can be located in every corner of a country- big urban towns, rural areas or small towns or villages. Therefore, on top of their role in generating employment and income, the rural SEs reduces migration of people from rural to urban centres.

They use simple technology: technologies used by SEs are easier to acquire, transfer and adopt. Developing countries lack not only the required capital to invest in large -scale industries but also the technical know-how (skilled labour) to operate capital intensive industries. Therefore, it is natural if less developed countries tend to depend on enhancing development of small enterprises until such time that they accumulate capital and develop the technical capacity of their labour force to run large- scale enterprises.

Flexibility: their smaller size, minimal resource commitments, limited exposure to global economy, compared to medium and large scale enterprises, allow SEs to have greater flexibility in changing environmental conditions. Because of this and other reasons, SEs

tend to show greater resilience in the face of recessions by holding on to their businesses (Pansiri, and Tetime, 2004; Tarmidi, 2005; Coy, Khursheed & Shipley, 2007).

Complement to large enterprises: through business linkages, partnerships and subcontracting relationships, SEs have great potential to complement large industries' requirements through business linkage in which the large enterprises can contract out their activities to small enterprises. Besides, small enterprises can distribute outputs of large enterprises. A strong and productive industrial structure can only be achieved where SEs and large enterprises coexist and function in a strong relationship (Pansiri & Temtime, 2004; Negash, 2006)

Serve as training ground: SEs serve as training ground for entrepreneurship and managerial development and enable motivated individuals to find new avenues for investment and expanding their operations.

3.2 Growth and Metrics of Growth in Small Enterprises

3.2.1 What is Growth of Small Enterprises

Small firms are in a constant state of change (Mead & Liedholm, 1998). SEs growth or dynamics refers to the change of level of economic activities that are carried out by these enterprises overtime (Liedholm, 2002).This implies that during any given period of time new firms are created (new starts, or births). While others are closing; at the same time, some existing firms are expanding and others are contracting. These are the components of dynamics of SEs that can be summarized in two concepts (Liedholm, 2002); net firm creation, which is new starts (births) minus closures (deaths); and mobility of net firm expansion is firm expansion less firm contraction.

(i) Rate of new start of Small Enterprises

New start rate or birth rate is calculated by dividing all new firms stared or created in a given year by the number of firms that existed at the beginning of the year. Alternatively, this rate can be calculated by dividing the difference between the number of small enterprises existing at the end of the year and number of firms existing at the beginning of that year by the number of firms existing at the beginning of the year. One important source of bias in these data is that the short-lived firms that appear and then disappear in the year may be omitted.

ii). Rate of SEs Closures: A researcher can gather information with regard to closed or terminated small enterprises through: (i) regular (interval) visit by analysts to know change in activities of enterprises, (ii) questioning all households in a sample of location about enterprises that they previously run but that are no longer in operation. This approach is less accurate than the former because people may forget to tell or may choose not to tell about enterprises that failed in the past, and/or (iii) questioning concerned government offices in charge of SEs development such as micro and small enterprises promotion offices assuming entry and exit of firms is made with the knowledge of government authorities. Small enterprises' closure rate can be calculated by dividing the number of firms closed in the year by the number of small enterprises that existed at the beginning of year.

iii) Net SEs expansion: In addition to birth rate and death rate of SEs, the growth of SEs from net expansion of existing enterprises must be considered in order to gain full knowledge about the dynamics of the sector. The net expansion depicts the expansion less contraction of those SEs that survive and summarizes two opposing dynamic force at work (Liedhold and Mead, 1998). While gross job created is calculated by adding the jobs created by new firms and jobs created by expansion of existing firms, gross job destruction is the sum of jobs destructed due to closure of firms and destruction of jobs by contraction of firms. To find net new jobs, gross job destructed is subtracted from gross job created.

3.2.2. Metrics of Growth

Although there is no deficiency in volume of literature on growth of small enterprise; scholars could not produce objective measurement of growth of small enterprises. Due to multidimensional nature of firm growth, different scholars have used a range of different measures of growth and reached on different results which makes comparison of research outputs difficult (Delmar, *et.al* 2003). In testing several growth measures used by different studies, Delamr (2006) found that the types of growth indicators used in studies affect the research findings. The cause of differences come from (i) heterogeneity in metrics of growth, (ii) difference in routes of growth used by researchers; and (iii) specific formula used to calculate growth (absolute or relative growth).

The commonly used growth indicators include sales/revenue, employment, performance, market share, asset, profit **(**McPherson, 1996; Lumpkin & Dess, 1996; Delmar *et.al*, 2003; Wiklund &Shepherd, 2005; Robson & Obeng, 2008; Fairoz, Hirobumt, and Tanaka, 2010).

(i) Sales as Growth indicator

Some researchers claim that sales growth is the best measure of firm growth (Delamr *et.al*, 2003). Delmar (2006) found that sales was the most commonly used growth indicators, used by 30.9 percent of the studies. Scholars justify superiority of sales indicator because: (i) sales applies to all sorts of firms-all business enterprises need sales to survive; (ii) it is relatively insensitive to capital intensity and degree of integration (Delmar *et.al* 2003); (iii) sales often preceeds other indicators- it is increase in sales that brings increase in assets, employees, profits and market share (Davidson *et.al*, 2005).

However, regardless of its intensive use, sales is not the perfect growth indicator because it is exposed to different limitations (i) sales is sensitive to inflation and change in exchange rate of currencies–especially when data covers several countries or periods, difference in inflation rates may complicate comparison of growth of small enterprise in different countries or the performance of a given small enterprise in different periods (Delmar ,*et.al*,2003) (ii) it is not always true that sales leads the growth process. For example in high-technology start-up and the start-up of new activities in established firms, it is possible that asset and employment will show growth before any sales takes place (Delamr *et.al* 2003), (3) in small business enterprise sales revenue or sales volume is not easily accessible since most owners of small enterprises do not keep records, they would be unable to remember and accurately report their firms' historical sales level (4) further the owners may be reluctant to disclose the true/exact amount of revenue.

(ii) Change in employment as Indicator of Firm Growth

The second commonly used growth indicator is change in number of employees (Evans, 1987; Mead, 1994; McPerson, 1996; Liedholm & Mead; 1999; Liedholm, 2002). Delmar (2006) and Davdson *et.al*, 2005) observed that 29.10 percent of the reviewed studies used employment as growth indicator of firms, just after sales (used by 30.9 percent of the studies). Strength of employment as best measure of growth is justified because: (i) it is easily accessible data that is easily remembered by small enterprises (McPherson, 1996; USAID, 2002). Since most owners of small enterprises do not keep records, they would be unable to remember and accurately report their firms' historical sales level, number of

employees should be used as growth measure (ii) unlike sales employment is not sensitive to change in inflation, exchange rate changes (USAID, 2002; Wiklund & Shephered 2005,) (iii) it is a preferred measure when the interest of policy makers is fostering employment growth (USAID, 2002; Davidson *et.al*, 2005). Generally, small firms in less developed countries like Ethiopia use micro and small enterprise as a source of employment opportunity and income. Therefore, we prefers to use employment to measure growth of small enterprises. (iv) Pensrose (1959) in Delmar *et.al*, (2003) suggests to use employment as a measure of growth to be applied for resource and knowledge-based view of the firm.(v) Moreover, studies found that growth in sales and growth in the number of workers are highly correlated. For example, McPherson (1996) said that estimates using employment figures are similar to those using sales. Delmar and Wiklund (2008) found growth measured in terms of sales and employment showed the same result. This may be justified for the fact that the higher the sales, the higher the profit will be. Higher profit in turn would result into higher retained earnings and higher expansion of facilities and activities which demand higher number of employees.

However, employment as measurement of growth shows some biased results because it is affected by several factors such as labor productivity increase, machine-for-man substitutes (use of machine intensive technology), and degree of integration (Delamr *et.al*, 2003). A firm can show considerable growth in output and assets without any increase in employment (Mcpherson, 1996). For example, instead of hiring more employees, the entrepreneurs can choose to subcontract by which the ultimate effect may be to reduce the number of employees regardless of increase in sales. Moreover, the employment increases with a lag even after a sizable growth in sales, because of the seasonal nature of employment (McPherson, 1996; USAID, 2002) because owners of small enterprises prefer to use unpaid family labor and temporary workers until they are sure that their enterprise needs permanent employees.

(iii) Change in level of profit as Growth indicator

The third growth indicator is the change in level of profit from start to the time of survey. Measuring growth in terms of level of profit is used because, the writer believes, growth in

profit indicates (i) effectiveness and efficiency of the management of SEs in utilizing their resources to attract more customers and maximize level of revenue (ii) higher profit can enhance sustainability of SEs because it is believed that higher profit enables SEs to expand and maximize new profitable investment opportunities and expansion.

Edelman (2005) advocate return on sales (the ratio of profit to sales) to be as good indicator of performance because, according to them, this measure reflects the degree of efficiency of firms in utilizing resource. They calculated log change in Return on sales (Net income /Sales) between 1990 and 1994. Wiklund and Shepherd (2005) and Glancy (1998) used self-reported profit to measure growth of small enterprises. In the study of Wiklund and Shepherd respondents were asked to state last years' profitability and sales, gross margin was calculated as the ratio of gross profit to sales.

Different researchers used different measurement of profit. For example, Zahra and Covin (1995) measured financial performance with the help of return on Asset (ROA) – the ratio of net earnings to total assets and Return on Sales-the ratio of net earnings to company sales revenue. They calculate growth in revenue (GR) as Current Year's Revenue less Last Year's Revenue divided by last year's Revenue. Zahra (1991) and Wu (2009) used Earnings per share (EPS) return on asset (ROA), net profit margin (the ratio of net income to sales) as indicators of small enterprises growth. Chandler (1993) measured performance using three separate approaches. This writer used such self-reported financial performance indicators as profit measured in terms of return on investment, change in cash flows and net worth. The writer further identified that Covin and Slevien (1989) used self-reported profit stated either in terms of return on asset, return on sales (percent of net profit on sales), or change in net profit before tax.

However, though growth in profit is universally relevant, it has certain limitations that must be considered in measuring growth of SEs. For example, different firms may report different amount of profit as the result of using different methods of accounting, such as method of depreciation, methods of revenue /expense recognition, regardless of their similarity in business line, efficiency and effectiveness of management. Besides profit may

be influenced by level of inflation and as SE owners/managers may not keep books of account, it could d be difficult to obtain reliable profit figure.

(iv) Other indicators of Growth

Finally, the other indicators, such as market share, physical output, and asset are less generally applicable and therefore not applied as frequently. For example, such indicators as market share and physical output can only be compared within industries for firms with a similar product range. The 'market' in market share calculations may be ambiguous; differences in market share may be irrelevant for small firms, and comparing shares for firms operating in different markets may be indefensible. Using an indicator such as total asset value is highly related to the capital intensity of the industry and sensitive to changes over time and is difficult to assess where the key asset is knowledge. Physical output can hardly be compared across industries. (Davidsson, et al, 2005).

(v) Different route of Growth: Organic versus acquisition

Difference in route of growth is the other factor that creates difficulty in comparing research findings. Firms can grow in different ways. Ylitalo (2010) classified the routes of growth into three: acquisition versus organic growth; domestic growth and internationalization; and growth through diversification and replication. Organic growth refers to the growth through expansion of current activities while growth through acquisition refers to the growth of firm when it acquires other firms.

Growth of small enterprises measured in the form of organic growth may show different growth rates from the rate of growth measured in acquisition form of growth. For example, while organic growth creates employment opportunity, acquisition takes existing employees from the acquired firm without increase in number of employees. Therefore, as results can be confused and findings can be misinterpreted, the two types of growth should be separated (Davidson et. al, 2005).

(vi) The Choice of Calculation of Growth Measures

In addition to difference in growth indicators and routes of growth, the specific formula used to calculate growth might affect research results. Growth can be absolute or relative (Wiklund and Shephared (2003). Absolute growth refers to the actual change in size of the company between two points in time, while relative growth is the change in growth in relation to the initial size. Relative measures favor growth in small firms, whereas absolute measures favor large firms, (Delmar, 2006).

Regardless of the measure used, absolute or relative, growth is dependent on the firm size. Relative measures favor growth in small firms, whereas absolute measures favor large firms (Delmar, 2006). This is because small firms tend to grow faster than larger firms when growth is measured as relative change, but larger firms tend to grow more in absolute scale. For example, consider firm A has 10 employees and firm B, a medium size, has 100 employees. Now, consider that both of these firms hired 10 more employees, firm A now consisting of 20 employees and firm B has 110 employees. Firm A has now grown by 10 employees by absolute scale, and 100 percent in relative scale, while the larger firm (firm B) has grown by the same absolute number of employees, but only 10 percent when measured in relative scale (Delamar, 2006; Ylitalo 2010).

(vii) Growth as a Process and Logrithmizing the Dependent Variable

Growth of small enterprises is a process. This means the factors that enhance or hinder growth are not stable over the life of the enterprise. For example, attitudes and motivation of founders could change considerably due to events in their business or private lives (Davidson, n.d). Further, Delamar et al (2003) argued that using first year and last year sizes do not fully capture the growth rate of organizations because behavioral changes of an organization occurred during the middle periods of the study may not be captured fully.For example, an organization may be experiencing consistent, predictable decline over most of observations but experience a growth point in the final period of observation. If a researcher uses first-and -last year approaches, he or she will miss real fluctuations and conclude that the growth rate of this firm has been positive over the last periods. This may result in weak model and/or misspecified results and interpretations. For this reason, it may

be unwise to assume that nothing, but only change in size, has occurred during the growth process (Davidson, et al, 2005). Consequently, according to Davidsson, et al (2005) firm growth should be researched longitudinally.

Logarithm of the dependent variable is often an option for obtaining both a higher fit and a better use of the data, that is to smoothen the skewness and unnecessary oulioers, as Delmar (2006) argues. Accordingly, many researchers (such as Evans, 1987; McPerson, 1996; Liedholm and Mead, 1999; Mulu, 2009) used logarithmized formulas to measure growth or determine the impact of various explanatory variables on firm growth (see section 3.2.2 -vii of this paper. The commonly logarithmized formulas used to measure growth are presented in the following sections.

(viii) Specific Logarithmized formula

Growth = $\frac{ln\left(EMP_{t_1}\right)-In\left(EMP_{t_0}\right)}{age\ of\ entrprise}$

Where EMP_{t_1} = Number of employees at the time of survey

EMP_{t_0} = Iinitial number of employees

ln = Natural logarithm

According to Liedholm and Mead (1999), there are three ways of defining employment growth rate. These are (i) annual compound growth rate (ACGR) measured in percentage, (ii) average annual growth rate (AAGR) measured in percent and (iii) average annual growth in jobs since start up, measured in number of jobs created.

The compound annual growth rate (CAGR) is a rate of growth that tells what an enterprises growth in employment over the years on annual compounded basis is measured in percent. It can be calculated as:

$$\left[\left(\frac{CE}{IE}\right)^{\frac{1}{age}}\right]-1$$

Where: CE= Current employment (No of employee at the time of survey)

IE = Initial employment (No of employees at the start)

Age = age of the enterprise

The average annual growth rate (AAGR) shows the average increase in the employment over the years since start-up, measured in percent. It can be calculated as

$$\frac{\left[\frac{CE-IE}{IE}\right]}{Age}$$

Finally the simple average annual growth (SAAG) since startup is average annual growth in jobs since startup which is measured in number of jobs created per enterprise and is calculated as

$$\frac{[CE-IE]}{Age}$$

Calculating average annual growth rates in this manner may hide fluctuations in employment levels over smaller span of time (Mcperson, 1996). For example, a firm may have begun as a single-person operation, grown rapidly for a time, but then shrunk back to one person. Should this be so, measuring growth using only the end points would mask important parts of the growth process.

The use of CAGR is preferred in several studies because it permits much more precise assessment of the timing of employment growth effect, than growth rates or number of changes in employment since start-up (Liedholm and Mead, 1999)

Growth rate in terms of profit can be calculated Profit- current profit (CP) will be used instead of current employment (CE) replaces following the same fashion formula except employment and initial profit (IP) replaces initial employment (IE).

3.3 The Resource Based View and Growth of Small Enterprises

3.3.1 Introduction on Resource Based View

There has been much debate in the management strategy literature as to the source of sustained growth of firms and such questions as why firms differ in their growth rate (some firms grow while others remain inactive or even dissolved), and how they choose strategies have been raised.

From 1960 up to 1980s, the external environment was considered as the primary determinant factor to the successful achievement of organizational objectives (Hitt et al, 2009). According to this approach, which is referred to as industrial organization (I/O) model of above-average return, external environment or industry in which a company operates dictate a firm's strategic actions than internal factors.

The I/O model has four underlying assumptions (Hitt, et al, 2009). First, the external environment imposes pressures and constraints that determine the strategies that would result in above-average returns. Second, most firms in the industry control similar strategically relevant resources and pursue similar strategies in light of those resources. Third, those resources are highly mobile across firms so any resource heterogeneity across firms that may lead to sustainable advantage will disappear due to their mobility characteristics because others can acquire or learn the resources. Forth, organizational decision makers are assumed to be committed to rationally act in order to achieve the profit maximization objective of the firm.

In the 1990s, the focus of researchers shifted from industry approach to resource based approach with regard to the source of growth of firms. Because of this, the resource-based view (RBV) has become one of the dominant modern approaches to the analysis of sustained competitive advantage and growth of firms.

According to the resource-based theory, firms are heterogeneous in terms of the strategic resources they own and control, and these internal resources are recognized as the

fundamental determinants of competitive advantage and performance (Barney, 1991). In 1991, Barney presented a comprehensive framework to identify the required characteristics of firm resources in order to generate sustainable competitive advantage. Classifications of resources, resources and capabilities, competitive advantage, sustained competitive advantage and related criteria are discussed in the following sections.

3.3.2 What are Resources: Tangible and Intangible

Resources are inputs into a firm's production process (Hitt et. al., 2009). According to definitions of Grant (1991), resources are those tangible and intangible assets linked to a firm and capabilities are a way that different activities are accomplished using available resources.

Different authors have indicated various types and categories of firm specific resources and capabilities. Barney (1991) classified these resources into three categories: physical, human capital, organizational resources. The first category refer to technology used in the firm, a firm's plant and equipment, firm location, access to raw materials and financial capital resources. On the other hand human capital resources include the education and training, experience, judgment and insights of individual managers and workers in the firm. Organizational resources include a firm's capital structure, its formal reporting and planning, controlling and coordinating systems (Barney, 1991).

Barney further classified resources as tangible and intangible. Tangible resources include those assets that can be seen and quantified which can further be classified into four sub-categories. The first category of tangible resources includes financial resources expressed in terms of firm's ability to borrow and to generate adequate internal funds. While the second classification comprises organizational resources (firm's formal reporting structure and its planning, controlling and coordinating systems); the third category of tangible assets comprise those physical resources such as location of a firm's plant and equipment and access to raw material. The fourth category is firm's technological resources.

Intangible resources include assets that are rooted deeply in the firm's history and have accumulated over time (Hitt et. al, 2009). These assets include: (i) human resource, which comprises experience, judgment, knowledge, trust, managerial capabilities, and organizational routines; (ii) innovation resources (ideas, scientific capabilities, and capacity to innovate); (iii) reputational resources (include reputation with customers, brand name, and perception of customers on quality, durability and reliability of firm's products).

Because intangible resources are less visible and more difficult for competitors to understand, purchase, imitate and substitute (Hitt, et. al, 2009), they can be sources of capability and core competencies that enhance sustained competitive advantage. For this reason, the authors said, firms depend on intangible resources rather than on tangibles resources as the base for their capabilities and sustained competitive advantage. Moreover, (Kostopoulos, n.d.) reported that researches have given more attention to impact of intangible resources on firm growth than to the tangible resources because of the above facts and due to the fact that intangible assets are more important from strategic point of view. He said:

> *"... a high stock of qualified human capital with advanced technical skills, know-how in R&D projects, and risk taking propensity increases the probability of a firm to carry out innovative activities (Kostopoulos, no : pp 9)*

3.3.3 Resources and Capabilities

Though resources can be sources of competitive advantage, firm's resources alone may not generate competitive advantage unless they are supported by capabilities. It is the capabilities of the firm that enable it to efficiently and effectively use the unique resources to earn more than average return. Hitt *et.al* (2009) defined capabilities as the ability of specific resources to perform a task or activity. Many capabilities lie in the skills, knowledge, expertise and experience embedded in its employees. Thus, people are considered as the most significant resources that play invaluable role in the success and growth of a given organization. Hitt *et.al* (2009) stressed that knowledge possessed by human capital is among the most significant part of an organization.

3.3.4 Competitive Advantage

In the resource-based view of the firm, resources are considered the main sources of competitive advantage. Competitive advantage occurs when a firm implement a value creating strategy that are not simultaneously being implemented by any current or potential competitors (Barney, 1991). According to Barney competitive advantage can only occur when immobile firm resources are heterogeneously distributed across firms.

3.3.5 Sustained Competitive Advantage of the resource based view

Sustained competitive advantage is different from the concept of competitive advantage. Sustained competitive advantage exists only when other firms cannot copy the benefits of a competitive advantage (Lippman & Rumlet, 19982) as cited in Write et al (n.d.). Thus, a competitive advantage is not considered sustained, if other competitors can duplicate the advantage. Attaining and sustaining competitive advantage is an important aspect of the resource-based perspective. Barney (1991) defines competitive advantage as follows:

> *A firm is said to have a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors. Further, a firm is said to have sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy* (Barney. 1991: 102).

3.3.6 Criteria for Sustained Competitive Advantage

In 1991, Barney presented a comprehensive framework to identify the required characteristics of firm resources in order to generate sustainable competitive advantage. According to Barney (1991), to enjoy a competitive advantage, the following attributes must be achieved: valuable, rare, inimitable, and non-substitutable, which are briefly described in the following paragraphs.

(a) Valuable Resources and Sustained Comparative Advantage

Resources are said to be valuable if owners of the resources can create value to the customers, i.e., provide products or services that customers are willing to pay and

implement efficient and effective strategy. Valuable firm capabilities mean ability of the firm to exploit opportunities or neutralize threats in its environment. Resources controlled by a firm are considered valuable if that firm, because of its possession of such resources, can implement strategies that improve its efficiency. Firms are able to improve their performance when their strategies enable them to exploit opportunities or neutralize threats (Barney, 1991)

(b) Rare Resources as source of sustained Comparative Advantage

Resources can be valuable but could not be sources of sustained competitive advantage if they are possessed by large number of current or potential competitors because, if it is possessed by a number of enterprises, it is possible that these other firms can implement strategies that allow them to exploit existing opportunities and reduce the potential threats so that no one firm enjoys a competitive advantage.

The second criterion is that resources must be rare among firm's current and potential competition. Rare capabilities are capabilities that few, if any, competitors posses it. Resources that are owned by a large number of firms cannot give competitive advantage, as they cannot deliver a unique strategy in comparison with competing firms. A firm enjoys a competitive advantage if it can implement a value creating strategy that is not simultaneously implemented by other large number of firms.

(c) Imperfectly Inimitable resources as source of sustained Comparative Advantage

The third criterion to be fulfilled in order to enjoy sustained completive advantage is that resources must be imperfectly inimitable. Resources can only be sources of sustained competitive advantage if firms that do not possess these resources cannot obtain them, despite of their efforts. Capabilities can be costly to imitate because of three reasons:(i) the ability of a firm to obtain a resource is dependent upon *unique historical condition*, (ii) the link between the resources possessed by the firm and a firm's sustained competitive advantage is *causally ambiguous*, or (iii) the resource generating a firm's advantage is *socially complex* (Barney, 1991; Hitt et al, 2009).

(i)Unique historical condition and imperfectly inimitable resources*:* According to Barney (1991), firms are historical and social entities. Besides, he argues that the specific historical place and space provides a given firm the ability to acuire and exploit opportunities and some resources. Those firms that did not have such opportunities of time and space cannot obtain those resources once this unique historical time passes, and thus these resources could not be perfectly inimitable.

> *…a firm sometimes is able to develop capabilities because of unique historical conditions- a unique organizational culture developed in the early stage of the firm's history may have an imperfectly inimitable advantage over firms established in other historical time* (Hitt et al, 1991: 82).

(ii) Casual ambiguity and imperfectly inimitable resources. Causal ambiguity exists when it is difficult to competitors to understand how strategies and capabilities of a firm with competitive advantage are developed and implemented. If it is difficult for competing firms to duplicate a successful firm's strategies through imitation of its resources imitating firms cannot know the actions they should take in order to duplicate the strategies of successful firms, the resource is said to be an inimitable resource and the firm with such resource enjoys sustained competitive advantage (or earning above average return) (Barney, 1991).

> *The second condition of being costly to imitate occurs when the link between the firm's capabilities and its competitive advantage is causally ambiguous, that is, competitors can't clearly understand how a firm uses its capabilities as the foundation for competitive advantage (Hitt et al, 1991: 83)*

(iii) Social complexity and imperfectly inimitable resour*ces.* Barney (1991) and Hitt et al (2009) included variety of socially complex resources as sources of sustained competitive advantage: strong interpersonal relationship, trust, friendship among managers, and between managers and employees, and firm's reputation with supplies, and customers, are examples of socially complex capabilities.

(d) Non-substitutable resource and Sustained Comparative Advantage

Non-substitutability is the fourth criteria that must be fulfilled if resources are to be source of sustained competitive advantage. Resource must be no substitutable, that is, other firms cannot substitute similar resource for resources they cannot imitate (Barney, 1991; Hitt et al, 2009).

3.4 RBV and Growth of Small Enterprises: Empirical Evidence

In this paper, based on the reviewed models and empirical evidences, the factors that explain growth of small enterprises are classified into three categories: (i) the characteristics of the owner/manager (also referred as entrepreneurial resource); (ii) firm characteristics or organizational resources; and (iii) the external environment. The first category concerns entrepreneur's specific characteristics such as, motivating factors of SEs owners to start their own business, entrepreneurial orientation of owners/managers, human capital (education, experience, and gender0 of owners/mangers. The second class comprises physical capital resources and organizational resources such as financial resources, location of small enterprises (proximity to market), sector in which the SEs operate, form of ownership or type of business enterprise (whether the enterprise is sole proprietorship or in the form of partnership or association), networks, size and age of the enterprise. Both the first and second categories refer to those factors what the resource based view defined as firm internal/specific resources or assets. The third category concerns firm external factors which are related to the environment in which the firm operates such as; overall state of an economy, government rules and regulations (policies), and cost and availability of resources such as infrastructure, labour, raw materials as well as level of competition.

Motivational factors and growth of small enterprises will be considered in section 3.4.1. The relationship between entrepreneurial orientation and growth of SEs are presented in section 3.4.2 while effect of entrepreneurs' resources (except EO) and organization resources are discussed in sections 3.4.3 and3.4.4.4 respectively. Section 3.5 discusses on the effect of environmental factors on growth of small enterprises.

3.4.1. Motivating factors and Growth of Small Enterprises

Individuals establish self-employed business enterprises in order to achieve certain objectives. When he consulted literature with regard to small business ownership, Wang (2006) found that individuals are either 'pulled' or 'pushed' into business.

According to him, a 'pull' motivation is an individual's positive inner desire to start a business. The common pull factors include independence or autonomy, being one's own boss, wealth creation, lifestyle change and the desire to use or apply personal experiences and knowledge (Birley and Westhead, 1994; Wang, 2006 and Rijonen, 2008). On the other hand, 'push' motivations are external negative factors. These negative factors my include, frustration in ones job, dissatisfaction with low paid job with little possibility of promotion, escape from supervision and constraint of subservient roles, unemployment and retrenchment (Curran & Blackburn 2001) cited in Wang (2006).

Storey (1994) cited in Yilitalo (2010) also classifies motivation into positive and negative motivation. According to him, positive motivation includes desire to exploit internal or external opportunities in order to make money. Negative factors are those factors that push an individual to start his/her own business in order to escape from unfavorable situation such dissatisfaction with an existing employer and threat of actual unemployment.

Papadaki & Chami (2002) classified business owners as "income substituters" who substitute paid-employment income with business income substitute; and "entrepreneurs" who, according to them, are committed to the growth of their business. Ferreira and Azevedo (2007) classified the indicators of attitudes and motivations to start own business into four categories: (a) the owner's entrepreneurial intensity (active risk taking), referred them as entrepreneurs; (b) his/her desire for independence, (c) whether he/she is "pushed" by unemployment, not because he/she has growth attitudes, and (d) whether he/she is pushing a certain "lifestyle"- engage in business activities in order to complement his/her paid employment income with independent business income in order to support expensive living style.

On the other hand, according to Benzing, et al (2008) and Hornsby et al (1997) motivational factors or objectives to start business enterprises could be grouped into four factors: (i) extrinsic reward, (ii) independence/autonomy, (iii) intrinsic rewards, and (iv) family security. According to these authors extrinsic rewards are defined as monetary compensation or building equity in a firm. Extrinsic rewards (motives) comprise of three

items: acquire personal wealth, increase personal income, and increase own income opportunities, concentrate on wealth creation or economic reasons.

The authors defined intrinsic rewards as motivating factors related to self-fulfillment and growth or as rewards accrue to someone through task accomplishment, perhaps satisfying the need for control and achievement. Such goals as gain recognition, meeting the challenge, enjoying the excitement, personal growth, and to prove that one can do and accomplish a given task were identified as important intrinsic goals.

Beyond the intrinsic and extrinsic rewards, entrepreneurs seek employment autonomy from business ownership as well as some measure of security for their families. They found that some of the respondents were not motivated by intrinsic measures but rather by family business concerns such as expectations of earning more money in self employment (secure future for family members) and the opportunity to pass the business on to children (to build a business to pass on). Moreover, entrepreneurs are also motivated by the security and autonomy they can provide for themselves and their families. Maintaining personal freedom, personal security, self-employment, to be one's my own boss, to control own employment destiny were those variables included under the category of independence/autonomy.

Effect of motivation on growth of small enterprises

Examining the extent of small enterprises owners'/managers' motivation to strive for growth is an important aspect of firm growth (Delmar & Wiklund, 2008). Brown, Davidsson, and Wiklund (2001) define growth-oriented firms as those firms, which have growth to be of their top priority objective. Nevertheless, most of economic researchers ignore objective or growth attitude of owners to start self-employed because growth attitude is taken for granted, i.e., they assume people undertake activities that maximize their profits and growth (Wiklund et. al, 2009).

When we consider the effect of resources on growth of small enterprises, the importance of the objectives (motivational factors) to start own self-employed business should also be

taken into account. Referring to the empirical evidences of Penrose (1995) Ylitalo (2010) pointed out that growth is less likely to occur if the management of the firm is not willing to pursue growth objectives and strategies, regardless of the amount of resources in hands of the firm. If management lacks the growth motivation, resources could not be allocated to exploit external growth opportunities but rather they can be directed to other non-productive targets. Atsede, Patrocia, Adebimpe (2008) found that small enterprise owners motivated by finance and self-fulfillment had more tendencies to run growth-oriented firms.

Regardless of the amount and type of resources in control of small enterprises, growth is less likely to occur if the owners/managers lack growth objectives and appropriate growth oriented strategy, (entrepreneurial orientation) is not in place to efficiently and effectively utilize them. If management lacks the growth motivation and strategies, resources could not be allocated to exploit external growth opportunities but rather they can be directed to other non-productive targets. Thus, it is logical to assume that resources are likely to positively influence growth of a small enterprise when its management utilizes the resources efficiently and effectively in growth driving activities (Wiklund, et al, 2009). Thus, it is logical to assume that resources are likely to positively influence growth of a small enterprise when its management utilizes the resources efficiently and effectively in growth driving activities (Wiklund, et al, 2009). This means growth motivation of small enterprise owners is likely to influence growth of small enterprises

Delmar and Wiklund (2008) observed that growth motivation was the most important differentiating characteristics between growth oriented and non-growth oriented entrepreneurs. Motivation of small enterprise owners/managers to grow affects their choice to expand the business, the willingness to sustain this choice over time (Penrose, 1959) cited in Delmar and Wiklund (2008). On the contrary, the research of Anderson (2003) cited in Anderson and Tell (2009) has shown that motivation is not enough because firms of well-motivated managers do not always grow

3.4.2 Effect of Entrepreneurial Orientation on small enterprise growth.

Unless the management of a firm sets suitable strategies and can exploit the opportunities, it will not grow regardless of the amount and type of resources under its control (Wiklund & Shephered, 2003). Besides, Barney (1991) said that in addition to valuable, rare, inimitable and non-substitutable resources, a firm must also have an appropriate organizational strategy in order to take advantage of these resources.

Kostopoulos et al (n.d.) defined entrepreneurship as the articulation of a long-term vision for the firm that aims at higher growth through the introduction of innovative products and technologies at the expense of short-run profit maximization. Entrepreneurial orientation also defined as the strategy making process that provides organizations with basis for entrepreneurial decision and actions (Lumpkin & Dess, 1996; Wiklund and Shephared, 2003).

According to Miller (1983) and Lumpkin and Dess (1996) a firm is said to be entrepreneurial firm if it is engaged in product and market innovation, committed to allocate resources in order to undertake something risky business enterprise, and first to come up with proactive innovations and products/services, exploit market opportunities ahead of competitors which enables it to gain superior (above average) returns/growth.

Dimensions of Entrepreneurial orientation

Miller developed instruments by which dimensions of entrepreneurial orientation can be measured. According to Miller (1983) and Lumpkin & Dess (1996) entrepreneurial orientation refers to top management‘s strategy in relation to innovativeness, proactiveness, and risk-taking. Thus, entrepreneurial behavior of an individual can be measured in terms of his innovativeness, his/her propensity to take risk, and his/her proactiveness. Various researchers (Covin & Slevin, 1989, Zahra, 1993; Zahra & Covin, 1995; Lumpkin &Dess, 1996; Wiklund, 1999; Wiklund & Shphered, 2005) support Miller’s dimensions of entrepreneurial orientation and used these three elements to measure degree of entrepreneurial posture.

Innovativeness reflects a firm's tendency to engage in introduction of new ideas and creative process that may result in new products, services, or technological processes (Lumpkin & Dess, 1996, Wiklund, 1999). Wiklund and Dess (1996) classified innovativeness as product-market innovation and technological innovation. According to them while technological innovativeness consists primarily of product and process development, engineering, research, and emphasis on technological expertise and industry knowledge, product-market innovativeness suggests an emphasis on product design, market research, and advertizing and promotion.

Risk Taking is defined in terms of individual's/organization's readiness to make large and risky resource commitments (Covin & Slevin, 1991; Lumpkin, 1996, Lumpkin, 2001); tendency to take bold action such as entering into unknown new markets or projects with possibilities of failure or uncertain outcomes,(Lumpkin & Dess, 2001).

Proactivness is concerned with a forward-looking behavior of an individual or organization. Proactivness is reflected in terms of current actions of a firm (such as introducing new products or services ahead of competitors) in order to be a leader, rather than a follower of its competitors, in exploiting future opportunities/market demand (Miller, 19983; Covin & Slevin, 1989; Lumplin & Dess, 1996; Limpkin & Dess , 2001). Brown and Eisenhardt (1998) cited in Lumpkin and Dess (1996) said that the individual dimensions of EO, can have a universal positive influence on growth. Wiklund (1999) said:

> "the thrust of the argument for a positive influence of EO on performance is related to the first-mover advantages and the tendency to take advantage of emerging opportunities implied by EO".

According Lumpkin and Dess (1996) a proactive firm is a leader rather than a follower, because it has the will and foresight to seize new opportunities, it changes the environment by introducing new products and technologies, seeks new opportunity which may or may not be related to the present line of business, introduces new products/services ahead of competitors.

Although many writers, as mentioned above, considered innovativeness, risk taking, and proactivness as basic dimensions of EO, Lumpkin and Dess (1996) recommended including two additional EO dimensions, competitive aggressiveness and autonomy, to fully capture the EO phenomenon.

Competitive aggressiveness refers to the firm's strength to overcome industry rivals (Lumpkin & Dess, 1996. Although some authors (eg Covin and Slevin, 1989) equate proactivness with competitive aggressiveness, Lumpkin and Dess (1996) argued that proactivness and competitive aggressiveness are separate concepts with distinct definitions. According to them a proactive firm is a leader rather than a follower, because it has the will and foresight to seize new opportunities, a firm that changes the environment by introducing new products and technologies, seeking new opportunity that may or may not be related to the present line of business, introduces new products/services ahead of competitors. Autonomy refers to the independent actions an individual or a team in bringing forth an idea or a vision and carrying it through completion.

Empirical Evidence: Effect of Entrepreneurial Orientation on Growth of SEs

The impact of the basic dimensions of entrepreneurial orientation, innovativeness, risk taking and proactivness, on growth of small enterprises is discussed in the following paragraphs.

If a firm is to survive and grow in today's dynamic and challenging global environment, it is required to be an entrepreneurial firm. In a rapidly changing and competitive environment, future benefits (e.g. profits) from existing operations are uncertain. Rapidly changing technology demands a firm to be innovative, develop new ideas, products, and process, and be willing to take risk to cope with the rapid change. Thus, enterprises operating in such dynamic environment should constantly seek new opportunities and gain maximum benefits from these opportunities ahead of competitions. EO can lead small enterprises to effective decision making in operation, provide owner- managers to take risk and engage in innovative ideas and projects to successfully exploit opportunities in order to

sustain their comparative advantage of generating above average return/growth (Zahara and Covin, 1995). The more owners/mangers of small enterprises adopt an EO, the more they achieve competitive advantage and enhance performance/growth. (Miller, 1983; Covin and Slevin, 1989; Wiklund and Shephared, 2005).

Strong EO could help enterprises discover more market opportunities, attain higher prices, and exceed competitors. Several researchers (Fairoz *et.al*., 2010; Ylitalo , 2010; Delamar & Wiklund 2008; Jao & Susana, 2007; Wiklund & Shepherd, 2005; Wiklund and Shephered, 2003; Lumpkin & Dess, 2001; Wiklund, 1999; Limpkin & Dess 1996; Zahra & Covin, 1995; Covin & Slevin, 1989) found a significant and positive relationship between proactivness, innovativeness and risk taking as well as overall EO with growth (performance) of small firms, that is, firm with high entrepreneurial orientation showed higher growth rate than those with low entrepreneurial orientation. Businesses with high EO can aim at a premium market opportunities, charge high prices and exploit quickly these market opportunities ahead of competitors.

Innovative enterprises frequently watch market changes and respond quickly, engage in research and development (R&D) activities, introduce new product/services to the market. Proactivness is related with forward looking perspective of small enterprise owners/mangers. These enable enterprises to generate extraordinary economic performance and firm growth, to be the leader to benefit from emerging opportunities- ahead of competitors" as the result of which it can earn more than average return and growth (Zahra & Covin, 1995; Lumpkin & Dess, 1996).

However, regardless of the significant effect of EO on growth, as indicated in the research findings of the above researchers, it is necessary to realize that owner's entrepreneurial orientation itself does not necessarily convert into actual growth. For example, earlier authors (e.g. (Lumpkin and Dess, 2001; Covin, Slevin & Schultz, 1994 cited in Wu 2009) reported lower association between entrepreneurial orientation and firm growth. Smart and Conant (1994) cited in Wiklund and Shephered, 2005) were unable to find any significant relationship between EO and performance. Frank *et.al* (2010) found a statistically

insignificant negative relationship between EO and business performance in certain configurations.

3.4.3 Entrepreneurial Resources and Growth of Small enterprises

There is no separation of ownership and control in SEs, that is, they are directly or indirectly managed by their owners. The success or failure of the SEs is largely affected by the skill and abilities of their owners. People are among the most critical resources for the success and growth of a given organization because many capabilities lie in the skills, knowledge and expertise as well as experience embedded in its employees. Hence, firms should give due consideration to the development of human capital in order to sustain their growth. Hittet et al. (2009) said that knowledge possessed by human capital is among the most significant capabilities and source of all competitive advantages.

As said by Fatoki (2011) human capital is defined as stock of competence, knowledge, and abilities embodied in the of owners/managers of small enterprises. It represents the investment on people through education and training that lead to labor productivity, which in turn leads to a positive performance/growth.

Competitive advantage refers to the ability of a firm to generate above average return or grow at a rate higher than other competitors (Barney, 1991). Intangible are superior sources of competitive advantage because they are less visible and difficult to understabnd, compared to tangible resources (Hitt et al, 2009).

Fatoki (2011) and Colombo and Grilli, (2005) classified human capital into two: generic and specific human capital. According to these authors generic human capital relates to the general knowledge acquired by entrepreneurs through both formal education and professional working experience. On the other hand specific human capital refers to firm/industry specific ability or knowledge of owners/mangers that can be relevant to the newly established firm. Such *industry-specific* human capital can be acquired by founders through prior work experience in the same industry, i.e., leadership experience obtained either through working in another firm as lower or higher level *managerial position* or

working/managing own or family business (which can be referred to as prior self-employment) having similar line of activities with the current firm.

Small enterprise owners with greater human capital (education, knowledge, and experience) are expected to have better entrepreneurial judgment and ability to proactively identify and exploit external opportunity. For example, industry specific and entrepreneur-specific human capital enhances the ability of owners/managers to understand and exploit knowledge about technologies, understand demand of customers, know weakness and strength of competitors, and exploit the contacts with potential customers and suppliers that they developed in previous self-employed occupation or managerial position (Wiklund *et.al*, 2009; Colombo & Grilli, 2005).

3.4.3.1 Education and Growth of Small Enterprises.

Education enhances the knowledge base of individuals. It increases the analytical and problem solving skill of small enterprises owners/managers that they can effectively and efficiently exploit opportunities. Especially when an enterprise owner's education is supplemented by work experience, small enterprises owners can develop knowledge that is difficult to copy and imitate (Watson et al, 2003). Education combined with exiting experience, and knowledge can be adapted to changing external environment and an appropriate growth strategy can be established that may positively affect growth.

Formal education facilitates growth of SEs because it is believed that innovativeness and use of new technology, decision-making capacity of the firm could be enhanced through education. Higher education is expected to increase the ability of the SEs owners learn about new product process and product design, to mange problems and take profitable business opportunities that are important to the growth of their business. Various studies confirmed a significant and positive relationship between educational growth (Goldmark &Nichter, 2009; Dicson, et al, 2008; Benzing, et al, 2008; Pansiri & Temtime, 2004; McPherson, 1996).

Mulu (2008) reported that Entrepreneurs with high school complete and with some college years grew faster. McPherson (1992) cited in Mead and Liedholm (1998) reported that entrepreneurs with vocational training expand their enterprises 9% faster than those without similar training. McPrson (1992) found mixed result. Controlling the influence of other variables, he found that SE owned by secondary school completed individuals show higher growth rate than those operators with no schooling in Botswana and Zimbabwe. Atsede et al (2008) confirmed significant positive influence of education on growth, that is, firms run by owner/managers with diplomas, university degrees and professional qualifications had a high propensity for growth compared to all the other firms. Besides, while SE in Lesotho and Zimbabwe with owners who have had business related training show higher growth rate than those SE whose owners had no such training. Mulu (2008) found insignificant effect of vocational training on growth of micro enterprise in Ethiopia. Studies in Sub-Saharan Africa suggest that small enterprises owners completing secondary school have more rapidly growing firms in Kenya and Zimbabwe. But the same study also found insignificant effect of primary education on expansion of MSEs.

However, contrary to this positive impact of education on small enterprises growth, other studies showed mixed results with regard to the effect of formal schooling on growth of enterprise. For example, Contrary to the findings in Botswana and Zimbabwe, McPerson found that education does not influence in Swaziland. Owner/managers of SMEs who had degrees generally achieved lower rates of growth than those less educated (Hall, 2000; Barkham et al., 1996 cited in Atsede et al., 2008). Education may also influence growth of small business negatively if owners divert their attention to other attractive business opportunities. Research by Alvarez & Crespi, (2003) cited in Goldmark & Nichter, (2009) on small manufacturing firms in Chile found that university education did not induce higher efficiency. This may be because, as they may be busy in other activities, highly educated owners pay little concentration to monitoring their business. Moreover, Ferreira, and Azevedo (2007) found that educational level did not have any significant influence on growth of small enterprises. According to Kantis et al (2004) cited in Goldmark and Nicher (2009) secondary school attainment had no visible impact on firm growth in Latin America.

Moreover, researchers argue, similar to experience, that education influences growth only if it is linked to growth attitude because education in itself does not force the management to pursue growth, but rather increase the effect on growth aspiration (Ylitalo, 2010).

3.4.3.2 Prior start-up Experience and Growth of Small Enterprises

Individuals may gain experience in different ways: on job experience in his/her current business; experience accumulated while working in family owned (managed) business; previous work experience acquired when an individual has been working as employed worker or manager in similar business; and/or access of owner/manager to different networks and contacts with customers, suppliers, and business associations such as chamber of Commerce.

Politis (2008) categorized entrepreneurs into two based on prior start-up experience: novice and habitual entrepreneurs. According to him while novice entrepreneurs are those that start their business enterprises for the first time, without any related previous working experience, entrepreneurs that have at least one other business enterprise prior to current one are called habitual entrepreneurs.

According to Politis (2008) habitual entrepreneurs can benefit from their prior start-up experience because (i) it provides valuable knowledge that can help an entrepreneur to overcome the traditional problems and obstacles that a new business enterprise faces. It is assumed that industry-specific know-how such as specific knowledge of the products, processes and technology, relationships and goodwill with specific customers, suppliers or stakeholders, reduces the liability of newness (Papadaki , 2002) (ii) helps the owners to gather the right information and make effective decision in establishing new business enterprise and exploit business opportunities they discover, (iii) prior work experience provides entrepreneurs important knowledge about how to develop and finance new organizations, how to lead and manage people (hiring and leading people), and how to attract and retain customers. (iv) Managing business enterprises (either as self-employed mangers or employed worker/manger) gives an individual the opportunity to create

networks and contacts with creditors, suppliers and customers. Work experience may contribute to SE growth in at least two ways (Nicher & Goldmark, 2009): (a) directly, by expanding the capabilities of MSE owners and employees through the acquisition of skills and knowledge; (b) indirectly, by expanding entrepreneurs' social networks

Business background and industry/company specific experience may help SEs operators know the nature of specific products/services, nature of production process, interest of customers, level and degree of existing suppliers (competition). This experience enhances the ability of business owners to produce/provide quality products/services that respond the expectation of customers. This in turn will maximize sales and profit, enable them to obtain credit from banks or other sources and achieve other forms of co-operation.

Generally growth of SEs established by experienced business owners is expected to be better than those established by inexperienced entrepreneurs (Politis, 2008). In the study conducted on growth of MSEs in Southern Africa, McPherson (1996) found a positive relationship between growth and experience in similar activities for those micro and small enterprises in Swaziland, Botswana and Lesotho.

Different studies found that SEs who operate by owner/managers with more prior work experience tend to show higher growth rate (Hall (2000) cited in Atsede et al, 2008). Besides Atsede et al (2008) quoted that Story (1994) found a negative relationship between being unemployed and subsequent growth rate. Atsede et al (2008) revealed the following results: (a) firms managed by individuals with some prior work experience showed the highest growth rate followed by SEs managed by those owner/managers who had professional experience such as doctors, engineers, teachers, accountants, (b) unskilled manual labor had the least growth tendency and owner/managers who were unemployed before going into business tend to show either a constant or decreasing growth rate.

Papadaki and Chami (2002) said that fast growing young companies, were more likely to be started by founders who had experience in the industry. Another study found that

Kenyan business owners with seven years of work experience expand their firms more rapidly than those without such experience did (Goldmark and Nichter, 2009).

Some authors argue that experience by itself could not bring growth unless it is backed by growth aspiration. For example, (Wiklund & Shepherd, 2003; Ferreira & Azevedo, 2007) found no statistically significant relationship between growth and experience when only independent effect of experience was investigated. But when growth aspiration was included, experience turned out to be a significant determinant of growth.

3.4.3. 3 Gender and Growth of Small Enterprises

Women own and operate the majority of MSEs in many developing countries, in part because of the ease of entry and their limited access to alternate opportunities (Goldmark & Nichter, 2009). However, women-owned business enterprises show lower rate of growth in profit, employment, and sales as well as lower rate of survival, relative to those business enterprises owned by men (Mead, 1994; Mead & Liedholm, 1998; Liedholm, 2002; Roomi, *et.al*, 2009; Goldmark & Nichter, 2009) due to women's personal characteristics and external social and/or economic factors.

Females are more risk averse than their male counterparts, reflecting their responsibilities for maintaining even the survival of the household (Mead & Liedholm, 1998). This may lead them to use any available funds for diversification into new activities than for expanding existing ones (Downing & Daniels, 1992) cited in Mead & Liedholm, 1998).

The social and economic external factors may include, among others, higher household responsibility, problems of illiteracy and lack of business skill, and unequal access to market and financial resources. Besides, female-headed small enterprises operate in slow growing locations-they usually operate within the home that is often far from the market/customers (Goldmark & Nichter, 2009). Moreover, women owned small enterprises show lower growth rate because of their lower business experience and their enterprises are often concentrated in more slowly growing sector (Mead & Liedholm, 1998). Further Romi *et.al* (2009) concluded that women-owned enterprises in England show smaller

growth, both in revenue and employees, due to various economic and social constraints. Women owned enterprises lack access to capital and information on business development; they face shortage of skilled labor; lack effective networking abilities; lack business training opportunities. Besides women business owners spend much of their time in child care responsibilities and family commitments.

McPerson (1996) found mixed results. While woman owned firms in South Africa, Swaziland and Botswana show lower growth rate than those male counterparts, gender difference did not show any significance difference in growth of male owned and female owned enterprises in Lesotho and Zimbabwe.

On the other hand, other studies showed mixed, even opposite, results with regard to performance of female owned small business relative to those male-owned counterparts. According to Chirwa (2008), female owned enterprises generate 57.7 percent profit against 56.6 percent in male owned enterprises and 55.6% in mixed-owned enterprises. Further female-owned enterprises show higher growth rate in terms of employment 11.6% per year than male-owned small enterprises (6.5%) and mixed-owned ones (6.9%)

Other writers also indicate that women are often highly effective firm owners. For instance, a study in the Dominican Republic found that female-owned textile MSEs have higher levels of labor productivity than those owned by men, even though they experience slower growth (Downing & Daniels, 1992 cited in Goldmark and Nichter ,2009). Findings of Papadaki and Chami (2002) shows that women owned business are as successful as men owned ones.

3.4.4 Organizational Resources and Growth of Small Enterprises

Characteristics of firm refers to those firm specific factors like its age and size, its financial resources, location (proximity to market), networks, form of ownership and sector in which it operates.

3.4.4.1 Financial Resources and Growth of Small Enterprises

Financial capital is one of most liquid assets/resources that can be converted easily into other types of assets. Small enterprises need finance to invest in new productive activities, enter into new market, develop new products, engage in innovative activities through research and development, cope with temporary cash flow shortage as well as modernize and expand their business (Wiklund, et.al, 2009). These activities enable firms to expand their firm and enhance firm growth. However, growth of small enterprises has been constrained by limited access to formal financial resources, especially bank credit (Ageba &Amaha, 2006a; Negash (2006).

Generally, enterprises use two different sources of finance: internal and external. Internal sources include personal saving of owners and previous period's profits retained in the business for expansion and meet future investment opportunities. External source comprises equity financing, explicit borrowing from formal source (banks, micro finance) and informal sources (relatives, friends, families, money lenders); implicit borrowing in the form of trade credit and advance from clients; hire-purchase, lease-to-buy contract, and venture capital.

Previous literature (e.g.Rosmary, 2001 and Kavanamur (2002) cited in Bekele and Worku (2008) reported that formal financial institutions are reluctant to lend money to the small scale enterprises due to the associated high risk with the lending of money to the sector. This perception of banks and other formal financial institutions emanates mainly from the existence of asymmetric information. Asymmetric information can be defined as disparity of information between two contracting parties where one party has more or better information than the other party as the result of which he/she fails to make appropriate decision. Asymmetric information results into adverse selection and moral hazards. Adverse selection, which occurs before a contract is entered into, i.e., the ignorant party, lacks information while negotiating on the contract to the transaction. For example banks may decide not to lend money although the borrower is worthy of the loan, and has the capability to make periodic loan repayment. On the other hand moral hazard is a problem of asymmetric information that arises after transaction has occurred in which the ignorant

party lacks information to ascertain the other party performs as per the agreed up contract or lacks the ability to retaliate for a breach of the agreement. In the case of lender and borrower relationship (e.g banks and small scale enterprises as borrowers), the lender may lack the capacity and information whether or not the borrower applies the fund for the intended purpose. For example, the borrower might engage in activities that are undesirable from the lender's point of view that makes the repayment of the loan less probable.

In order to mitigate the risk due to the information asymmetry, banks require small enterprise borrowers to fulfill certain requirements such as provide adequate collateral for their loans, precise information about themselves in the form of business plan and financial statements. However, due to their nature, it is very difficult to the small enterprises to fulfill these requirements because they lack adequate assets to be used as collateral, skill and knowledge to prepare acceptable business plan or financial statements.

As the result of these small enterprises in developing countries, including Ethiopia, reported that shortage of financial capital to be the most bottleneck for their survival and growth (Goldmark & Nicher, 2009; Mulu, 2008; Bekelle & Worku 2008; Ageba & Amaha, 2006a; Ageba & Amaha, 2006b; Beccetti &Trovato,2002).

Findings of Beccetti and Trovato (2002), Tushabomwe-Kazzoba (2006) showed strong evidence that loan and internal finance are important factors in stimulating the growth of small firms. Tushabomwe-Kazzoba (2006) reported lack of capital to be as an important impediment to the early stages of small enterprises in Uganda. Wiklund and Shepherd (2005) found that small business financial performance was positively influenced by access to financial capital.

Other studies, on the other hand, argue that financial access is not a significant determinant of firm growth. Akoten et al (2006) cited in Goldmark & Nicher (2009), based on research made in garment producing 225 MSEs in Nirobi, Kenya, argued that credit is not a significant predictor of firm growth. They said access to finance may be necessary but it is

not a sufficient condition for MSE growth. Besides McPherson and Rouse (n.d.) report that there was no evidence that shows firms with access to credit grow more rapidly than those without such access. Studies of Masakur, *et.al* (2009) showed that access to credit was not found to be a critical determinant of firm performance.

3.4.4.2 Size of the Founding Team and Growth

Small enterprises can established either by one individual or by a group of individuals. Firms owned/managed by large team members can grow more quickly than those owned by one or small member. This is because larger teams possess more talent, resources (financial and knowledge), and professional contacts than a sole entrepreneur (Barringer, Jones & Neubaum, 2005). Contrary to this is that the larger the number of founding team, the higher the dissimilarity or difference in interest and beliefs among individuals will be. If differences in interest are high, it is obvious that it will lower communication and understanding. The greater the dissimilarity, the more negative outcomes, such as conflicts, divisiveness, or turnover is likely to occur (Waston, Stewart, BarNir 2003).

3.4.4.3 Age and Size of Small Enterprises

This section explores the relationship between age and size of the firm with its growth. Different studies came out with different and opposite results with regard to the relationship between firm growth and its age and size. According to Gibrat's Law, the growth rate of a firm is independent of its size. In other words;

> *"the probability of a given proportionate change in size during a specified period is the same for all firms in a given industry regardless of their size at the beginning of their period" (Lotti, Santarelli, & Vivarelli, 2003: 214).*

However, other studies studies (e.g. Evans 1987; Mead 1994; Cabral, 1995; Mead & Liedholm, 1998; Farnas & Moreno, 2000; Liedholm, 2002; Lotti, *et.al*, 2003) found that growth of firm has inverse relationship with both its size and age, that is, growth rate of smaller firms is greater than larger firms, and younger firms grow faster than old firms do.

Various researchers provide different explanation for this inverse relationship, as provided in the following paragraphs.

(i) Firm age and Growth

Mashyao (2006: 24) explained that firm growth is negatively related to its age because "in the learning process entrepreneurs learn about their efficiencies and growth. As time passes, entrepreneurs become closer to the limits of their efficiencies (abilities). Hence, as age increases growth asymptotically approaches zero".

According to Gilbert et al. (2006) older and young firms have different degree of viability and survival. While older firms have already achieved a level of viability and survival, new business enterprise are subject to a liability of newness as the result of which the failure rate is greater for new (younger) firms than established (older) firms (Gillbert et al., 2006, Evans, 1987). Therefore, new firms should strive for higher growth because their survival would be significantly reduced in the absence of sustained growth. Although survival of both old and new firms can be reduced in the absence of growth, such risk decreases as size and age increases. According to Gillbert (2006), growth of established firms is about sustaining viability but new venture growth is about obtaining it.

The other possible explanation why younger firms grow faster than old firms can be justified using the influential theoretical paper of Jovanovich (1982). Jovanovich proposes a learning model in which a firm expands quickly at first, and then narrows off its growth as it approaches its optimal size. He said that firms learn about their efficiency level after entry and update their prior expectations through experience. Besides, according to Burki & Terrell (1998) cited in Goldamrk and Nicher (2009), firms' productivity losses may be greater as their age increases because they may fail to invest sufficient capital in new technology or aged firms may relatively depend on outmoded equipment and machinery. Minimum efficient scale effect of Storey (1994) cited in Chen (2006) is also taken as possible explanation. He said that once a firm achieves its minimum efficiency scale, business will grow slowly afterwards. This is because the owner manger is either lacking

motivation to continue to grow the business once they have achieved a satisfactory level of return, or by the diseconomies of scale.

However, firm age and growth may have positive association with older firms likely to grow faster than younger firms (Das, 1995, cited in Cheng, 2006). This is because older firms may benefit from the advantage of accumulated financial position, greater experience and expertise, old firm reputation and customer loyalty and networks, dynamic economies of scale by learning form experience (Heshmati, 2001; cited in Cheng, 2006).

(ii) Firm Size and Growth of small enterprise

Another important determinant factor is size of a firm, measured in terms of the initial number of employees. According to Mashayo (2006: p24), firm growth is negatively related to its size "because large firms might be approaching their optimal size (depending on their efficiencies), therefore, there is limited further growth".

Storey (1994) cited in Cheng (2006) reported that growth rate of smaller enterprise were quicker than larger enterprise due to the achievement of minimum efficient scale. Increasing firm size is encouraged by economies of scale, that is, firms continue to add workers or hire new employees until it reaches the minimum efficient scale. Economies of scale may arise (1) unit cost of production falls with increased productivity up to the minimum efficient scale beyond which cost saving becomes small because the economies of scale may be offset by diseconomies which arise from the greater productivity associated with increasing size (Cheng, 2006: pp 61). Second, according to Cheng (2006), managing small firm may be more flexible and easier than managing larger firms. He argues that reacting to changing market conditions and pursue new business opportunities is easier in small and new enterprises than large and older firms. Third, when a firm grows at a rate faster than which the owner-manager can manage, it may experience diseconomies of scale that may reduce the level of firm growth. Cheng said that usually newly formed firms have greater growth rates since new firms start small and are very young (Cheng, 2006).

(iii) Summary: the relationship between Growth with size and age

According to Storey's Minimum Efficient Scale (MES), increase in the number of employees (firm growth measured in size) is generally fast during the first few years and slows down in later years as the firm matures (Cheng, 2006) for different explanations: (i) because the firm's capacities such as machineries, office facilities, space, and various kinds of plant assets, are designed from the start for a certain limited size, and it is not easy to expand beyond this point. If a firm wants to grow beyond such a point, it may have a higher investment, and a higher risk is taken. (ii) The owner-manager has limited capacity to manage a fast-growing firm. Normally, the founder of the firm can only handle a rather small company. If the firm grows beyond a certain point, additional management personnel are required to sustain the growth performance.

> *"For instance, one person can handle a firm with fewer than ten employees without much difficulty; however above this point a specific administrative department is required. From the market point of view, a smaller firm's operation is limited, and the firm customer bias is stable. Firm growth is faster in this early stage, and the firm can have a better performance. If a firm keeps on growing continuously, additional expenditure or investment in marketing is necessary due to the effect of economies of scale" (Cheng, 2006: page 63).*

On the other hand, different researchers (for example Gartner and Bhat, 2000 in Cheng, 2006) found a positive relationship between firm size and firm growth because larger firms can achieve their size as a result of being managed by owner-managers who have better of entrepreneurial expertise and managerial ability.

> "….. *if older firms benefit from dynamic economies of scale by learning from experience. Older firms may also benefit from reputation effects, which allow them to earn a higher margin on sales*" (Glancy, 1998: pp 2)

3.4.4.4 Linkage or Business Collaboration

Many scholars argue, (e.g. Bekele and Worku, 2008; Ageba and Amaha 2006b; Dobbs and Hamilton, 2007), that collaboration or linkage can be expressed as interaction of firms or individuals created in order to fulfill their economic, social and cultural needs and improvement of quality of life. Networks or linkages can assist growth of SEs in different ways: better access to best practices, improve market related information so as to enhance their access to market; increase access to a broader base of resources (human capital and material); share business skills and innovative ideas and technology; increase access to new sources of capital through group lending mechanism which is a prerequisite in many microfinance institutions, or through rotating and Saving associations (RoSCA). For example, access to marketing information is expected to increase SEs' market knowledge about the behavior of their customers (demand and preference, purchasing power), supply side information such as the nature and degree of market competition, and price for their products, best sources of inputs (materials and labor). Linkage could also enhance managerial capacity such as financial and accounting skills, planning, organizing and controlling of business activities.

Limited access to business services (vis-a-vis, marketing information, networking, short-term tainting and consultancy services) are among the factors that hinder growth potential of small manufacturing industries in Uganda. According to Goldmark and Nichter, (n.d.) linkage or networks in small SEs take three forms: vertical linkage, horizontal linkages and supporting markets.

(a).Vertical linkage is a form of linkage where individual firms form commercial relationships with their buyers and suppliers. According to this writer, such type of linkage can facilitate growth by expanding a firm's set of viable business opportunities and improving firm capabilities. For Example, agreements between SEs and buyers can decrease the risks and costs associated with entering new markets by providing a guaranteed flow of order. The same will be true to the close relationship of SEs with their suppliers because such relationship enables the former to get uninterrupted supply of materials and goods/ service.

(b)Horizontal linkage is a form of association where similar firms group themselves to work together. This can be expressed in the form of cooperatives, associations, producer groups and other collaborative structures. Horizontal linkage can help SEs overcome many of the disadvantages, for example, improve their negotiation position with buyers or suppliers, access to market information or services or lobby for regulatory changes.

(**c) Supporting markets** are types of linkages that are contacts or relationship of SEs with financial institutions, training institutions, etc. Services provided through supporting markets include capacity building, training, consultancy services so that SEs can produce/render improved quality products/services.

3.4.4.5 Location of Small Enterprises and growth

Location is another factor that affects performance and growth of SEs. Usually SEs owners/managers run their business in their homes or premises far from highly concentrated/competitive commercial districts because they could not afford high rental of rooms. When their premises are far from the market, it is obvious that their growth will be slow or stagnant due to lack of customers. For example, in Addis Ababa-Ethiopia, firms that operate in areas far away from final customers or those which operate in their home, because of lack of favorable working preemies, grow very slowly than those that operate nearer to final customers (Mulugeta, 2008). Small enterprises operating in commercial districts may grow faster than those operate outside the commercial center because the former can maximize benefits from a better access to high-income customers that give significant edge (McPerson, 1992). Enterprises grouped close together or enterprise close to the final demand sources or ultimate customers (e.g. urban SEs) might be expected to grow more rapidly than more isolated counterparts(e.g. rural SEs) (Leidholm, 2002; Mead and Liedholm 1998).

Contrary to the above explanations, growth rate of firms located outside commercial districts or rural areas may be more than those in commercial centers, if the latter face more market competition and higher factor prices due to greater competition for factors of

production (especially rental costs, labor). Urban firms may also experience space constraints that limit the scope for expansion.

3.4.4.6 Sector of Small Enterprises and growth

In addition to the above factors, the sector in which an enterprise operates may also explain its growth, though no universal sectoral growth patterns have emerged. In Liedholm (2002) and Mead and Liedholm (1998) enterprises in manufacturing and service sector are more likely to experience higher rates of growth than those in the trading sector.

3.4.5. Capital Structure and Growth

A financial manager faces two interconnected decisions: investment decision and financing decision. While investment decision refers to the management of assets/investment, financing decision is concerned how assets are financed. In financing decision, he/she must determine the best financing mix or capital structure for his/her firm, considering the cost and return expected from the use of particular mix. Capital structure refers to a mix of different securities that a firm can choose among many alternatives of financing the firm. It is a mix of debt capital and equity capital. It explains how a firm finances its overall activities.

Firms should determine their optimum capital structure in order to maximize return to owners and enhance their ability to deal with the competitive environment. There are two broad theories with regard to the impact of capital structure on firm performance: capital structure irrelevance theory and capital structure relevance theory.

Capital Structure Irrelevance Theory

Based on assumptions of perfect capital markets, identical expectations of investors, tax-free economy, and non-existence of transaction costs, Miller and Modigliani (1958) cited in Neway and Aregawi (2013) argue that the value of a firm is independent of capital structure. They argue that, in an efficient market the debt equity choice is irrelevant to the value of the firm. The firm‘s value is determined by its existent assets, not by the type of

securities it issues to finance its operations. But, their theory was based on very restrictive assumptions that do not hold true in the real world..

Nevertheless, researches made after Miller and Modigliani (1953) confirmed that their assumptions were unrealistic and the existence of bankruptcy costs and tax deductibility of interest expense (tax shield advantage) on debt finance lead to the idea of an optimal capital structure which minimizes firm's total cost of capital and likewise maximizes the value of the firm. For example Modigliani and Miller (1963) confirmed this and said even 100% leverage can add the value of the firm since it has tax shield advantage. Finally, once failure of this irrelevance theory had been proved, capital structure relevance theory emerged. The main ones are the trade-off theory, and the pecking-order theory.

Static Trade-Off Theory

This theory argues that as firm's capital structure has both benefits and costs, a firm can borrow up to the point where the tax benefit from an extra debt is exactly offset by the cost that comes from the increased probability of financial distress. Debt benefits include tax shields (saving) advantage induced by the deductibility of interest expenses from pre-tax income of the firm (Modigliani & Miller, 1963). On the other hand debt has both direct and indirect bankruptcy costs. While direct costs are those costs associated with periodic interest and principal payments, default and bankruptcy costs arise when periodic payment obligations increase. The probability of bankruptcy increases with debt level since it increases the fear that the company might not be able to generate earnings to pay back the interest and principal of the loan. The costs of bankruptcy may be direct or indirect. For example, the direct bankruptcy costs are the legal and administrative costs incurred in the bankruptcy process. The indirect bankruptcy costs are the loss in profits incurred by the firm because of the refusal of stakeholders to do business with them.

Pecking Order Theory

The pecking order theory is developed by Myers and Majluf (1984) cited in Newya and Aregawi (2013) which stated that capital structure is determined by firm's desire to finance new investments, first internally generated funds, then with low-risk debt, and finally if all

fails, with equity finance. In other words, there is an ordered set of financing preferences among firms such that the first preferred financing method is internally generated funds, when internal sources of funds dry up would managers look for external sources of finance. Therefore, the firms prefer internal financing to external financing. According to this theory, even among external sources of finance, managers have order of preferences that gives priority to debt financing over equity financing.

Is debt capital more important than Own saving (equity capital)?

According to the trade-off (or theory of optimum leverage) cost of debt is less than the cost of equity because differences in associated risks and costs. Creditors' funds are less risky than owners' funds because (i) creditors have fixed (known) preferential rights on their claims (ii) claims of creditors are legally protected and secured by collateral. The cost of debt is lesser than the cost of equity due to the tax deductibility of periodic interest payments. Thus, according to trade of theory, the use of leverage can increase the rate of return to equity though excessive leverage can also be harmful. Because acquiring too much debt may subject enterprises to financial risk due to the variability in interest rates and net income. Therefore, the owners of small enterprises must weigh the trade-off between debts and equity capital and determine an optimum mix of debt and equity capital to efficiently operate and grow.

3.5 Environmental factors and growth: Empirical Evidences

It should not be ignored that deployment of resources are influence by external factors including macroeconomic environment; government policies, rules and regulations; availability and cost of infrastructure, and business development services (BDS).

Environmental /industry specific factors are external constraints and opportunities that influence the strategy and growth of SEs. External factors as discussed in this paper include overall state of an economy, government rules and regulations (policies), and cost and availability of resources such as infrastructure, labour, raw materials, as well as level of competition.

3.5.1 Macro Economic Environment

Stable and growing macroeconomic environment can be considered as a necessary condition for the growth of both micro and small-scale enterprises and large-scale enterprises. For example, low levels of per capita income and low consumption expenditure result into an overall deficiency of demand in the economy thereby reduced sales and profit with the ultimate effect of slow growth of firms.

Generally, SEs tend to grow more quickly during a period of economic growth because such economic situation enhances the availability of profitable business opportunities. Liedholm (2002) found that SEs tend to grow more quickly during periods of overall economic growth. According to the writers during a stable and growing economy, existing SEs expand their activities and create new job opportunities that produce better income for those who work in the enterprises.

On the other hand, recession slows growth of SEs because it eliminates profitable market opportunities by limiting demand for elastic goods and services. In times of economic stagnation, existing SEs tend to reduce employment, some SEs close, and larger percentages of new jobs result from inefficient one person enterprises being started (Liedholm 2002).Findings of Mashayo (2003) also support this view. According to his study business success is extremely difficult in countries with higher inflation rate. The writer indicated that in Zimbabwe where annual inflation has reached 230 percent, some business enterprises were relocated to South Africa, Botswana, Mozambique and other countries in the region.

However, some important issues must be considered in examining the relationship between SE growth and the overall business cycle. During severe economic crises, SEs may recover more quickly than their larger counterparts (Liedholm, 2002) . For example, during the East Asian economic crisis, experts argue that small-scale firms progressed better than larger companies in Indonesia (Goldmark & Nitcher, 2009). Various reasons can be mentioned for such phenomenon. First, SEs are more flexible in changing their lines of business, and second SE resilience stems from their limited access to formal sector funds. Since SEs

typically rely less on formal financial markets, they are less affected by the increased costs of borrowed funds in the aftermath of a crisis (Berry, et al 2002). Therefore, it can be said that SEs act as a "shock absorber" when the economy is languishing, because overall employment in SEs continues to expand (Liedholon, 2002).

3.5.2 Government Policy, Rules and Regulations

Enabling environment refers to a situation where government policies, rules and regulations and their implementation framework that are favorable for the enhanced growth of enterprises. Unfriendly regulatory and institutional challenges affect growth of SEs negatively; discourage SE owners from making growth-oriented investments, increase transaction costs thereby keep firms small and informal (Goldmark and Nichter, 2009).

Benzing et.al (2008) reported that unstable and highly bureaucratic environment are among the common challenges of entrepreneurs in developing countries. According to them, business registration and taxation system are believed to be overly complex and difficult to understand. According to Kabongo and Okpara (2009), weak growth of SEs in Africa is because they operate in an unfriendly policy and regulatory environment, have difficulties in accessing external finance, lack of adequate working places due to the neglect of SEs by governments. In support to this finding Benzing, Chu, and Kara & Kappel (2008) showed that unfavorable taxation system, corrupt and lengthy administrative bureaucracy, weak institutional support were found among the critical factors that constrained survival of micro and small manufacturing firms in Uganda.

3.5.3 Cost and Availability of Infrastructure

The availability of infrastructure facilities such as electricity (power), water, telephone and postage, transportation facilities, sewerage, working premises (locations) at affordable cost is very crucial for the establishment, operation and expansion of SEs. Benzing, Chu, and Kara & Kappel Kapppel (2008) indicated that inadequate public infrastructure (transportation, telecommunication, power, water, and service), overall neglect of SEs were mentioned as factors that constrain growth and survival of micro and small manufacturing enterprises in Uganda.

3.5.4 Business Development Services (BDS) and Growth of Small Enterprises

Lack of access to business development services has also been found to be one determinant factor that hampers growth of micro and small enterprises (Ageba & Amha, 2006; Negash, 2006 and Ishengoma, & Kappel, 2008). The field of business development services (BDS) formerly known as no-financial services, comprises a wide range of services provided by public and private suppliers (BDS providers) to entrepreneurs who use them to efficiently operate and make their business grow (Ageba and Amaha, 2006b; committee of Donor Agencies, 2001; Fekade, 2006). Business development services include finance, market access, input supply, technology and product development, tainting and technical assistance, access to infrastructure, policy and regulations (Manual of Donor Agencies, 2001).

Chapter Four: Research Design and Methodology

Chapter four presents the different research methodologies and tools used in this study. Major contents of the chapter include: Research Design; Research paradigm; explanations of Research Strategy used –Quantitative versus Qualitative approaches; Theoretical and Conceptual Framework; Hypothesis of the study with brief support of theoretical and empirical evidence ; Dependent and Independent variables along their measurements; Sources of data and data collection tools; Population, Sampling and Sample size. Finally, Data Analysis methods and tools along their measurements of validity and reliability are discussed in this chapter

The primary objective of this study is to examine how and to what extent entrepreneurial orientation and firm internal resources and characteristics influence growth of small enterprises. In this chapter the research design, research strategy and paradigm, hypothesis, theoretical and conceptual framework, variables and research methodology of the study are discussed.

4.1. Research Design

A research design section of a research provides a framework for collecting and analyzing data (Bryman, 2004; Hofstee, 2006). It is where a researcher names and discusses the overall approach and techniques he/she will use to test his/her research hypothesis. There are five different types of research designs: experimental design; cross sectional or survey design; longitudinal design; case study design; and comparative design ((Bryman, 2004). According to Bryaman (2004) an experimental research design rules out alternative explanation of findings deriving from it by having at least (a) an experimental group, which is exposed to a treatment, and a control group which is not, and (b) random assignment to the two group. Case studies design entails the detailed and intensive analysis of a single case. In survey based research, researchers collect large set of data from representative sample individuals or objects using questionnaire or interview. From the point of view of time dimension researches can be classified into cross-sectional studies and longitudinal studies. Under cross-sectional studies data are collected at a single point in time (perhaps

over a period of days or weeks or months) in order to answer a research question or test a given hypothesis. On the other hand, longitudinal studies are repeated over an extended period (Bryman, 2004; Hofstee, 2006).

The primary objective of this research is to assess to what extent EO and firm internal resources affect growth of small enterprises in the Regional Tigray, Northern Ethiopia through a series of theoretically justified research hypothesis. To test the poised hypothesis, a cross sectional field study was used. According to Bryman (2008):

> Survey research comprises a cross-sectional design in relation to which data are collected predominantly by questionnaire or by structured interview on more than one case (usually quire a lot more than one) and at a single point in time in order to collect a body of quantitative or qualitative data in connection with two or more variables (usually many more than two), which are then examined to detect pattern of association.

A survey/cross-sectional design had the following advantages (Cheng, 2006; and Brayman, 2008). First, sample survey research allows the researchers to gather a sizeable amount of information from a relatively large sample. Second, it can maximize the representative sampling of population units studied and, therefore, improve the generalization of the results. Third, information obtained in sample survey, even subjective measures of firm performance, is often very accurate, because the instrument is designed specifically to address the questions.

In this research, a cross-sectional/ survey design was applied and quantitative data was collected from primary and secondary sources through questionnaire, interviews, and examination of reports and records. This study is considered a cross sectional in a sense that the change in dependent variables was measured in terms of change in number of employees between two points in time: start-up time and at the time of survey. It is survey study because, due to the vast nature of the required data, sample of small enterprises were considered in order to test how and to what extent entrepreneurial orientation and internal resources influence the growth of target small enterprise

4.2. Research paradigm

As the both quantitative and qualitative data (mixed research method) were considered, this study is a combination of both the positivist and interpretivst paradigms. Mixed method is used for the purpose of achieving complete answers (completeness objective) to a research question, that is, gaps left by the quantitative method can be filled by the qualitative one (Bryman, 2004).

Positivism is an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond, by which researchers generate testable hypothesis. On the other hand interpretvism is an epistemological position that requires the social scientists to understand the subjective meaning of social action (Brayman, 2004). Unstructured observation, open interviewing, and qualitative data collection and analysis are used to capture insider knowledge that is part of an interpretivist methodology (Henning, 2004).

Thus, it can be said that this research was a mixture of both the positivist paradigm and interpretivist paradigm. It is said to be a positivist paradigm in a sense that it quantitatively/statistically tests the extent to which entrepreneurial orientation and resources influence growth of small enterprises, following the resource-based theory. From methodological point of view, this research is considered to be an interpretivist paradigm because it employs qualitative methods, both in data collection and data analysis to supplement quantitative data.

However, as it dominantly applies quantitative methodology, the research can be said to be in the positivist research paradigm.

4.3. Research Strategy: Quantitative and Qualitative

Research strategy is interpreted as general orientation to the conduct of research. There are two research strategies: quantitative and qualitative researches (Bryman, 2004; Pellissier, n.d.). According to these authors quantitative research, which incorporates the practice and characteristics of positivism, can be defined as a research strategy that emphasizes

quantification in the collection and analysis of data that involves a deductive approach to the relationship between theory and research. In quantitative research the aim of the research is to determine relationship between one thing (an independent variable) and another variable (a dependent or outcome variable) in a population.

On the other hand, qualitative research can be defined as a research strategy that usually uses words rather than quantification of objects in the collection and analysis of data (Bryman, 2004). Mixed method research is a type of research that combines the use of both quantitative and qualitative research methods

The choice of a research strategy depends upon the type of research question or research problem, among others (Barney, 2004). This research can be described as mixed method research because both qualitative and quantitative data were employed.

This research is quantitative research because data was collected using structured questionnaire that was quantified using appropriate methods, its findings were statistically tested to determine how and to what extent entrepreneurial orientation and internal resources influence the growth of the small enterprises. Besides, as this research is a cross-sectional survey research and quantitative research is appropriate for testing hypothesis by taking large sample from target population, quantitative method is preferable to other methods.

This research has some characteristics of qualitative research. This is because, first, in addition to the quantitative data, the collected data consist of such qualitative data as owners /mangers' perception on growth potential and constraints of their enterprises and factors that motivated to start their current business. Second, it is not only the structured questionnaire had some open ended questions, interviews were also conducted with key small enterprise owners and officers and experts in the Micro and Small Enterprises Agency of Tigray regional State.

4.4. Theoretical and Conceptual Framework of the Study

Theoretical framework discusses the interrelationships among the variables that are considered integral to the study of any given problem. Therefore, the theoretical framework offers the conceptual framework/foundation for constructing the structure of research that is to be taken at hand.

In the current literature there are two dominant models on determinants of growth of small enterprises: the industrial organization (IO) model and the resource based view (RBV). IO suggests that return is determined primarily by external characteristics rather than by firm's unique internal resources and capabilities. On the other hand, the resource-based model adopts an internal perspective to explain how a firm's unique internal resources and capabilities serve as a basis for earning above average returns.

According to the resource-based model, differences observed in firms' performance are primarily due to the heterogeneous distribution of unique resources and capabilities across firms, rather than due to the characteristics of the industry (Barney, 1991). Barney (1991) presented a more concrete and comprehensive framework and criteria in order to identify the needed characteristics of firm resources in order to generate sustainable competitive advantage. These characteristics include whether resources are; valuable (in the sense that they exploit opportunities and/or neutralize threats in a firm's environment), rare among a firm's current and potential competitors, inimitable, and non-substitutable. All firms face the same external environment. However, given an external environment with opportunities and threats, firms with strong internal capacity not only exploit environmental opportunities but can also succeed to challenge any external threats and challenges. This implies that while firms with unique resources and capabilities earn superior profits, firms with marginal resources can only expect to breakeven (Barney, 1991; Petraf, 1993). For more information on resource-based view, refer chapter two-section 2.5.

We followed the resource-based view as our conceptual framework because of the following justification. The RBV, unlike the IO model, argues that

i. Firms in an industry control heterogeneous or unique resources and capabilities and pursue different strategies

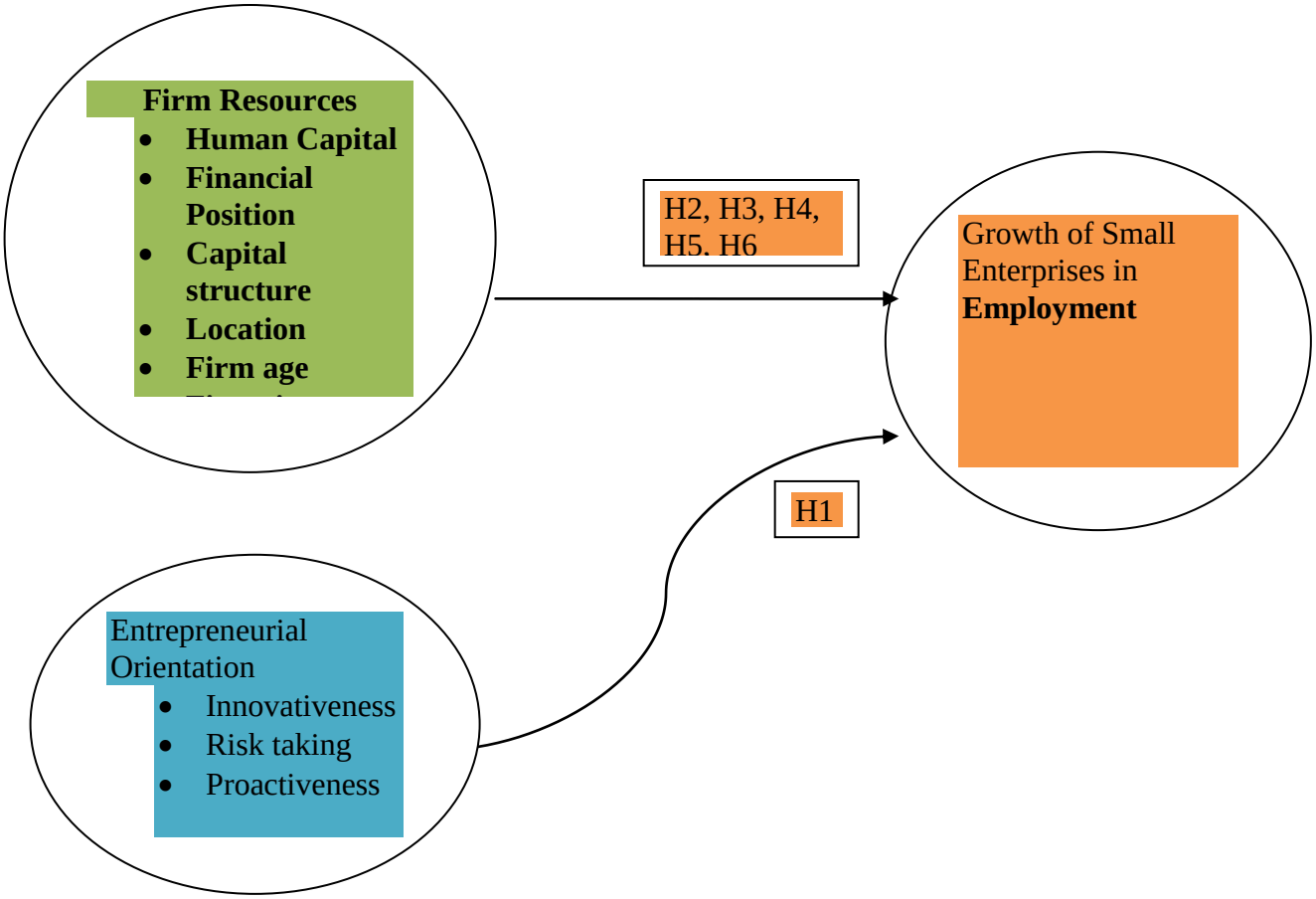
ii. Resource heterogeneity can be long lasting and therefore produce sustainable advantage since these resources may be (a)valuable (in a sense that they exploit opportunities and/or neutralize threats in the firm's environment, (b) not perfectly mobile across firms, (c)rare among a firm's current and potential competitors, (d) inimitable and (e) non-substitutable.

iii. A central premise of the resource-based view is that firms in an industry operate in the same external environment that provides both opportunities and threats to all firms. However, within this given external environment, some small enterprises grow while others remain passive and some others even die because of each firm's unique bundle of resources, capabilities and strategies. Given an external environment with opportunities and threats, firms with strong internal resources and capabilities not only exploit environmental opportunities but can also succeed to challenge any external threats and challenges.

iv. Besides, Dobbs and Hamilton (2007) and Barney (2001) confirmed the suitability of resources based theory for better understanding of the role of internal resources on growth of SE

A conceptual framework, presented either graphically or in narrative form, explains the main variables/factors to be studied and the presumed relationship among them. Conceptual framework of the study is depicted below.

Figure 4.1: Conceptual Framework of the Study



4.5. Hypothesis of the study

A hypothesis can be defined as a logically supposed relationship between two or more variables expressed in the form of a testable statement (Sekeran, 2005). The expected nature and directions of relationships between the dependent variable and each independent variable of the study are briefly explained below.

The following model (whose detail description is presented in the model specification section- 10.4.3) was used in order to test our hypothesis.

$$\text{emgrr}_i = \alpha + \beta_1 \text{owedule}_i + owedule_i^{\,2} + \beta_3 \text{owexpc}_i + \beta_4 \text{findiff}_i + \beta_5 \text{locatn}_i + \beta_6 \text{entage}_i + \beta_7\, \text{entage2}_i + \beta_8 \text{noemp0}_i + \beta_9 \text{capam0}_i + \beta_{10} \text{avoaeo}_i + \beta_{11} \text{avomot}_i + \beta_{12} \text{sectr}_i + \beta_{13} \text{ageow}_i + \beta_{14} \text{ofpr}_i + \beta_{15} \text{avmkt}_i + \beta_{16} \text{genow}_i + \beta_{17} \text{avinfr}_i + \beta_{18} \text{avgovss}_i + \varepsilon_i$$

4.5.1 Direct effect of Entrepreneurial Orientation (EO) and Growth

As discussed in the literature review and empirical evidence sections (see section 3.4.2), entrepreneurial strategic posture (EO) augments growth of smll enterprises, because strong EO could help enterprises discover more market opportunities, attain higher prices, and exceed competitors (Fairoz *et.al*., 2010; Ylitalo , 2010; Delamar & Wiklund 2008).Businesses with high EO can aim at a premium market opportunities, charge high prices and exploit quickly these market opportunities ahead of competitors

However, regardless of these findings, there is no consensus on the impact of EO on firm performance. Other studies reported lower association between entrepreneurial orientation and firm growth (Lumpkin and Dess, 2001; Covin, Slevin & Schultz, 1994 cited in Wu 2009). Samrt and Conant (1994) cited in Wiklund and Shephered (2005) were unable to find any significant relationship between EO and performance. Frank *et al.* (2010) found a statistically insignificant negative relationship between EO and business performance. The research of Andersson (2003) cited in Anderson and Tell (2009) has shown that motivation is not enough because well-motivated managers do not t always succeed with their growth strategies.

The writer of this paper argues that entrepreneurial orientation enables small enterprises to generate higher economic performance and growth. Thus, the following hypothesis is developed:

> *H1: Entrepreneurial orientation has universal significant positive effect on growth of small enterprises*.

4.5.2. Direct effect of Resources on small enterprise growth

According to the resource-based view heterogeneous distribution of valuable, rare, inimitable, and non-substitutable resource and capabilities are considered the sources of ability to generate above average return or higher growth than competitors (Barney, 1991). Thus, firm specific resources and capabilities are likely to positively affect growth of small enterprises through their competitive advantage. In this section, effect of human capital (education and prior-start up experience), financial condition and financial preference of owners, access to financial capital, age and size of firm, and location on growth of small enterprises have to be tested.

(1) Access to financial resources (credit) and growth of Small Enterprises.

Growth demands investment in productive assets, entering into new markets and development of new products with help of innovative activities, which in turn require financial resources such as cash. However, due to their limited access to formal financial resources, such as bank loans, growth of small growth of small enterprises has been retarded (Ageba &Amaha, 2006a; Negash (2006).

Research findings show mixed results on the effect of finance on growth of small enterprises. Fore example, findings of Beccetti &Trovato (2002), Tushabomwe-Kazzoba (2006), Ishengoma & Kapppel (2008) and Wiklund & Dess (2005) show strong evidence that loan and internal finance are important factors in stimulating the growth of small firms. Goldmark and Nichter (2009), on the other hand, argue that credit access is not a significant determinant of firm performance. Besides, according to McPherson and Rouse (n.d.) and Masakur, *et.al* (2009) access to credit was not critical determinant of firm performance.

However, the writer of this paper, consistent to the static-trade theory of capital structure, argues that use of debt capital is more beneficial to firms than equirty capital because debt capital provides benefits in the forms of tax shields advantage due to the fact that interest expenses is deductible from pre-tax income of the firm. Thus, it was expected that growth rate of small enterprises with access to capital (mainly to credit) is more than those small enterprises with lack of access credit:

H2a: Financial difficulty/constraint has significant negative influence on growth of small enterprises

H2b: Access and availability of credit have significant positive influence on growth of small enterprises.

H2c: Growth rate of debt financed (leveraged) SEs is higher than those equity financed (unleveraged) SEs.

(2) Education and growth of small enterprises

As discussed in section 3.4.3.1 formal education increases analytical thinking, problem solving skill, decision making capacity of owners, innovativeness and technical skill of owners as the result of which can result into higher growth of small enterprises. This was confirmed by many of earlier researchers (e.g. Goldmark & Nichter, 2009; Dicson, Solomon & Weaver, 2008; Benzing, Chu, & Kara, 2008; Temtime, 2004). However, results were mixed because Ferreira, and Azevedo (2007) and Alvarez & Crespi, (2003) cited in Goldmark and Nichter (2009), found that educational level did not have any significant influence on growth of small enterprises.

Nevertheless, the writer expects a significant positive effect of education on growth:

H3: Owners' years of education has significant positive influence on growth of small enterprises.

(3) Prior start-up work-experience and Growth of Small Enterprises

Generally, growth rate of SEs established by experienced owners is expected to be greater than those established by inexperienced entrepreneurs (see section 3.4.3.2 of this paper). This is because (i) prior start up helps small enterprises overcome traditional obstacles which many new firms face, (ii) SEs can benefit from good will and established relationship with customers and suppliers (iii) experience reduces liability of newness. Scholars (McPherson 1996; Papadaki and Chami 2002; Politis, 2008; Goldmark and Nichter, 2009) have confirmed the positive and significant effect of experience on growth

of firms. On the other hand, other writers found mixed and no significant influence of experience on growth of small enterprises (Wiklund & Shepered, 2003; Ferreira & Azevedo, 2007).

However, the study expects that business experience will have significant positive effect on growth of small enterprises. Thus,

> *H4: Prior start-up experience of owners of SEs has significant and positive effect on growth of small enterprises, that is, growth rate of SEs owned by inexperienced or less experienced is less than those SEs run by more experienced owners.*

(4). Location of Small Enterprises and Growth

Small enterprises that operate in commercial districts grow faster than those that run their business outside the commercial center because (i) commercial centers enable them to easily access their major customers, (ii) enterprises grouped close together or enterprise close to the final demand sources or ultimate customers (e.g. urban SEs) might be expected to grow more rapidly than more isolated counterparts(e.g. rural SEs) (Leidholm, 2002; Mead and Liedholm 1998).

The researcher's stand is that SEs operating near final customers (market) will grow faster. Thus,

> *H5: Growth rate of small enterprises operating near potential market (customers) is higher than the growth rate of those far from potential customer (market).*

(5) Relationship between Small Enterprises Growth with its Age and Size

According to the findings of Evans (1987), Mead (1994), Cabral (1995), Mead & Liedholm (1998), Farnas & Moreno (2000), Liedholm (2002), Lotti, *et.al* (2003) growth of firm has inverse relationship with age of the firm, that is, younger firms grow faster than old firms do. This is because in the learning process entrepreneurs quickly learn about their

efficiencies and grow. As time passes, entrepreneurs become closer to the limits of their efficiencies (abilities) (Mashyo, 2006). Hence, as age increases growth asymptotically approaches zero. On the other hand, the stochastic model, which stems from Gibrat's law of proportionate effect, supposes that the growth rate of a given firm is independent of its size and age, that is, the probability of a given proportionate change in size during a given period is the same for all firms in a given industry-regardless of their age and size at the beginning of the period (Lotti, *et.al*, 2003)**.**

However, the writer expects that growth rate of young small enterprises is higher than that of old/aged small enterprises. Thus:

H6: There is inverse relationship between growth of small enterprises and their age and size.

4.6. Variables of the study and their measurement

The dependent variable of this study is growth of small enterprises, measured in terms of growth in employment.

4.6.1. Measures of Dependent Variables

As discussed in section 3.2.2 there are different metrics of growth of small enterprises that affect comparisons of research findings. Different writers used different types of growth measure and came out with different results as the result of which comparison of findings was very difficult (Lumpkin and Dess, 1996).

As there is no universally recognized superior growth indicator, some writers suggest use of composite measures (multiple indicators) while other scholars advocate using the same explanatory model on several growth measures (Delmar, *et.al*, 2003). In this research, growth of small enterprises was measured using change in employment.

Enterprise Growth in terms of Employment

In this research change in employment (or number of employees) was used as one measure of growth of small enterprises.

Why employment

Use of employment as best measure of growth is justified in section 3.2.2 (ii) of this paper. It was indicated that (i) it is easily accessible data that is easily remembered by small enterprises, (ii) unlike sales, employment is not sensitive to change in inflation and exchange rate changes (iii) It is preferred measure when the interest of policy makers is fostering employment growth, (iv)Pensrose (1959; in Delmar *et.al*, 2003) suggests employment as a measure of growth should be applied for resource and knowledge-based view of the firm, (v) studies found that growth in sales and growth in the number of workers are highly correlated.

Based on the above justifications, the author of this research paper used change in number of employees as a measure of growth in small enterprises because: (i) its reliability and validity was proved by prior researchers (Mead 1994; McPerson, 1996; Mead and Liedlhom, 1998; Liedholm and Mead, 1999; Chirwa, 2008; Beyene, 2010). (ii) Less developed countries like Ethiopia use micro and small enterprise as a source of employment opportunity and income.

Employment of two points was used

Growth in small enterprises was measured by observing the change of employment between two points, that is, number of employees at start up phase and the number of employees at the time of survey.

What constitutes employment?

In the regression analysis of this study employment was defined as the sum of working owners and paid workers, both full time and part-time. Working owners (entrepreneurs) were included because job creation for owners may be equally valuable as jobs created for others from a social welfare point of view. It also included workers on external contracts;

paid part-time and full time members of the family. On the other hand, unpaid family members/helpers and workers on apprentice were excluded because their relationship is more of infrequent and casual they cannot be reliably measured in all years (Liedholm and Mead, 1999; and USAID, 2002).

How to Calculate Growth in Employment

As discussed in section 3.2.2 (viii) of this paper**,** there are three ways of defining employment growth rate. These are (i) annual compound growth rate (ACGR) measured in percentage, (ii) average annual growth rate (AAGR) measured in percentage and (iii) average annual growth in jobs since start up, measured in number of jobs created.

Logrithmizing the Dependent Variable

If a researcher uses first-and -last year approaches, he or she would miss real fluctuations and may result into weak model and misspecified results and interpretations. For this reason, it may be unwise to assume that nothing else but size changes during the growth process (Davidson, et al, 2005).

Despite this fact, a large number of previous growth studies were in fact cross-sectional. Many cross-sectional studies have logrithmized the dependent variable in order to correct a skewed distribution, and thereby fulfilling the assumption of the normal distribution of residuals. Though normality is not an important assumption in estimating the most efficient unbiased coefficient, skiwness generates unnecessary outliers and compromises the interpretation of the least square fit, because fit is dependent on the distribution around the mean, and the mean is not an appropriate measure for a skewed distribution (Delamr, 1997). Therefore, Delmar (1997) argues, the logarithm of the dependent variable is often an option for obtaining both a higher fit and a better use of the data.

Many researchers (such as Evans, 1987; McPerson, 1996; Liedholm and Mead, 1999; Mulu, 2009) used logarithmized formulas to measure growth or determine the impact of various explanatory variables on firm growth. Accordingly, the growth rate used in this

study was measured as the logarithmic change in employment between the date of establishment and the date/time of survey.

The commonly logarithmized formulas used to measure growth are presented in the following sections.

$$\text{Growth} = \frac{\ln\left(\text{EMP}_{t_1}\right) - \ln\left(\text{EMP}_{t_0}\right)}{\text{age of entrprise}}$$

Where EMP_{t_1} = Number of employees at the time of survey

EMP_{t_0} = Iinitial number of employees

ln = Natural logarithm

4.6.2. Measurements of Independent Variables

The explanatory variables of the study comprised of entrepreneurial orientation and firm resources of small enterprises owners/managers. While EO is expressed in terms of three dimensions: innovativeness, proactiveness and risk taking, the resources are classified into two subgroups: entrepreneurial resources and organizational resources. The former classes of resources refer to the characteristics of owners/manger that have potential influence on the ability and behavior of the owners such as level of education, prior start-up experience. The organizational resources, on the other hand, include physical capital resources and organizational resources such as access to financial resources, location of small enterprises, age and start-up capital of the small enterprises

In this section, the dimensions of the independent variables and their measurements will be discussed very briefly. Readers can refer to the literature section of this paper for detailed discussions.

4.6.2.1. Dimensions of Entrepreneurial Orientation

In sections 3.4.2 we have seen that Miller (1983) suggested a firm's degree of entrepreneurship can be measured in terms of three dimensions: firms' innovativeness, propensity to take risk and their proactiveness to maximize opportunities.

Miller (1983) has also developed, nine item entrepreneurial orientation scales to empirically compute these dimensions. Subsequently many researchers (e.g. Covin & Slevin, 1989; Zahra & Cvin, 1995; Lumpkin and Dess, 1996; Lumpkin & Dess, 2001; Wicklund & Shepherd, 2005; Joao & Susana, 2007) proved that thse scales are valid and reliable measures of entrepreneurial orientation of a firm. For example, Covin and Slevin (1989) have extended and refined this instrument. Moreover, Rauch et.al (n.d.) found that out of the 51 researches 37 studies used these three dimensions to measure EO. Wiklund (1998) also has identified that more than twelve studies used on Miller's and Covin and Slevin's instruments.

Thus, using the original 9-item scale of EO was preferred. However, Lumpkin and Dess (1996) recommended including competitive aggressiveness and autonomy in addition to the nine item-three dimension of EO, this researcher decided to use only innovativeness, proactiveness, and risk taking as measures of EO. This is because not only previous researchers as discussed in the above paragraph have proved their validity and reliability, but also Faoroz et al (2010) said that proactivness better describes the entrepreneurship posture of a firm than competitive aggressiveness. Besides, they reported that some measurement statements of competitive aggressiveness are compatible with praoctivness dimension. Besides, autonomy is not considered because it has been proved that it cannot be defined precisely and is difficult to put appropriate measures in EO context.

4.6.2.2. Scales used to capture Entrepreneurial Orientation

The three dimensions of EO were further scaled into nine items: three items were used to assess small enterprise managers /owners' tendency toward innovation; three items assessed their degree of risk-taking, and other three items used to assess proactivness. In this measure, respondents were asked to point out the statement which most clearly matches the management style of the enterprise on a 5-point Likert scale (1= complete disagreement with the statement and 5= complete agreement with the statement).

4.6.2.3. Universal versus independent effect of Entrepreneurail Orientation

The impact of the dimensions of EO on growth can be treated as a single construct comprising the related dimensions or separately/independently, assuming they vary independently. As Rauch *et al*. (n.d.) mentioned, research findings of many writers proved that dimensions of EO usually showed high correlation (ranging from r=0.4- to r= 0.75). Out of the 51 studies analyzed by Rauch et al (n.d.), only 13 studies show how the individual dimensions of EO were related to performance, but the remaining 38 (75%) studies treated the dimensions of EO as a one-dimensional construct. Besides, the writer noticed that most researchers combined these dimension in to one factor (e.g. Covin, Slevin & Schults, 2004; Lee, Lee & Pennings, 2001; Naman & Slevin, 1993; Walter, Auer, & Ritter, 2006; Wiklund & Shepherd, 2003) cited in Fairoz (2010). Covin and Slevin, (1989) argued that EO construct should be viewed as a uni-dimensional for better results, and they suggested to take the mean value of the three dimension of EO. Specifically they said:

> *"…Our findings support the idea that EO dimensions (innovation, risk-taking, proactiveness) are of equal importance in explaining business performance. This would suggest that it is reasonable to support the use of a summed index of the three dimensions in future studies aiming at explaining performance" (Rauch et al: 22}.*

The argument for taking the dimensions as a single construct may be because of the high correlation/interdependence among the dimensions. For instance, when a company produces new product due to its technological innovation it typically takes a risk, as the demand for the new product is unknown. Besides, if a given firm introduces new product/service because of its innovativeness and risk taking it is also proactive in relation to competitors (Wiklund & Sheohered, 2005). As these authors wrote:

> *"… It appears logical that the three dimensions should be closely related. For instance, a new company that comes up with a radically new product based on a technological innovation typically takes a risk, as the demand for the new product is*

unknown. Given that other firms do not introduce the same new product at the same time, it is also proactive in relation to competitors".

Treating the dimensions of EO has been dominant approach in examining its effect on growth of small enterprises. Therefore, the we applied a uni-dimensional measure of EO in order to test its effect on growth. The variables, both explanatory and control variables, used in the model are depicted in the following table (Table 4.1) along their ways of capturing.

So far we have seen much about the effect of firm entrepreneurial orientation and resources on growth of small enterprises. As the growth process is complex, no one can claim that firm specific resources are the only factors to affect growth or performance of small enterprises. External environment also affects growth and profitability of firms because it creates threats and opportunities for firms that, in turn, have major effects on their strategies and actions (Hitt, 2009). These findings suggest that both the environment and firm's characteristics play a role in determining the firm's specific level of profitability. Deployment of resources is influenced by external factors including macroeconomic environment; government policies, rules and regulations; availability and cost of infrastructure, and business development services (BDS). Besides, research findings support the IO model in that approximately firm's profitability can be explained by the industry (external environment) in which it chooses to compete (Mcgahan, 1999 cited in Hitt *et.al*, 2009. Therefore, such firms specific and environmental variables as amount of initial investment, motivation of owners while establishing their business, sector in which an enterprise operates, gender and age of owners, marketing related problems, cost and accessibility of infrastructure, government policies, strategies and bureaucracy, BDS were included in the regression model, although discussion was focused on those variable mentioned in the above sections.

4.6.4. Summary for Methods of Capturing Variables.

The way how the variables used in this study are presented in the following table (Table 4.1).

Table 4.1: Variables of the study and their measurements

S.No	Variable	Description and Measurement of Variable	Predicted Effect of Exp. Variables on Growth Remark and Explanation
A. Dependent Variable			
1	Growth of SE in employment	Growth= $\frac{\ln(EMP_{t_1}) - \ln(EMP_{t_0})}{\text{age of entrprise}}$	Natural log of Initial and current number of employees
B. Independent and Control Variable			
I. Demographic Variables			
1.1	Gender of owner	1=Male; else=0 (Dummy Variable)	See Appendix II
1.2	Age of Owner	Age in years (Continewous Variable)	See Appendix II
1.3	Marital Status of Owner	Marital status (Dummy Variable)	
II. Entrepreneurs' Resources			
2.1	Owner's educational level. (owedule)	Years of school completed (Continewous Variable)	Positive (Appendix II; Q. 4.1)
2.2	Owner Educ. Level Square (Owedule2)	Square of years of schooling	Positive
2.3	Owners' Prior-Start up Experience	1= had prior exper 0= had no prior exper	Positive (Appendix II; Q.4.4-

	(**owexpc**)	(Dummy Variable)	4.6)
2.4	Entrepreneurial Orientations	Average of Overall EO (avoaeo) (9 items on 5 Point Likert Scale) (Continewous Variable)	Positive (Appendix II; Q. 6.2)
2.5	Owners' Motivations (items)	Aver Motivation of owners (avomot) ; (12 on 5-point Likert Scale) (Continewous Variable)	(Appendix II; Q. 6.1)
III. Organizational or Firm Resources			
3.1.	Financial Condition (measured by financial constraints, fidiff)	1= No financial shortage; 0= had financial shortage (Dummy Variable)	Negative (Appendix II; Q.5.1)
3.2	Owners financial preference or Capital structure, in terms of debt equity ratio (ofpr)	1= Debt capital; 0= Equity capital (Dummy Variable)	Positive (data processed from information of Apped II; Q.5.3-5.10)
3.3	Location of Enterprises (locatn)	(1=Far from commercial center Else= 0) (Dummy Variable)	Negative (Appendix II; Q.3.2)
3.4	Enterprise age in (**entage)**	Years of operation (Continewous Variable)	Negative (Appendix ; Q. 5.1)
3.5	Enterprise age square (entage2)	Square of entage (Continewous Variable)	Negative (Appendix II, Q. 5.1)

3.6	Size of SE (noemp0)	Initial number of employees (Continewous Variable)	Negative (Appendix II; Q. 5.2
3.7	Size of SE (capam0)	Initial Amount of capital (Continewous Variable)	Negative (Appendix II; Q. 5.5)
3.8	Sector of Enterprises (sectr)	Dummy variable (Manuf = 1; else=0)(Dummy Variable)	Positive (Appendix II; 3.1)
IV. External Variables			
4.1.	Market Related Variables	Average market Problems (avmkt); (5-point Likert Scale) (Continewous Variable)	(Appendix II; Q. 7.3)
4.2	4.2. Availability and cost of infrastructure	Average infrastructure (avinfr) (5-point Likert Scale) (Continewous Variable)	(Appendix II; Q. 7.2)
4.3	4.3. Government Policies	Average of Govt policies (avgovss; (5-point Likert Scale) (Continewous Variable)	(Appendix II, Q. 7.1)

4.7. Sources of Data

The major sources of primary data are small enterprise owners/mangers, selected based on systematic random sampling, operating in the specified study areas. In addition to SE operators, secondary data are gathered from promotion and development offices of micro and small Enterprises of each selected town as well as from regional (head office) Micro and Small enterprises Agency of Tigray Regional State, Federal Micro and Small Enterprise Development Agency (FeMSEDA) and Central Statistics Agency of Ethiopia

4.8. Data Collection Methods

Data collected must be directly relevant to the research problem. Relevance of data must be considered in compiling a questionnaire and the questionnaire must be designed properly so that the research objectives are realized. In this section the data collection tools and test of validity and reliability of measures is discussed. In this study structured questionnaire (main tool), unstructured interview were employed to gather primary data.

A questionnaire is an important tool in order to detect deep data within minds, attitudes, feelings, and opinions of respondents. A good questionnaire design should focus on three areas (Sekeran, 2005) and Cheng (2006). First, the questionnaire should be short, clear, simple language, closed questions with alternative answers and scrutinized. Second, it should concern with reliability and validity of the data to be analyzed, (3) the appearance should be attractive and neat with appropriate instruction and a well-arrayed set of questions and response alternative.

Moreover, for more clarity and understanding, the questionnaire was prepared in such a way that it briefly explained (i) the purpose of the research is for academic use only; (ii) outcome of the research will benefit all stakeholders including the respondents; (iii) that survey answer will be kept secret; and (iv) access to respondent identification will be restricted.

The questionnaire was first prepared in English language. Then, with the help of professionals, it was translated into Tigrigna, local language of the study area, in order to minimize the linguistic barriers.

In order to facilitate data gathering process, consent was necessary from concerned government body and small enterprise owners/managers. For this purpose, a support letters were obtained from Mekelle University the sponsoring institution of the researcher, and submitted to Micro and Small Enterprises Agency of Tigray (MSEAT) and MSE development offices of each town. The support and cooperation of these government offices was considerable. They provide list of SE operators and assigned MSEs extension

agents with the responsibility of locating the specific business area of each respondent and convince him/her to positively cooperate with the data collection.

To collect data through the structured questionnaire, seven experienced enumerators were recruited on competitive basis. These enumerators had the following responsibility (1) distribute/provide the questionnaire to a specific respondent, selected based on systematic random sampling method, (2) in order to ensure that the questions are clear and unambiguous, an enumerator clarifies the meaning of each question while the respondent completes the questionnaire; (3) collect the completed (filled) questionnaire and submit the same to the researcher.

After the recruitment, one day training was given to the enumerators and the supervisor. The purpose of the training was to explain the nature of each question, responsibilities of the enumerators, how respondents should be treated and the way how the questionnaires should be filled. Once the training was provided, one-day pilot study (from 35 small enterprises from Mekelle) was conducted in order to test enumerators' extent of their understanding of the questionnaire and to evaluate the mechanical aspects (grammar, form, content, readability, and understandability) of the draft questionnaire. This helped the writer to make necessary correction in order to ensure construct validity of the questionnaire, and reliability of the instrument. Each day the researcher himself was supervising the data collection field work and he was collecting completed questionnaire from each enumerator after he ensured that it was correctly filled. Finally, collected data was entered to Stata software with the help of data entry expert, Mr Yohannes.

Interviews were carried out so as to take care of those instances where the respondents (owners/managers of small enterprises) couldn't understand the questionnaire as the result of linguistic barriers or other reasons.

4. 9. Population, Sample size and sampling techniques

4.9.1 Description of Research Area Small

Tigray is one of the nine regional states of Ethiopia, located in northern part of the country with seven zoned administrations, namely Mekelle, Southern, South-Eastern, Eastern, Central, North-western, and Western. According to census of CSA (2008) it has a population of 4,314,456, (50.75% female), where 19.53% of the population residing in urban areas. Out of the urban residents, the female population accounts for 52.76% which is slightly greater than the female rural population, which accounts 50.26% of rural residents. Over 60% of the urban population is in the working age group.

4.9.2 Population of Enterprise in the study area

Tigray Regional State is classified into 12 urban towns and 34 rural towns. The 12 urban towns of the region comprise Alamata, Korem, Maichew, Mekelle, Wukro, Adigrat, Abi-Adi, Adwa, Axum, Shire, Sheraro, and Humera. According to the census conducted in 2012 by the Tigray Regional Micro and Small Enterprise Development Agency (TReMSEDA) there were 2765 small enterprises operating in these 12 urban towns.

4.9.3 Sampling Techniques and Sample Size

(i)Sampling and Sample Size

In this study multi-stage cluster sampling method is used. First the urban towns of Tigray are clustered into 12 towns (4.9.2 above). From these clusters, Mekelle, Wukro, Adigrat, Adwa, and Axum, are purposively selected based on intensity of operations of small enterprises (population of SEs). For example, while Mekelle, the capital city of Tigray regional state, accommodates 39.99% of the target population, Adwa and Axum (capital city of central zone) are home for 10.16%, and 13.70% of the total SEs respectively. This means that about 64% of the total target population are operating in these sample areas (3 towns).

Second each selected town is clustered further into sub-cities/districts, which are all were considered and small enterprises operating in these sub-cities/districts are classified into industry sub-sector and service sub-sector (according to the classifications of revised

definition). Then, after list the of all SEs was collected from Micro and Small Enterprise Development offices of each district, sample respondents are selected using proportionate systematic random sampling techniques.

(ii) Sample Size Determination

The following formula with finite population correction (Daniel, 1999) was used for calculating the required sample size in the study[1].

(iii) Population size (*N*)

The estimated population size in the research is 2765 small enterprises

Z value for confidence level (*Z*)

The desired level of confidence considered in the research is 95%, and its *Z* value is 1.96. This level is typical in social science research. Hence, there is 95% likelihood that the results obtained in the study are true results, and not the outcome of mere chance.

Margin of Error (*d*)

Estimating margin of error helps compute the risk (or error) he is willing to accept in the study (Cochran, 1977). The estimated margin of error in this research is 5% as this size of error is commonly acceptable in social researches using categorical data (Krejcie & Morgan, 1970).

Expected proportion (*P*)

There was no any similar study that he would take the value of *P* from. Hence, the proportion (prevalence) that the investigator estimated by the study is 50%, which normally gives a larger sample size. Macfarlane (1997) suggested that if there was doubt about the value of *P* for various reasons, it is best to err towards 50% as it would lead to a larger sample size.

[1] $n = \frac{N * Z\,2 * (p) * (1-p)}{d\,2 * (N-1) + Z\,2 * (p) * (1-p)}$; *n* = Sample size with finite population correction, *N* = Population size = Z statistic for a level of confidence, *P* = Expected proportion, expressed as decimal, and *d* = Margin of error, expressed as decimal.

As enumerators themselves distributed the questionnaire, and they supported respondents while they were completing the questionnaire, the researcher assumed a complete response rate to be 95%. Hence, he increased the computed sample size by 5% to account for any lost questionnaires and uncooperative subjects that may happen during data collection. This adjustment for sample size lets the findings of the survey to be representative of the whole population (Salkind, 1997).

(iv). Computed Sample size of the study

Based on the above mentioned formula, using a confidence level of 95% and a margin of error of 5%, the sample size was determined below .

$$n = \frac{2765 * 1.96^2 * 0.5(1-0.5)}{0.05^2 * (2765-1) + 1.96^2 * 0.5(1-0.5)} = 337.4042 = 337$$

The sample size can also be calculated using the programmed sample size calculator[2]

The final sample size, after a 5% increase to account for any lost questionnaires and uncooperative subjects that may happen during data collection, was 354 small enterprises (computed as 337 *1.05= 354).

Out of the 354 distributed questionnaires, responses of 333 small enterprises (94.07%) were found to be complete and good for data analysis. 21 questionnaires (5.93%) were rejected because they missed some important information.

4.10 Data Analysis

In order to test the research hypothesis the data collected through questionnaire or any other methods have to be analyzed. Data analysis can be classified into two stages. The first stage is a stage in which data gets ready for analysis, and actual analysis of data is conducted in the second stage.

[2] http://www.surveysystem.com/sscalc.htm

4.10.1 Getting Data Ready for Analysis

Before analyzing the data to test hypothesis, some preliminary steps need to be completed to ensure that the data are reasonably good and of assured quality for further analysis. Data need to be edited, blank responses have to be handled, data must be coded and encoded (keyed).

Editing data: Editing involves checking of questionnaire for any incompleteness and inconsistencies. Any inconsistencies and/or incompleteness in questionnaire of this study were minimized and checked using two mechanisms-field editing and in-house editing.

The first responsibility of each enumerator was to clarify each question so that a respondent could answer questions with full understanding. Then, each enumerator fills the response in front of each respondent and submit the same at end of each day to the researcher who verifies its completeness on daily basis.

Second, any incomplete questionnaire or inconsistent answers were rectified by the researcher after the questionnaires were collected and appropriate action had been taken (in-house editing). By doing this the problem of inconsistency and incompleteness were minimized during the field work

Handling Blank Responses: Not all respondents answer every item in the questionnaire. As this survey research addressed a large sample size, a questionnaire was thrown out and was not included in the data set for analysis if it was found that a substantial number of questions-say, 25% of the items in the questionnaire-have been left unanswered (Sekeran, 2003). Only responses of 21 respondents 5.93%, of the total sample size, were thrown out due incompleteness or inconsistency of answers.

Coding and Encoding. Coding involves assigning numbers or other symbols to answers so the responses can be grouped into limited number of classes or categories. As the researcher's plan was to collect the necessary data using mainly the closed-end type of questionnaire, the coding was undertaken during the questionnaire development stage.

After the data had been edited and blank responses were handled, the coded questionnaires were entered into the computer with the help of data encoder, Mr Yohannes, with the close supervision of the researcher.

Computer software to handle missing data: In addition to the above steps any missing data was rectified with the help of computer software, Stata version 12**.**

4.10.2 Data Analysis

In this study, both descriptive and econometric analyses were used. Writer of this paper applied descriptive statistics, statistical difference tests, and regression analysis for the purpose of data analysis.

Descriptive Statistics: The study reported different descriptive statistics like percentages, ratios, mean, and standard deviations. It also produced tables and graphs to describe the data and provide overall descriptive analysis.

Difference Tests: In addition to the descriptive statistics, the study used statistical difference tests like mean difference test and analysis of variance (ANOVA) to verify some of the hypotheses. For example, in the mean difference test, the study compared the mean growth rate of small enterprises with better internal resources (human capital, access to financial capital, location) against those resource deficient small enterprises. Besides, using analysis of variance (ANOVA) he tested whether there was statistically significant difference between entrepreneurial oriented and non- entrepreneurial oriented SEs owners. Similarly, the research tested whether there was statistically significant difference in the growth of small enterprises located closest to the market and distant from the market.

Regression Analysis

Once the techniques of measuring the growth of small enterprises using appropriate indicator is selected, the type of growth model that should be applied is another critical issue.

Researchers often use three kinds of econometric models to estimate significant factors for growth (Solomon, 2004; Beyene, 2010). The first group treat the dependent variable, employment growth or growth of enterprise in more than two categories and use models like multinomial logit model, i.e., the dependent variable could be categorized as positive, constant and negative (Harabi, 2003; and Cunninghan and Maloney, 2001 cited in Solomon 2004). The other group of researchers treats the dependent variable as dichotomous variable and use models like logistic or probit regression models .The other group of researchers uses multiple linear regression models treating growth as a continuous variable (Liedholm and Mead, 1999; Liedholm, 2001; USAID, 2002).

In this part of analysis, a multiple linear regression was used to test whether or not the key independent variables (EO and resources) were associated to the dependent variable, growth employment. The multiple regression analysis aims to identify the association between growth and the specified independent variables, while controlling other determinants of growth. Besides, it also identified which explanatory variable was significant for the model as well as its degree of extent in influencing the dependent variable. The multiple linear regression analysis was chosen because growth measure, the dependent variable, takes a continuous measure.

4.10.3. Model Specification

The writer used the following multiple regression model for econometric analysis.

$$\begin{aligned}\text{emgrr}_i = {} & \alpha + \beta_1 \text{owedule}_i + owedule_i^{\,2} + \beta_3 \text{owexpc}_i + \beta_4 \text{findiff}_i + \beta_5 \text{locatn}_i \\ & + \beta_6 \text{entage}_i + \beta_7\, \text{entage2}_i + \beta_8 \text{noemp0}_i + \beta_9 \text{capam0}_i + \beta_{10} \text{avoaeo}_i \\ & + \beta_{11} \text{avomot}_i + \beta_{12} \text{sectr}_i + \beta_{13} \text{ageow}_i + \beta_{14} \text{ofpr}_i + \beta_{15} \text{avmkt}_i \\ & + \beta_{16} \text{genow}_i + \beta_{17} \text{avinfr}_i + \beta_{18} \text{avgovss}_i + \varepsilon_i\end{aligned}$$

Where;

- emgrr = log of change in number of employees at two points in time (beginning and survey time) in percentage;

$$\text{emgrr} = \frac{\text{Lnnoem1} - \text{lnnoem0}}{\text{entage}}$$

- owedule= owners' years of schooling;
- owedule2= Square of owner's years of schooling (owedule)
- owexpc =category of owners' prior work experience (1= had prior work experience; 0= no work experience)
- findiff= financial condition of SEs (1= had financial constraints, 0= no financial constraint);
- loctn= locaiton of SEs (1= far from commercial district and else=0)
- entage= enterprise age in years
- $entage^2$= square of enterprises age in years (entage)
- noemp0= Iinitial size in number of employees
- capam0= Size in initial capital
- avoaeo= average of entrepreneurial orientation (EO)
- avomot= average motivation;
- sectr= sector of SE (1= Manufacturing, else=0)
- agow= age of owners in years
- ofpr= owners' financial preference = capital structure (debt equity ratio)
- avmkt = average of market related factors
- genow= gender of owners (1= male; else = 0)
- avinf= average of access and cost of infrastructure;
- avgovss= average government policies and strategies;
- β_i is vector of coefficients measuring the effect of each independent variable on the growth of small enterprises, keeping other factors constant.
- α is the constant or intercept in the model, and
- ε is the error term that captures for other and random factors

4.10.4 Goodness/Soundness of Measures: Reliability and Validity

Any research undertaking must be realistic which depends on the soundness of its measurements, that is, the one must ensure that the instruments that he/she developed to measure a particular concept are indeed accurately measuring the concept that he/she intends to measure. Hence, he/she needs to assess the goodness of the measures developed. The two important characteristics of sound measurement are validity and reliability. While validity is concerned with whether we measure the right concept, reliability is related to stability and consistency of measurements. This section evaluates the reliability and validity of this study.

1. Literature as means of ensuring reliability and validity

Skeran (2003: 207-208) advised researchers to use measures whose reliability and validity has already been established instead of wasting time to develop their own measures.

> *[…] measures have been developed for many important concepts in […] research and their psychometric properties (i.e., the reliability and validity) established by the developers. Thus, researchers can use the instruments already reputed to be "good" rather than laboriously develop their own measures.*

For this reason relevant and broad literature empirical evidences had been consulted during the development of this research proposal, literature review, and during the development of questionnaire to understand the existing theories on determinants of growth of small enterprises.

Accordingly, those variables and measures employed in previous studies were adapted in this research with minor modification to increase applicability to the Ethiopian context. For example, in this study entrepreneurial orientation was measured in terms of three dimensions (innovativeness, risk-taking and proactivenss) by further classifying them into nine items because their reliability and validity have been proved by various studies (Covin & Slevin, 1989; Zahra & Cvin, 1995; Wiklund 1999; Lumpkin & Dess, 2001; Wicklund & Shepherd, 2005; Joao & Susana, 2007).

Moreover, soundness of measuring growth in terms of employment has been confirmed by previous studies (e.g. Pensrose,1959; in Delmar *et.al*, 2003; Mead 1994; McPherson, 1996; Mead and Liedlhom, 1998; Liedholm & Mead 1999; USAID, 2002; Wiklund & Shephered 2005; Davidson *et.al*, 2005; Delmar & Wiklund, 2008; Chirwa, 2008; Beyene, 2010) .

Thus, the author of this paper considered consulting empirical evidences from previous studies to be one mechanism of ensuring the reliability and validity of the measures of his research. Besides, based on the techniques suggested by Sekeran (2005), Bryman (2008) and Churchill (1991) as cited in Cheng 2006,the writer applied different tests to examine reliability and validity of specific factors/variables used in this research.

2. Reliability of scales

The reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across various items in the instrument. In other words, the reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness of a measure (Sekeran, 2005*)*. Components of reliability of measure include internal consistency reliability, stability, and inter-observation consistency.

Internal consistency of a measure is indicative of the homogeneity of the items in the measure that tap the construct. Internal reliability is particularly important in connection with multiple-item scales. It raises the question of whether each scale is measuring a single idea and hence whether the items that make up the scale are internally consistent (Sekeran, 2005). A number of procedures for estimating internal reliability exist and the one that is found to receive the widest acceptance is Cronbach's Alpha, which essentially calculates the average of all possible split-half reliability coefficients (Cheng, 2006).

Following the advice of Sekeran (2005), Bryman (2008) and Churchill (1991) as cited in Cheng 2006, this author applied Cronbach's Alpha coefficient to estimate internal

reliability of multiple-item scales. Cronbach's Alpha coefficient essentially calculates the average of all possible split-half reliability coefficients. A computed alpha coefficient can vary between 1 (denoting perfect internal reliability) and 0 (denoting no internal reliability). The figure 0.70 is typically employed as a rule of thumb to denote an acceptable level of internal reliability, though many writers work with a slightly lower figure (Bryman pp151). However, Churchill (1991) and Nunnally (1997) as cited in Cheng 2006 suggested that a reliability alpha as low as 0.60, but not lower, is generally acceptable.

In order to ensure the internal consistency and reliability of variables captured by five point Likert scale, Cronbach's alpha coefficient were calculated. Accordingly, the alpha coefficients of entrepreneurial orientation (EO); motivational factors; government policies, strategies, and bureaucracy; access and cost of infrastructure; BDS; and marketing and market related factors were found to be 0.78; 0.74; 0.76; 0.700; 0.75; 0.64; respectively (See Appendix c) which are beyond the acceptable range recommended by Bryan (2008), Sekeran (2005) and Nunnally (1978) as cited by Fairoz et al (2010).

3. Validity tests

Validity refers to the issue of whether an indicator (or sets of indicators) that is (are) devised to gauge a concept really measure that concept. Several ways of establishing validity are: face validity; concurrent validity; predictive validity; construct validity; and convergent validity. Components of validity that are relevant to this research and their tests are discussed below.

(i) Panel of experts to establish face/content validity.

Content validity refers to the degree to which the instrument fully assesses or measures the construct of interest. Because there is no statistical test to determine whether a measure adequately covers a content area or adequately represents a construct, content validity usually depends on the judgment of experts in the field (Bryamn, 2008; Sekeran, 2005. A researcher can ensure that his measures reflects the content of the concept in question by asking relevant people, such as those with experience or expertise in the field (Bryman, 2004).

For this purpose, the writer of this paper had presented his proposal, including the questionnaire and methodology, in the bi-weekly Research Seminar of College of Business and Economics, Mekelle University in the presence of internal and external researchers (especially SBL-UNISA PhD candidates, academicians and researchers with relevant experience in the field of MSEs, relevant experts form ReMSEDA of Tigray, post graduate students and invited guests). Moreover, the researcher benefited from the constructive and intellectual comments of reviewers (professors from UNISA and Ethiopia) during the two colloquiums for presentations of proposal and methodology parts of the paper, conducted in March 2012 and February 2013, respectively.

(ii) Pilot Study to attain construct validity. Construct validity refers to the extent to which the construct can be considered to reflect the underlying concept they are supposed to measure (Van De Ven, 2007) cited in Yilitalo (2010). In order to maximize this type of validity, several methods were applied. First, previously utilized and validated scales were used whenever appropriate. Second, multi-item constructs were applied whenever possible as per Yilitalo's (2010) suggestion. Third, one-day pilot study (from 35 small enterprises from Mekelle) was conducted in order to test enumerators' extent of understanding of the questionnaire and to evaluate the mechanical aspects (grammar, form, content, readability, and understandability) of the draft questionnaire in order to make necessary correction in order to ensure construct validity and reliability of the questionnaire.

(iii) Statistical conclusions validity refers to the correct and appropriate use of statistics and statistical tools in assessing the relationships between independent and dependent variables (Yilitalo, 2010) which was achieved by applying previously developed and validated techniques for model estimation. For this purpose, growth of small enterprises was transformed into logarithm form and firm age and years of schooling of owners were transformed into squares in order to correct skewed distribution.

(iv)Internal validity is concerned with the question whether a conclusion that incorporates a causal relationship between two or more variables holds true (Bryaman, 2008). In other

words, it refers to the extent to which the observed co-variation between dependent and independent variables is due to a true relationship (Yilitalo, 2010). According to Bryman (2008) internal validity raises the question: how confident can we be that the independent variable really is at least in part responsible for the variation that has been identified in the dependent variable?

To ensure that the observed relationships between latent variables are not attributable to random variation**, F-distribution (F-test), R^2 and P-values** are utilized to assess the statistical significances of the estimates. The threshold for p-values is set to be 0.05, which is a commonly used limit for social science research. P-value of 0.10 is also used for some important explanatory variables to explain marginal or weak association of explanatory variable with the dependent variable. Only relationships with p-values below this limit was considered significant. Moreover, before the start of complete analysis, various diagnostic tests were conducted to make the data ready for regression and in order to validate the instruments and models of the study in addition to the above approaches of ensuring validity and reliability.

(a)Testing validity of Regression Model (Fitness of the Model): The ability of independent variables to explain the behavior of the dependent variables must be tested. To put this in question form: can the dependent variable be estimated without relying on the independent variables? The test used is referred as the global test or fitness of the model that is related to variable or model specification. It investigates whether it is possible all the independent variables have zero net regression coefficients.

To test the null hypothesis that the multiple regression coefficients are all zero, the research employed the F distribution (F test) and R^2. The regression result of this study shows that an R^2 value of 0.2429 (AppendixI- A2). This means about 24.29% of the variation in growth of small enterprises was explained by the joint effect of the variables included in the model. This is an adequate value for cross sectional data. In cross sectional data one usually obtains low R^2 values (Gujirati, 2004: p91). In addition to the R-square, the F- test (18, 314) produced a value of 5.60 and p-value of 0.0001(Appendix I-A2) which implies that

the null hypothesis that all the regression coefficients are zero should be rejected to accept the alternative hypothesis of not all βs are zero. This shows that the independent variables do have the ability to explain the variation in the dependent variable.

(b) Multicollinearity Test: Multicollinearity is a correlation between two or more explanatory variables, which makes the coefficient estimates defective/unreliable. The primary concern is that as the degree of multicollinearity increases, the regression model estimates of the coefficients become unstable and the standard errors for the coefficients can get wildly inflated (Gujirati, 2004). Based on Wooldridge (2009), variance inflation factor (VIF) and tolerance level (1/VIF) are two important measures of Multicollinearity problem.

In this study, these two measures were used in identifying multicollinearity problem in a regression model. The higher VIF or the lower tolerance index the greater the chance of finding insignificant coefficients which indicates existence of severe multicollinearity effect (Wooldridge, 2009). Thus, the VIF is a useful instrument to identify multicollinearity problem. By rule of thumb, VIF value of 10 or tolerance indexes of 0.10 are used as a critical point to indicate serious multicollinearity problem. This rule of thumb therefore recommends a VIF value of not more than or equal to 10 and a tolerance index value of not less than or equal to 0.10. In this study, multicollinearity was not found to be a serious problem (See Appendix I-B2). According to this appendix all variables, except for owner's educational level (owedule) and education square (owedule2), used in the model passed the critical point with VIF values between 1.09 (minimum for location) and 9.82 (maximum for entage) and tolerance index (1/VIF) value between 0.067883 (minimum for entage) and 0.9162(max for locatn).

As the result of this, the researcher concluded that the coefficients are not seriously disturbed by multicollinearity problem, and, hence, all variables were retained for regression analysis. Appendix I-B2 showed that the two regressed variables in relation to owners' education level (measured in years of schooling), owedule and owedule2, showed VIF values higher than the rule of thumb (VIF value of 10 or tolerance indexes of 0.10).

This is because the latter is the square (quadrateic) of former. In the analysis the combined effect of owedule and owedule2 was used.

(c) Heteroskedasticity Test: Heteroskedasticity is the variance of the error term, given the explanatory variables, is not constant. The study applied "hettest" command to test the heteroskedasticity and the Breusch-Pagan / Cook-Weisberg test for heteroskedasticity (AppendixI- A1) yielded a Chi^2= 102.16 and Prob > Chi^2= 0.0000 with the null hypothesis that the model has constant variance. The null hypothesis that the model has constant variance (homoskedasticity) was, thus, rejected, implying the model has heteroskedasticity problem. The heteroscedasticity (non-constant variance) problem was controlled by using robust regressions so that the standard errors get adjusted to provide robust coefficients.

(d)Test for Outliers and Normality: In linear regression, an outlier is an observation with large residual. In other words, it is an observation whose dependent-variable value is unusual given its values on the predictor variables. An outlier may indicate a sample peculiarity or may indicate a data entry error or other problem. There are robust methods used to detect outliers that require additional treatment. Nonetheless, the observations need to be examined for typographical errors. Any such errors need to be corrected. Given a large enough data set, they can be deleted. If the data set is small, then some sort of smoothing or missing data replacement can be invoked (Yosuf, 2011). In this study, *standardized residuals* (the residual divided by the standard deviation), called stdres, have been generated using the following commands as first means of identifying outliers:

predict resid, residuals
predict stdres, rstandar

Observations with absolute values greater than 2.5 merit closer examination (Yosuf, 2011). Accordingly, 9 observations have been found to be outliers with residual values ranging from 2.505 up to 6.04. When the re-examined the process of data entry in order to trace the cause for such outliers, he noticed that some problems have been created while data was

entered to the computer/Stata programme. For example, inflated / understated numbers of employees were entered in relation to this 9 observations (hhid of 325-333) after which, he made necessary corrections on such data entry.

Many researchers believe that multiple regressions requires normality. This is not the case (Yosuf, 2010). Normality of residuals is only required for valid hypothesis testing, that is, the normality assumption assures that the p-values for the t-tests and F-test was valid. Normality is not required in order to obtain unbiased estimates of the regression coefficients. OLS regression merely requires that the residuals (errors) be identically and independently distributed. Furthermore, there is no assumption or requirement that the predictor variables be normally distributed. If this were the case than we would not be able to use dummy coded variables in our models. In order to test normality of a variable, first, we may try entering the variable ***as-is*** into the regression, but if we see problems, which we likely would, then we may try to transform the variable to make it more normally distributed. Potential transformations include taking the log, the square root or raising the variable to a power. Selecting the appropriate transformation is somewhat of an art (Yosuf, 2010).

Dependent variable was transformed into Logarithm

Many cross-sectional studies have logarithmized the dependent variable in order to correct a skewed distribution, and thereby fulfilling the assumption of the normal distribution of residuals. Delmar (1997) argues, the logarithm of the dependent variable to be an option for obtaining both a higher fit and a better use of the data. Many researchers (such as Evans, 1987; McPerson, 1996; Liedholm and Mead, 1999; Mulu, 2009) also used logarithmized formulas to measure growth or determine the impact of various explanatory variables on firm growth. Accordingly, the growth rate used in this study was measured in terms of the logarithmic change in employment between the date of establishment and the date/time of survey.

(v) External validity. This is concerned with the question of whether the results of a study can be generalized beyond the specific research context (Bryman, 2008) or results are

generalizable to whole population and are applicable to other contexts ((Van de Ven, 2007) cited in Yilitalo (2010). According to Bryman (2008) it is in this context that researchers are expected to consider representative sample.

For this purpose, sample data collection for this research was performed carefully with intention to consider as large sample size as possible to cover the true population. Using a confidence level of 95% and a confidence interval of 5%, 354 sample respondents were determined from the population of 2765 SEs, using the following formula[3]. The sample size can also be calculated using the programmed sample size calculator[4].

The generalizability or external validity of this study may be limited by several factors. *First*, non-response bias, defined as the bias caused by potential differences between firms that respond to the survey and those that do not poses a challenge for external validity (Yilitalo, 2010). For example, firms that are currently doing well are more likely to report their current and initial investment, number of employees and amount of revenues and profits than those doing worse. Second**,** the target population was limited to Ethiopian Small enterprises, which may limit the applicability of results to other countries because of difference in economic and regulatory frameworks as well as cultural set-ups among countries. For example entrepreneurial/or growth orientation may have cultural roots (Delmar & Wiklund, 2008), which would affect the results to extent to which different cultures value growth and how optimistic or pessimistic they are in evaluating their goals. Third, the population was restricted to small sized firms. Thus the results can not directly be applied to micro enterprises, medium and large firms.

[3] $n = \frac{N*Z\,2*(p)*(1-p)}{d\,2*(N-1)+Z\,2*(p)*(1-p)}$ = 337; 337(1.05)= 354

[4] http://www.surveysystem.com/sscalc.htm

Chapter Five: Results and Discussions

Chapter five is about the Results and Discussions which presents results and discussions of collected and processed data. Both descriptive and inferential analysis-in the form of multiple regression models and Propensity Score Matching are presented in detail in different sections. Specifically, the topics of this chapter include: Growth Category of Small Enterprises; Demographic Characteristics of respondents; Sectoral engagement of the small enterprises; effect of Entrepreneurial Orientation and firm resources

Introduction

The primary objective of this study is to investigate and interpret, following the resource-based theory, the effect of resources and entrepreneurial orientation on growth of small enterprises. This chapter presents both descriptive and econometric analysis. The data are analyzed to test the proposed model and research hypotheses within the current literature. First, the association of growth of small enterprises and those explanatory variables of this study was described using descriptive analysis. Then, in order to statistically measure the degree of association among variables, a regression model has been employed along with all the associated tests. Finally, summary of results of hypothesis tests are presented with their brief explanation. The regression results with robust standard error is presented below which is also included in the appendix section (Appendix A2).

Regression Model with Robust Standard Eroors

```
reg emgrr owedule owedule2  owexpc findiff locatn entage entage2 noemp0 capam0
avoaeo avomot sectr ageow ofpr avmkt genow avinfr avgovss, robust

Linear regression                                      Number of obs =     333
                                                       F( 18,   314) =    4.34
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.2429
                                                       Root MSE      =  10.939
------------------------------------------------------------------------------
             |               Robust
       emgrr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     owedule |  -1.296251     .52454    -2.47   0.014    -2.328308   -.2641935
    owedule2 |   .0765056   .0321569     2.38   0.018     .0132354    .1397759
      owexpc |    -1.0794    1.52008    -0.71   0.478    -4.070229    1.911429
     findiff |   2.716593    1.55588     1.75   0.082    -.3446744     5.77786
      locatn |  -2.725103   1.547053    -1.76   0.079    -5.769003    .3187963
      entage |  -.6912465   .2455174    -2.82   0.005    -1.174314   -.2081792
     entage2 |   .0115224   .0050466     2.28   0.023      .001593    .0214518
      noemp0 |  -.5869838   .2372151    -2.47   0.014    -1.053716   -.1202519
      capam0 |   8.95e-06   4.73e-06     1.89   0.059    -3.56e-07    .0000183
      avoaeo |    3.59233   1.065751     3.37   0.001     1.495413    5.689246
      avomot |   2.787862   1.146528     2.43   0.016     .5320128    5.043711
       sectr |   7.567183   1.767006     4.28   0.000     4.090514    11.04385
       ageow |  -.0618792   .0839659    -0.74   0.462    -.2270861    .1033277
        ofpr |   2.760157   1.457877     1.89   0.059    -.1082842    5.628599
       avmkt |   4.309996   1.913591     2.25   0.025     .5449142    8.075077
       genow |   1.147724   1.634404     0.70   0.483    -2.068045    4.363492
      avinfr |   .6370401   1.197336     0.53   0.595    -1.718775    2.992855
     avgovss |  -.6322322   .7895288    -0.80   0.424    -2.185668    .9212033
       _cons |  -18.96265   10.29928    -1.84   0.067    -39.22698    1.301679
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5.1. Growth Category of Small Enterprises

For the purpose of data analysis, small enterprises covered in this study are classified into two categories; survival and growing, according to their employment growth rate. Growing enterprises are those enterprises that registered greater than zero growth rate (in percentage) while survival small enterprises are those that show either constant or declining (negative)

growth rate in successive years. Accordingly, the data revealed that 187 small enterprises (56%) were found to be survival type and only 143 SE (44%) are growing type. This indicates that majority of the small enterprises (both male owned and female owned) are operating for survival due to different internal and external challenges. Average growth rate of those growing type SEs was found to be16.37%, ranging from 1.16% to 76.11% while the survival type SEs' growth rate ranges from -13.86% to zero growth with a mean growth rate of -0.165%.

Table 5.1: Mean Growth Rate by Growth Category

Category of Growth	Small Enterprises		Growth of Small Enterprises			
			Mean	**Std. Dev**	**Min**	**Max**
Growing	146	43.84%	16.3723	13.62629	1.158472	76.11306
Survival	187	56.16%	-.165658	1.23517	-13.8629	0
Total	333	100.00%	7.08521	12.22662	-13.8629	76.11306

5.2. Demographic Characteristics of Owners

The demographic structure of sample SEs owners is described in terms of gender, age, and marital status of owners. Participation of women in heading business enterprises is relatively low. Out of the 333 respondents of the study 259 SEs (77.78%) are male owned while female owned small enterprises comprise only 74 SEs (22.22% of the total). This may be attributed mainly to the cultural influence and social responsibilities women held in their family which force them to spend much of their time in taking care of their children and other family members instead of engaging in business activities. With regard to marital status of owners while 79.88% of them are married, single and divorced/widowed owners comprised 15.62% and 4.5% of the total sample, respectively.

As indicated in the literature chapter of this study, women headed small enterprises grew at a slower rate than male counterparts due to gender related problems (Roomi et al, 2009; Fairlie and Robb, 2009; Goldmark and Nichter, 2009; Bekele and Worku, 2008; Mulu 2008; Liedholm, 2002, Mead & Liedholm, 1998). These women specific challenges may

include, among others: (1) burdens of household responsibility which consumes much of the working hours of women, (2)Female business owners/managers are less endowed in human capital (educational attainment, business related experience, and training) than male ones. Thus, illiteracy and lack of business skill is one bottleneck for the growth of female owned small enterprises; (3) Women have unequal access to market, finance (formal credit), and entrepreneurial or vocational training (4) female headed small enterprises operate in slow growing locations (mostly home based shops and retail activities); (5) they start their business with inadequate initial capital due to the lack of access to bank credit, (6) female owned enterprises are less likely to be entrepreneurial oriented (less innovative, less risk takers and less likely to be proactive), (7) Due to their household responsibilities women small enterprise owners apply income (profit) of their business for household activities (food, household appliances, etc.) instead of reinvestment (Mulu, 2008).

Findings of this study also revealed the same result. Women headed small enterprises had grown at 6.52 percent since start up against the 7.25 percent growth rate for male-headed counterparts. Even though it was not part of the specific objectives of this study, male owned and female owned SEs were compared in terms of different factors in order to examine the possible cause of differences,. Accordingly, the descriptive analysis found no major difference between male owned SEs and women owned ones with reference to their sectoral concentration, location where the SEs operate, motivational factors that drive them to start their current business and their degree of entrepreneurial orientation. However, it is found that women owners are more deficient in terms of their human capital endowment and financial position than male counterparts are. About 38% of women SEs owners started their current business without having prior work experience against 34% for male operators. Besides, the proportion of financially deficient women (82.43%) is more than male owner counterparts (77.22%). With regard to educational attainment while secondary school completed male owners accounted about 75%, only 68% of female operators completed high school. Thus, the slower growth rate of women headed SEs may be attributed to the women owners' weaker financial position and lower human capital endowment. However, future research must apply t-test or ANOVA in order to test the extent of difference in resource endowment between male owned and female owned SEs.

The analysis of OLS also showed that growth rate of female headed SEs is 1.15% lesser than the male headed ones, though it is statistically insignificant (See Appndix A2).

With regard to age of entrepreneurs, the majority of small businesses (about 81%) are owned and operated by the working age group (21-50 years old). Out of the 333 respondents 112 (33.63%) fall under the age category of 21-35 years, and 159 owners (47.75%) were within the category of 36-50 years age. The owner-managers' lowest age being 19 years (one person) the highest age was 75 years with a mean age of 41 years. This shows that, as the sector absorbs more of the young and working age of the population, it can be said that it is playing an invaluable role in the achievement of job creating objective of the Government Ethiopia.

Findings of this paper and earlier researchers have discovered that small enterprises owned by younger individuals are more likely to grow faster than those owned by older individuals, attributable to different factors (Javonovic, 1982 and Cheng, 2006). This author argues that this higher growth for younger owned firms is attributable to high commitment, motivation and flexibility of younger individuals. It should be ovious that younger individuals want to prove their own abilities, while the older owner-managers usually have more legalistic view of possibilities. As a result of this younger owner-mangers achieve more growth rate than those older age counterparts. Flexible characteristics of younger owner-managers, risk taking behavior, and greater ability and willingness to make fundamental changes with bigger adaptability also contribute to enable them to achieve better growth rate (Cheng, 2006:47). Consistent with these studies the owner's age-growth relationship result of both the regression model and descriptive analysis of this study show an inverse relationship, though it is statistically insignificant. For example, while the youngest age group achieved a 9.01% growth rate, those SEs run by oldest group (above 50 years old) grow only by 3.79%, which is still less than the growth rate of those SEs owned by the middle age category (36-50 years old with a 7% growth rate (see table 5.2 below).

Table 5.2: Demographic Characteristics of Respondents

Variable	Obs	Pereq	Growth rate			
			Mean	Std. Dev	Min	Max
Gender						
1. Male Owned	259	77.78 %	7.24%	12.1583	-5.33%	76.11%
2. Female Owned	74	22.22%	6.51%	12.5301	-13.86%	53.64%
Total	**333**	**100%**	**7.085%**	**12.226**	**-13.86%**	**76.11%**
Marital Status						
1. Married	266	79.88%	6.39%	11.2219	-13.86%	73.24%
2. Single	52	15.62%	11.61%	16.45%	-0.58%	76.11%
3. Divorced/Wid	15	4.50%	3.76%	8.84790	-7.85%	25.58%
4. Total	**333**	**100%**	**7.085%**	**12.226**	**-13.86%**	**76.11%**
Age of Owners(in Years)						
Below 20	1	0.30	0	0	0	0
21-35	112	33.63	9.05%	14.0785	0	76.11%
36-50	159	47.75	7.00%	11.0409	-13.86%	53.64%
50 and above	61	18.32	3.79%	10.9713	-7.85%	73.24%
Total	**333**	**100%**	**7.085%**	**12.226**	**-13.86%**	**76.11%**

5.3. Sectoral Engagement of Small Enterprises

When the total small enterprises are classified according to sectoral engagements, 64.86% of them were engaged in trade followed by manufacturing (15.92%), service (15.62%) and 3.6% in construction sector. Small enterprises engaged in the manufacturing sector registered the highest growth rate (13.90%) followed by service (12.90%), construction (6.89%), and trade with growth rate of 4.02%. Result of the regression model and hypothesis test (t-tests) also proved that firms in the manufacturing sector grew at 7.57% more than those in other sectors, statistically significant at 1% level (See Appendix I-A).

Table 5.3: Growth Rate by Sector and Growth Category

Sector	Freq	Pert	Mean Growth Rate	Growth rate by category of Growth Rate			
				Survival		Growing	
				Freq	Growth	Freq	Growth
Manuf.	53	15.92%	13.90%	12	-0.19%	41	18.02%
Construction	12	3.60%	06.89%	07	0	05	16.54%
Service	52	15.62%	12.90%	17	-0.56%	35	19.44%
Trading	216	64.86%	04.02%	151	-0.13%	65	13.67%
Total	333	100.00%	07.85%	187	-0.17%	146	16.37%

5.4. Effect of Entrepreneurial Orientation on Growth of Small Enterprises

According to Miller (1983) and Lumpkin and Dess (1996) a firm is said to be an entrepreneurial firm if it is engaged in product and market innovation, committed to allocate resources in order to undertake something which is a risky business enterprise, and first to come up with proactive innovations and products/services, exploit market opportunities ahead of competitors which enables it to gain superior (above average) returns/growth**.** The more owners/mangers of small enterprises adopt an EO, the more they achieve competitive advantage and enhance growth (Miller, 1983; Covin and Slevin, 1989; Wiklund and Shephared, 2005).

5.4.1 Measures and Dimensions of Entrepreneurial Orientation

In this paper firms' propensity to EO is measured in terms of three dimensions: innovativeness, proactiveness, and risk taking with three items each**.** The entrepreneurial orientation scale used in this study are those scales whose reliability and validity had been proved by many previous researchers (e.g.Yilitalo, 2010; Joao & Susana, 2007, Wicklund & Shepherd, 2005; Lumpkin & Dess, 2001; Lumpkin and Dess, 1996; Zahra & Covin,

1995 Covin & Slevin, 1989). To capture the dimensions of EO, respondents were asked to point out the statement which most clearly matches the management style of their enterprise on a 5-point Likert scale (1= complete disagreement with the statement and 5= complete agreement with the statement (See Appendix II, Q.62)

Similar to Covin and Slevin (1989) and Fairoz et al (2010), the degree of EO of SEs was determined by mean score. The higher the score, the more entrepreneurial strategic posture exists. In order to determine the impact of EO on growth of small enterprises, multiple regression analysis was used. Researchers can ensure reliability and validity of measures by consulting relevant literature and using statistical tools (such as Cronbach's Alpha). Accordingly, the previously tested measures of EO were applied in this research. Besides, in order to ensure the internal consistency and reliability of the EO measures, Cronbach's alpha was calculated and its result turned out to be 0.78 which is beyond the acceptable range recommended by Nunnally (1978) as cited by Fairoz et al. (2010).

This paper treated the dimensions of EO as uni-dimensional construct, consistent with existing literature (Wicklund and Shepherd, 2005; Covin and Slevin, 1989). The mean score of the nine items is used as the one construct of EO: the higher the score, the more entrepreneurially oriented the owner is considered to be. In order to measure overall effect of the uni-dimensional EO, the aggregated mean score of the nine items was regressed along with other explanatory and control variables.

Table 5.4: Mean score and standard deviation of Dimensions of EO

Dimensions of EO	Obs	Mean	Std dev	Rank based on Mean
Innovativeness	333	3.248248	0.8587106	3
Proactivness	333	3.585586	0.9433941	1
Risk taking	333	3.551552	0.7576662	2
Overall EO	333	3.461795	0.679481	

Mean values and standard deviation of EO dimensions are shown in table 5.4 above. According to this table proactivness has highest mean value of 3.59 followed by risk taking and innovativeness with mean score of 3.55 and 3.25, respectively. This implies that the strategic posture of the owners is more inclined towards coming up with proactive products/services in order to exploit market opportunities ahead of competitors than being innovative and committed to allocate resources in order to undertake some risky business (i.e. business with uncertain benefits).

5.4.2. Relationship between Entrepreneurial Orientation and Growth

In Table 5.5 below small enterprises are classified as high, moderate and low in each of the dimensions and overall EO based on their mean values. Taking 5 point as the highest score and 2.5 as middle point, we classified the High entrepreneurial firms those whose score ranges from 4.00-5.00, moderate EO consists of firms with mean value falling between 3.00-3.99; and SEs which scored mean value of below 3 are classified as low entrepreneurial oriented enterprises. Thus, based on the number or proportion of SEs in high category of each dimension, we can infer that small enterprises' propensity to proactivness was found to be higher than risk taking behavior. The latter in turn is higher than innovativeness. One hundred forty two SEs (43% of total) demonstrated higher level of proactiveness, 132 SEs (40%) are high-risk takers and only 80 firms (24%) showed high degree of innovativeness. Based on the mean score of the overall EO, instead of mean score of individual dimensions, the majority of the small enterprises (53%) demonstrated moderate level of EO, and 25% fall under the high EO category (see No 4 of table 5.5).

Table 5.5: Growth by category by Dimensions of EO

Dimensions of EO		Growth rate					
		Obs	Perc	Mean	Std Dev.	Min	Max
Innovation	High	80	24.02%	11.29%	13.192	-2.29%	51.34%
	Mod	147	44.14%	6.57%	11.674	13.86%	73.24%
	Low	106	31.83%	4.61%	11.500	-7.84%	76.11%
Proactivness	Hig	142	42.64%	9.82%	14.062	-0.58%	76.11%
	Mod	130	39.04%	5.32%	9.9757	13.86%	46.21%
	Low	61	18.32%	4.49%	10.830	-7.85%	53.65%
Risk taking	Hig	132	39.64%	9.02%	13.937	-2.29%	76.11%
	Mod	148	44.44%	6.49%	11.055	-13.8%	51.34%
	Low	53	15.92%	3.80%	9.88%	-7.84%	53.64%
4. Overall EO	Hig	82	24.62	11.99%	14.717	-2.29%	73.24%
	Mod	178	53.45%	6.57%	11.292	13.86%	76.11%
	Low	73	21.92%	2.82%	9.258	-7.84%	53.64%

Many of the earlier studies (e.g. Wiklund and Shephared, 2005 Covin and Slevin, 1989, Miller, 1983) found that the more owners/mangers of small enterprises adopt an EO, the more they achieve competitive advantage and enhance firm growth. Consistent with the previous studies, results of the descriptive analysis of this study also show the same result. That is small enterprises that adopted higher degree of entrepreneurial orientation achieve highest growth compared to those with moderate and low degree of EO (see No 4 of table 5.5). Enterprises in the high overall entrepreneurial category have grown at about 12% since start-up, which is almost four times more than the growth of those in the low category.

In addition to the above descriptive analysis, consistent with findings of previous researches (Kroeger, 2007, Wiklund & Shephered, 2005; Covin and Slevin, 1989; Lumpkin

and Dess, 1996; Miller, 1983) results of the econometric (OLS) analysis also show positive association between overall EO and growth of small enterprises with a beta of 3.59 significant at 1% level of significance (See Appendix I-A2). This may imply that a given unit increases in level of entrepreneurial orientation is associated with 3.59% increase in growth. This means, the nine-item dimensions of EO (innovativeness, proactivness, risk taking) have joint statistically significant influence on growth of small enterprises. The more owners/mangers of small enterprises adopt an EO, the more they achieve sustained competitive advantage and enhance growth by taking risks to introduce new and innovative products/services and proactively respond to changing market competition. This result proved the researcher's hypothesis that EO has universal significant positive influence on growth of small enterprises.

Findings of this study indicates that small enterprises in the Regional State of Tigray, Ethiopia, demonstrate moderate degree of EO, with mean score of 3.46, and strongly significant positive correlation is found between the EO and growth. Therefore, the study reasonably concludes that EO represents a promising area for building a cumulative body of relevant knowledge about entrepreneurship. As indicated earlier, this research demonstrates support for the first hypothesis, that an entrepreneurial orientation, a propensity of a firm to be innovative, proactive, and be willing to take risks (Lumpkin & Dess, 1996), has a positive relationship with the growth of the firm. This suggests that an entrepreneurial orientation is a one of the key determinants to attain above average returns and sustained competitive advantage and growth. A low level of entrepreneurial orientation may be one of the main reasons why many of the small enterprises (56%) were found to be survival type.

Moreover, the study confirms the uni-dimensionality of EO. The dimensions of EO bring favorable effect on growth when they are combined together and regressed as one single variable. Moreover, as his findings support the idea that EO dimensions (innovativeness, proactiveness, risk taking) are of equally important to explain the growth of small enterprises, the researcher suggest the use of summed index of the three dimensions in future studies instead of mean score of individual dimension.

5.5 Effect of Organizational Resources on Growth of Small Enterprises

In this section, both descriptive analysis of the effect of enterprises resources, with specific reference to finance, location, enterprise age and firm size, on growth of small enterprises are discussed.

5.5.1. Relationship between Financial Capital and Growth of Small Enterprises

Financial capital is the most liquid asset that can be easily converted into other types of resources. For example, financial capital provides resource slack, allow firms to undertake innovative projects, expand their business, acquire new assets such as plant and equipment that might not be possible for a financially constrained firm.

However, growth of small enterprises in the world in general and in the developing countries in particular has been challenged by greater financial constraints than larger firms because of bias of lenders against small firms; market imperfections; underdeveloped nature of financial markets of developing countries, inability of SEs to fulfill such requirements as collateral, business plan and financial statements that banks and financial institutions require when they extend credit to borrowers. As a result of these and other constraints, small enterprises start their business using their meager personal saving and informal sources such as loan from families and relatives and money lenders whose interest mostly is quoted to be more than that of the bank's. This study tries to examine growth of small enterprises vis-à-vis the following issues (i) size and source of initial capital (ii) financial positions of SEs, (iii) financial preference (capital structure) (iv) adequacy of access to bank loan.

5.5.1.1. Financial Position and Growth

In this paper the financial position was defined as the size and sources of initial capital, the financial condition of the enterprises, that is, whether or not they had faced any financial constraint. Due to the aforementioned constraints, small enterprises in developing countries rarely apply for and receive bank loan. Though microfinance institutions are considered important source of capital to small enterprises, their outreach and loan size are very limited. Findings of this paper and empirical evidences (e.g. Beck and Demirguc-Kunt, 2006) demonstrate that the contribution of formal financial institutions in financing initial

investment of small firms is negligible. As a result of these problems small enterprises in developing countries, including Ethiopia, rely on their meager personal sources and other informal sources such as trade credit, family sources and money lenders. Respondents of this study reported that due to the reluctance of formal financial institutions and other internal reasons they had been forced to start their current business with very small amount of capital. The average amount of initial capital is found to be Birr 73,879.00 (equivalent to approximately US$3940.00). About 64% of them started with less than Birr 50,000.00; while 30% of them had initial capital ranging from Birr 50,001-250,000.00 (US$ 2,667 to US$13,333.00) and only 6% had initial capital of above 250,000 Birr.

Table 5.6: Growth Rate by Amount of Initial Capital

Initial capital category (Birr)	Small Enterprises		Growth Rate
	Freq	Percent	
Below 10,000	106	31.83%	6.17%
10,001-50,000	108	32.43	7.13%
50,001-100,000	60	18.02	6.27%
100,001-250,000	39	11.71	7.84%
Above 250,000	20	6.01	12.61%
Total	333	100	7.85%

On average there is a positive association between size of initial capital (Capam0) and growth rate of small enterprises- the higher the initial capital, the higher propensity of owners to employ more workers, significant at 10% (see Appendix I-A2).

Not only was the beginning capital too small, but the source of this scanty initial capital was also mainly from personal saving. Bank loan was very low. It was found that out of the 333 small enterprises 203 SEs (61%) financed their initial investment using a single source, mainly own saving, and the share of multiple source (combination of two or more the aforementioned sources) account for 39% of the initial investment (See AppendixI-D1).

A firm with very limited alternative sources of capital is less likely to engage in expansion and innovative activities which in turn may limit its growth opportunities. In order to substantiate this, the researcher applied a t-test (see AppendixI- D1) and compared the growth rate of those single source SEs with that of multiple source. It was found that growth rate of the former SEs appeared to be 1.78% less than the latter (6.39% against 8.17%), marginally significant at (10%). This implies that single source SEs grow less rapidly than those SEs with multiple sources. In other words, as wider alternative sources of capital may enable small enterprises to achieve better growth opportunities, policy makers and other stakeholders need to introduce accessible and broader alternative sources of capital to this sector so that the latter can play its expected role in income and employment generation.

Of the 203 SEs that used single source, initial investment of the 125 small enterprises (62%) had been financed from personal saving of the owners while 28% of the initial investment was financed from informal sources (See Appendix I-D2). Banks and microfinance institutions contributed only 10% of the initial capital, which is similar to findings of earlier researches. Consistent to earlier researches (e.g. Carpenter and Petersen, 2002) cited in Fatoki (2011); & Goldmark and Nicher; 2009) the writer of this paper found that growth of SEs was constrained due to their reliance on internal finance. While bank financed SEs tend to show highest growth rate (13.27%) those SEs which used their own saving (internal source) registered the lowest growth rate (6.06%). Fatoki (2011) also indicated that internal sources are very limited and less productive (as they are more expensive than debt). The relationship between growth and capital structure is presented in the following section (5.5.1.2.)

As discussed in the literature chapter, empirical evidences showed that SEs has been exposed to financial trouble. However, it was unclear whether lack of adequate financial capital represented a critical constraint for the growth of small enterprises. For this reason, respondents were asked if they had ever faced any financial difficulty both at the start-up time and any time after establishment. Accordingly, out of the total respondents 261 SEs

(78%) indicated that they had been exposed to sever financial difficulty due to lack of adequate credit from banks/micro finance institutions, and only 72 SEs (22%) were found to be capital self sufficient. Inability of SEs to fulfill the requirements of banks (collateral, business plan, financial statements), lack of information, inadequacy of loan amount received from banks were cited as the most critical causes that hinder them from obtaining credit from these institutions. Though this was consistent with the previous descriptive literatures, it did not indicate to what extent growth of small enterprises had been constrained because of such financial shortages. Therefore, the next question that must be answered was whether growth was delayed due to this financial constraint. For this purpose, descriptive statistical analysis, multiple regression model and t-tests were employed to examine if growth rate of small enterprise is affected by their financial condition. In order to capture the influence of financial position on growth of small business, two dummy variables were used (1 represented SE with No financial shortage and 0 for SEs with financial shortage). The following table shows that while the financially self-reliant firms grow at 8.83%, those SEs with financial difficulty grow at 6.6%, which implies that financial difficulty had delayed growth rate of small enterprises by 2.23%.

Table 5.7: Growth rate by Enterprises' Financial Position

Financial condition of Small Enterprises	Obs	Growth of Small Enterprises			
		Mean	Std. Dev	Min	Max
Had Fin. Shortage	261	6.6%	0.119543	-13.86%	76.11%
Had no Fin. Shortage	72	8.83%	0.1310607	-7.85%	46.21%

The multiple regression result also shows that strong financial condition/position significantly and positively influences growth of small enterprises, controlling other variables. Growth rate of financially constrained enterprises (findiff) is found to be 2.71% lesser than those financially strong SEs, marginally significant at 10% level (See Appendix I-A2). This is in line with the perceived hypothesis of this writer "financial constraint has significant negative effect on growth of small enterprise" and findings of many authors (Ishengoma & Kapppel, 2008; Ageba and Amaha, 2006; Tushabomwe-Kazzoba, 2006; Wiklund & Dess, 2005; and Beccetti &Trovato, 2002).

Findings of this research provided evidence in support of the resource based theory that states heterogeneous resources endowment of firms is source of variations in their growth (Barny, 1991). This is because it was found that firms with strong financial resources, grew at higher rate than those financially weak enterprises.

5.5.1.2. Growth rate in relation to Access to credit and Capital Structure.

Small enterprises can benefit more from the use of debt financing than equity capital (or personal saving). This is because if they finance their investment using debt capital, as the interest they pay on their loan is tax deductible; they can save their cash outflows. This means that it shields part of income of the business from taxes and lowers tax liability and increases cash inflows of the firm as a result of this tax saving. The ultimate effect of this may be reflected in expansion of business that demands more employment, then more growth rate.

Ahiawodzi and Adade (2012) said that a unit increase in access to credit leads to growth of SMEs by 10.5 units. Note that in the previous sections of this paper it was only discovered that growth rate of financially constrained small enterprises was slower than those unconstrained counterparts. But, this does not indicate that all financially constrained small enterprises had been neglected by formal financial institutions because some of them might not apply for bank loan. Besides it was unclear whether lack of access to credit represented a critical constraint for growth of small enterprises. For this reason, the study further examined the number of SEs that had applied for bank loan, proportion of applications accepted/rejected and the effect of adequate access to bank loan on growth of small enterprises.

Accordingly, out of the 261 financially deficient SEs, 200 of them (77%) had applied for bank loan and only 21 applications (10.5%) were accepted (see Appndix D7). Not only banks accepted very smaller proportion of the applications, but the amount of loan they actually dispersed was also inadequate. Only seven of the eligible applicants (33%) received adequate loan. This implies that 96.5% of the financial demand of financially

weak small enterprises was not satisfied by banks and microfinance institutions as a result of which their growth rate was delayed. While those accepted SEs had been growing at 10.24%, growth rate of those rejected SEs was only 6.15%, significant at 10% level (see AppendixI- D7). These research findings imply that any additional access to credit (loan) has marginal positive influence to enhance growth of small enterprises though majority of them had inadequate access to bank loans.

According to the static trade-off theory of capital structure, firms can optimize their benefits and earn higher rate of return if they borrow up to the point where the tax benefit from an extra debt is exactly offset by the cost that comes from the increased probability of financial distress. This means, other things remain constant, the static trade-off theory argues that debt financed or leveraged firms grow more rapidly than those equity financed firms and this study has confirmed that.

In order to examine to what extent capital structure influences growth of small enterprises, the research defined capital structure as the mix of debt and equity capital or debt equity ratio of initial capital. Consistent with this theory, the descriptive analysis shows that those debt financed SEs of this study have been growing at 9.41% while growth rate of those equity financed firms is 5.98% (AppendixI-D3). Besides, the regression model (Appendix I-A2) also reveals that leverage has significant positive contribution to growth of small enterprises with a growth coefficient of 2.76. This implies that leveraged or debt financed firms grow 2.76% faster than equity financed or unleveraged small enterprises ($P< 0.05$).

In addition to the regression model, propensity score matching (PSM) techniques was applied in order to rigorously examine the impact of capital structure (intervention) on growth of small enterprises.

The PSM is a non-parametric estimation technique that is widely used in non-experimental impact evaluation studies. This method, first proposed by Rosenbaum and Rubin (1983), is based on the idea that the selection bias based on observable can be eliminated by matching every individual observation of treatment group (SE that used debt capital) with an

observation with similar characteristics from the control group (SE that used equity capital). It balances the distributions of observed covariates between a treatment group and a control group based on similarity of their predicted probabilities of being treated (Rosenbaum and Rubin, 1983).

The PSM starts by dividing sampled small enterprises into two groups; SE's with debt capital (treated SE's) (denoted by D_i=1) and those with equity capital(control SE's) (denoted by D_i=0). Let Y_{i1} be the potential of outcome variable (growth of SE) for firms with debt capital, Y_{i0} is the potential outcome for equity capital. The impact of debt capital on the outcome variable of the ith firm, which is called the treatment effect, is given by $\Delta Y = Y_{i1} - Y_{i0}$. With non-experimental data, we cannot estimate this treatment effect for every firm because we cannot observe both potential outcomes for each firm at the same time. What we observe is Y_i=D_i Y_{i1}+(1-D_i)Y_{i0}. As in many impact evaluations with non-experimental data, our primary interest is to estimate average treatment effect on the treated households (ATT) defined as:

$$\text{ATT}=(E(Y_{i1} - Y_{i0}|D = 1)= (E(Y_{i1}|D = 1)- \text{E}(Y_{i0}|D = 1) \ldots \ldots (1)$$

Similar to the problem of individual firm treatment effects, it is impossible to observe the mean outcomes for treated observations without treatment, .i.e. $\text{E}(Y_{i0}|D = 1)$. This is the missing data problem. The objective of the matching procedure is how to find a proxy for this missing data in non-experimental sample observations. We cannot solve the problem by replacing $\text{E}(Y_{i0}|D = 1)$, in equation (1), by $\text{E}(Y_{i0}|D = 0)$, the average outcome of debt non users. If factors that affect the treatment decision (use of debt capital) also affect the outcome (growth in our case), using $\text{E}(Y_{i0}|D = 0)$ as a substitute for $\text{E}(Y_{i0}|D = 1)$ will introduce systematic bias. To solve the selection problem, matching methods introduces conditional independence identification assumption.The conditional independence assumption (CIA) states that given observable control variables, assignment to the treatment group is random and is independent of the outcome, i.e

$$E(Y_{i1}, Y_{i0}) \perp \text{D} \| \text{X} \qquad (2)$$

Where, X is a vector of pre-treatment characteristics of the SE's and ⊥ denotes independence. This assumption is needed to eliminate selection bias based on observables. Under the CIA, the ATT can be written;

ATT=$E_X\{\ (E(Y_{i1}|X, D=1)$- E($Y_{i0}|X, D=0))|$D $=1\}$ ... ...….(3)

One way to estimate (3) is to match debt users and non-users on their pre-treatment characteristics, Xi. Matching on all variables in X_i becomes impractical as the number of variables increases. this is known in the literature as `curse of dimensionality'. To overcome this problem, Rosenbaum and Rubin (1983) suggest the use of so-called balancing scores b(X), i.e. functions of the relevant observed co-variates, X such that the conditional distribution of X given b(X) is independent of assignment into treatment. One possible balancing score is the propensity score P(X), i.e. the probability of being in a treatment group (debt using group) given observed characteristics X. Matching procedures based on this balancing score are known as propensity score matching (PSM). P(X) , the propensity score or predicted conditional probability of debt using, is defined as:

P(X)=P(D=1|X) …………………………………………..(4)

Where

0<P(X) <1 …………………………………………… (5)

The condition in (5) is required to rules out the phenomenon of perfect predictability of D given X. This is known in literature as common support assumption. This assumption ensures that firms with the same X values have a positive probability of being both participants and non-participants (Rosenbaum and Rubin, 1983).

We can rewrite ATT in (3) by replacing the X vector by P(X) as:

ATT=$E_X\{\ (E(Y_{i1}|P(X), D=1)$- E($Y_{i0}|P(X), D=0))|$D $=1\}$ ... ... (6)

Equivalently, the average effect of the treatment on the untreated (ATU) can be written as:

ATU=$E_X\{\ (E(Y_{i1}|P(X), D=1)$- E($Y_{i0}|P(X), D=0))|$D $=0\}$ (7)

In implementing the propensity score matching estimation, we follow the following steps. In the first step, the probability of debt capital using is estimated using logit or probit model to calculate the propensity score (probability) of debt using for each observation. In the second step, each user is matched to a non- user with similar propensity score. Several matching methods have been developed to match debt users with equity capital users with similar propensity score. In this study we use the three most commonly used impact assessment methods. These are radius matching, the kernel matching and the stratification matching estimator. The following table (table 5.7) reports PSM results of financing preference of owners on growth of SEs.

Table 5.8: PSM Result of financing preference of owners on growth of SEs

Variable	Impact of owners' financing preference on growth of SEs					
	Radius Matching		**Kernel Matching**		**Stratification**	
	ATE	**t-value**	**ATE**	**t-value**	**ATE**	**t-value**
Empl.Growth Rate (%)	3.4	1.827***	3.4	2.069**	3.4	2.231**
Boottstr		0.026		0.031		0.027
Debt Financed	107		107		107	
Equity Financed	226		226		226	

Note: ** shows p<0.05 *** shows p<0.01

The result shows that there is significant owner financing preference effect on growth disparity observed in small enterprises. As indicated in Table 5.7, there is at least 3.4 percent growth rate differentia in employment size between SEs that have used debt and own (or equity) capital. This result proves that, consistent to the hypothesis (H3b) leverage has a significant positive impact on the growth of SEs. This suggests that debt is a key determinant of SE growth that in turn supports the static-trade-off theory of capital structure and most previous studies. The result also indicates that the employment growth rate is more robust in measuring the growth of SEs.

5.5.2. Relationship between Location and Growth of Small Enterprises

Location, defined as the proximity of working premises of small enterprises to major customers, is one of the determinants of growth (Mulugeta, 2008; Leidholm, 2002). Working premises of small enterprises may be located either at commercial centers, or out of commercial center (areas distant from commercial districts). A firm operating in a central market, where many of its customers are concentrated, may benefit from a better access to demand sources and is likely to show faster growth rate than that which operates in remote locations. In order to capture the location of enterprises three variables are used; "far" to indicate locations that are too distant from the commercial districts; "Commercial district' to represent working premises of SEs situated in areas where their major customers are concentrated with better infrastructure; "moderately far" means locations that are outside the commercial districts but are not too remote from the latter.

Respondents were asked to indicate the proximity of their business enterprise to the commercial district. For example, if type of business of a particular small enterprise (respondent) is a kindergarten and is located in residential areas, it can be said that it is located in commercial center. Summary statistics of the responses indicate that while 232 (70%) of the sample respondents of this study were operating in commercial districts, 79 SEs (23%) operate in moderately far from commercial districts, and about 7% run their business in areas far from their customers. Growth rates disaggregated by growth category and by location are presented in the following table (Table 5.9).

Table 5.9: Growth rate by Location of Small enterprises

S. N	Location	Growth Category	Obs.	Mean	Std Dev	Min	Max
1	Far	Survival	13	0	0	0	0
		Growing	9	10.19%	5.3359	4.07%	17.92%
		Total	**22**	**4.17%**	**6.0986**	**0**	**17.91%**
2	Mod. Far	Survival	45	-0.17%	1.1698	-7.84%	0%
		Growing	34	20.32%	13.989	1.54%	51.35%
		Total	**79**	**8.65%**	**13.71%**	**7.85%**	**51.35%**
3	Comm. Center	Survival	129	-.180%	1.3205	13.86%	0%
		Growing	103	15.61%	13.757	1.16%	76.11%
		Total	**232**	**6.83%**	**12.097**	**13.86%**	**76.11%**
4.	Enterpr in all Locations	Survival	187	0.16565	1.23517	13.862	0
		Growing	146	16.3722	13.62629	1.1584	76.11%
		Total	**333**	**7.085%**	**12.22662**	**13.86%**	**76.11%**

Like the earlier findings, small enterprises that operate far from commercial centers or final customers show the least employment growth rate (mean growth 4.17% that ranges from zero to 17.91 percent) against those in commercial district which have been growing at a mean rate of 6.8 percent, ranging from -13.86 percent to 76.11 percent. While more than 187 SEs (about 56.16%) are operating for survival, the remaining 146 SEs (43.84%) have been growing type business. Of those in commercial districts 44.39% (103 SEs) are growing type with a mean growth rate of 15.61 percent, ranging from 1.16 percent (min) to 76.11 percent (maximum). On the other hand, out of those SEs which operate in locations too far from commercial districts or major customers 13 enterprises (59 percent) did not show any change in their employment size (had zero growth rates) and the remaining 9 enterprises (41 percent) had been growing at a mean growth rate of 10.19%, ranging from 4.07% to 17.92%. This indicates that the range of growth rate for those in commercial centers is more than those SEs operating outside commercial centers. The former ranges from 1.16% to 76.11 percent against 4.07 percent to 17.92 percent.

In the regression model, a dummy variable, which takes the value of one to those enterprises that conduct their business in areas far from their major customers (commercial district) and zero otherwise, is used. Findings of the regression model show that distant location has marginally significant negative effect on growth of SEs ($P < 0.10$), with a -2.73 coefficient (See Appendix I-A2). This indicates that growth rate of SEs located outside commercial districts is 2.73% lower than those SEs that operate their business within commercial district. Therefore, this result supports the hypothesis of this study "growth rate of small enterprises operating in commercial district or near to potential market (customers) is higher than the growth rate of those that are far from potential customer (market)" and empirical evidence (e.g. Mulugeta, 2008; Leidholm, 2002; Mead and Liedholm 1998; McPherson, 1992). This provides evidence that existence of agglomeration of externalities and access to major customers and improved infrastructure facilities (note that this writer found positive relationship between improved and inexpensive infrastructure and growth) contributed significant advantage to greater growth of small enterprises. Moreover, SEs operating in commercial centers might have got more advantage that enabled them to easily create both vertical and horizontal linkages that positively influence growth (Nicher and Goldmark, 2009). They found that enterprises that were working near each other and near customers and suppliers are more likely to form linkages. Such linkages can assist growth of SEs in different ways: exchange of best practices among neighboring enterprises; share market related information; increase access to a broader base of skilled labor; share business skills and innovative ideas and technology and strengthen customer-suppler relationship.

5.5.3 Relationship between growth rate and firm size and age

Firm age and size are the two most commonly researched explanatory variables expected to affect firm growth. The implication of attaining growth is not the same for established (large and old firms) and new and small firms (Gilbert, et al 2006). According to this author, as they have already achieved a level of viability and survival, large firms are subject to lower liability of newness than small and new firms are. In the absence of growth the latter's survival may be reduced due to such liability of newness. Evans (1987) and Pett

et al. 1989 cited in Ylitalo, 2010) reported that probability of firm failure to be lower in old firms than young firms. Gilbert (2006) says that as firm size and age increases, the negative effect of lack of growth on survival of firms is reduced-whereas growth in established firms is for sustainability, new firm's growth is about obtaining it. The impact of both variables has been verified in the empirical literature. Though result were mixed, patterns of empirical literature with regard to the relationship between growth of small enterprise and their size and age showed that young and small firms are more likely to grow faster than older and large SEs.

5.5.3.1. Effect of Enterprises Age on Growth of Small Enterprises

In this study enterprise age is captured in terms of number of years the firm stayed in operation. Only small enterprises with age of 3 years and above are included in the study in order to ensure meaningful growth result, that is small enterprises with age less than 3 years were excluded from the sample determination (sample frame was list of small enterprises with age greater 3 years and above). Those SEs which do not operate at least for three years are considered to be in critical stage as a result of which firms could not show any change in terms of employment size so they are unable to grow (Mead and Liedholm, 1998). For purpose of descriptive analysis, small enterprises have been classified into four age categories: 3-5 years, 6-10 years, 11-15 years, and above 15 years old and it was found that their average age is 8.75 years. When their age is disaggregated, 148 SEs (44.44%) fall within the first age category, 3-5 years, and 105 SEs (31.53%) are within the second age category of 6.10 years. The remaining 32 SEs (9.61%) have 11-15 years of age and those 48 SEs (14.41%) are with age of beyond 15 years. On aggregate 253 enterprises (about 76perecnet of the sample respondents) had been in operation for 3-10 years (see table 5.10 below). The proportion of the survival type of businesses is highest in the first (youngest) enterprises. Out of the 148 youngest enterprises 60 percent are survival against 54 percent of the oldest enterprises. This shows that the more enterprises stay in the market (increase in age) the lesser their degree of newness and the more they tend to graduate from their declining or stagnant state to growing type of business (see table 5.10 below).

Table 5.10: Growth Rate by Age (Initial number of employees- noemp0)

No of Categ	Age cat.	Growth Cat.	Ob	Perc (on its categ)	Average Growth (Entire SEs)			
					Mean	Std Dev	Min	Max
First Age Categ	3-5 Years	Surv.	89	60.14%	-0.16%	1.4694	-13.8%	0%
		Grow.	59	39.86%	25.33%	16.012	5.75%	76.11%
		Total	148	100%	10.00%	16.101	13.86%	76.11%
Second Age Categ	6-10 Years	Surv.	53	50.47%	-.020%	0.1454	-1.06%	0%
		Grow.	52	49.53%	13.06%	6.6263	3.59%	35.17%
		Total	105	100%	6.46%	8.0441	-1.06%	35.17%
Third Age Categ	11-15 Years	Surv.	19	50.38%	-0.73%	2.1131	-7.85%	0%
		Grow.	13	40.62%	7.94%	6.5121	2.21%	28.100%
		Total	32	100%	2.79%	6.1346	-7.85%	28.100%
Fourth Age Categ	Above 15 Years	Surv.	26	54.17%	-0.09%	.44924	-2.29%	0%
		Grow.	22	45.83%	5.17%	3.8197	1.15%	16.49%
		Total	48	100%	2.32%	3.6924	-2.29%	16.49%
Over All			333	100%	7.08521	12.226	13.86%	76.11%

Table 5.10.1. Summary of Growth Rate by Growth Category

Age Category	Growth Rate by Growth Category		
	All firms	Growing	Survival
Fist (3-5Yrs)	10%	25.33%	-0.16%
Second (6-10Yrs)	6.46%	13.33%	-0.02%
Third (11-15 Yrs)	2.79%	7.94%	-00.73%
Fourth (above 15 Yrs)	2.32%	5.17%	-0-09

For reasons mentioned in the literature, an inverse relationship was expected between age of the small enterprise and their growth. Accordingly, this study tested the relationship between age and growth using both descriptive statistics and econometric models. Analysis

of the descriptive statistics (table 5.10 above) indicates that employment growth rate and age of small enterprises had an inverse relationship; i.e., growth declines as the age category increases, similar to the earlier findings. For instance, the overall average growth rates of all enterprises decline as the age of the enterprises increases. The youngest firms in the first category registered an average growth of 10%, followed by second category with 6.46%. Similarly, while firms in the third category grew by 2.79%, growth rate of the oldest firms (fourth category) was found to be 2.32%, which is the smallest rate. If firms categorized into growing and survival types, the growing type firms also showed a declining rate. Their growth rates were 25.33 percent, 13.33 percent, 7.94percent, and 5.17 percent for the first, second, third and fourth categories, respectively. However, the growth rate for the survival type was volatile (see table 5.10.1 above)

Besides the descriptive analysis, an inferential statistical analysis was employed for a rigorious tests. In order to capture the non-linear growth-age relationship, the research included the enterprise age square in the model, as suggested by Evans (1987). Results of multiple regressions model (See Appendix I-A2) also demonstrated the same inverse relationship between growth and age of the enterprises. In line with Story's (1994) cited in Cheng (2006) theory of effect of minimum efficient scale, younger firms grew more rapidly than older firms, the age variable took a negative (-0.691coefficient) and highly significant sign ($P < 0.01$), while the squared variable takes a positive and statistically significant coefficient ($P < 0.05$). This suggests that growth rate decreases as firm age increases, and decreases at an increasing rate. This inverse relationship is consistent with the prediction of learning model of Javanovic (1992) but against that of Gibrat's law of proportionate effect.

In order to measure the combined effect of entage and $entage^2$ the researcher used the following formula:

$Y = \beta_1 + 2\beta_2 X$;

Where

β_1= coefficient of entage = -0.6912465;

β_2= coeeficient of entage2 = 0.0115224

Y= growth rate;

X= average enterprise age = 9

Then, Y is determined to be -0.48387 which indicates that, starting from the 9 (nine) years average age of an enterprise, a one year increase in age is associated with 0.48387 % decrease in growth of small enterprises.

Different possible explanation can be provided for this negative age-growth relationship. Liability of newness is higher in young and small firms as the result of which small firms' survival could be jeopardized unless they achieve adequate growth rate (Gilbert, 2006). According to the previous writers such as Gilber (2006) until they achieve viability and sustained survival, small enterprises strive to register higher growth rate during their early age.

The other possible explanation can be justified using the theoretical paper of Jovanovich (1982). According to Jovanovic's learning model a firm expands quickly at first, and then narrows off its growth as it approaches its optimal size. Besides, firms' productivity losses may be greater as their age increases because they may fail to invest sufficient capital in new technology or aged firms may relatively depend on outmoded equipment and machinery (Burki & Terrell, 1998 cited in Nicher and Goldamrk, 2009.

Story's Minimum efficient scale effect of Storey is also taken as possible explanation. He said that once a firm achieves its minimum efficiency scale, business will grow slowly afterwards. This is because the owner manger is either lacking motivation to continue growth of the business once a satisfactory level of return is achieved, or due to the diseconomies of scale.

Shift from labor intensive to Capital intensive may be another possible explanation: As firms' age increases, pursuant to their accumulated capital and experience, they may tend to transform themselves from labor-intensive business into capital-intensive business enterprise. That is, they may be inclined to invest less amount of money to hire lesser employees, but larger amount of capital can be invested in machineries and technologies.

This may result into lower growth rate in employment, which is opposite to new or younger firms

5.5.3.2. Initial Employment (size) and Growth of Small Enterprises

This study measured size of small enterprises in terms of initial number of employees, which includes owner managers, full time and part-time workers. Small enterprises covered in the study are classified into five categories based on the number of employees they had at the time of establishment. The initial employment size of the MSEs in this study ranges from one employee to 26 employees with an average of 1. 86 employees (approximately 2), i.e., the owner and another employee. The first category comprised those SEs that started with only one employee (mainly the owner himself/herself) and it is found that 239 SEs (72%) fall within this category. This indicates that majority of the SEs are solely owned business type, that is, they started their business without having hired labor. The second category includes 66 SEs (20%) which started with 2-3 employees. This means about 92 percent of the SEs started their business with less than 4 employees. Only 28 SEs (8.41%) of the respondents started operations with an employment size of over 4 employees out of which 15 SEs in this category are growing type. Similarly, 81.82% percent of the survival SEs and 58.90% percent of the growing SEs start operation by owner (one employee) alone.

While the average growth rate of the entire SEs of this study is 7.085%. Compared to the growth rate of SEs in other countries, this is more than three times lower than the 24% growth rate in Kenya. Nevertheless, it is almost similar to the average growth rate in Botswana, Malawi, Swaziland and Zimbabwe, which ranges from 6.3 to 9 percent (Liedholm, 2001). The standard deviation of the employment size for the growing MSEs (about 14 percent) is greater than the standard deviation of employment size in survival type SEs (1.23) which implies that the growing type SEs initial employment size is more variable and diverse than the survival SEs size.

According to previous literature growth rate of smaller enterprise is expected to be faster than larger enterprise due to the achievement of minimum efficient scale, that is, firm size

will increase until they reach the minimum efficient scale. The descriptive analysis demonstrates that (Table 5.11) growth of small enterprises increased until their employment size reached 4-6 employees, like the findings of previous studies. While SEs with only one employee (the smallest size) grew at 6.95%, the second category (with 2-3 employees) and third category (SEs with4-6 employees) grew at 7.49% and 10.53%, respectively. After the third category, employment growth rate started to decline. While SEs with 7-10 employees (fourth size category) grew at 2.99%, the growth rate of those SEs with more than 10 employees (fifth category) tended to be 2.83% only. The following table (5.11) displays that growth rate declines as the number of employees (size) increases.

Table 5.11: Growth Rate by Size (Initial number of employees- noemp0)

Categ of Initial Size			No of SEs by Type of Growth		Average Growth (Entire SEs)			
	Ob	Perc	Survival	Growing	Mean	Std Dev	Min	Max
One Em.	239	72%	153	86	6.95%	12.826	0	76.11%
2-3 Emp	66	20%	21	45	7.49%	10.906	-13.86%	51.35%
4-6 Emp	16	5%	5	11	10.53%	11.425	0	35.17%
7-10 Em	5	1%	4	1	2.99%	08.02%	-2.29%	17.23%
> 10	7	2%	4	3	2.83%	4.3474	-1.06%	10.06%
Total	333	100%	187	146	7.085%	12.227	-13.86%	76.11%

The econometric model of this study also reveals that enterprise size has statistically significant negative effect on employment growth ($P < 0.01$) with a coefficient of -0.587 (see Appendix I-A2). This implies that the smaller the initial size, the more the propensity of owners to employ more working force than their large-scale counterparts. This is an important finding for those concerned with employment creation.

These findings are consistent with Storey's Theory of Minimum Efficient Scale (MES) (cited in Cheng, 2006) and Mashayo (2006). According to Mashayo (2006: p24), firm growth is negatively related to its size "because large firms might be approaching their optimal size (depending on their efficiencies), therefore, there is limited further growth.

According to Story (1994) (cited in Cheng, 2006) growth rate of smaller enterprise were quicker than larger enterprise due to the achievement of minimum efficient scale. Increasing firm size is encouraged by economies of scale, that is, firms continue to add workers or hire new employees until it reaches the minimum efficient scale (see section 3.4.4.3 of this paper). Economies of scale may arise, first, unit cost of production falls with increased productivity up to the minimum efficient scale beyond which cost saving becomes small because the economies of scale may be offset by diseconomies which arise from the greater productivity associated with increasing size. Second, when a firm grows at a rate faster than which the owner-manager can manage, it may experience diseconomies of scale, which may reduce the level of firm growth. Third, managing small firm may be more flexible and easier than managing larger firms. Normally, an owner of a SE can only handle smaller company. If the firm grows beyond a certain point, additional management personnel are required to sustain the growth performance. (See section 3.4.4.3 of this paper).

Both enterprises age and size have negative influence on growth of small enterprises, statistically significant at 1% level and 5%, respectively. The study measured firm age by adding a quadratic size variable to the model and results suggested that the growth rate initially decreases with firm age but then starts to increase after a certain level ($p < 0.05$). Therefore, the researcher concludes that younger and smaller enterprises grew faster than those older and large scale counterparts, suggesting older and larger firms did not gain advantages from reputation effects or accumulated experience, greater levels of resources, entrepreneurial intelligence and managerial ability. The negative relationship between growth and firm age and size is against Girbat's law of proportionate effect but consistent with Jovanovich's learning model.

Findings of this research reveal that smaller and younger small enterprises created more job opportunity to the working force. This in turn may imply that assistance to smaller and younger enterprises may be worthwhile. Thus, government and other stakeholders should exert maximum effort to support existing small enterprises and to establish new enterprises in order to enhance the economic growth of the country. But as reported by Mead (1994)

the very small firms, especially those one-person home-based enterprises, are less likely to graduate to medium and large scale enterprises. Therefore, they may not be good place to start an assistance programme. Thus, government's assistance should target those small enterprises with better growth potential.

5.6. Entrepreneurial Resources and Growth of Small Enterprise

As there is no separation of ownership and controlling SEs, they are directly or indirectly managed by their owners/founders and, thus, success or failure of the SEs is largely affected by the skill and abilities of their owners. According to the resource based view heterogeneous distribution of valuable, rare, inimitable, and non-substitutable resource and capabilities are considered to be the source of ability to generate above average return or achieve higher growth rate than competitors (Barney, 1991). Compared to tangible resources, as they are less visible and more difficult for competitors to understand, purchase, imitate, or substitute for firms, intangible resources are superior sources of competitive advantage (Hitt et al, 2009). Previous empirical studies have generally highlighted a positive effect of owners' human capital (as important part of intangible assets of firms) on growth of small enterprises. According to the resource based view greater human capital reflected in educational attainment and work experience result into higher capabilities and this in turn leads to more sustained competitive advantage and generating above normal return of firm growth.

5.6.1 Education and Growth of Small Enterprises

Small enterprises established and run by individuals with higher educational attainment are expected to outperform because of their unique capabilities. In this research, educational attainment is measured in terms of number of years owners spent in school (years of schooling). In order to measure the relationship between growth rate and educational attainment of owners/managers of small enterprises, the following seven educational categories have been created: (1)small enterprises without any formal education/illiterate; (2) elementary school complete (grade-grade 8); (3) secondary school complete (grade 9-grade 12); (4) certificate or vocational-TVET training (10+1, 10+2, and 10+3); (5) diploma holder that includes 12 + 2 from the old curriculum (6) first degree holders and (7) masters and above.

The educational profile of the small enterprises demonstrates that elementary school complete and illiterate owners/mangers accounted for 48% and 7% have first degree and above. High school complete owners/mangers comprised about 32%, certificate (TEVET) and diploma holders were 13% in total (3% for certificate and 10% for diploma). Thus, the majority of the small enterprise owners (about 80%) are 12th grade and below (7% illiterate, 41% elementary school complete, and 32% high school complete) without any chance of vocational training nor higher education. The writer found that the average year of schooling of the respondents is about nine years or grade nine (9th grade complete).

Table 5.12: Growth Rate by Educational level of Owners

Highest Educational level	Small Enterprises		Mean Growth Rate	Mean Growth rate by category of Growth Rate			
	Freq	Pert		Survival		Growing	
				No of SE	Growth	No of SE	Growth
No Educ	24	7.21	0.0478	15	-0.0052	9	0.1361
Elm.Educ	136	40.84	0.0515	85	-0.0026	51	0.1417
Sec Ed.	108	32.43	0.0752	58	-0.0001	50	0.1626
Certificate	11	3.30	0.1299	4	0	7	0.2042
Diploma	32	9.61	0.0931	16	0	16	0.1861
Degree	20	6.01	0.1338	9	0	11	0.2433
Masters &Above	2	0.60	0.1201	0	0	2	0.1201
Total	333	100.00	0.0785	187	-0.00166	146	0.1637

Intuitively, one might expect positive significant effect of formal education and training on growth because it is expected that formal education may provide owners greater capacity to learn about new production process, and product design, offer specific technical knowledge conducive to firm expansion, and increase owners' flexibility.

However, as discussed in the literature chapter of this paper, there is no consensus on the effect of education on growth of small enterprises. Many researchers (for example Ggoldmark &Nichter, 2009; Dicson, et al, 2008; Benzing, et al, 2008; Atsede et al,2008; Mulu, 2007; Psnsiri & Temtime, 2004; Watson et al, 2003; Mead and Liedholm ,1998; McPherson, 1996) testified that, as education enhances the overall quality of the owner/manager by providing him/her with basic numeric and literary skill, enterprises run by educated individuals tend to show higher growth rate than those SEs managed by uneducated/less educated owners/mangers. In contrast to these findings other researchers discovered that education has either insignificant or negative influence on growth of small enterprises (Hall, 2000; Barkham et al., 1996 cited in Atsede, 2008; Azevedo (2007).

The descriptive analysis of this study shows that the employment growth rate of small enterprises covered in this study exhibits a volatile trend. For example, SEs owned by both elementary schools completed and illiterates registered the lowest growth rate, about 5%. While SEs run by secondary school completed owners/managers tend to grow at 8%, the TVET (or non-diploma competence based certificate) owners registered the highest growth rate (13%), 4 percent greater than growth rate of SE owned by diploma holders. Growth rate for first degree and master's degree showed 13% and 12% respectively.

Though growth rate demonstrated increasing trend until the owners' educational level reached certificate or TVET (from 4.78% for illiterate to 12.99% for certificate), it declined when the owners attain diploma (9%) after which growth rate again started to rise to 13% for first degree holders. Thus, there is no linear relationship between the educational attainment and growth of small enterprises. Growth rate of SEs run by TVET complete owners is almost equal to those SEs owned by degree holders (13%), but it is greater than those SEs run by diploma as well as masters degree holders. This highest growth achievement of TVET complete owners might be attributed to different reasons. First, the competence based vocational training programme of TVET might enable the trainees to acquire entrepreneurial skill and knowledge. Literatures confirm that entrepreneurship oriented and industry specific education and trainings contributed growth of small firms

(Fatoki, 2011). Barringer and Jones (2005: 671) says specific form of knowledge intensive education enables the recipients to promote their skill and knowledge in running self employed business, especially if they start a firm that is related to their area of interest. Second, as owners with higher educational attainment might give little attention or had spent less time to the administration of their small business because their attention might have been diverted to searching higher pay employment opportunities in public institutions, large business enterprises or NGOs.

In order to examine to what extent owners with higher level of education could have been interested to engage in small enterprise had they had the chance of high salary earnings in NGOs and large private companies, 2 owners with master's degree and 12 owners with first degree were contacted for interview. Accordingly, almost 87 percent of them replied that they could have preferred to be employed in NGOs and large private companies with attractive salaries instead of engaged in small businesses. Moreover, out of these 14 discussants 10 owners (74 percent) said that they still spend some of their time in finding such attractive salaried jobs.

In order to capture the non-linear relationship between educational attainment and growth of small enterprises, the researcher included both non-quadratic (non-square) and squared (quadratic) educational level of owners in the multiple regression model. Controlling the squared educational level, results of the regression model shows that educational level has significant negative effect on growth at 5% significant level with coefficient of -1.296, significant at 5% (Appendix I-A2). This implies that one years of schooling is associated with 1.30% decrease in growth of small enterprises or SEs run by individuals with higher level of education grow less rapidly than those owned by lower educational level. This is consistent with many empirical results (Nicher & Goldmark, 2009; Hall, 2000; Barkhan et.al., 1996 cite in Atsede et al., 2008). This might be because owners with higher educational level diverted their attention to other attractive business activities instead of controlling their current business (Nicher & Goldmark, 2009). Research by Alvarez & Crespi, (2003) cited in Goldmark & Nichter, (2009) on small manufacturing firms in Chile confirmed that university education did not result into higher growth rate because highly

educated owners pay little concentration to monitoring their business. This is because some of them were busy in other activities such as working as part-time workers in large scale enterprises parallel to their self-employed small enterprise, and others had more motivation to be full-time employed workers than running own small enterprise as the result of which they might have spent little concentration to their business. Besides, Story (19940 cited by Cheng (2006) found that propensity of more educated persons to run self employed small businesses is less than those less educated persons. He said that while well educated persons were more likely to work in large organizations with better security and stable income, less educated persons were more likely to take risk to run their own business. Dickson et al (2008) also argues that as higher level of education might offer greater opportunities for high paid wage employment, individuals with such higher level of educational attainment found entering into self-employed small enterprise to be a more difficult choice.

Therefore, these findings led to rejection of the perceived hypothesis of owners' years of education have significant positive influence on growth of small enterprises. It is also against the arguments stipulated by competence based and resource based theories that the capabilities of owners reflected in their human capital characteristics are key determinant factors for sustained competitive advantage and growth of small enterprises.

However, as discussed in the descriptive statistical analysis, there is no linear negative relationship between growth and years of schooling. Hence, the study included the square of educational level of owners in order to capture the possible non-linearity of the education- growth relationship. Therefore, based on the results of the econometric model, we confirmed that squared education turned out to have a significant and positive effect on growth of small enterprises with coefficient of 0.0765 ($p < 0.05$). This indicates that, consistent with the resource based view and perceived hypothesis, increase in one year of schooling results into 7.65 percent growth in small enterprises.

Finally, in order to measure the combined effect of the non-quadrtic years of schooling (owedul) and quadratic years of schooling (owedule2) the following equation is applied.

$$Y = \beta_1 + 2\beta_2 X$$

Where β_1 and β_2 represent coefficients of owedule and owedule square respectively; x and y stand for average years of schooling and employment growth rate respectivley. Substituting the results of the coefficients (-1.296 and 0.0765) and average years of schooling into the equation produced a growth rate of 0.081. This implies that, consistent with resource based view argument; from the 9 years of average schooling one year increase in educational level is positively associated with approximately 0.10% growth rate of small enterprises.

From the aforementioned findings one can infer that growth of SEs tend to decline until certain level, reaches a minimum level after which SEs with more educated owners tend to grow faster, and therefore, a positive relationship could be observed as entrepreneurs gain more education. That is, unless owners' years of education reach a very high level, a given increase in years of schooling could not necessarily result into higher growth rate.

5.6.2. Prior Start-up experience and Growth of Small Enterprises

The other component of human capital that influences growth of small enterprises is prior work experience of owners/managers. Small enterprise owners may gain experience in different ways before they start a new business. For example, they might have been working in their own (or their family) business. Besides, an individual can gain experience from his/her previous job employment in similar or different line of business. Generally growth of SEs established by experienced business owners is expected to be better than those established by inexperienced entrepreneurs (Politis, 2008).

In order to examine the effect of prior work experience on growth of small enterprises, the researcher asked respondents if they had ever have any work experience before they established their current business and found that 115 owners (about 35%) had no prior work experience and the remaining 218 (65%) had some experience before they established their current business. Of those with some experience, 67 (20.12%) had been working as employees of different business enterprises that had similar function with that of their current business while 58 of them had been employees of some other enterprises whose line

of business was different from their current business. The remaining owners with some prior start-up experience, 77 (or 23.12%), had work experience in a self-employed business, either in their own business or working in family business. The relationship between growth rate and different categories of experience is represented in Table 13 below.

Table 5.15: Growth Rate by Category of Prior-Start up Experience

Category of Exper	Obs	Growth (percent)			
		Mean	Std.Dev	Min	Max
Had Expe	202 (61%)	6.599%	11.517	-13.86	76.113
Had no Exp	131* (39%)	7.834%	13.256	-7.85	73.241
Total	333 (100%)	7.085%	12.226	-13.86	76.113

131 include 115 no experience, 15 others, and 1 house wife as stated in table 13

Table 5. 14: Growth rate by type of prior work experience

S.No	Type of Exper	Obs	Perc	Growth			
				Mean	Std. Dev	Min	Max
1	No Exper.	115	34.54%	8.17%	13.47412	-2.29%	73.24%
2	Emp in Sim Bus	67	20.12%	7.09%	11.83069	-13.86%	46.21%
3	Emp in Diff Bus	58	17.42%	8.14%	14.62%	0%	76.11%
4	Self Employed	77	23.12%	5.02%	8.031771	-5.33%	34.66%
5	House Wife	1	0.3%	13.86%	-	13.86%	13.86%
6	Others	15	4.5%	4.87%	11.85582	-7.85%	40.24%
7	Total	333	100%	7.085%	12.22662	-13.86%	76.11%

.

According to the resource-based view specific industry work experience of founders provide SEs with a sustainable competitive advantage and achieve above average return or growth. However, a descriptive analysis of employment growth rate of small enterprises covered in this study does not support this argument. SEs established by individuals

without any prior work experience registered the highest employment growth rate. Growth rate in employment showed 8.17% for those SEs owned by individuals with no prior work experience. The next higher growth rate was for those owners who had established their current business by abandoning their previous job as employed workers, 8.14% for those who had been working in business enterprises which had different line of business and 7.09% for those founders with employment experience in a similar line of business. Those founders with prior self employed working experience registered the least growth rate (5.02%). This indicates that possessing prior work experience, especially when functions of the previous business is similar to that of the current business, might result into lower propensity of hiring new labor/worker. This could be because such industry specific background experience might enable founders to reduce liability of newness; to have more opportunity to create networks and contacts with creditors, suppliers and customers; to improve their self-reliance in running their own business enterprises than those who had experience in different industry and inexperienced owners. This in turn might lead to a reduced tendency of hiring new labor force. Wiklund et.al (2009) and Colombo and Grilli, (2005) reported that industry specific and entrepreneur-specific experience boost the ability of owners/managers to understand and exploit knowledge about technologies, understand demand of customers, know weakness and strength of competitors, and exploit the contacts with potential customers and suppliers that they developed in previous self-employed or managerial experience.

In order to quantitatively test if prior work experience had any significant influence on growth of small enterprises, first a dummy/categories of prior work experience was created; 1 for SEs whose owners had some prior work experience and zero for those owners who started their business without having any experience. Accordingly, the OLS result and hypothesis tests (ttest) showed that prior work experience had no any significant effect in explaining growth of small enterprises (see Appndix F1). Therefore, the researcher's hypothesis (H2) that prior start-up experience of owners/managers of SEs has significant and positive influence on growth of small enterprises is disproved. Consequently, H2.1 and H2.2 should also be rejected because of the rejection of H2.

The implication of the result of the regression analysis and t-tests shows that possessing prior work experience cannot bring any difference in growth of small enterprises. It also disproves the resource-based view argument of specific industry work experience of founders provides SEs with a sustainable competitive advantage and achieve above average return or growth. This result is also against the findings of McPherson (1996); Papadaki and Chami (2002), Politis (2008), Goldmark and Nichter (2009) but in favor of findings of Wiklund & Shepered (2003) and Ferreira and Azevedo (2007).

Chapter Six: Summary, Conclusions and Recommendations

Chapter six, the last chapter of this study, aims at presenting the summary and concluding remarks. Major components of the chapter include: Summary of results; major findings, conclusions and research implication; significance of the Study; Limitations of the Study; and major Recommendations.

The chapter aims at summarizing the main points discussed in chapter 5 of this paper and show how the research problems, research questions (objectives), and hypothesis are satisfied. Besides, contributions of these findings to policy and literature or research knowledge are presented. Finally, recommendations, limitations of the study and suggestions for further research are briefly discussed.

6.1. Summary of Results

6.1.1. Research Questions and Theoretical Framework of the study

The primary objective of this study was to examine how and to what extent entrepreneurial orientation and firm internal resources and characteristics influence growth of small enterprises, following the resource based view on determinants of growth and static trade-off capital structure theory as theoretical frameworks.

Academicians and policy makers have considered the small enterprises sector as an engine of economic growth, a means for poverty reduction, and social development. In this section the main findings and sub conclusions of chapter 5 are recapped to quickly remind the readers.

Considerable authors conducted different researches to find out the determinants of growth of small enterprises. However, despite the increase in research volume, recent review of the literature on growth of small enterprises suggested that little is known about this phenomenon (Wiklund *et.al*, 2009). Scholars didn't agree on the determinant factors of growth of small enterprise (Delmar, *et.al* 2003; Davidson *et.al* 2006). Some of the causes for different results include difference in growth measures used (eg. Sales, employment,

profits, market share); difference in theoretical frameworks used by the authors (e.g. Stochastic theory, Jovanovich Learning theory, Resource Based Theory, Industrial Organization Model); the routes of growth (organic versus acquisition); specific formula applied to calculate growth (absolute versus relative).

To the best knowledge of the researcher, the earlier researches made in Ethiopian in relation to MSEs sector were not only descriptive in nature that focused on assessing the challenges and opportunities of the sector, but they were also inconsistent and contradictory in identifying the critical challenges and opportunities of small enterprises. Besides, none of them explained how and to what extent growth was explained by the stated business constraints. Moreover, this research is different from earlier researches in terms of its units of analysis which are small enterprises instead of micro and small enterprises, research questions/objectives, research methods used, theoretical framework, and explanatory variables included in the regression model,

Building on prior researches and the resource based theory of firm growth and static trade theories of capital structure as its theoretical frameworks, this research aims at empirically investigating to what extent firm specific resources and entrepreneurial orientation affect the growth of small enterprises by raising the following major questions.

1. To what extent are EO dimensions of proactiveness, innovativeness, and risks taking demonstrated by small enterprise owners?
2. How and to what extent does entrepreneurial orientation influence growth of small enterprises?
3. How and to what extent do intangible resources of the firm (especially human capital) affect growth of small enterprises?
4. To what extent do physical resources (finance and location) of a firm have significant influence on growth of small enterprises?
5. How is growth affected by financial preference of owners?
6. Is growth significantly influenced by firm characteristics (age and size)

6.1.2. Research methods in brief

This research can be described as mixed explanatory cross-sectional research because both qualitative and quantitative data were employed during data collection and analysis processes. Systematic random sampling techniques were applied to collect cross-sectional primary data, using structure questionnaire from collected from 333 small enterprises (sample size)out of the 2765 total small enterprises (population) operating in five urban towns. These towns were purposively selected based on the concentration of small enterprises. Dependent variable of the study is growth of small enterprises defined as logarithm of change in number of employees at the time of establishment and time of survey. The explanatory variables comprises of entrepreneurial orientation with three dimensions of innovativeness, proactiveness, and risk taking; entrepreneurial resources, mainly human capital of owners; organizational resources such as financial resources (financial position, access to credit and leverage), location of the enterprise, age and size of the enterprise. Besides, such firms specific and environmental variables as amount of initial investment, motivation of owners while establishing their business, sector in which an enterprise operates, gender and age of owners, marketing related problems, cost and accessibility of infrastructure, government policies, strategies and bureaucracy, BDS are controlled in the regression model. With the help of STATA software version 12 the research applied descriptive statistics, statistical difference tests, and regression analysis to analyze collected data.

6.1.3. Growth Category of Small enterprises

Small enterprises covered in this study are categorized into two: survival type are enterprises with static or declining growth rate and growing SEs are those that registered greater than zero growth rate (in percentage). Accordingly, 187 small enterprises (56%) are found to be survival type and 146 (44%) are growing type of enterprises. This indicates that the majority of the small enterprises (both male owned and female owned) are operating for survival due to different internal and external challenges.

The average growth rate of the small enterprises is found to be 7.085 percent with the minimum of -13.86 percent and 76.11 percent maximum growth rate. Average growth rate

of those of growing type of SEs is found to be16.37%, ranging from a minimum rate of 1.16% to maximum of 76.11% while the growth rate of survival type of SEs ranges from -13.86% to zero with a mean growth rate of -0.165%.

6.1.4. Demographic profiles of Respondents

Out of the 333 respondents of the study, 259 SEs (77.78%) are male owned which registered higher growth rate than those female owned small enterprises (7.25 percent against 6.52 percent for female). The analysis of OLS also shows that growth rate of female owned SEs is 1.15% lesser than those male owned ones, though it is statistically insignificant (See AppndixI- A2).

Concerning the marital status, 80 percent of the respondents are married owners, single and divorced/widowed owners comprise 16 percent and 4 percent, respectively. With regard to age of entrepreneurs, the majority of the small business (about 81%) are owned and operated by the working age group (21-50 years old). Out of the 333 respondents 112 (33.63%) fall under the age category of 21-35 years, and 159 owners (47.75%) are within the category of 36-50 years age.

6.1.5. Sectoral Engagement of Small Enterprises and Growth

With regard to sectoral distribution, 65 percent of the small enterprises are engaged in trading (merchandising) business sector followed by manufacturing (16%), service sector (16%) and construction sector (3%). The highest growth rate was registered in the manufacturing sector (14 percent) while the lowest growth is in trading sector (4.02%). Result of the regression model and hypothesis test (t-tests) also proved that firms in the manufacturing sector grew at 7.5 percent more than those in other sectors, statistically significant at 1 percent level (See Appendix I-A2).

6.1.6. Effect of Entrepreneurial orientation on Growth

In this paper the firms' propensity to EO was measured in terms of three dimensions: innovativeness, proactiveness, and risk taking with three items each captured using a 5-point Likert scale (1= complete disagreement with the statement and 5= complete agreement with the statement (See Appendix II, Q.62). In addition to the use of previously

tested measures of EO, the researcher tested internal consistency and reliability of the EO measures by Cronbach's alpha and its coefficient turned out to be 0.78 that is beyond the acceptable range recommended by Nunnally (1978) as cited by Fairoz et al (2010).

This writer treated the dimensions of EO as uni-dimensional construct. The mean score of the nine items was used as one construct of EO: the higher the score, the more entrepreneurially oriented the owner is considered to be. In order to measure overall effect of the uni-dimenisonal EO, the aggregated mean score of the nine items is regressed along with other explanatory and control variables.

Based on the mean score of the overall EO, the majority of the small enterprises (54%) demonstrated moderate level of EO and 25% fall under the high EO category (see No 4 of table 5.5). Results of the descriptive statistics show that enterprises in the high overall entrepreneurial category have been grown at about 12% since start-up, which is almost four times more than the growth of those in the low category. The OLS result also demonstrated that overall EO positively influences growth of SEs with a beta of 3.59 significant at 1% level of significance (See AppendixI-A). This implies that the more owners/mangers of small enterprises adopt an EO, the more they achieve sustained competitive advantage and enhanced growth by taking risks to introduce new and innovative products/services and proactively responding to changing market competition.

6.1.7. Effect of financial position and Capital Structure

Due to negligible contribution of formal financial institutions in financing initial investment of small firms, the small enterprises covered in this study started their business with very small amount of capital. The average amount of initial capital is found to be Birr 73,879.00 (equivalent to approximately US dollars of US $3940.00, at current exchange rate of Birr 18.75 per US dollar). About 64% of them started with less than Birr 50,000.00 (equivalent to US$2,667). Of this meager initial investment, about 61 percent was financed from personal saving of the owners and banks and microfinance institutions contributed only 10 percent of this amount.

Out of the total respondents 261 SEs (78%) indicated that they had severe financial constraints during their stay in the business. On the other hand banks and microfinance institutions had rejected 89.5% of loan applications from this sector. Results of both descriptive and regression analysis revealed that growth of small enterprises had been delayed due to constraints of financial resources and inadequate access to bank/microfinance credit significant at 10 percent level (see Appendix I-A2) suggesting that strong resources endowment, which is in favor of the resource based theory, is key determinant of firm growth.

In addition to the above findings, the effect of capital structure (measured in terms of debt-equity ratio of initial investment) on growth of SEs was also tested. For this purpose, he first applied the t-test and he found that (Appendix I-A2) leverage had positive significant contribution to growth of small enterprises with growth coefficient of 2.76. This implies that leveraged or debt financed firms grow 2.76% faster than equity financed or unleveraged small enterprises. Second, In addition to the regression model, propensity score matching (PSM) techniques was employed in order to rigorously examine the impact of capital structure (intervention). Accordingly, results of the radius matching, the kernel matching and the stratification matching techniques confirmed that debt financed or leveraged firms had been growing at 3.4 percent higher than those unleveraged (equity financed) counterparts. This result implies that, consistent to the hypothesis (H3b), leverage has a significant positive impact on the growth of SEs, suggesting debt is a key determinant of SEs growth. These findings provide evidence in support of static-trade-off theory of capital structure that argues that firms can optimize their benefits and earn higher rate of return if they borrow up to the point where the tax benefit from an extra debt is exactly offset by the cost that comes from the increased probability of financial distress.

6.1.8. Relationship between Location and Growth

In this study location of SEs is defined in terms of proximity of working premises of to major customers. Summary statistics of the responses indicate that while 232 (70%) of the sample respondents are operating in commercial districts, 79 SEs (23%) operate in

moderately far from commercial districts, and only 7% are running their business in areas too far from their customers.

In the regression model, a dummy variable is used which takes one to those enterprises that conduct their business in areas far from their major customers (commercial district) and zero otherwise. Findings of the regression model showed that distant location has significant negative effect on growth of SEs ($P < 0.10$), with -2.73 coefficient (See Appendix I-A2). It is found that growth rate of SEs located outside commercial districts is 2.73% lower than those SEs that operate within a commercial district. Therefore, this result supports the hypothesis of this study "growth rate of small enterprises operating commercial district or near to potential market (customers) is higher than the growth rate of those far from potential customer (market)" the resource based theory and with the empirical evidences (e.g. Mulugeta, 2008; Leidholm, 2002; Mead and Liedholm 1998; McPherson, 1992).

6.1.9. Relationship between growth rate and firm size and age

Only small enterprises with age of 3 years and above are included in the study in order to ensure meaningful growth result. This is because those SEs which do not operate at least for three years are considered to be in a critical sage as a result of which firms could not show any change in terms of employment size are unable to grow (Mead and Liedholm, 1998).

On aggregate 253 enterprises (about 76perecnet) of the sample respondents have been in operation for 3-10 years (see table 5.10). With regard to enterprise size, 72 percent of them started with only one employee (mainly the owner himself/herself). This indicates that majority of the SEs are solely owned business type, that is, they started their business without having hired labor. Due to the achievement of minimum efficient scale of Storey (1994, cited in Cheng, 2006) the study has proposed an inverse relationship between growth rate of smaller enterprise and their age and size.

In support to the achievement of minimum efficient scale, both age and size have negative influence on growth of small enterprises, statistically significant at 1% level and 5%, respectively. Therefore, consistent to his research hypothesis, the researcher concluded that younger and smaller enterprises grew faster than those older and large scale counterparts. This suggests that older and larger firms did not gain advantages from reputation effects or accumulated experience, greater levels of resources, entrepreneurial and managerial ability. The negative relationship between growth and firm age and size is against the Girbat's law of proportionate effect but consistent with Jovanovich's learning model.

6.1.10. Relationship between Education and Growth

Intuitively, one might expect positive significant effect of formal education and training on growth. However, as discussed in the literature chapter of this paper, there is no consensus on the effect of education on growth of small enterprises. Findings of this research reveal that there is no linear relationship between the educational attainment and growth of small enterprises. Growth rate of SEs run by TVET complete (competence based certificate) owners is almost equal to those SEs owned by degree holders (13%), but it is greater than those SEs run by diploma as well as masters degree holders. If education is defined as the normal years of schooling, instead of quadratic form, results of the regression model showed that educational level has significant negative effect on growth at 5% significant level. This shows that these findings do not support the argument stipulated by competence and resource based theories that the capabilities of owners reflected in their human capital characteristics are key determinant factors for sustained competitive advantage and growth of small enterprises. On the other hand, when squares of the years of schooling was used, it was discovered that squared education has a significant and positive effect on growth of small enterprises at 5 percent level of significance (see Appendix I-A2) which supports the arguments of the resource based view that educational attainment enables small enterprise owners to attain sustained competitive advantage and firm growth.

In order to measure the combined effect of the non-quadrtic years of schooling (owedul) and quadratic years of schooling (owedule2) the following equation was applied.

$$Y = \beta_1 + 2\beta_2 X$$

Consistent with the resource based view argument; starting from the 9 years of average schooling, one year increase in educational level is positively associated with approximately 0.10% growth rate of small enterprise

From these findings one can understand that growth of SEs tend to decline until certain level, reaches a minimum level after which SEs with more educated owners tend to grow faster. Therefore, a positive relationship can be observed as entrepreneurs gain more education. That is, unless owners' years of education reach a very high level, a given increase in years of schooling can not necessarily result into higher growth rate.

6.1.11. Relationship between Prior Start-up Experience and Growth

According to the resource-based view, specific industry work experience of founders provides SEs with a sustainable competitive advantage and achieve above average return or growth. However, findings of this study did not support this argument. SEs established by individuals without any prior work experience registered the highest employment growth rate. The OLS result and hypothesis tests (ttest) also showed prior work experience had no significant effect in explaining growth of small enterprises (see Appndix A2 & F1). Therefore, hypothesis (H2) that prior start-up experience of owners/managers of SEs has significant and positive influence on growth of small enterprises could not be supported. This is not also similar to the resource-based view argument of specific industry work experience of founders provide SEs with a sustainable competitive advantage and achieve above average return or growth.

6.2. Major Findings of the study and Research Implications

This section briefly links results and discussions of findings in chapter 5 back to the problem statement, research questions, and theoretical framework of this study. It presented researcher's conclusion vis-à-vis his hypothesis and research questions as well as implications of these findings to the existing body of knowledge. To remind readers, research questions and research hypothesizes are presented here below:

Basic Research Questions

7. To what extent do small enterprises owners demonstrate entrepreneurial orientation in running their business?
8. How and to what extent does entrepreneurial orientation influence growth of small enterprises?
9. How and to what extent do intangible resources of the firm (especially human capital) affect growth of small enterprises?
10. To what extent do physical resources (finance and location) of a firm have significant influence on growth of small enterprises?
11. How is growth affected by financial preference of owners?
12. Is growth significantly influenced by firm characteristics (age and size)?

Research hypothesises

H1: Entrepreneurial orientation has universal significant positive effect on growth of small enterprises.

H2a: Financial difficulty/constraint has significant negative influence on growth of small enterprises

H2b: Access and availability of credit have significant positive influence on growth of small enterprises.

H2c: Growth rate of debt financed (leveraged) SEs is higher than those equity financed (unleveraged) SEs.

H3: Owners' years of education has significant positive influence on growth of small enterprises

H4: Prior start-up experience of owners/managers of SEs has significant and positive influence on growth of small enterprises. That is growth rate of SEs owned by inexperienced or less experienced is less than those SEs run by more experienced owners.

H5: Growth rate of small enterprises operating nearer to potential market (customers) is higher than the growth rate of those far from potential customer (market).

H6: There is inverse relationship between growth of small enterprises and their age and size (measured in terms of initial number of employees).

Based on the results in chapter 5 major findings, conclusions and research implications are presented below.

6.2.1. Findings on Effect of Entrepreneurial orientation on Growth

With regard to the relationship between EO and growth of small enterprises, the major findings and conclusions include:

1. Majority of the small enterprises (54%) demonstrated moderate degree of entrepreneurial orientation.

2. From the explanatory variables included in the regression model, the overall entrepreneurial orientation of SEs is the most influential variable to positively influence their growth ($P < 0.01$) (See AppendixI-A2). This result confirms hypothesis one (H1) above.

3. The study confirms the uni-dimensionality of EO, that is, dimension of EO (innovativeness, proactiveness, risk taking) are of equally important to explain the growth of small enterprises.

4. Considering EO as an intangible resource of firms, firms with more of such resource achieve sustained competitive advantage and higher growth, but those with low level of entrepreneurial posture remained to be survival type. That is, low level of entrepreneurial orientation may be one of the main reasons why many of the small enterprises (56%) are found to be survival type.

5. The theoretical contribution of this study is that it provides additional evidence to the existing body of knowledge in entrepreneurship research by investigating the importance of EO in growth of SEs. Findings of this study contribute to policy making in several ways. Policy makers and others stakeholders can support SEs in research and development activities, provide financial resources and training and consultancy services in order to enhance the degree of EO of SE owners/managers. Owners and practitioners of SEs can take findings of this research as source of useful information to understand the importance of entrepreneurial oriented strategy so that they can take necessary actions to enhance their level of entrepreneurial orientation so as to sustain growth of their business.

6.2.2. Effect of Financial Capital on Growth of Small Enterprises

From the results of descriptive and regression analysis, the research concludes that:

1. 78 percent of the small enterprises were exposed to critical financial constraints.

2. Growth rates of those financially weaker enterprises are substantially lower than those financially strong enterprises, marginally significant at 10 percent which supports the researcher's perceived hypothesis H2a above.
3. In line with hypothesis of this research, the regression model and propensity score matching techniques demonstrate that adequate access of small enterprises to

bank/microfinance credit and leverage have positive and significant effect on growth ($P < 0.01$).

4. These findings provided additional empirical evidence in favor of the resource based view/theory and the static-trade-off theory of capital structure. Policy makers may benefit from these findings to understand that though financial position and credit/debt capital are the key determinants of growth of SEs, growth of SES was retarded due to lack of bank credit. Using these findings as an important source of information, policy makers can take appropriate intervention to facilitate the credit access to the sector.

6.2.3. Findings on Relationship between Location and Growth of Small Enterprises

1. It is found that, like the earlier findings, small enterprises that operate far from commercial centers or final customers show the least employment growth rate.

2. Consistent with hypothesis of this research (H5 above), resource based view and empirical evidences (e.g. Mulugeta, 2008; Leidholm, 2002; Mead and Liedholm 1998; McPherson, 1992), findings of the regression model discovered that distant location has marginally significant negative effect on growth of SEs ($P < 0.10$). (See Appendix I-A2).

3. These findings provided some evidence:
   - Existence of agglomeration of externalities and access to major customers and improved infrastructural facilities contribute significant advantage to greater growth of small enterprises.

   - SEs operating in commercial centers might acquire more advantage to easily create both vertical and horizontal linkages which positively influence growth. Such linkages can assist growth of SEs in different ways (i) exchange of best practices among neighboring enterprises, (ii) share market related information, (iii) increase access to a broader base of skilled labor (iv)share business skills and innovative

ideas and technology (v) strengthen customer-suppler relationship of small enterprises.

6.2.4. Relationship between growth rate and firm size and age

The researcher's conclusion and research implications with regard to the relationship between growth and firm age and size are briefly presented below.

1. It was found that firm age and size are among the important factors that influence growth of small enterprises.

2. Consistent with his hypothesis, the research found that both enterprises age and size have negative significant influence on growth of small enterprises, statistically significant at 1% level and 5%, respectively.

3. Therefore, the study concludes that younger and smaller enterprises grew faster than those older and large scale counterparts. This means older and larger firms did not gain advantages from reputation effects or accumulated experience, greater levels of resources, entrepreneurial intelligence and managerial ability.

4. The inverse relationship between age and growth may imply that (a) New enterprise are more subject to a liability of newness than older counterparts as the result of which the failure rate is greater for new (younger) firms than established (older) firms (Gilbert et al. ,2006, Gillbert et al., 2006, Evans, 1987). Therefore, new firms are required to strive for higher growth because their survival would be significantly reduced in the absence of sustained growth. (b) According to minimum efficient scale effect of Storey (1994) (cited in Chen, 2006) and Javonovich is learning model, a firm expands quickly at first, and then narrows off its growth as it approaches its optimal size. As time passes entrepreneurs become closer to the limits of their efficiencies (abilities). Once a firm achieves its minimum efficiency scale, business will grow slowly afterwards because the owner manger is either lacking motivation to continue to grow the business once they have achieved a satisfactory level of return, or by the diseconomies of scale.

5. Inverse relationship between enterprise size and growth may imply that firm size increases (firms continue to add workers) until it reaches the minimum efficient scale, because: First, unit cost of production falls with increased productivity up to the minimum efficient scale. Beyond that level cost saving becomes small because the economies of scale may be offset by diseconomies Second, when a firm grows at a rate faster than which the owner-manager can manage, it may experience diseconomies of scale which may reduce the level of firm growth. Third, managing small firm may be more flexible and easier than managing larger firms. Normally, an owner of a SE can only handle smaller company.

6. The negative relationship between growth and firm age and size is against the Girbat's law of proportionate effect but consistent with Jovanovich's learning model and Minimum efficient scale effect of Storey (1994) (cited in Chen, 2006). This helps policy maker to emphasize on smaller and younger firms in their intervention to provide training, counseling and coaching, financial support and infrastructure.

6.2.5. Findings on Education and Growth of Small Enterprises

The research included non-quadratic and quadratic (square) years of schooling of owners in the regression in order to capture the possible non-linearity of the education- growth relationship and he found that that:

1. The descriptive analysis reveals that the growth rate of SEs owned by certificate holders (or TVET complete owners) is the highest. This may indicate that the competence based training in TVET colleges help graduates to acquire entrepreneurial skills that help them enhance growth of their firms.

2. The researcher's conclusion is that relationship between growth rate and educational attainment of owners is non-linear. According to the results of the OLS, growth rate showed a U-shaped relationship, that is, growth of SEs tend to

declined until certain level, reached a minimum level after which SEs with more educated owners tend to grow faster, and therefore, a positive relationship was observed as entrepreneurs gain more education.

3. This non-linear education-growth relationship contradicts the argument stipulated by competence based-based and resource based theories that the capabilities of owners reflected in their human capital characteristics are key determinant factors for sustained competitive advantage and growth of small enterprises. More specifically, unless owners' years of education reach a very high level of schooling, a given increase in years of schooling could not necessarily result into higher growth rate. Findings of this research are different from the findings of Ggoldmark &Nichter, (2009), Dicson, et al (2008), Benzing, et al (2008), Mulu (2008), Psnsiri & Temtime (2004), McPherson (1996), and McPherson (1992) cited in Mead and Liedholm (1998) who found significant positive association; and Alvarez & Crespi, (2003) cited in Goldmark & Nichter, (2009); Hall, 2000; Barkham et al. (1996) cited in Atsede et al, Atsede et al., 2008) who whose findings proved an inverse relationship between growth and education.

6.2.6. Findings on Prior Start-up Experience and Growth of Small Enterprises

Findings of the descriptive and econometric analysis showed that:

1. According to descriptive analysis SEs established by individuals without any prior work experience registered the highest employment growth rate.
2. On the other hand, the OLS result and hypothesis tests (ttest) showed that prior work experience had no any significant effect in explaining growth of small enterprises
3. The results are against the researcher's hypothesis and the arguments of resource based view of to the resource-based view specific industry work experience of founders provide SEs with a sustainable competitive advantage and above average growth.

4. This implies that possessing prior work experience couldn't bring any difference in growth of small enterprises, which is in line with the findings of Wiklund & Shepherd (2003); Ferreira & Azevedo (2007). But it is against the findings of (Politis, 2008), (Hall (2000) cited in Atsede et al, 2008) and Papadaki and Chami (2002).

Table 6.1: Summary of Hypothesis Testing and Research Implication

Hypothesis	Result	Brief Explanation on Result (Research Implication)
H1: Entrepreneurial orientation has universal significant positive **effect** on growth of small enterprises.	**Supported**	An EO is a prerequisite (or a key determinant factor) for a firm to attain above average returns and sustained competitive advantage and growth. • Entrepreneurial orientation has universal significant positive effect on growth of small enterprises
H2a:Financial constraint has significant negative influence on growth of small enterprises H2b: Access and availability of credit and leverage have significant positive influence on growth of small enterprises.	**Supported**	1. Findings provided additional empirical evidence in favor of the resource based view, i.e., financially strong SEs grow faster than financially weak counterparts. 2. Any additional access to credit (loan) and leverage has significant positive effect (influence) to enhance growth of small enterprises. Static-trade-off theory is supported
H3: Owners' years of education has significant positive influence on growth of small enterprises.	**Partly supported**	Relationship between growth rate and educational attainment of owners was non-linear. Growth rate showed a U-shaped relationship-growth of SEs tend to declined until certain level, reached a minimum level after which SEs with more educated owners tend to grow.

Table 6.1 Summary of Hypothesis Testing and Research Implication (cont'd)

Hypothesis	Result	Brief Explanation on Result (Research Implication)
H4: Prior start-up experience of owners/managers of SEs has significant and positive influence on growth of small enterprises. That is growth rate of SEs owned by inexperienced or less experienced is less than those SEs run by more experienced owners	**Not Supported**	Findings of this study could not support the resource-based view argument of specific industry work experience of founders provide SEs with a sustainable competitive advantage and achieve above average return or growth.
H5: Growth rate of small enterprises operating in commercial districts/nearer to potential market (customers) is higher than the growth rate of those far from potential customer (market).	**Supported**	This provided some evidence that existence of agglomeration of externalities and access to major customers and improved infrastructural facilities contributes significant advantage to greater growth of small enterprises.
H6: There is inverse relationship between growth of small enterprises and their age and size of initial capital.	**Supported**	The negative relationship between growth and firm age and size is against the Girbat's law of proportionate effect but consistent with Jovanovich's learning model.

6.3. Conclusions of the study and Extent of Influence explanatory variables

This section presents summarized conclusions derived from the findings. First we presented the major conclusions vis-à-vis our hypothesis and theoretical framework in sub section 6.3.1. Finally, extent of influence of each variable is presented in the form of ranking table along with related explanation in sub-section 6.3.2 below.

6.3.1. Conclusions

1. From the explanatory variables included in the regression model, the overall entrepreneurial orientation of SEs is the most influential variable to positively influence their growth ($P < 0.01$), which confirms hypothesis one (H1) above. Furthermore, the study confirms the uni-dimensionality of EO. This means the three dimension of EO (innovativeness, proactiveness, risk taking) are of equally important to explain the growth of small enterprises. Considering EO as an intangible resource of firms, firms with more of such resource achieve sustained competitive advantage and higher growth, but those with low level of entrepreneurial posture remained to be survival type. That is, low level of entrepreneurial orientation may be one of the main reasons why many of the small enterprises (56%) are found to be survival type.

2. In line with hypothesis of this research, the regression model and propensity score matching techniques demonstrate that adequate access of small enterprises to bank/microfinance credit and leverage have positive and significant effect on growth ($P < 0.01$). However, as about 90 percent of the loan applications of small enterprises were rejected by banks the growth of this sector remained sluggish (See section 5.5.1.2).

3. Small enterprises that operate far from commercial centers or final customers show the least employment growth rate. This has been proved by the results of regression model that discovered that distant location has marginally significant negative effect on growth of SEs ($P < 0.10$).

4. Consistent with our hypothesis, it was found that younger and smaller enterprises grew faster than those older and large scale counterparts, statistically significant at 1% level

and 5%, respectively, attributable to different possible reasons. First as probability of risk of failure due to liability of newness is high in younger firms, they strive for more growth in order to sustain their survival than older counterparts. Second, theory of minimum efficient scale can be also taken as possible explanation. Once a firm achieves its minimum efficiency scale, business will grow slowly afterwards because as time passes entrepreneurs become closer to their optimum /efficient scale.

5. Results indicated that the relationship between growth rate and educational attainment of owners is non-linear. According to the results of the OLS, growth rate showed a U-shaped relationship. This means growth of SEs tend to declined until certain educational attainment, reaches a minimum level after which SEs with more educated owners tend to grow faster.

6. The OLS result and hypothesis tests (ttest) showed that prior work experience had insignificant effect in explaining growth of small enterprises, which is against the hypothesis and the resource-based view argument.

7. Out of the 14 internal variables (or firm specific resources), 11 factors (84 percent) significantly influence the growth of small enterprises, but out of the external variables only one variable has significant effect on growth. Therefore, taking the above findings we can conclude that, other things remain constant, firm tangible and intangible resources can be considered as the key determinants of growth of small enterprise.

6.3.2.Extent of influence of Explanatory variable on Growth

In order to identify variables that most explain growth of small enterprises, we ranked each explanatory variable in the following table, based on its p-values. Out of the total 18 variables included in the regression model, 13 show significant influences on growth. These variables are classified into four categories (see table below). The first category includes ***seven variables*** that mostly influence growth at one percent (1%) level of significance (p-value <0.01). There are ***three variables*** in the second group of influential variables (p-value <0.05) while three variables, in the third category, have marginal

influence (P<0.10) and five variables are grouped under the insignificant group. Refer the following table and related explanation below the table**.**

Table 6.2: Rank of Explanatory variable by their degree of Influence

Variable in the Model	Measurement	Sign of Coeff	P-value	Rank and Explanation on effect of the Variable	
				Rank	Explanation
Entrepreneurial Orientations	Average of Overall EO	+ve	0.000	1st	Most (first) influential Variables (p<0.01)
Sector of Enterprises	Dummy variable (Manuf = 1; else=0)	+ve	0.001	2nd	
Enterprise age	Years of operation	-ve	0.005	3rd	
Size of SE	Initial number of employees	-ve	0.014	4th	
Owner's educational level.	Years of schooling completed	-ve	0.014	5th	
Owners' Motivations	Average Motivation of owners	+ve	0.016	6th	
Owner Educ. Level Square	Square of years of schooling	+ve	0.018	7th	
Enterprise age square	Square of enterprise age	+ve	0.023	8th	Second group of Influential Variables (p<0.05)
Market Related Variables	Average market Problems	+ve	0.025	9th	
Capital structure (Debt-equity ratio-ofpr)	1= Debt capital; 0= Equity capital	+ve	0.049	10th	

Table 6.2 Continued

Variable in the Model	Measurement	Sign of Coeff	P-value	Rank and Explanation on effect of the Variable	
				Rank	Explanation
Size of SE	Initial Amount of capital	+ve	0.059	11th	Third-Group-Marginally Influential variables (P<0.10)
Location of Enterprises	(1=Far from commercial center Else= 0)	-ve	0.079	12th	
Financial Condition (measured by financial constraints)	1= No financial shortage; 0= had financial shortage	+ve	0.082	13th	
Owners' Prior-Start up Experience	1= had prior experience 0= had no prior experience	-ve	0.478	Insignificant influence	Fourth Group Variables without significant influence
Availability and cost of Infrastructure	Average of infrastructure	+ve	0.595	No influence	
Government Policies	Average of Govt policies	-ve	0.424	No influence	
Gender of owner	1=Male; else=0	+ve	0.483	No influence	
Age of Owners	Age of owners in years	-ve	0.462	No influence	

As it is depicted in the above table, the overall entrepreneurial orientation of SEs is the ***most (first)*** explanatory variable and sector and enterprise age are the ***second and third most*** influential variables, significant at one percent (1%) which the first two variables has positive effect and enterprise is inversely associated with growth. Moreover, size of the enterprises, owner's years of schooling, owner's motivational factors, and square of years

of schooling are ***fourth, fifth, sixth and seventh***, respectively, significant explanatory variables with one percent (1%) level. Enterprise ages square, market related variables, owners' financial preference or capital structure are ***eighth, ninth, and tenth*** variables, respectively, with a positive influence ($P < 0.05$). Furthermore, size of enterprise, location, and financial difficulty are the variables with marginal effect at 10% level of significance. The remaining five variables; owner's prior start-up experience, availability and cost of infrastructure (road, land for working premises, power, water and telecommunication services, government policies, gender and age of owners do not have significant effect on growth of small enterprises.

Therefore, as it has been mentioned in the above sections (conclusion number 7), we found that tangible and intangible resources (assets) under the control of small enterprises play key influential role in explaining growth of small enterprises, ***EO being the most influential variable.***

In the current rapidly changing and competitive global environment, future profit streams from existing operations are uncertain and businesses need to constantly seek out new opportunities. This environment demands a firm to be innovative and be willing to take risk to cope with the rapid change. An entrepreneurial oriented strategy can assist enterprises in such a process. Thus, as the small enterprises covered in this study are operating in such dynamic environment, they should constantly seek new opportunities and gain maximum benefits from these opportunities ahead of competitions; i.e, they need to enhance their entrepreneurial posture in their business management. If this is to happen, we recommend that concerned stakeholders should provide consultancy and training services as well as other business development services that upgrade their entrepreneurial strategic business leadership.

6.4 Contributions/Significance of the Study

Major findings of the research are presented in the conclusion section of this study. In this section significance of those conclusions are briefly discussed. Here originality of this work is presented.

6.4.1. How can Significance of a study be justified?

Justification for significance of a study breaks down into theoretical, policy and practical issues. When discussing the theoretical significance of his/her work, the researcher will explain how his/her investigation either offers new theoretical explanation for something or how it validates, extends, refines, or contradicts an existing theory(Hofstee, 2006). If the research is in an area for which theory is well developed, the study may be a significant test or expansion of the theory. The writer may use concepts developed by previous research. Research methods such as data collection, however, may be in a different setting or environment, with different group, and certainly at different time. Thus, the result of the research will constitute an extension of theory that will expand the generalization or more fine tune theoretical proposition. The contribution of such research is the expansion of previous theory. The originality of the researcher's work should be clear after stating of the significance of his/her work. The researcher should ask himself/herself what exactly distinguishes his/her work from similar works. The significance of study for policy and practice can be developed by discussing formal policy development in that area and presenting data that show how often the problem occurs and how costly it can be.

6.4.2. Contribution of this study

As discussed in the Statement of the Problem section of this study, the contributions (research gap) of this research can be justified in several ways: (i) absence of consensus among earlier researchers on determinants of firm growth, (ii) the need to contextualize the research into Ethiopian environment, (iii) extra variables were integrated into one model which were either not considered or might have been tested separately in earlier studies, and (iv) failure of earlier researches in Ethiopia to examine to what extent the environmental and internal factors explain growth of small enterprises. Detail discussions on justification/rational or contribution of this stud are discussed the following sections.

1. There is no consensus on determinants of growth of small enterprises

Because of its role in economic growth and poverty reduction growth of small enterprises has attracted interest of many researchers. However, due to its multidimensional nature, knowledge about growth of small enterprises is still very little and there is no consensus among scholars on the determinants of growth of small enterprises (Wiklund, et al, 2009). Some of the major causes of difference in research findings include existence of different growth theories, metrics of growth, routes of growth, and specific formula used to calculate growth.

Therefore, this study contributes to the existing body of knowledge by investigating the major determinants of growth of small enterprises. Besides, it can also be considered as an extension of resource based theory and static-trade theory of capital structure that may expand the generalization or more fine tune theoretical proposition from Ethiopian context.

2. Previous findings/theories are contextualized from Ethiopian Context.

Though the association of EO and other explanatory variables with growth has been widely discussed by different researchers (e.g. Covin and Slevin, 1991, 1989; Lumpkin and Dess, 1996, 2001; Wiklund and Shepherd, 2005, 2003), the vast majority of these researches came from developed countries of America, Europe and Asian developing counties. Besides, majority of researches, which use resources based view and static trade of theory of capital structure as their theoretical framework, were conducted in relation to large firms of developed countries whose research findings could not permit generalization on the importance of the explanatory variables and their contribution to growth of small enterprises in less developed countries like Ethiopia. For example, Limpkin and Dess (1996) reported that the EO-growth is contest specific. That is, the degree of relationship between EO and growth is influenced by external and internal factors.

Therefore, using the existing theories of resource based view and static trade theory of capital structure as its theoretical framework, this research tried to contextualize the relationship between the firm specific resources, financial preferences (capital structure decisions) and EO and growth from the Ethiopian context, more specifically from the

context of Tigray Regional State. To the best knowledge of the writer of this paper there is no such study in Ethiopia that contextualized the resource based theory and static trade theory of capital structure in order to examine their effect on growth of small enterprises. Moreover, to the best of his knowledge, none of the researches conducted on growth of small enterprises applied

3. Extra Variables are integrated in one Model

Unlike the previous studies conducted in Ethiopia and other parts of the world, this researcher integrated many explanatory variables, into one equation to get complete picture on the determinants of growth of small enterprises. For example, entrepreneurial orientation, motivational factors, human capital (level of education and prior start-up experience), location, size and age of enterprise, financial conditions, capital structure, and gender of owners, as well as environmental or external factors and other firm level variables were incorporated into one regression which were either not considered or might have been tested separately in earlier studies.

4. Theoretical framework and Methodological Difference.

As it is mentioned in the statement of the problem section, in addition to difference in research objectives the theoretical framework of our research is a combination of two theories: resource based view on growth of small enterprise and static trade theory of capital structure unlike to the earlier researches in Ethiopia. From research methodology point of view, unlike earlier studies in Ethiopia, we applied propensity score matching (PSM) techniques in order to rigorously examine the impact of capital structure (intervention) on growth of small enterprises. Thus, we believe that our research extends the application of non-parametric estimation technique, propensity score matching (PSM), in order to rigorously test the impact of capital structure decision (treatment) from small enterprise of Ethiopia point.

The research investigates that EO, firm unique (specific) resources, and capital structure decisions are important variables in explaining growth of small enterprises. The theoretical contribution of this study is that it provided additional evidence to the existing body of

knowledge in entrepreneurship research by examining the key determinant factors of growth of SEs.

Contribution to Body of Knowledge

This study contributes to the existing body of knowledge because it investigated the major determinants of growth of small enterprises by incorporated additional variables that were either not considered or might have been tested separately in earlier studies.

1. As an extension of existing body of knowledge, we confirmed that EO explains growth most and confirmed uni-dimentionality of entrepreneurial orientation, that is, the dimension of EO (innovativeness, proactiveness, risk taking) are of equally important to explain the growth of small enterprises.

2. In support to the resource-based view firm specific tangible and intangible resources are key determinants of growth.

3. The negative relationship between growth and firm age and size supports Jovanovich's learning model and Minimum efficient scale effect of Storey but contradicts the Girbat's law of proportionate effect.

4. As an extension of the capital structure relevance theory Miller and Modigliani (1958), specifically to the static-trade of theory, capital structure decision is also one of the determinants of firm growth.

5. The other contribution of this research to body of knowledge is that it tried to contextualize the relationship between the firm specific factors, financial preferences (capital structure decisions) and EO and growth from the Ethiopian context, more specifically from the context of Tigray Regional State.

For this reason, it is expected that this study encourages researchers to further examine the impact of different resources and capabilities on firm growth.

Contribution to policy makers and practice

Findings of this study are expected to contribute to policymaking efforts in several ways. For policy makers, this research will have implications by identifying the underlying resources and capabilities affecting growth of small firm that can be used as additional information for their policy decisions and appropriate interventions. SEs operators will also benefit from this research because it helps them understand the importance of entrepreneurial oriented strategic posture, and the importance of using of leverage in their capital structure decisions to magnify performance, and firm specific variables that are critical to their growth and survival. Moreover, it will be a basic source of information for concerned academicians, researchers, and consultants for their further study, and a good reference material for post graduate students.

6.5. Limitation and Suggestions for further research

All research studies have their own limitation that this research is not an exception. Therefore, it is important to point out these limitations before concluding the research.

1. Consideration of More Predictor Variables is important

a. Findings of this study and the empirical literature support entrepreneurial orientation as a uni-dimensional construct with sub-dimensions of innovativeness, risk-taking, and proactiveness. However, some researchers such as Lumpkin & Dess, (1996) suggest that there may be other important sub-dimensions of the entrepreneurial orientation construct—competitive aggressiveness and autonomy. Further research may develop to enrich the EO-growth relationship by incorporating these additional dimensions.

b. Though the universal effect approach has been dominant in the entrepreneurship research; some writers argue that both internal and external factors affect the relationship between EO and growth. For example, Covin and Slevin (1989) found the effect of EO on growth to be context specific. That is, EO had larger positive effect in hostile than benign environment. Besides the EO-growth, relationship can be moderated by internal environment. For instance, while access to financial resources provide the enterprises the resources slack necessary to engage in research and development activities, introduce new and innovative products/services by exploiting opportunities, resource constraints may limit firms to adopt entrepreneurial oriented strategy. Therefore, though findings of this study suggest that EO positively influence growth of small enterprises, relying only on this main effect may provide incomplete understanding about the EO-growth relationship. Greater understanding can be gained if the moderating role of internal and external factors on the EO-growth relationship is considered. Hence, future researchers need to consider both the main effect approach and two-way interaction (Effect of EO with moderators) effect in order to gain greater understanding about this issue. Special attention should be paid to differentiating between the effect of specific industry contexts and resources endowment.

2. Sample Size and Problem of Generalization

Use of sample respondent was not inevitable due to cost and time limitation. But as the sample may not be representative of all enterprises, it may not permit generalization to all films in Tigray regional State and other Regional States of Ethiopia. Therefore, further research may be needed with larger sample from the other regions of the country in order to consider region specific policies and political environment as well as cultural difference of SEs owners.

3. Measurement of Dependent Variable

In this research growth of SEs was measured based on change in employment mainly because (i) it is easily accessible (ii) it is easily remembered by owners (iii) owners are less reluctant to give the number of employees than the amount of profit and revenue (iii) it is not affected by inflation rate. Besides, this research could not get objective and reliable data on other types of measures such as sales revenue, profit, and capital employed (investment in assets). However, regardless of its utmost importance, change in employment may not be taken as the most suitable variable to explain growth. The increase in number of employment may not represent the real growth of the enterprises. For example, capital-intensive enterprises may show substantial growth in sales without any change in employment. Therefore, the measurement of sales, total assets, and profits may also contribute to the validity of the research findings, when they are easily and objectively accessible.

4. Self-Reported Bias

Findings of this research were based on owners/managers' subjective perceptual judgments. Individual owners/managers have their own perceptual bias and cognitive limitation in viewing their organization. The owner views his/her business as an extension of his/her personality (Kroeger, 2007). Though, objective data is generally difficult to get from SEs, further research may consider use of objective data in order to enhance confidence in the reported data.

6.6. Recommendations for implementation

This study sheds some light on our understanding and evaluation of effect of resources and entrepreneurial orientation on firm growth. The researcher believes that findings of these study will make important contributes to existing body of knowledge and resource based theory of firm growth. Based on the research summary and conclusions discussed above, the researcher provided some recommendation and suggestion for further research.

6.6.1. Recommendations on Entrepreneurship

Statistically significant positive relationship between EO and growth was found. This means firms with higher EO achieved higher growth but those with low level of entrepreneurial posture were remained to be survival type. The current business environment is dynamic, complex, and characterized by shorter product life cycles, globalization, and continuous improvements in technology. Therefore, the existence of small enterprise may be very short unless they are engaged in EO activities. They can enhance innovativeness through different ways such as developing new products or services though research and development; improve the quality of existing product lines, introducing new or more efficient procedures in their production or service delivery processes, creating new value to customers.

Besides, to innovativeness, firms need to take risk and be proactive in their specific industry and market in general. Innovativeness needs bold managerial actions and resource commitment. They need to make adequate resource commitments so that they can take bold action such as entering into unknown new markets or projects. With regard to proactivness small enterprises managers/owners need to have forward-looking behavior, anticipate and act aggressively on the future wants and needs of its customers, and take aggressive action to create first-mover advantage. EO needs financial resources because firms could not undertake innovative projects without adequate financial and human resources. However, about 78% of the enterprises were found to be financially constrained as the result of which their rate of growth was affected negatively. This financial constraint might have an indirect effect on entrepreneurial activity of small firms. For this purpose government and other stakeholders need to support the SEs sector by facilitating their easy

access to financial sources such as bank loan and providing entrepreneurship training so that their entrepreneurial orientated strategy could be enhanced.

6.6.2. Recommendations on Financial Capital

According to the findings of this study possessing strong financial resources, more leverage and easily accessible credit facilities have significant positive impact to enhancement of growth of small enterprises. Thus, it can be concluded that both the static trade of theory of capital structure and resource based view of firm growth are supported with these findings. While the static trade-off theory argues that, other things remain constant, debt financed or leveraged firms grow more rapidly than those equity financed firms which this study has confirmed, the resource based view argues that heterogeneous resources endowment of firms is source of variations in their growth.

According to the Growth and Transformation Plan (GTP) of Ethiopia, the MSEs sector is considered as springboard of industrialization and an engine for economic development of the country. However, such plan cannot be achieved unless growth of the sector is facilitated by solving its financial constraint. The main policy implication of this study is that the government of Ethiopia should work hard to meet the credit need of the SE sector for speedy economic growth of the nation.

The financial market should be promoted as an alternative source of capital for effective mobilization of domestic capital. Regulatory and institutional framework need to be developed and strengthened because well regulated and functioning financial market help the sector not only as an alternative source of fund but also as an alternative investment opportunity and income sources for those enterprises with surplus capital. Therefore, consulting experience of many developing countries in Africa and Asia, the writer provides the following recommendations.

(a) National Credit Guarantee Funds.

Respondents of this study reported that lack of tangible assets to be used as collateral by banks was one of the most critical causes for their financial constraint. Thus, as a remedy Ethiopian government need to introduce and strengthen a credit guarantee fund as a risk sharing scheme among those parties that participate in financing the SE sector. Many African and Asian countries (Ahiawodzi & Adade, 2012; Fakoti, 2011; Beck and Kunt, 2006; Kang, n.d.) adopted credit guarantee fund mechanisms as a fundamental mechanism to increase the availability of credit from banking and other financial institutions for the establishment, expansion, and improvement of SEs. Support from such a mechanism may help SEs that do not have tangible collateral to obtain bank loans. Besides, the Government of can introduce a special bank such as Small and Medium Enterprise Bank (SME Bank) which is an experience of developing countries like India.

(b) Promotion of Non-bank financial services.

As Kyaw (2008) such non-bank financial services and institutions as leasing companies, saving and mutual funds, investment banking, trade credit, factoring, venture capital financing are best suited for small enterprise financing. For example leasing is considered well suited to SEs financing because unlike banks there is neither collateral nor financial statement requirements in lease contracts. Besides, leasing contracts can more easily be structured to match the cash flow generation of the lessee's business. In Ethiopia, however, either such financial services are totally absent or they are used traditionally and in unstructured, unregulated way (Ageba and Amaha, 2006). Therefore, the government of Ethiopia should assess the potential of said financial institutions/services and develop guidelines or regulations for smooth functioning of these institutions to participate in SEs lending.

(c)Mandatory Minimum ratio of Bank loan to SEs.

As a means of priority lending system, government needs to initiate some guidelines so that banks are directed to make loans to potentially growing SEs. For example, in the Republic of Korea all commercial banks are required to provide more than 45 percent of the increase in loans to SMEs (Kang, nd).

(d)Easily Accessible credit.

Easy accessibility to credit through development of specialized or development oriented banking or financial intuitions that specialize on financing SEs, like the SMEs Bank of Thailand, and JASME in Japan (Kyaw, 2008), need to be encouraged. Fund can be made available to the MSEs at reduced interest rate. NGOs and government can earmark funds in order to subsidize the financial institutions.

(e) Improve the internal capacity of small enterprises.

Results of this research and empirical evidences in Ethiopia (e.g. Bekelle and Worku, 20098, Ageba and Amaha, 2006; Negash, 2006) revealed that mall enterprise owners are also responsible for their problem on access to bank credit. First, as discussed above, the SEs could not satisfy the collateral requirement of banks. Second, due to the lack of skilled and professionally trained personnel, they rarely keep accounting records of their business in acceptable manner. This aggravates the problems of information asymmetry between the banks and their business. For this reason most of the accounting records submitted to banks for loan applications were not accepted by banks because of reliability problems (Fesseha and Aregawi, 2012). Third, many SEs in the study area lacked the skill and knowledge to prepare business plan that can be used to assess the feasibility of a project. Most of the small enterprises reported that they started their business without a formal busyness plan. As the result of this banks rely mainly on the viability of their collateral in extending credit (Ageba and Amha, 2006).

Therefore, in order to get better access to credit SEs owners, government and relevant stakeholders should strive to overcome these internal problems. The first suggested solution is to upgrade knowledge and skill of owners and/or employees of the SEs in order to prepare financial statements that can be used to assess the financial condition and operating result of their businesses. For this purpose, g180

concerned body (e.g. the Regional Micro and Small Enterprise Agency) should develop easily understandable financial manual that help them to properly record and control daily transactions and prepare acceptable financial statements. In addition, tailored made training

should be given in order to solve knowledge deficiency in accounting and preparation of tax returns. Second, in addition to short term on job training, such courses as Entrepreneurship and Small Business Management need to be given in schools and training centers. These help the entrepreneurs not only to start their business with professionally developed business plan but also to objectively and systematically evaluate their business. The ultimate effect of these can be manifested in adequate access of SEs to bank credit, among others.

6.6.3. Recommendation in relations to Location of Small Enterprises

This research provided evidence to support the hypothesis that SEs operating in commercial districts outperforms those SEs located in areas outside the commercial districts. This suggested that there might be some specific factors which facilitated growth rates of firms operating in locations nearer to major customers and suppliers (commercial districts). These benefits could include, among others, externalities generated by firms locating near each other, better infrastructural facilities and information services. Therefore, as location was found to be one of the determinant factors of growth, the study provides the following suggestions.

i. Government (MSEs offices) should undertake policies and support system that encourage establishment of small enterprises in concentrated commercial areas. These could include allocating working premises (or land) at concessional cost, establishment of small enterprise commercial centers (such as MSEs growth Center in Zimbabwe (McPerson, 1996: 274) and cooperative marketing arrangements, rent subsidies to encourage small enterprises to move to commercial areas.

ii. Empirical evidences show that clusters, defined as geographic and sectoral agglomeration of enterprises, may facilitate growth of SEs (Nicher and Goldmar, 2009: 1458) by enhancing horizontal and vertical linkages. According to these writers, clusters may involve external economies: one firm's investments spill over to other firms in the cluster. Besides, clusters may involve conscious joint action such as the sharing of machinery, exchange of inventory/materials, and information. Therefore,

the government should strengthen the existing scant clustering practices in order to achieve the targets set in the GTP by accelerating the growth of small enterprises.

iii. Though improved access to infrastructure such as land for construction working premises, road, power, telecommunication services, water services, of have positive influence on growth of small enterprises, large number of small enterprises lacks adequate access to infrastructure. Therefore, government should facilitate provision of adequate and inexpensive infrastructure services to this sector.

6.3.4. Recommendation on Education and Growth

It was found that it is not the level of educational attainment that results into higher employment growth rate, but the relevance of the education to entrepreneurship and small business management. Therefore, because results of descriptive analysis of this study showed that SEs owned by TVET completed individuals outperform in growth rate, the writer suggests that educational institutions in Ethiopia should introduce and strengthen entrepreneurship related syllabus and expose their students to practice oriented teaching learning practices by enhancing the industry-university/college linkage practices. When students and trainees are oriented into entrepreneurship starting from the early stage, it becomes easier to them to establish successful and growing business enterprises. This is in line with the suggestions made by Fatoki (2011) that entrepreneurship education system should become a mainstream activity in educational system of African countries.

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Appendixes

Appendix I: Models and Related Tests

Appendix II: Questionnaire

- English
- Tigrigna Version

Appendix III: Summary of Earlier Studies in Ethiopia

Appendix I: Models and Related Tests

Appendix A: Regression Model

A1: Regression Model for Test of Heteroskedasticity

```
reg emgrr owedule owedule2  owexpc findiff locatn entage entage2 noemp0 capam0
avoaeo avomot sectr ageow ofpr avmkt genow avinfr avgovss
```

```
      Source |       SS       df       MS              Number of obs =     333
-------------+------------------------------           F( 18,   314) =    5.60
       Model |  12056.4319    18  669.801772            Prob > F      =  0.0000
    Residual |  37574.3188   314  119.663436            R-squared     =  0.2429
-------------+------------------------------           Adj R-squared =  0.1995
       Total |  49630.7507   332  149.490213            Root MSE      =  10.939

------------------------------------------------------------------------------
       emgrr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     owedule |  -1.296251   .5308785    -2.44   0.015     -2.34078   -.2517222
    owedule2 |   .0765056   .0295194     2.59   0.010     .0184248    .1345865
      owexpc |    -1.0794   1.333965    -0.81   0.419     -3.70404     1.54524
     findiff |   2.716593   1.556454     1.75   0.082    -.3458043     5.77899
      locatn |  -2.725103   2.521217    -1.08   0.281    -7.685718    2.235511
      entage |  -.6912465   .2600546    -2.66   0.008    -1.202916   -.1795767
     entage2 |   .0115224   .0066962     1.72   0.086    -.0016527    .0246976
      noemp0 |  -.5869838   .2624502    -2.24   0.026    -1.103367   -.0706006
      capam0 |   8.95e-06   4.95e-06     1.81   0.071    -7.85e-07    .0000187
      avoaeo |    3.59233   .9755616     3.68   0.000     1.672866    5.511794
      avomot |   2.787862   1.257821     2.22   0.027     .3130399    5.262684
       sectr |   7.567183   1.754301     4.31   0.000     4.115511    11.01885
       ageow |  -.0618792   .0780052    -0.79   0.428    -.2153582    .0915997
```

```
        ofpr |   2.760157   1.372056     2.01   0.045     .0605715    5.459743
       avmkt |   4.309996   2.027663     2.13   0.034     .3204725    8.299519
       genow |   1.147724   1.516835     0.76   0.450    -1.836722     4.13217
      avinfr |   .6370401   1.372098     0.46   0.643    -2.062627    3.336708
     avgovss |  -.6322322   .8540287    -0.74   0.460    -2.312574     1.04811
       _cons |  -18.96265   10.06059    -1.88   0.060    -38.75734    .8320353
------------------------------------------------------------------------------

. hettest
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of emgrr
         chi2(1)      =   102.16
         Prob > chi2 =   0.0000
```

A2: Regression Model with Robust Standard Eroors

```
reg emgrr owedule owedule2  owexpc findiff locatn entage entage2 noemp0 capam0
avoaeo avomot sectr ageow ofpr avmkt genow avinfr avgovss, robust

Linear regression                                      Number of obs =     333
                                                       F( 18,   314) =    4.34
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.2429
                                                       Root MSE      =  10.939
------------------------------------------------------------------------------
             |               Robust
       emgrr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     owedule |  -1.296251     .52454    -2.47   0.014    -2.328308   -.2641935
    owedule2 |   .0765056   .0321569     2.38   0.018     .0132354    .1397759
      owexpc |    -1.0794    1.52008    -0.71   0.478    -4.070229    1.911429
     findiff |   2.716593    1.55588     1.75   0.082    -.3446744     5.77786
      locatn |  -2.725103   1.547053    -1.76   0.079    -5.769003    .3187963
      entage |  -.6912465   .2455174    -2.82   0.005    -1.174314   -.2081792
     entage2 |   .0115224   .0050466     2.28   0.023      .001593    .0214518
      noemp0 |  -.5869838   .2372151    -2.47   0.014    -1.053716   -.1202519
      capam0 |   8.95e-06   4.73e-06     1.89   0.059    -3.56e-07    .0000183
      avoaeo |    3.59233   1.065751     3.37   0.001     1.495413    5.689246
      avomot |   2.787862   1.146528     2.43   0.016     .5320128    5.043711
       sectr |   7.567183   1.767006     4.28   0.000     4.090514    11.04385
       ageow |  -.0618792   .0839659    -0.74   0.462    -.2270861    .1033277
        ofpr |   2.760157   1.457877     1.89   0.059    -.1082842    5.628599
       avmkt |   4.309996   1.913591     2.25   0.025     .5449142    8.075077
       genow |   1.147724   1.634404     0.70   0.483    -2.068045    4.363492
      avinfr |   .6370401   1.197336     0.53   0.595    -1.718775    2.992855
     avgovss |  -.6322322   .7895288    -0.80   0.424    -2.185668    .9212033
       _cons |  -18.96265   10.29928    -1.84   0.067    -39.22698    1.301679
------------------------------------------------------------------------------
```

Appendix B: Correlation Matrix of the Model

B1: Correlation Matrix

```
pwcorr emgrr owedule owedule2  owexpc findiff locatn entage entage2 noemp0 capam0 avoaeo
avomot sectr ageow ofpr avmkt genow avinfr avgovss
```

	emgrr	owedule	owedule2	owexpc	findiff	locatn	entage
emgrr	1.0000						
owedule	0.1457	1.0000					
owedule2	0.1644	0.9574	1.0000				
owexpc	-0.0494	-0.0187	-0.0223	1.0000			
findiff	0.0751	-0.0102	0.0097	-0.1594	1.0000		
locatn	-0.0635	-0.0058	0.0391	-0.0085	-0.0222	1.0000	
entage	-0.2222	-0.2987	-0.2615	-0.1133	0.0935	0.0092	1.0000
entage2	-0.1669	-0.2664	-0.2194	-0.1184	0.1077	-0.0129	0.9348
noemp0	-0.0264	0.1843	0.2006	0.0634	-0.0395	0.0578	0.0393
capam0	0.0938	0.0628	0.0613	0.0939	0.0302	-0.0592	-0.1282
avoaeo	0.2407	0.2417	0.2347	0.0931	-0.1365	-0.0583	-0.0326
avomot	0.1409	0.0341	0.0156	-0.0290	0.0507	-0.0032	-0.0873
sectr	0.2427	0.1082	0.0809	-0.0361	0.0905	0.0826	0.0060
ageow	-0.2018	-0.5664	-0.5027	0.1199	0.1006	0.0068	0.5195
ofpr	0.1311	0.0157	0.0066	0.0012	-0.1583	0.0241	-0.1714
avmkt	0.1191	0.0495	0.0549	-0.1419	-0.0647	-0.1488	0.0258
genow	0.0248	-0.0011	-0.0125	0.1166	0.0526	-0.0032	0.1317
avinfr	0.1070	0.0876	0.0870	-0.0700	-0.0672	0.0098	-0.1364
avgovss	0.0767	-0.0241	-0.0149	-0.1194	0.0003	-0.0073	-0.0181

	entage2	noemp0	capam0	avoaeo	avomot	sectr	ageow
entage2	1.0000						
noemp0	0.0650	1.0000					
capam0	-0.0958	0.1230	1.0000				
avoaeo	-0.0447	0.1635	-0.0171	1.0000			
avomot	-0.0668	-0.0969	-0.1083	0.0642	1.0000		
sectr	0.0132	0.1385	-0.0455	0.1865	-0.0252	1.0000	
ageow	0.4538	-0.0790	-0.0040	-0.1961	-0.0564	-0.1054	1.0000
ofpr	-0.1522	0.1321	0.1492	-0.0071	-0.0319	0.0874	-0.0232
avmkt	0.0066	0.1396	-0.0095	0.1189	0.1002	-0.0892	-0.1235
genow	0.0948	-0.0023	-0.0437	0.1237	-0.1144	0.1141	0.1039
avinfr	-0.0836	0.0077	0.0442	-0.0025	0.0808	0.0311	-0.1621
avgovss	-0.0139	0.1068	0.0660	0.0931	0.3428	0.0408	-0.0500

	ofpr	avmkt	genow	avinfr	avgovss
ofpr	1.0000				
avmkt	0.0368	1.0000			

genow	-0.0498	-0.0435	1.0000		
avinfr	0.0963	0.1700	-0.0022	1.0000	
avgovss	0.1254	0.2248	-0.1111	0.1711	1.0000

B2: Variable Inflation Factor

Variable	VIF	1/VIF
owedule	14.73	0.067883
owedule2	13.43	0.074485
entage	9.82	0.101882
entage2	8.70	0.115008
ageow	2.15	0.464676
avgovss	1.29	0.775023
avomot	1.23	0.810350
avoaeo	1.22	0.820275
avmkt	1.21	0.828304
noemp0	1.19	0.841626
owexpc	1.18	0.846241
sectr	1.15	0.872496
findiff	1.14	0.875307
ofpr	1.14	0.875326
avinfr	1.12	0.894428
capam0	1.11	0.901052
genow	1.11	0.903644
locatn	1.09	0.916225
Mean VIF	3.56	

Appendix C:Cronbach's Alpha Coefficients

Ser No	Variable	No of Items	Reliability Coefficient
1	Entrepreneurial Orientation (Explanatory Variable)	09	0.7748
2	Motivational Factors (Control Variable)	12	0.7382
3	Government policies, strategies & bureaucracy (Control Variable)	05	0.7644
4	Access and cost of infrastructure	04	0.6955
5	BDS(Control Variable)	12	0.7457
6	Marketing and Market related factors (Control Variable)	05	0.6379

Appendix D: Tables in relation to Financial Capital and Growth

Appendix D1: Growth in relation to single versus multiple sources of Capital

. ttest emgrr, by (casoinc)

```
Two-sample t test with equal variances
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
Single s |     203    6.391924    .8242562    11.74384    4.766674    8.017174
Multiple |     130    8.167808    1.132841    12.91637    5.926455    10.40916
---------+--------------------------------------------------------------------
combined |     333    7.085212    .6700146    12.22662    5.767203    8.403221
---------+--------------------------------------------------------------------
    diff |           -1.775884    1.372042               -4.474907    .9231387
------------------------------------------------------------------------------
    diff = mean(Single s) - mean(Multiple)                        t =  -1.2943
Ho: diff = 0                                     degrees of freedom =      331

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0982         Pr(|T| > |t|) = 0.1965          Pr(T > t) = 0.9018
```

Result of hypothesis test indicates that growth rate of single source SEs was less **than those SEs financed their investment using multiple source (Ha: diff < 0; Pr(T < t) = 0.0982) which is weak significant effect**

Appendix D2: Proportion of Single source and related Growth rate

Category of Single Source	No of SE (percent)	Growth of Small Enterprises			
		Mean	Std Dev	Min	Max
Own saving	125 (62%)	6.06%	0.1111074	-0.0229	0.7611
Family	55 (27%)	6.34%	0.1191449	-0.0785	0.4621
Bank loan	21 (10%)	13.27%	0.2024050	0	0.7324
Others*	2 (1%)	7.70%	0.1333962	0	0.2310
Total	203 (100%)	**7.85%**	12.22662	13.86%	76.11%

* includes trade credit, lease financing etc

Appendix D3: Relationship between Capital Structure and Growth

```
. ttest emgr, by(ofpr)

Two-sample t test with equal variances
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
  Equity |     226    .0598365    .0073068    .1098449     .045438     .074235
    Debt |     107    .0941188    .0138093     .142845    .0667404    .1214972
---------+--------------------------------------------------------------------
combined |     333    .0708521    .0067001    .1222662     .057672    .0840322
---------+--------------------------------------------------------------------
    diff |           -.0342823    .0142453               -.062305   -.0062596
------------------------------------------------------------------------------
    diff = mean(Equity) - mean(Debt)                              t =  -2.4066
Ho: diff = 0                                     degrees of freedom =      331

    Ha: diff < 0                 Ha: diff! = 0                 Ha: diff > 0
 Pr (T < t) = 0.0083         Pr (|T| > |t|) = 0.0167          Pr (T > t) = 0.9917
```

Appendix D4: PSM Result of financing preference of owners on growth of SEs

Variable	Impact of owners' financing preference on growth of SEs					
	Radius Matching		Kernel Matching		Stratification	
	ATE	t-value	ATE	t-value	ATE	t-value
Employment Growth Rate (%)	3.4	1.827***	3.4	2.069**	0.034	2.231**
Boottstr		0.026		0.031		0.027
Debt Financed	107		107		107	
Equity Financed	226		226		226	

Note: ** shows p<0.05 *** shows p<0.01

Appendix D5: Financial Position of Small Enterprises

Financial difficulty	Freq.	Percent	Cum.
Had fin Shortage	261	78.38	78.38
Had no Fin shortage	72	21.62	100.00
Total	333	100.00	

Appendix D6: Small Enterprises Applied for Bank loan (tab apfloan)

Applied for loan	Freq.	Percent	Cum.
No	133	39.94	39.94
Yes	200	60.06	100.00
Total	333	100.00	

Appendix D7: Access to Bank loan and Growth of SEs (Loan application Accepted/Rejected)

ttest emgrr, by(loapac)

Two-sample t test with equal variances

```
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
  Rejected     179    6.147545    .8177282    10.94046    4.533856    7.761234
  Accepted      21    10.24786    3.021885    13.84802    3.944319     16.5514
---------+--------------------------------------------------------------------
combined |     200    6.578078    .7997614    11.31033    5.000983    8.155173
---------+--------------------------------------------------------------------
    diff |           -4.100316    2.599177               -9.225939    1.025307
------------------------------------------------------------------------------
    diff = mean(rejected) - mean(Accepted)                        t =  -1.5775
Ho: diff = 0

                                     degrees of freedom =      198

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0581         Pr(|T| > |t|) = 0.1163          Pr(T > t) = 0.9419
```

Appendix F1: T-test on effect of Prior experience

ttest emgr, by(owexpc)

Two-sample t test with equal variances

```
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
      No |     131    .0783424    .0115823    .1325651    .0554283    .1012566
     Yes |     202    .0659945    .0081038    .1151768    .0500152    .0819739
---------+--------------------------------------------------------------------
combined |     333    .0708521    .0067001    .1222662     .057672    .0840322
---------+--------------------------------------------------------------------
    diff |            .0123479    .0137196               -.0146407    .0393365
------------------------------------------------------------------------------
diff = mean(No) - mean(Yes)                                   t =   0.9000
Ho: diff = 0                     degrees of freedom =      331

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.8156         Pr(|T| > |t|) = 0.3688          Pr(T > t) = 0.1844
```

Appendix II: Questionnaire English Version

Dear Sir/Madam,

My name is Aregawi Ghebremichael Tirfe, from Mekelle University, a PhD student in the School of Business Leadership, University of South Africa (UNISA), and South Africa.

I am conducting a study on "**The Effect of Resources and Entrepreneurial Orientation on Growth of Small Scale Enterprises in Tigray Regional State of Ethiopia.**

The purpose of this study is to gain a deeper understanding of the effect of entrepreneurial orientation and resources on the growth of small enterprises.

The analysis will give the entrepreneurs (small business owners) clearer understanding to what extent the firm specific resources such as, education, experience, age and gender of owner (s), finance, location, age of the enterprises, as well as external factors influence growth of their business.

Additionally, the research will be an important source of information to policy makers and other stakeholders in developing appropriate strategies to provide a legal framework for the support, expansion and development of effective small enterprises.

I would therefore like your assistance by participating in this study. I kindly request your cooperation to complete the attached questionnaire or give your response to the enumerator who will support you in completing the questionnaire. He/she will read a particular statement or question, then you are kindly requested to give (tell) your response to the enumerator who will write or put your answer on the question paper in your presence.

Please be assured that this information is sought for research purposes only and your responses will be strictly confidential. No individual's responses will be identified as such

and the identity of persons responding will not be published or released to anyone. All information will be used for academic purposes only**.**

Herein attached are a permit from Mekelle University, sponsoring institution, and a note from my supervisor (UNISA).

Thank you very much for helping with this important study.

Sincerely,

Aregawi Ghebremichael Tirfe

Tel: 0914-721212

e-mail: aregawigm@yahoo.com ; 72412496@mylife.unisa.ac.za

I. Backgraound information

1. **Address of Respondents**

   Name_____

   Sub-city: _____

2. **Date of data collection**_____

3. Interviewer/Enumerator

   Name_____ Date_____ Signature_____

4. Confirmation

   4.1. Checked by (Coordinator of Ennumerators)

   Name_____ Signatrure _____ Date

   4.2. Checked by (Supervisor)

   Name_____ Signatrure _____ Date

   4.3. Approved by (Researcher)

   Date_____ Signature _____

Comment, if any

_____

_____

II. Profile of Owners

2.1 What is your position in the business? (Thick in one of the boxes).

Owner, but not manager ……. ☐ 1

Both owner and manager …… ☐ 2

2.2 What is the gender of the owner of this enterprise? ((Thick in one of the boxes)

1. Male owned ……. ☐ 1

2. Female owned …… ☐ 2

2.3. Would you please indicate the age of the owner/manager of this enterprise in complete year?

Age:_____ years

2.4 What is marital status of the owner of this enterprise? (Thick in one of the boxes).

Married…… ☐ 1

Single …… ☐ 2

Widowed/ Divorced/Separated…….. ☐ 3

III. Sector and Location of the Enterprise

3.1 What is the sector in which your business operates? (Thick in one of the boxes)

Manufacturing[5]…… ☐ 1

Construction[6] …… ☐ 2

Services[7] …… ☐ 3

Trading (Retail /whole sale trade)[8] …… ☐ 4

[5] Manufacturing business includes all enterprises that are engaged in production or manufacture of goods/products such as metal and wood workshops, handcrafts, production of textile (including "shemane") and leather products, production of food and related items..)

[6] Construction includes all enterprises engaged in constriction activities (building construction, road construction, masonry activities, and Coble stone and similar activities)

[7] Service enterprises are those enterprises that provide intangible products (Eg. Hotels, restaurants, Cafeterias, Recreational centers, transport, repair and maintenance such as garages,…)

[8] Trading comprise both retail and whole sale merchandising enterprises engaged in buying and selling of tangible commodities/goods.(eg Groceries, cosmetics, stationery, spare parts shops, building and construction materials, Electric and Electronics shops, cosmetics shops etc)

3.2. How do you evaluate the proximity (nearness) of location of your business to major customers (Thick in one of the boxes).

It is far from commercial district……	☐	1
At the market place/commercial district…….	☐	2
Others (Specify) ……	☐	3

IV. Human Capital Related Questions

Note: Questions 4.1 -4.5 are related only to human capital components of the owners/mangers of the responding enterprise (it does not include human capital of employees/workers)

4.1. What is the highest completed level of educational qualification (level of schooling) of the owner /mangers of this enterprise?[9]

Grade/School completed =_____

4.2 As owner(s)/manager(s) of the enterprise, had you ever received any capacity building training related to operations of your business[10]

Had no training at all ……..……..	☐	1
Had training ……	☐	2

4.3. If you have ever received training, would you state the average length of training time in hours ?

Average length of training time in hours

=_____

[9] Write:

- 8 if you completed 8th grade, 10 if you completed 10th grade, 12 if you completed grade 12 etc;
- 10+1, 10+2, 10+3 to indicate that you had completed 10+1, 1o+2 10+3 under the new curriculum.
- 12+2 if you are diploma holder of old curriculum
- 15 or 16 if you have bachelor's degree of new or old curriculum, respectively
- Write 17 if you are a masters holder

[10] Training can either be before or after you start the business or both before and after starting your business. It can be in the form of expertise advice and counseling in identifying the right kind of business, how to start/operate your business, how to manage your financial resoruce (cash or money), materials, products, how to determine price, how to promote your products/service, how to handle customers etc.

4.4 What was the work experience of the owner/manager of this enterprise **before** engaging in the current enterprise? (Thick in one of the boxes).

Type of Experience	Code
Had no Work experience- ***neither as employed worker, nor running own business nor in family business*** (it may be because of some of the following and similar): • You had been a student or below age • You had been mature- unemployed	1
Had work expreince as employee in a **similar** line of business (Can be with salary or without salary)	2
Had work expreince as employee in a **different** line of business (Can be with salary or without salary	3
Had been self employed or operate my own business in **different** line of business	4
House wife	5
Others	6

If your answer is others (code), please specify_____

If your answer for Q 4.4 is code 1 or code 5 or code 6, please scape Q 4.5

4.5 If you had any **working experience before starting your current business**, would you indicate the ***length of experience in years*** for each type of experience listed below?

Type of Work Experience	**Duration of Experience in years**
Employee in the same line of business	
Employee in different line of business	
Operate your own business with different line of business	

4.6. How long have you led this enterprise? (Write the lentth in number of years)

_____yeares

4.7 Educational background of employees

Would you please specify the number of your employees in terms of their highest schooling completed.

Code	**Highest Schooling (Grade) Completed**	**Number of Workers**
1	No formal education	
2	Primary education completed (Grade1-Grade 8)	
3	Secondary education completed (Grade 9-Grade 12)	
4	Certificate (10+ 1, 10+2, 12+ certain certificate)	
5	Diploma (10+2, 10+3)	
6	First degree	
7	Masters and above	
	Total	

Work experience of Workers

4.8 Would you please indicated the number of your employees in terms of their of years of experience they gained (served) **in this organization.**

Duration of Work experience in this Enterprise	**Number of Employees**
Below three (3) years experience in this enterprise	
3-5 years of experience in this enterprise	
6-10 years of experience in this enterprise	
Above 10 years of experience in this enterprise	
Total	

4.9. If you have some workers who had been working in business organization (either as employee or as owner or both), please specify the number of these employees in terms of their years of experience.

Code	**Type of Work experience and duration of employees**	**Number of Workers**
1	Below 3 years experience in running own business enterprise or employed worker of a business enterprise	
2	3-5 years experience in running own business enterprise or employed worker of a business enterprise	
3	6-10 years experience in running own business enterprise or employed worker of a business enterprise	
4	ħ10 years experience in running own business enterprise or employed worker of a business enterprise	
	Total [11]	

Organizational resources

5.1 would you please indicate the age of your organization in completed (full) years[12]=

[11] Note to Ennumerators: Please check that the number of employees indicated in different sections of this questionnaire is the same. For example total number of employees in 4.8 and 4.7 must be same.

[12] ***Note to the enumerators:***

Enterprise age = _____years

5.2 . Would you please indicate the number of employees both at the beginning and at this time by type of employment?

Type of Employment	**Number of employees Now**	**Number of Employees at start (beginning)**
Number of Workers =(Working Owners + full time + part-time paid workers)[13]		
Total[14]		

5.3 What was (were) the **sources of initial (start-up)** capital of your enterprise?

(Thick in anyone of the boxes, multiple answers is possible)

Own saving (includes iquub)…… ☐ 1

Family source (Borrowing and/or gift from

Friends, relatives etc) …… ☐ 2

Bank loan [15]…..……..……. ☐ 3

Others …… ☐ 4

If age of an enterprise includes any given full years and some additional months, its age must be written to the nearest full year.

- If its age is 3 years and 4 months (and any months less than 4 months), its age must be written as 3 years.
- If its age is 3 years and 5 months (or any other months up to 11 months), its age must be written as 4 years etc

[13] this category includes both family and non-family paid workers), but excludes unpaid family helpers, apprentices, and casual workers.

[14] Number of workers stated in the first column of Q5.2 (Number of workers Now) minus one = Number of workers in 4.8 and 4.7 because 5.2 includes owner while 4.7 and 4.7 do not.

[15] Bank loan includes credit from commercial bank, credit union and microfinance institutions

If others, please specify

_____

_____

5.4. If your sources of finance were two or more than two, would you please rank them according to their proportion. (1st for the highest source, 2nd for the second highest source etc)

Source of Initial Capital	**Rank of the source**
Own saving	
Family gift and loan	
Loan from Bank microfinance	
Other soruces1 _____	
Other soruces2_____	

5.5. How much was the initial capital (Value of assets or investment) of your enterprise in Birr?

Type of Capital[16] (Asset)	**Amount of Capital (asset) in Birr**
Beginning capital or capital at the time of starting the business	
Ending capital or amount of capital at the end of last fiscal year	

5.6. .Had you ever had any financial difficulty (financial shortage)?

There was no any shortage of financial capital …… ☐ 1

There was shortage of financial capital…… ☐ 2

If ***your answer is Code 1 scape Q.5.7 5.8, 5.9 and 5.10***

[16] Capital or value of assets includes the sum of Cash, value of asset such as inventory, building, equipment, machinery etc that are invested in the business.

5.7 If your answer for Q5.6 is code 2, (if you ever had any financial/capital difficulty), had you ever applied for bank/microfinance loan?

Yes…… ☐ 1

No …… ☐ 2

5.8 If your answer for Q5.7 is code 1, had your application been accepted?

Yes…… ☐ 1

No …… ☐ 2

5.9 If your answer for Q5.8 is code 1 (if your application was accepted), was the amount of loan you received adequate compared to your requirement?

It was too inadequate…… ☐ 1

It was in adequate …… ☐ 2

Neutral …… ☐ 3

Adequate…… ☐ 4

More than our requirement (excess) …… ☐ 5

5.10. If your answer for Q5.8 is code 2 (if your application was not accepted) or answer for Q5.9 is code 1 or code 2 (if the loan amount was too inadequate or inadequate), please rank the following possible constraints according to their severity. (1^{st} for the most sever constraint, 2^{nd} for the next constraint etc)

Type of constraints	Rank of the constraint
We couldn't fulfill the collateral requirement of banks/Microfinance	
We couldn't fulfill the business plan requirement of banks/Microfinance	
Work ethics of bank/microfinance staff was very difficult	
Interest rate was too high	
Others	

If your answer is others, please specify them and rank their severity in comparison with the other constraints.

5.10. Others1_____ Rank_____

5.10. Others2_____ Rank_____

5.10. Others3_____ Rank_____

VI Motivation and Entrepreneurial Orientation

6.1. Motivation of Owners to Start Self Employed Business Enterprise

This section deals with possible motivational factors behind the decision to become an entrepreneur or establish your own enterprise. Please indicate to what extent the factors were relevant to motivate you in starting your current business enterprise by circling the closest number that best describes your views in the box in front of each statement.

Key

1 = Was not objective at all (motivator) (NA)

2= Least important motivator (LI)

3 = Neutral (Neu)

4= Moderate Motivator (MM)

5 = It was Most relevant motivator/objective (MR)

1. Selecting "1" explains that the stated objective have nee been your motivation/objective to start your business
2. Selecting 2 designates that the stated objective was your least important objective

   Note: The difference between 1 and 2 is that while code 1 indicates that you had never such objective in your mind, code 2 shows you had such objective in mind but it was given least importance to that objective)

3. Choosing 3 indicates your neutrality to the statement, i.e, the statement show an intermediate objective
4. Selecting 4 shows the stated objective was your moderate motivator to start your current business enterprise
5. Choosing "5" shows that the stated objective was the most relevant motivator/objective to start your business enterprise

Dimensions of Motivation	Elements of Motivations (objectives)	Choices				
		1= NA	2= LI	3= NL	4= MM	5= MR
6.1.1. Extrinsic motives[17]	**a)**. To increase my personal and family income	1	2	3	4	5
	b). To acquire personal wealth	1	2	3	4	5
	c). To expand my income opportunity	1	2	3	4	5
6.1.2. Intrinsic Motives[18]	**a.)** To prove I can do it	1	2	3	4	5
	b). To gain personal satisfaction and growth	1	2	3	4	5
	c.) To gain public recognition	1	2	3	4	5
6.1.3. Autonomy Motives[19]	**a)**. To protect or maintain my employment/job security	1	2	3	4	5
	b). To one's own boss and maintain my personal freedom (desire to escape supervision)	1	2	3	4	5
6.1.4. Family security	**a.)**To secure future for my family members	1	2	3	4	5
	b) To build a business to pass on	1	2	3	4	5
6.1.5. Pushing factor	**a)**. Dissatisfaction with previous a salary-based job (may include dissatisfaction due low pay, bad working condition etc).	1	2	3	4	5
	b.) Had no other alternative (It may be because you had no any employment, or you were fired or retired or retrenchment from previous salary-based job etc)	1	2	3	4	5

[17] Establishing a business in order to increase (gain) economic/financial compensation.
[18] Establishing a business for its inherent satisfaction (doing for the fun or simply to enjoy the activity itself) rather than for economic compensation, for self-fulfillment and growth
[19] Establishing a business in order to create one's own independence

Source: 1. Adapted from Cromie (1997) and Bowen (2008) A Sub-Group Comparison of the Motivations –*Translated by researcher;* 2. Homsby, H.J., Kuratko, F.D., & Naffxiger W.E.1997. " An Examination of owner's goals in sustaining entrepreneurship", Journal of Small Business management, 35.1 Jan 1997 p 24 ; 3. Mashayo 2006

6.2. Strategic Posture scale (Entrepreneurial Orientation)

The following statements are meant to identify the collective management style of your enterprise's key decision makers (managers). Please indicate which response most clearly matches the management style of your business key managers by circling the closest number that best describes your views in the box in front of each statement.

Key	**Code**
Strongly Disagree (SDis)………………..……………………………….…………	1
Disagree (Dis) ……………..………..……...………………………………..………	2
Neutral (Neu) ……………………..…………………………………...…….……	3
Modrately Agree (MAG)…………………..………………..……..……………….…...	4
Strongly Agree (SAG) ………………………..…………………………………..	5

1. If you select 1, it indicates your **complete disagreement** with the statement
2. If you select 2, it indicates your moderate disagreement with the stated stament.
3. Selecting 3 means you are neutral with the statement
4. Selecting 4 indicates your moderate agreement with the statement.
5. Selecting 5 indicates your strong agreement with the statement.

Dimensions EO	Components of Each Dimension of EO	Choices				
		1= SDis	2= Dis	3= NL	4= MAG	5= SAG
6.2.1 Innovation	**a)** In the past years we have provided very many new lines of products or services to the market	1	2	3	4	5
	b) Changes in products or services lines have usually been quite dramatic in order to satisfy the needs of customers.	1	2	3	4	5
	c)Management of our enterprises gives strong emphasis to creativity& innovation, research and development, and technological leadership	1	2	3	4	5
6.2.2 Proactivness	**a)**. In dealing with its competitors, my firm typically initiates actions which competitors respond to (instead of responding to actions which competitors initiate)	1	2	3	4	5
	b). In dealing with its competitors our enterprise is very often the first business to introduce new products or service administrative techniques, operating techniques etc	1	2	3	4	5
	c). In dealing with its competitors our enterprise typically adopts a very competitive, undo-the- competitors' posture.	1	2	3	4	5
6.2.3	**a).** When selecting projects or a course of action, managers of my firm have a strong proclivity/inclination for high-risk projects	1	2	3	4	5

Risk Taking	with chance of very high return, instead of for projects with low-risk but nominal and certain rate of return.					
	b). In relation to maximization of environmental opportunities, managers of our firm believe bold wide ranging acts are necessary to achieve the firm's objectives (instead of exploring it gradually, via timid, incremental behavior)	1	2	3	4	5
	c). *When confronted with decision-making situations involving uncertainty, my enterprise t*ypically adopts a bold, aggressive posture in order to maximize the probability of exploiting opportunities					

Source: adapt from works of different researchers such as Fairoz, Hirobumi, & Tanaka (2010), Rynyan, Droge, & Swinney (2008), Runyan, and Swinney (2006); Wiklund & Shephered (2005); Lumpkin & Dess (2001); Covin and Slevin (1989) and James (nd).

VII. Environmental/External Variables

A. Government policies

7.1 The following section deals with different government policies and services. Please read each statement and indicate your response by circling the closest number that best describes your views in the box in front of each statement to indicate your perception to what extent government policies and services are encouraging or discouraging in relation to your business.

Key

Very Discouraging (VDis) ……..……..……1

Discouraging (Dis) ….……2

Neither encouraging nor discouraging (NEND……. 3

Moderately Encouraging (Enc)…….…… 4

Very encouraging (VEnc))……..……..5

Note

1. Selecting 1 indicates that you believe the stated government policy or service is **very discouraging**.

2. Selecting 2 means the stated government policy or service is moderately discouraging. **3.** Selecting 3 means you are neutral with the statement

4. Selecting 4 shows that you believe that the stated government policy or service is moderately encouraging

5. Selecting 5 shows you believe that the stated government policy or service is very encouraging

S.N	Components of Governemtn Services and supports	Choices				
		1= VDis	2= Dis	3= Neu	4= Enc	5= VEnc
7.1.1	Overall government strategies and policy-directions towards development of small enterprises	1	2	3	4	5
7.1.2	Discipline and honesty of government employees	1	2	3	4	5
7.1.3	Efficiency and effectiveness of government bureaucracy	1	2	3	4	5
7.1.4	Tax rate (or amount) charged by the government, and tax administration (the the way how the tax authority assesses tax, how the authority handles your compliant, and customer handling mechanism of the tax authority).	1	2	3	4	5
7.1.5	Trade law and regulation	1	2	3	4	5

B. Access and costs of infrastructure

7.2 This section deals with the accessibility and cost of infrastructure. Please read each statement and indicate your response by writing the closest number that best describes your views in the box in front of each statement to indicate your perception to what extent you agree or disagree with each statement.

Key **Code**

Strongly Disagree (SDis) …….. 1

Moderqtely Disagree (MDis) …… 2

Neutral (Neu)…….…… 3

Modrately Agree (MAG) ……..…… 4

Strongly Agree (SAG) ……..…… 5

1. 1.If you select 1, it indicates your **complete disagreement** with the statement
2. If you select 2, it indicates your moderate disagreement with the stated stament.

3. Selecting 3 means you are neutral with the statement
4. Selecting 4 indicates your moderate agreement with the statement.
5. Selecting 5 indicates your strong agreement with the statement.

S.No	**Statements**	1= **SDis**	**2= Dis**	**3= NL**	**4= MAG**	**5= SAG**
7.2.1	Tehre is adequate supply of electric/power service, without frequent interruption	1	2	3	4	5
7.2.2	The cost of electric service is reasonable	1	2	3	4	5
7.2.3	There is adequate water supply	1	2	3	4	5
7.2.4	The cost of water service is reasonable	1	2	3	4	5
7.2.5	Communication services (telephone, postage, fax, etc) are adequately available	1	2	3	4	5
7.2.6	The cost of Communication services reasonable	1	2	3	4	5
7.2.7	My (our) enterprise gets good transportation services at reasonable cost	1	2	3	4	5

C. Business Development, Networks, Inputs, and Assets

7.3 This section deals with business development services (BDS), networks, availability and cost of assets and inputs. Please read each statement and indicate your response by circling the closest number that best describes your views in the box in front of each statement to indicate your perception to what extent you agree or disagree with each statement.

Key	**Code**
Strongly Disagree (SDis) …… ……	1
Moderately Disagree (MDis) …….	2
Neutral (Neu) …….…….	3
Modrately Agree (MAG) …….……	4
Strongly Agree (SAG) …….……	5

6. If you select 1, it indicates your **complete disagreement** with the statement
7. If you select 2, it indicates your moderate disagreement with the stated stament.
8. Selecting 3 means you are neutral with the statement
9. Selecting 4 indicates your moderate agreement with the statement
10. Selecting 5 indicates your strong agreement with the statement.

S.No	Statements	1= SDS	2= Dis	3= NL	4= MAG	5= SAG
7.3.1	Access to business counseling and advice is attractive	1	2	3	4	5
7.3.2	Our enterprises has strong linkage with other SEs	1	2	3	4	5
7.3.3	Our enterprise has strong linkage with medium and large enterrpsies (eg in terms of sub contracting, providing your products to them, getting some products or raw materials from them etc)	1	2	3	4	5
7.3.4	There is strong linkage between our enterprise and government institutions (eg. out sourcing of services by govrnemtn to SE, providing preferntail previlages to SEs to supply goods or services to government offices)	1	2	3	4	5
7.3.5	Our enterprise has good access to up to date business information (such as information in relation to input market; output market, training opportunity, government policies and legal requirements)	1	2	3	4	5
7.3.6	We ge raw materials at reasonable price	1	2	3	4	5
7.3.7	We get trained and skilled labor (work force) easily form the markt	1	2	3	4	5
7.3.8	We get working premises easily	1	2	3	4	5
7.3.9.	We get fixed assets (plant and machinery) easily from the market	1	2	3	4	5

D. Marketing related constraints

7.4 The following questions are related with the different marketing constraints. Please read each statement and indicate your response by circling the number that corresponds with your perception to what extent each constraint is severe to your enterprise

Key:

Very Severe Problem (Sev P) ……... 1

Less severe problem (LSP) …… 2

No Problem at all (NoP) ……..…… 3

SNo	Marketing Constraints	SevP 1	LSP 2	NoP 3
7.4.1	Low market demand for products/services[20] • Concentrateion of many similar enterprises with similar products/services in same location	1	2	3
7.4.2	We face strong market competition from micro enterprises	1	2	3
7.4.3	We face strong competition from large and medium enterprises (local)	1	2	3
7.4.4	Competition from imported products	1	2	3
7.4.5	Lack of marketing knowledge/skill[21]	1	2	3

VIII. Annual Sales revenue and profit

A. Sales Revenue

Dear respondent: I would kindly assure that the following information will be used for research purpose only and will not be disclosed for any thired party.

[20] Low market demand may result due to small number of buyers or low purchasing power of buyer

[21] Lack of marketing skill may include lack of skill to set up price, develop product design, develop marketing strategy, customer handling, etc)

8.1 Would you please indicate the amount of average sales revenues your generated during the first year of operation and at the end of last fiscal year.

Period during which revnue was generated	**Amount of sales revenue in Birr**
Average amount of sales revenue of the start-up period (first year of operation)	
Average amount of sales rvenue of the last fisical year (last year)	

8.2 Would you please indicate the amount of average profit your enterprise generated during the first year of operation and at the end of last fiscal year.

Period during which Profit was generated	**Amount of Profit r in Birr**
Profit Earned at the beginning of your operation (end first year's operation)	
Profit Earned at the at the end of last fiscal year	

If you have any additional idea that you can contribute/say pleae you are well come and write your comments/suggestions at the back of this page.

Thank you for your time

Aregawi G.michael (Researcher)
Academic Staff of Mekelle University
PhD student at University of South Africa

Appendix III: Summary of Earlier Studies in Ethiopia

SNo	Author, year and Title of the study	Objective/purpose	Main findings include	Relationship/Difference with the current Proposed study
1	Ageba and Amaha. 2006. Business development (BDS) in Ethiopia: Status, prospects and Challenges in the MSE sector	To understand and assess the status of delivering BDS and identifying the constraints	1. Limited BDS providers 2. limited market followed by finance 3. No significance difference in size and gender in accessing BDS in	1. Ahough Ageba and Aaha focus on assessing the status of BDS, but they did not examine to what extent does the shortage of BDS influences growth 2. The proposed study will take BDS as control variable.
2	Ageba and Amaha (2006). Micro and Small enterprises (MSEs) finance in Ethiopia: Empirical Evidenc	To present evidence on the status of MSEs financing in Ethiopia.	Informal sources were found to be major source of finance	1. Ageba and Amaha found that MSEs lack access to formal sources of finance. But they did not test the effect of shortage of formal sources on growth. 2. The proposed study will test the impact of access to formal sources on growth.
2	Gebreeyesus, M. 2009. Innovativeness and Micro Enterprises Growth in	To address the factors that inhibit or foster innovation activities in micro enterprises	1.Large Mnf firms fmore likely to engage in innovation, 2. Training has strong effect on	1. While my study is on small enterprises, Gebreeyesus focuses on micro enterprises. 2. Gebreeyesus takes innovativeness as one

	Ethiopia.		innovation 3. Female owned MEs are less likely to get involved in innovation 4. Old entrepreneurs are less likely to engage in innovation 4. Innovators grow faster than non-innovators 5. smaller, younger, and less capital constrained firms grow faster than counterparts	independent variable from the dimensions of entrepreneurial orientation. But my study will consider two more dimensions (proactiveness and risk taking) as explanatory variables in addition to innovativeness. 3. In addition to EO, the proposed study will consider the firm specific resources as explanatory variables.
3	Bekele and Worku. 2008. Women Entrepreneurship in Micro, Small and Medium Enterprises (MSME): The Case of Ethiopia.	1.To examine the factors that influence the long-term survival and viability of MSMEs 2. To find out if male owned MSMEs perform better than female	1. 78% of failed business were female owned MSMEs. 2. Main factors for the failure of MSMEs: lack of capital, inability to convert part of profit back to investment poor managerial skills,	1. Bekele's and Worku's study focuses on Women entrepreneurship, but my study focuses on both women and men owned SEs. 2. Their study did not examine to what extent the variables influence growth. 3. Their study mixes three types of enterprises: micro, small, and Medium, even though they have diverse

		counterparts.	shortage of technical skills, low level of education	characteristics. But my study will consider the small enterprises only. 4. This proposed study follows the resource based theory, but the previous study used different theoretical background. 5. The previous study did not consider EO
4.	Mohamodnur, Y. 2009. MSEs Dynamics : Evidence from Ethiopia.	1.To examine the constraints of MSEs 2.To explore the dynamics of MSEs in Tigray.	1. Main problems include lack of finance, premises, skill, and demand. Constraints not ranked. 2. Net firm creation shows 6.4% between 2006-2007. 3. Simple average annual growth rate indicates very low (.14%)	1. The study of Mohamodnur examined status of change (net expansion) in the MSEs. But he did not indicate what variables explained the growth. 2. The previous study and this proposed study follow different theory- my study is on RBV, but mohamodnur did not show the theory he followed. But he considered the external and internal variables in examining the constraints. Thus, it can be said that it was mixture of IO and RBV. 3. Takes both MEs and SEs, but my study takes SEs only
4.	Negash, Z. 2006. Dynamics of MSEs: The case of Mekelle,	To understand the status of MSEs, examine main source of	1.main source of startup capital was personal sources	1. Negashe's study focused on the challenges and opportunities. But he did not indicate to what extent the

	Ethioia.	finance and major constraints of MSES in Mekelle	2.Main constraints include lack of market , lack of premises, and capital, lack of inputs, insufficient demand, lack of knowledge and skill	constraints influence growth of the sector.
5.	Beyene, A.M. 2010. Growth potential and Business Constrints of MSEs (The case of South Wollo Zone, Amhara Region, Ethiopia. Master's Thesis, Mekelle University	To Analyze the extent to which growth potential is associated with constraints (access to finance, market, BDS, and working premises) while controlling the owner'/manager s' attributes and entrepreneurs' characteristics.	1. Major growth constraints include: limited access to premises, limited access to finance, limited access to BDS, limited access to market, unfavorable government policy, and weak institutional linkage. 2. MSEs' employment growth was significantly and negatively affected by limited access to fiancé, BDS, market.	1. Study of Beyene focuses on testing if external explanatory variables have significant influence on growth of MSEs. Thus, this seems it is based on the IO model. 2. The focus of the proposed study will be based on RBV. 3. While Beyene merged both MEs and SEs and considered them as if they have the same characteristics, the proposed study will take the small enterprises (SEs) only because they have different characteristics.

6.	Habtewold, E.M. 2005. Determinants of Enterprise Growth: The case of small manufacturing enterprises in Bahir Dar Town. Master's Thesis, Addis Ababa University	To examine and identify the factors that affect growth of employment in small manufacturing enterprises in Bahir Dar town.	1. Major constraints for growth of MSEs are: high level of tax, shortage of working capital and credit, lack of premises, lack of market demand and low level of competitive power	1. Habtewolds' study focuses on determining constraints; he did not test the extent of the constraints on growth. 2. He considered the manufacturing sector only, but the writer of this proposed paper will consider all sectors: manufacturing, service sector, construction sector and merchandising sectors. 3. He considered both MEs and SE, but the current study will take only SEs.
7	Tezera, H. N.d.. A research Project on Challenges and Opportunities of Small and Medium Scale Enterprises (SMEs) in Addis Ababa. (The case of Arada Sub City)	To identify the challenges and opportunities of the SMEs in Arada sub city.	Main constraints include: environmental factors, human resource constraints, lack of commitment, lack of profit, marketing activities, financial constraints, BDS, conflict with neighbors and lack of transparency.	1. Tezera's objective was to identify the major constraints, but he did not test the extent of the influence of the constraints to affect growth. 2. His study treated both small enterprises and medium enterprises together without any distinction, but this proposed paper will take only SEs.
8	Gebreeyesus,M. 2007. Growth of Micro	To explore the determinants of growth of micro	1. Size and age are negatively related with growth,	1.The unit of analysis of Gebreeyeus was micro enterprises, but the unit of

	Enterprises: Empirical evidence from Ethiopia	enterprises. (it does not include small enterprises)	2. Human capital has positive influence on growth, 3. Firms in manufacturing sector, and service grew faster than those in trade, 4. Support services have positive effect on growth, 5. Formal firms grow faster than informal firms, 5. Access to formal and informal credit has positive influence on growth.	analysis of the current study will be the small enterprises 2. It seems that Gebreeyesus's study conducted following both IO model and RBV (though it was not indicated clearly), but my study will be based on RBV only 3. The research questions and hypothesis of the current study are different from those indicated in Gebreeyesus. 4. Growth was measured in terms of employment in the study of Gebreeyesus, but the current study will measure growth in terms of both employment and profit. 5. EO was not considered as explanatory variable in The study of Gebreeyesus, but it will be considered as main explanatory variable in this paper.
9.	Mulugerta, E. 2008. Underlying causes of Micro and Small Falilues in Addis Ketema Sub city (A case study).	To identify the underlying causes of micro and small business failures in Addis Ketema sub city.	Main Cause of failure include: lack of capital, lack of business plan, high taxes, lack of land and premises, poor	1. Mulugeta's study was to examine the constraints though he did not test the degree of influence, but the writer of this paper will test the extent and direction of influence of the explanatory variables.

	Master's thesis, Addis Ababa University.		market, high rent charges and wrong pricing.	2. Mulugeta's study merged the IO model and RBV, but this study will consider the RBV. 3. Mulugeta's study takes MEs and SE together (without distinctions), but this study will take the SEs only.
10	Birru, Y. M. 2006. Youth Entrepreneurship in Ethiopia: The Case of Manufacturing Micro and Small Enterprises in Addis Ababa. Master's Thesis, Addis Ababa University.	To assess the status of youth entrepreneurship and the factors concrete barriers those impede young people from starting and running MSEs in Addis Ababa. (considers only manufacturing sector)	Concrete barriers include: lack of infrastructure, financial problems, lack of demand for their products, less encouraging societal attitude towards young entrepreneurs	1. Biru's study focuses on youth owned enterprise, but the proposed study encompasses all small enterprises, regardless of the age and gender of owners
11	Central Statistics Agency. 2006. Report on Small Scale Manufacturing Industry survey	To collect basic quantitative information on employment, volume of production, and consumption of raw materials, structure and performance of		

		the small Scale manufacturing industries,		
12	Ethiopian Development Research Institute.2004. Micro and Small Enterprise= Development in Ethiopia (by Ageba and Amaha)	1. To study the profile of MSEs, to examine policies and institutional arrangement, to assess the status and delivery of BDS & financial services, to identify the major constraints of the MSE sector.	Identified many constraints without ranking according to their severity. Determined that there was weak delivery of BDS and financial services	1. This previous study did not test the extent to which growth of SEs is affected by the constraints.
13	Gebre-egiziabher, T. & Ayenew, M. 2010. Micro and Small Enterprises as vehicle for poverty reduction, Employment Creation and business Development: The Ethiopian Experience	To assess the contribution of the MSEs strategy to poverty reduction, job creation and BDS		The objective of the study of these authors is totally different from the objectives of the current proposed paper. Impact of MSEs on poverty reduction and job creation will not be examined in this research.

Date: September 01, 2015

Curriculum Vitae

Full Name	Aregawi Ghebremichael Tirfe
Nationality	Ethiopian
Current Employer	Mekelle University, Ethiopia
Current Academic Rank	Associate Professor
Academic awards with year and university (degrees, certificates)	1. M.Com. Aligarh University, Aligarh, India, 2001 2. BA in Accounting, Asmara University, then part of Ethiopia, 1987
Department affiliation	Full time teaching and research staff in Accounting and Finance, College of Business and Economics, Mekelle University, Ethiopia
Short academic CV	1. Teaching and research Staff , 1991 to date 2. Dean of FBE (3.5 years) 3. Director of ICDE, (2.5 years) 4. Vice Dean of FBE (**4 years)** 5. Vice Dean of Students, MBC 6. Head department of Accounting (8 years) 7. Coordinator of many programmes such as Post Graduate, PAP, 8. Chair person of Budget Formula Development Committee of Mekelle University (1997-1999 EC). 9. Member of Senate of MU; 10. Executive committee of the Senate; 11. Chairperson of Budgeting and Finance committee of MU
Research Related Services	**I. Researches done (as sole author)** 1.1. Bank loan and its effect on Growth of Small Enterprises 1.2. Owners financial preference (Capital Structure Decisions)and its effect on Growth of Small Enterprises 1.3. Entrepreneurial Orientation as Growth Driver 1.4. Risk Taking Behavior and Its Implication for SEs 1.5. Status of Saving and Credit Cooperatives in Tigray 1.6. Governance of Associations of MSEs in Tigray 1.7. Small Holders' Innovation and Entrepreneurial Capacity Enterprises Growth in Tigray **II. Co-authorship** Co-author of more than 30 papers **II. Articles and books Published** 2.1. Growth Determinants of Micro and Small Enterprises: Evidence from Northern Ethiopia, In Journal of Economics and

	Sustainable Development (Vol 4, No 9). 2.2. Assessment of Financial and Operating Performance : A case study on Dedebit Credit and Saving Institution 2.3. Owners financial preference (Capital Structure Decisions)and its effect on Growth **III. Advisory and Examination services in Post Gradaute** Advisor, External examiner and internal examiner of PG students of MU and other Universities.
Teaching Experience	1. Accounting , Auditing, Finance and Investment Courses • PG (6 years) • UG (23 years)
Consultancy Services	1. Authorized Independent Accountant and Business Consultant, granted by Tigray Auditor General, 2. Reviewer of Strategic Plans of Mekelle University, DWT, Nile College. 3. Prepared Business plans for more than 7 Large and Medium Business enterprises 4. Trainer of different courses (finance, accounting, auditing, project planning) to different higher and middle level managers, and officials from private and public sector as well as NGOs, such as: 5. Prepared and Reviewed different Manuals
Papers Presented in conferences/workshops	1. Bank loan and its effect on Growth of Small Enterprises 2. Owners financial preference (Capital Structure Decisions)and its effect on Growth 3. Determinants of Growth of Small Enterprises 4. Entrepreneurial Orientation as Growth Driver
Work Experience outside University	1. Senior Accountant in Public Transport Corporation of Ethiopia, 1979-1984 E.C. 2. Authorized Independent Accountant and Business Consultant, granted by Tigray Auditor General, 3. Part-time Accountant and Finanancial Cosnultant in many PVT firms.

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