Empirical Investigation vis-a-vis Capital, Labor, Marketability and Profitability of Micro and Small Enterprises (MSEs): A case study of Ambo

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Abstract

Micro and Small Enterprises (MSEs) are currently becoming a very important sector of most countries economy, particularly in creating ample job opportunity; providing means of livelihood for the low income group. This study was undertaken to determine whether or not the sub sectors of Micro and Small Enterprise (Agriculture, Construction, Small Manufacturing, Merchandising and Service sectors') had significant differences in accessing capital, labour/human resources and in marketability and profitability. The qualitative and quantitative method has been used as research design. 40% of the MSEs were selected from each sub sector using proportional stratified random sampling technique. The results showed that at α=0.05, there was no significant difference among the sub sectors with respect to capital, marketability and profitability. Among all the factors considered, capital was identified to be the most difficult to access. On the other hand, at α=0.05, the firms have significant difference with respect to labour, particularly, construction sub sector had more access to labour than the service and small manufacturing sub sectors. Besides, the aggregate mean score showed that the trade/merchandising subsector had a good potential and most promising followed by the construction sub sector. Labour was found to be most easily accessible followed by market demand for the subsectors. Moreover, the analysis of secondary data also indicated that construction sub sector was the most promising followed by small manufacturing. It is therefore suggested that respective government body should focus on formulating policies that provides easy access by MSEs to credit, while potential MSEs operators should harness the existing abundant labour resource.

Keywords: Micro and small enterprises; Sub sectoral analysis; Growth potential

Introduction

The Micro and Small Enterprises (MSEs) sector has emerged as a highly viable and active sector of most country's economy. Its contribution to employment creation, economic growth and poverty reduction has been the reason for the recognition it currently received. The promotion of Micro and Small Enterprises (MSEs) sector is convincing on the basis of enhancing growth with equity, creating long-term jobs, providing the basis for medium and large enterprise and promoting exports (Gebrehiwot and Wolday, 2004). The inspiration for people to have small business is varied, and includes financial as well

as non-financial factors such as personal satisfaction, independence and flexibility (Elizabeth, 2004). Joseph (2005) had reported that the owners of micro and small businesses established them for the purpose of independence

Empirical studies provide evidence about the ways in which reduced access to finance hinders firm growth. Bigsten et al. (2003) found that small firms are less likely to be given loan than large firm, i.e. close to two-thirds of the micro firms appear constrained. For MSEs in developing countries, access to formal bank loans is relatively infrequent and thus often rely on other source(s) of credit such as trade credit and informal loans. Microfinance institutions also provide important sources of finance for MSEs, but it is not accessible and the amount is limited.

According to Joseph (2005), lack of access to credit was identified as one of the major impediments hindering the development of small businesses. Commercial banks have exclusively reserved their lending to large formal enterprises, which possess collateral and are therefore deemed to be less risky.

Micro and Small enterprises usually encounter market constraints (the inability to sell their products and services) as one of the most serious obstacles to initiating a business and growing it beyond mere subsistence. The lack of adequate marketing channels through which they could market their outputs as well as market information is a major constraint. Marketing channels could serve both as means through which marketing information's are made available and sales outlets created for the products and services of MSEs. Moreover, there was no market information centre and/or system that would furnish market related information for MSEs (FDRE MSEs Development Agency, 1997)

The official definition of "Micro" and "small" varied by country and by industry. According to the world bank group categorization, microenterprise are characterized as having between 1–10 employees; less than $100,000 in total assets and less than $100,000 in annual turnover. Small enterprises are defined in terms of having between 11–50 employees and $100,000 to $3 million in total assets and between $100,000 and $3 million in annual turnover.

In the US a small business is defined as having fewer than 500 employees for manufacturing businesses and less than $7 million in annual receipts for most non manufacturing businesses. In the European Union, a small business generally has fewer than 50 employees. However, in Australia, a small business is defined as one with fewer than 15 employees (Kaplan, 2014).

In Ethiopia, the Ministry of Trade and Industry adopted that Micro-

enterprises are business enterprises found in all sectors of the Ethiopian economy with a paid-up capital of not more than Birr 20,000, but excluding high-tech consultancy firms and other high-tech establishments. While small Enterprises are considered as business enterprises with a paid-up capital of more than Birr 20,000 but not more than Birr 500,000 but excluding high-tech consultancy firms and other high-tech establishments.

There are three overwhelming theories of MSEs development: the main theory, which goes back to the work by Lewis (1955), is the labour surplus theory. He argued that the driving force behind MSE development is the excess labour supply, which cannot be absorbed into the public sector or large private enterprises and are forced into MSEs in spite of poor pay and low productivity. The second is the output-demand theory which postulates that the condition for the development of MSEs is market availability for the products and services rendered. Finally, the firm growth theory which states that as a result of industrialization and economic growth, MSEs lead to modern large-scale industry.

Objective

The general objective of the study was to examine the various sub sectors of Micro and small enterprises in terms of capital, labor, market demand and profitability in Ambo town. Specifically the study attempts;

- To examine whether there is variation among the different sub sectors of MSEs with respect to accessing capital and labor.
- To examine whether there is difference in marketability and profitability of each sub sector's output.
- To identify the sub sector(s) with relatively promising potential for further growth and expansion.

Materials and Methods

Description of the study area

The study was carried out in Ambo town, West Shewa zone of Oromia Region of Ethiopia in 2011/12. It is located 112 km west of the capital Addis Ababa. The town has an estimated total population of 260, 193 of whom 131, 922 are men and 128, 271 are women (http://www.ambou.edu.et/index).

Ambo is famous for its mineral water which is widely consumed all over the world. Besides, the town has got refreshing recreation centers (swimming pool and hot springs) and hosts the pioneer higher learning institution i.e, Ambo University. The Guder waterfalls is also found located at 12 km from Ambo to the west

In the town there is huge business activities carried out in different sectors and wide array size including large, medium, small and micro enterprises. In the study period there were 158 were running their business being organized under the facilitation of the local government unit.

Research design

Both qualitative and quantitative survey method was adopted to assess the role of capital, labor, marketability and profitability among the different sub sectors of MSEs.

Sample units and technique

A total of 318 micro and small enterprises (MSEs) are formally registered and supported by government in Ambo town between 2006 and 2011, out of which only 158(49.7%) were actively in operation. The rest are either partly closed immediately and or partly failed to start the business from the very beginning. Therefore, a total of 158 micro and small enterprises were the targeted population of the study. Based on the sub-sectoral distribution, the 158 target population consist of: Agriculture (5) small scale manufacturing (27) construction (45) service (45) and merchandise (36).

Therefore, 40% of the local business owners were selected from each sub sector using stratified random proportional sampling technique to obtain representative enterprises from each sub-sector. It is assumed that 40% of the target population was sufficient sample size because the intra sub-sector was assumed to be homogeneous particularly with respect to capital, labour, marketability and profitability.

Data sources

The data collection was from both primary and secondary sources. The primary data was collected through the administration of a semi-structured questionnaire distributed to the selected MSEs operators, interview with business operators and persons in charge of coordinating the enterprises. Secondary data was obtained from the documents provided by the local governmental offices in charge of organizing and supervising the MSEs concerning the time of establishment, initial capital, debt repayment, and the distribution of the different sub sectors.

Data analysis

The ANOVA (Analysis of Variance) was conducted on the data collected and the mean score of the subsectors of Micro and Small Enterprises were compared. (To facilitate this,) The SPSS version 16 software package was used and results presented using frequency distribution tables, graphs, charts, and matrix tables

Results

MSEs by time and purpose of establishment

The result of the MSEs time of establishment indicated that majority (56%) of the enterprises were

established after 2008. On the other hand, very insignificant portion (2%) was established before 2003 Which is an indication of the expansion of MSEs from the time under consideration and therefore becoming

very vital to the country's economy (figure 1).

Moreover, the likert scale rating of the MSEs Operators showed that nearly 91% established the business with the primary intention of sustaining their livelihood.
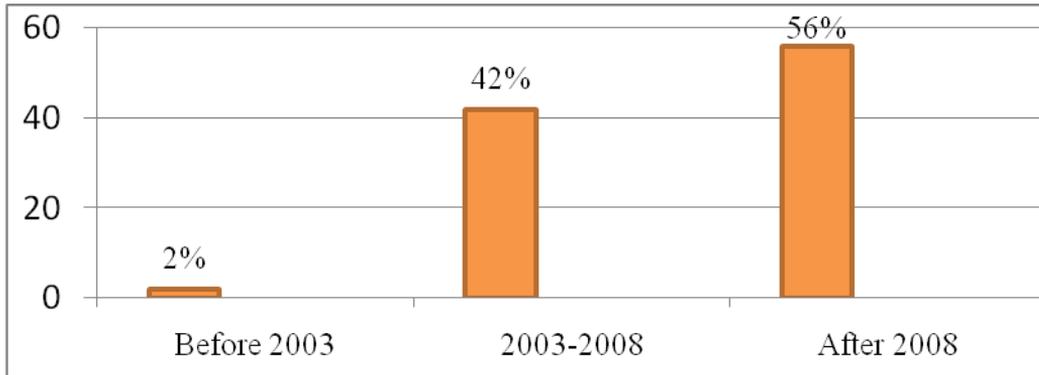

Figure1. Distribution of MSEs by period of establishment

Initial capital and source for MSEs

The distribution of the respondents on the amount of initial capital for MSEs showed that the larger portion (46%) of the enterprise raised more than Birr 50,000 as initial capital at the time of establishment. About 32% of the enterprises raised less than Birr 10,000. The rest (22%) raised Birr 10,000-50,000 at establishment. This showed that majority (68%) of the enterprises raised Birr 10,000 or more at establishment on the average. Thus it could be said that most often, at least Birr 10,000 was required as capital to start MSEs business.

The major portion of initial capital (54%) was from personal saving, relatives and friends. This is consistent with the findings of Herna´ndez-Trillo et al., (2005) who reported in a study of microenterprises carried out in Mexico that owners mostly used their own resources and savings (61%) to start their firms. This indicated that personal saving and micro finance institutions are the key sources of capital.

Average annual income of MSEs

The response of respondents on annual income showed that majority (67%) of the MSEs have an annual income of Birr 10,000-50,000 with only

about 16% having an annual income of more than Birr 50,000. The rest have annual income of less than Birr 10,000. This implied that a significant portion (83%) of MSEs have annual income of more than Birr 10,000, suggesting that at least birr 10,000 could be generated per annum.

Average credit period for borrowed funds

The result of credit period and borrowed fund showed that most of the borrowed funds (57%) have credit period of 1-3 years. 35% had a credit period of up to 1 year while a very small portion (8%) had a credit period of more than 3 years. All the bank loans matured in 1-3 years period and nearly all borrowed funds are repaid back within the 3 years period.

The education level of labour force used

The distribution of respondents showed that nearly 50% of the labour force used by MSEs completed up to 8 grade. Few (7%) are illiterate. Negligible portion are (2%) degree holders. This indicated that most labour providers lacked basic formal business concept (Figure 2).

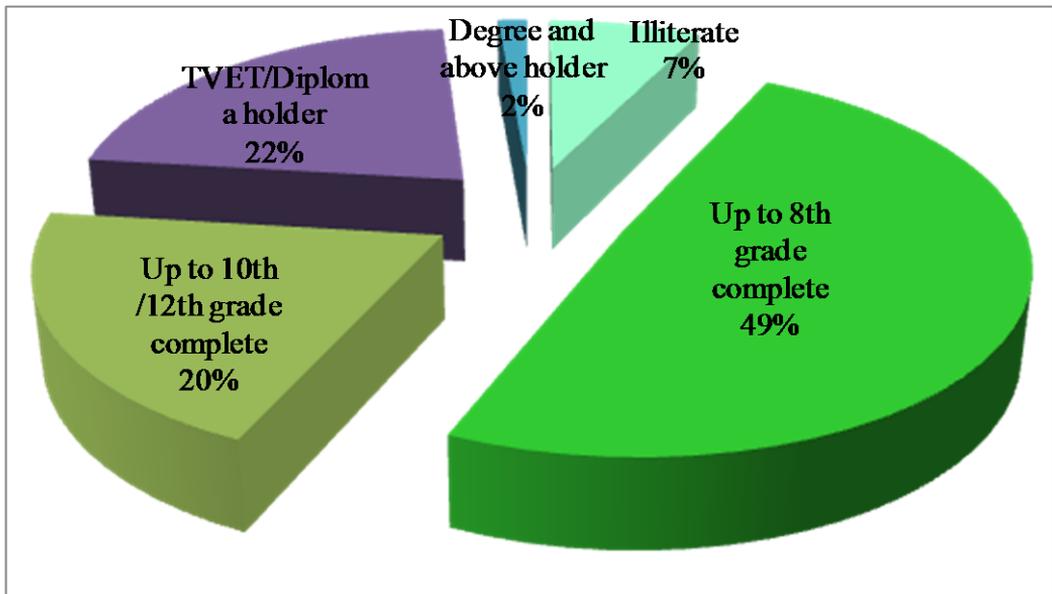Figure 2. Distribution of Micro and Small Enterprises operators/employees by education level

Aggregate mean score of Micro and Small Enterprises Subsectors with respect to access to capital, labour, market and profitability

Table 1 depicts the summary of mean scores of various sub sectors of MSEs in relation to capital, labour, market and profitability and relative ranks of each sub sector and each factor.

Table1. Comparison of the different MSEs sub sectors in Ambo town

Factors	Various sub Sectors of MSE's average ratings(out of 5)					Mean score	Rank
	Agriculture	Service	Merchandising	Manufacturing	Construction		
Capital resource	3.3	2.7	2.7	2.7	2.7	2.8	**4**
Labor/ Human resource	3.4	3.2	3.1	3.1	3.4	3.2	**1**
Market Demand	2.7	3.0	3.4	3.0	3.0	3.0	**2**
Profitability	2.6	2.8	3.1	2.8	2.9	2.8	**3**
Mean score	3	2.92	3.08	2.9	3		
Rank	**2**	**4**	**1**	**5**	**2**		

The ranking shown in (the) table 1 reflected the perception of MSEs operators vis-a vis access to capital, labour, marketability of their product and profitability of their business. The mean score of the respondents indicated that merchandising sub sector has the highest mean score (3.08 out of 5) with respect to the four factors. Particularly, this sub sector has the highest score (3.4) in market demand for its product. This indicated that the sub sector is best, followed by construction and agriculture.

The aggregate mean score of labour was highest (3.2 out of 5) for (all the) sub sectors. This implied the sub sectors easily accessed labour resources. On the other hand, the aggregate mean score for all sub sectors was low (2.8 out of 5) for capital. This showed that the sub sectors all have problem accessing capital. The interview result also confirms that the MSEs have difficulty in accessing capital and difficulty in terms of profitability.

Testing Hypotheses

Four hypotheses were tested by comparing the means of each MSEs Sub sector using ANOVA (Analysis of Variance).

i. Mean Comparison of MSEs sub sectors in accessing capital

Here it is hypothesized that Micro and Small Enterprises sub sectors encountered access to capital in similar way.

Table 2: Comparison of mean score of MSEs sub sectors in accessing capital

ANOVA					
Access to capital	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.687	4	.172	.467	.760
Within Groups	21.350	58	.368		
Total	22.037	62			

H1: The various sub-sectors of MSEs have no significant difference in accessing capital resources.

Since the p-value is 0.76 at 0.05 level of significance, then the null hypothesis was accepted, implying there was no significant differences among the various sub sectors of micro and small enterprises in accessing capital. This indicated that all the subsectors had difficulty in accessing capital for their various business undertakings.

ii. **Mean Comparison of MSEs sub sectors in accessing labor**

Here, MSEs sub sectors are hypothesized to face equally labour factor. This was tested taking in to account ANOVA

H2: The various sub-sectors of MSEs have equal access to labour resources.

Table 3: Comparison of mean score of MSEs sub sectors in accessing labour

ANOVA					
Access to Labour	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.015	4	.754	3.151	.021
Within Groups	13.635	57	.239		
Total	16.650	61			

Since the p-value is less than 0.05 level of significance, then the null hypothesis is rejected. This implies that there is statistically significant difference among the means of the different sectors. This showed that the various sub sectors of MSEs have significant difference in accessing labour. The question now becomes which of the means significantly differ from the others. To achieve this, the post hoc test will be conducted.

The result of multiple comparison showed that at $\alpha=0.05$, there was significant mean difference between construction, services, and small manufacturing sub sectors. Precisely the construction sub sector had more access to labour than the service and small manufacturing sub sectors.

Table 4. Multiple Comparisons of the different MSEs sub sectors at Ambo

Access to Labour:

(I) Subsectors	(J) Subsectors	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Agriculture	Construction	-.72389	.36455	.052	-1.4539	.0061
	Merchandise	-.45846	.37150	.222	-1.2024	.2854
	Service	-.25333	.36455	.490	-.9833	.4767
	Small Manufacturing	-.21091	.37597	.577	-.9638	.5420
Construction	Agriculture	.72389	.36455	.052	-.0061	1.4539
	Merchandise	.26543	.17802	.141	-.0911	.6219
	Service	.47056*	.16303	.005	.1441	.7970
	Small Manufacturing	.51298*	.18718	.008	.1382	.8878
Merchandise	Agriculture	.45846	.37150	.222	-.2854	1.2024
	Construction	-.26543	.17802	.141	-.6219	.0911
	Service	.20513	.17802	.254	-.1513	.5616
	Small Manufacturing	.24755	.20037	.222	-.1537	.6488
Service	Agriculture	.25333	.36455	.490	-.4767	.9833
	Construction	-.47056*	.16303	.005	-.7970	-.1441
	Merchandise	-.20513	.17802	.254	-.5616	.1513
	Small Manufacturing	.04242	.18718	.822	-.3324	.4172
Small Manufacturing	Agriculture	.21091	.37597	.577	-.5420	.9638
	Construction	-.51298*	.18718	.008	-.8878	-.1382
	Merchandise	-.24755	.20037	.222	-.6488	.1537
	Service	-.04242	.18718	.822	-.4172	.3324

*. The mean difference is significant at the 0.05 and   0.01 level

iii. **Mean Comparison of MSEs sub sectors on market demand**

The MSEs sub sectors are hypothesized to have equal market demand for the output of their business.

H3: There is no significant difference in market demand of outputs of the various sub-sectors of MSEs

Table 5: Mean comparison of MSEs sub sectors with respect to market demand

ANOVA					
Market demand	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.879	4	.470	1.835	.134
Within Groups	14.845	58	.256		
Total	16.723	62			

The p-value of 0.134 showed that the mean difference is not significant at α= 0.05 level of significance and hence the null hypothesis was accepted. This implied that there was no significant difference among the different sub sectors regarding the market demand for their output.

iv. **Mean Comparison of MSEs sub sectors on profitability**

It was supposed that different sub sectors of MSEs have equal profitability and was tested using ANOVA

H4: There is no significant difference in profitability of various sub-sectors of the MSEs

Table 6: Mean comparison of MSEs sub sectors with respect to profitability

ANOVA					
Profitability	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.572	4	.393	1.331	.269
Within Groups	17.124	58	.295		
Total	18.697	62			

The result of ANOVA above indicated a p-value of 0.269, which implied that there was no statistically significant difference among the means of the different sub sectors. Therefore the null hypothesis was accepted. This means that the various sub sectors have similar profitability level for the output of their firms.

Secondary data results

The result of secondary data analysis on the performance of subsectors of MSEs based on the various factors as obtained from the offices in charge of organizing and coordinating the MSEs is presented in table 7.

Table 7. Distribution and performance of MSEs sub sectors at Ambo

Sector	Percentage Growth of capital (2005-2011)	Average Equity to Debt ratio 2011	Loan repayment rate (%)	% of Employment created	Mean Score	Rank
Agriculture	435%	54%	28%	2%	0.01	5
Construction	3102%	72%	73%	36%	5.87	1
Small Manufacturing	824%	83%	69%	15%	0.71	2
Trade/merchandise	911%	74%	51%	16%	0.55	3
Service	561%	75%	37%	31%	0.48	4
Total/average	833 %	72%	52%	100		

The result showed that the construction sub sector was better in terms of performance status from the viewpoint of Percentage growth of its capital- its capital has grown more than 31 folds in 2011 when compared to the initial capital of 2005 (base year). The loan repayment rate of this subsector was also very high (73%) when compared to other subsectors. Percentage of employment created by the sub sector was also very high (36%) in the industry. This sub sector has the highest weighted mean score followed by small manufacturing.

Discussion

Several studies (Gebrehiwot and Wolday, 2006; Haftu el al., 2009) has identified that access to capital externally is mostly based on merit and according to the evaluation of the financial institutions. This has been reported as a major challenge for small firms. According to Gebrehiwot and Wolday (2006), friends and or relatives, Iqub (rotating saving and credit associations) and Idirs (self help association) are the most important sources of finance for small scale businesses operating in Ethiopia.

CSA, (2003) had reported that the lack of sufficient initial capital was the first major difficulty for half (50 percent) of informal sector operators in Ethiopia. The findings in this study were consistent with Gebrehiwot and Wolday, (2006) who had reported

access to capital as a major challenge for MSEs. . This study finding also showed that the major portion of initial capital (54%) was from personal saving, relatives, and friends. This agrees with the report of Haftu *et al* (2009). In a related/similar study of microenterprises in Mexico, Herna´ndez-Trillo *et al.*, (2005) reported that business owners mostly used their own resources and savings (61%) to start their firms. This showed that access to capital from formal sectors was lacking.

Mason (1998) found out that across the world, entrepreneurs typically start firms primarily through their own savings because of limited access to start-up capital. Even after MSEs overcome the start-up hurdle, a lack of credit frequently hinders their growth during earlier years, because younger firms tend find financing even more difficult than older firms (Schiffer and Weder, 2001). CSA, (2003) had reported that the lack of sufficient initial capital was the first major difficulty for half (50 percent) of informal sector operators in Ethiopia

Sethuraman, (1997) had reported that majority of workers in the informal enterprises have low education. Moreover, most of the operators as owner manager lacked formal education and training but rather acquired skills through on-the-job training within the informal sector or, as in the case of Africa, through

informal apprenticeship systems; it is rare to see those who obtained their skills through a formal training institutions. One might expect higher levels of formal Education to spur MSE growth by enhancing firm capabilities. For example, formal education may provide MSEs operators with a greater capacity to learn about new production processes and product designs, offer specific technical knowledge conducive to firm expansion, and increase owners' flexibility. This report was found to be consistent with the present study where majority of the MSE operators and employees are only up to 8th grade educated and lacked work related formal training skill.

Report of FDRE MSEs development Agency (1997) indicated that Micro and Small Enterprises are faced with market constraints and the inability to sell their products and services. They lack adequate marketing channels through which they could market their outputs. The present study agrees and was consistent with the above report which observed that there was no market information centres and/or system that could furnish operators with market related information.

Conclusion

The study showed that basically MSEs Operators lack formal business concepts as their academic back-ground had shown. As a result, they have difficulty to effectively run the business and maintain book of accounts. Accessing capital presents significant difficulty to the different MSEs sub sectors in terms of business operations.

The MSEs had no problem accessing the required manpower for their business operation. This indicates that there is very good potential in terms of labor for potential investors in the future. Merchandising/trade sub sector has the highest aggregate score from the view point of capital, labor market demand and profitability, while the construction sub sector was the most promising sub sector in terms of employment creation, rapid growth of capital, and loan repayment.

Merchandising and construction sub sectors were identified as having a promising potential for future growth. Tremendous expansion of MSEs from 2003 was observed in the study which indicates there recognition as a very important sector of the economy.

Recommendations

The following suggestions are forwarded based on the findings of the study

• To fill the gap of business skill the government officials should devise mechanisms of providing skill related trainings regularly and local administrators should significantly pay attention to the financing

mechanisms so as to create access to capital for MSEs. Moreso as they have become an important sector of the economy

- Merchandising and the construction sub sectors are with good potential for further growth. Hence the potential entrants have ample opportunity to join these sub sectors and utilize labor which was found to be in abundance effectively.

- There is still good opportunity for MSEs in general with the high demand for the output of the sector, even though there was an observed lack of integration among subsectors, organizers/facilitators should work towards a more market integration among MSEs sub sectors and other institutional customers.

References

Bigsten, A., Collier, P., Dercon, S., Fafchamps, M., Gauthier, B., Gunning, J. W. 2003. Credit constraints in manufacturing enterprises in Africa. Journal of African Economies, 12(1): 104–125.

Central Statistical Authority (CSA). 2003. Urban Informal Sector Sample Survey. Addis Ababa, Ethiopia.

Elizabeth., W. and Alan., B. 2004. What Success Factors are Important to Small Business Owners? International Small Business Journal 22 (6): 577–594

Federal Democratic Republic of Ethiopia. 1997. Micro and small enterprises development agency report. Addis Ababa, Ethiopia

Gebrehiwot A, Wolday A. 2006. Eastern Africa Social Science Research Review, 22 (1): 63-86

Gebrehiwot A, Wolday A. 2004, "Micro and small enterprises development in Ethiopia: Survey report" Ethiopian Development Research Institute, Research Report II,

Haftu B., Tsehaye T., Teklu K., and Tassew W.,(*2009*), " Financial needs *of* Micro and Small ... *occasional paper No 24.*

Herna´ndez-Trillo, F., Paga´n, J., & Paxton, J. 2005. Start-up capital, microenterprises and technical efficiency in Mexico. Review of Development Economics, 9(3), 434–447.

Joseph A 2005. The Role of Credit for Small Business Success: *Journal of Entrepreneurship Journal of Entrepreneurship* (14/2), 131

Kaplan, S. 2014 *Small Businesses* .http:stevekaplandigital.com Retrieved 13 May 2014,

Lewis, A. 1955. The theory of economic growth. Front Cover. R.D. Irwin, Business & Economics 453 Pp.

Mason, C. 1998. "El Financiamiento y las Pequeñas y Medianas Empresas." *Desarrollo y Gestión de PyMEs: Aportes Para Un Debate Necesario*, ed. H. Kantis. Buenos Aires: Universidad Nacional de General Sarmiento.

Schiffer, M., and Weder, B. 2001. Firm size and the business environment: Worldwide survey results. IFC working paper number 43. Washington, DC: International Finance Corporation.

Sethuraman, S. V. 1997 Urban Poverty and the Informal Sector : A Critical Assessment of Current Strategies, International Labour Office. Geneva.