


“Efficiency in management as a determinant of long-term survival in micro, small and medium enterprises in Ethiopia”

AUTHORS	Zelege Worku  https://orcid.org/0000-0002-8808-3052
ARTICLE INFO	Zelege Worku (2009). Efficiency in management as a determinant of long-term survival in micro, small and medium enterprises in Ethiopia. <i>Problems and Perspectives in Management</i> , 7(3)
RELEASED ON	Tuesday, 15 September 2009
JOURNAL	"Problems and Perspectives in Management"
FOUNDER	LLC "Consulting Publishing Company "Business Perspectives"



NUMBER OF REFERENCES

0



NUMBER OF FIGURES

0



NUMBER OF TABLES

0

© The author(s) 2024. This publication is an open access article.

Zelege Worku (South Africa)

Efficiency in management as a determinant of long-term survival in micro, small and medium enterprises in Ethiopia

Abstract

A 6-year long survival analysis of 500 small businesses and enterprises selected from five geographical regions of Ethiopia was conducted in which socio-economic differentials of long-term survival were analyzed using the Cox Proportional Hazards Model. The study shows that efficiency in management is a key determinant of long-term survival. Businesses in which finances and resources were not managed efficiently were 5.49 times more likely to fail in comparison with businesses whose finances and resources were managed efficiently. The study shows that efficiency in managerial skills, access to finance on favourable terms, the level of technical skills, participation in iqqub schemes, level of formal education, and utilization of cheap labour from fellow family members and friends are influential predictors of survival. The study recommends the promotion of capacity building in managerial and technical skills as well as improved access to finances to small businesses and enterprises in Ethiopia.

Keywords: Efficiency, management, skills, survival, hazard ratio.

JEL Classification: M1, C1.

Introduction

This research article is based on a 6-year long study of a random sample of 500 small businesses and enterprises selected from five diverse geographical regions of Ethiopia (Addis Ababa, Awassa, Bahir Dar, Nazareth and Mekele) in which factors responsible for failure in small businesses and enterprises were investigated using standard econometric methods for survival analysis. Data were gathered on a large number of socio-economic and demographic variables from each of the 500 enterprises over the study period. The Cox Proportional Hazards Model was used in order to identify key predictors of survival and failure in small businesses and enterprises. The study shows that efficiency in managerial skills, access to finance on favorable terms, the level of technical skills, raising finance from social capital (iqqub schemes), level of formal education, and utilization of cheap labor from fellow family members and friends are influential predictors of survival. Iqqub schemes are a voluntary association of people who contribute money on a regular basis with the aim of raising money to one member of the group at a time. Only one member of the group receives a lump sum at a time. The schemes are commonly used by Ethiopian entrepreneurs for raising finance. Efficiency in the management and utilization of scarce resources is shown to be the most influential predictor of survival. The level of managerial skills or ability was assessed in terms of the ability of owners or operators to produce sound business plans, perform standard bookkeeping, auditing and record-keeping duties, introducing appropriate technologies and expertise, acquiring innovative business skills from rival firms, degree of moti-

vation and commitment in sharing useful experience with employees, commitment in terms of empowering employees, investing in skills related training opportunities for employees, ability in resolving business related disputes amicably, etc. Successful businesses and enterprises were associated with managers who enjoyed what they were doing, whereas unsuccessful businesses and enterprises were associated with managers with little or no motivation and commitment.

1. Background of the problem

The key challenges to the long term survival and viability of small businesses and enterprises are lack of basic entrepreneurial and managerial skills, poor efficiency, lack of access to finance required for growth and development, lack of relevance of the vocational curriculum to technical and managerial skills that are required by entrepreneurs in Ethiopia, lack of accurate information related to the risk of lending money to small businesses, and over-regulation of the small businesses sector in Ethiopia. The commercial banks and formal money lending institutions are reluctant to provide finance to small businesses due to managerial inefficiency and lack of accurate information required for assessing the risk of lending money to small businesses. The vocational curriculum implemented at the high schools and tertiary level institutions does not adequately prepare young entrepreneurs for business ventures in terms of badly needed managerial and technical skills. As a result, the long term survival and viability of small businesses are constantly threatened.

2. Literature review

Lerner and Wulf (2007) have shown that there is a significant association between the managerial efficiency of small firms and long-term survival, prof-

itability and viability. The acute shortage of finance experienced by small businesses is a result of lack of efficiency in the management of development finance. When formal financial institutions fail to fulfil the needs of small enterprises, informal institutions fill the gap based on informal social networks. There is a long-term strategic benefit in financing today's small enterprises through appropriate support strategy. Efficient managerial and technical skills are critical for the sustained growth and development of small businesses and enterprises in Ethiopia (Decron and Krishnan, 2009). The lack of essentially needed managerial skills is a serious threat to the continued survival and profitability of small businesses in developing economies. Based on the findings of Lahat & Menahem (2009) and North (2005), managerial and technical skills have a significant impact on reducing production and transaction costs. As a result, economic activities conducted by managers with no managerial skills lack the ability to prioritize objectives and utilize scarce resources optimally. Hence, managerial efficiency is a key ingredient of long-term survival and profitability in small businesses.

Lack of efficiency in managerial and technical skills is a well known problem that stifles the growth and development of the small, medium and micro businesses and enterprises (MSME) sector. The reluctance of financial institutions in Ethiopia to introduce innovative ways of providing meaningful financial assistance to the MSME sector is attributed to lack of competition among service providers (Harvey, 2008; Grada, 2007; Luttmer, 2007). Iqqub schemes provide easy finance to small businesses in Ethiopia. The schemes are similar to the "Stokvels" in South Africa which use social capital for providing assistance to a member of a community that is in need (Josie, 2008). Stokvels represent a type of rotating savings and credit associations, and are more popular among black communities in South Africa because formal banks are reluctant to provide finance to needy black entrepreneurs who do not have adequate collateral (Benjamin, 2007). Although iqqub schemes in Ethiopia lend money to entrepreneurs, they are poorly resourced, and cannot be a substitute for fully-fledged commercial banks. The performance of the MSME sector in Ethiopia is poor in comparison with similar sectors in other Sub-Saharan African countries such as South Africa, Kenya, Uganda and Tanzania. Small businesses and enterprises in Ethiopia are generally characterized by an acute shortage of finance, lack of technical skills, region, lack of training opportunities, shortage of raw materials, poor infrastructure and over-tax. According to Devereux and Sharp (2006), lack of

access to finance is the most influential factor from among all adverse factors hindering the growth and development of the MSME sector in Ethiopia. Ladzani and Netswera (2009) have reported that the number of small businesses in South Africa has grown by 150% in the past 10 years, and that small businesses alleviate poverty among the masses in addition to creating jobs for the poor. However, the success realized in South Africa has failed to be achieved in Ethiopia mainly due to lack of vision on the part of government, shortage of finance, poor infrastructure and an acute shortage of technical skills. The macro-economic environment in Ethiopia is not conducive for the growth and development of MSMEs (Devereux and Sharp, 2006). According to Aga et al. (2009) and Lizi et al. (2008), inadequate access to credit is regarded as the most severe adverse factor that threatens the long-term survival of small businesses in Ethiopia. Researchers such as Liou (2007) have shown that good governance has the potential for promoting local economic development in poor countries such as Ethiopia. In Ethiopia, parameters such as the level of capital investment, the number of workers employed and the level of automation are used for the classification of MSMEs.

According to Currie (2009), the majority of MSMEs in countries such as Ethiopia operate at under capacity due to lack of credit or over-regulation. This problem has been exacerbated by the demand for collateral by commercial banks as a prerequisite for the approval of loan applications. A report by the Ethiopian Central Statistical Authority (2003) shows that only 0.2% of small-scale operators were given loans by the Commercial Bank of Ethiopia at their start-up stage while 45% of them were supported by own savings, 24% were supported by friends, and 20% were supported by relatives. Only 0.8% of operators raised finance from micro finance institutions. While the MSME sector suffers from dire financial constraint, the state-owned Commercial Bank of Ethiopia sits on an excess liquidity of 165% (Alemayehu, 2006).

The lack of integration between the vocational curriculum taught at academic institutions and skills required at the workplace in small businesses and enterprises is a major obstacle to the growth and development of small businesses and enterprises. Economists such as Hanushek and Woessmann (2008) have shown that unless there is relevance between what is taught in classrooms and what is needed at the workplace, it would be almost impossible to overcome the unacceptably high failure rate among new entrants into the MSME sector. Alemayehu (2006) has argued that the EMTI must allow

competition from foreign MSMEs with a view to foster innovation, new developments and productivity. Doing so however, requires a favorable macro-economic policy that enables foreign competitors to come into the local financial market and provide assistance to small businesses and enterprises.

Efficiency in managerial and technical skills has enabled small businesses and enterprises to play a major role in the alleviation of poverty and job creation in several emerging market economies (Hauner, 2009). The Grameen Bank of Bangladesh (Dowla, 2005) has provided finance to MSMEs on easy terms since the early 1970s, and this assistance of finance has contributed significantly to the alleviation of poverty and job creation. The success achieved by Grameen Bank is attributed to visionary leadership, innovative thinking and managerial efficiency. Several development economists in Ethiopia have abundantly demonstrated that lack of access to finance is a major obstacle to the growth and development of the MSME sector in the country (Woldehana et al., 2008). The availability of external finance is critically important to dynamic enterprises whose growth potential outstrips their internal sources of finance (Deyessa et al., 2008). However, as a result of imperfection in the credit markets of developing countries, the majority of MSMEs start business with little or no support from formal financial institutions. Consequently, small enterprises find it difficult to grow and expand their businesses. According to Kedir (2005) and Abebe and Kjørholt (2009), a significantly large proportion of MSMEs in Africa operate at under-capacity due to lack of credit arising from imperfections in financial markets that diminish the degree of access to credit small enterprises require for optimal performance. Dulleck et al. (2006) have reported that lack of finance for newly established small enterprises constitutes the key obstacle to the growth and development of small businesses and enterprises globally.

Experience from poor countries such as Bangladesh shows that easy access to finance and skills are essential for alleviating poverty among the majority poor and vulnerable groups such as women and orphaned children (Dowla, 2005). According to Kebede and Butterfield (2009), credit constraint is experienced by small enterprises due to the reluctance of banks to lend money to large enterprises, the wrong assumption that the risk associated with lending money to small enterprises is high. As a result, formal money lending institutions such as commercial banks demand collateral as a means of reducing risk, shortening the screening process, and view collateral as a proven mechanism for compensating for bad debts (Easterly, 2009). From the

point of view of banks, it is too costly and difficult to recover bad debt without securing adequate collateral. The majority of small businesses lack the necessary skills needed for sound bookkeeping, auditing and tax assessment. Andersson et al. (2007) and Hope (2004) have pointed out that information asymmetry is one major cause of credit constraint in small businesses and enterprises. According to the authors, capital does not always flow to small firms because of adverse selection and moral hazard, two factors that are known to have a devastating negative impact on small enterprises.

A number of development economists have reported that in most credit markets, most widely accepted forms of collateral are mobile assets such as motor vehicles and fixed assets such as real estates, homes, industrial equipment, etc. According to Aguirregabiria (2007) and Buldyrev (2007), collateral is needed mostly due to the significant information gap that exists between potential lenders and borrowers. The key challenge here is to balance the credit needs of small businesses and enterprises with the specific needs and requirements of lending institutions.

3. Methods and materials

3.1. Study design, sample size of study and sampling technique. The study design is longitudinal as data were gathered monthly from a random sample of 500 small businesses and enterprises operating in five representative geographical regions of Ethiopia over a 6-year long study period. The sample size for the study was determined using the statistical package nQuery Advisor version 4.0 using a level of significance of test (α) equal to 0.05, the proportion of “failed” businesses and enterprises varying between 10% and 15%, and a power of test ($1 - \beta$) equal to 90%. Using these values, the adjusted sample size of study came to include 500 MSMEs. A random sample of 100 MSMEs was selected from each of the five cities in the study, using simple random sampling, thereby providing an overall sample size of 500 MSMEs. In this study, the term “failed” as applied to businesses refers to businesses that ceased operating completely, and not those that switched to other business activities.

Five lists of small businesses operating in each of the five geographical regions were prepared. From each of the five lists, 100 small businesses were randomly selected using simple random sampling techniques. Data were gathered from each of the 500 businesses on a total of 112 socio-economic variables. Data collection was done regularly during the entire study period by use of registers. Data collection was done with funding from the Christian Relief

Development Agency (CRDA) and the Ethiopian Micro Finance Association in Addis Ababa, Ethiopia.

4. Statistical methods of data analysis

Statistical methods of data analysis such as frequency tables, Pearson's chi-square tests of association, binary logistic regression analysis, and survival (panel data) analysis were used. Survival analysis was done by using techniques such as Kaplan-Meier survival probability curves, life tables, the log-rank test, the Cox Proportional Hazards Model, the Weibull model, and the log-normal model. The level of significance of study was fixed at the 5% level. Hazard ratios estimated from Cox regression were used as an econometric measure of effect. Key predictors of survival or failure of businesses were identified. Adjustment was done for potential confounding variables.

The key objective of the study was to identify factors that significantly affect the long-term survival and viability of small businesses and enterprises. Analysis was done using the Cox proportional hazards model (Cleves, Gould & Gutierrez, 2004) in view of the fact that some of the 500 businesses in the study were right censored. Hazard ratios were obtained for key influential predictors of survival. Kaplan-Meier survival probability curves were used to compare viable and non-viable businesses in terms of survival probabilities. Descriptive and summary statistics were also obtained. The adequacy of the fitted Cox regression model was assessed using the likelihood ratio test and Akaike's information criterion (AIC) statistic. The fulfilment of the proportional hazards assumption was tested by use of log-minus-log plots. Data analysis was done using the statistical package STATA version 10 (STATA Corporation, 2007).

The duration of survival of businesses was measured for each of the 500 firms in the study using the first day of the study period as the starting point. Firms that were still operational at the end of the study period were considered right-censored observations as their exact durations of survival could not be measured due to administrative censoring at the end of the study period. For firms that ceased operation prior to the last day of the study period, survival time was defined as the number of days of operation between the date of start of the study and the date of closure of business.

X_1, X_2, \dots, X_{19} denote the 19 explanatory variables that were used for survival analysis.

The indicator of censoring, δ , is defined as follows:

$$\delta = \begin{cases} 1 & \text{if MSME has ceased operation} \\ 0 & \text{otherwise} \end{cases}$$

The Cox Proportional Hazards Model takes censored observations into account, and this property of the model makes it quite attractive in comparison with other models used for survival analysis in economic studies. In Cox regression, hazard ratios are used as an econometric measure of effect. Key predictors of survival are identified and estimated based on hazard ratios. Kaplan-Meier survival probability curves were used to compare businesses that survived the 6-year study period (survivors) with businesses that did not survive the study period (non-survivors) with regards to key predictors of survival.

5. Kaplan-Meier survival probabilities

The Kaplan-Meier product limit technique is the recognized approach for calculating survival curves in such studies. Suppose that the survival times after entry to the study (ordered by increasing duration) of a group of n businesses denoted by t_1, t_2, \dots, t_n are given. The proportion of businesses surviving beyond any follow up time (t) is estimated by the Kaplan-Meier technique as:

$$\hat{p} = \prod_{i=1}^n \frac{r_i - d_i}{r_i}, \quad (1)$$

where \hat{p} is the proportion of businesses surviving beyond any follow up time t ; r_i is the number of firms in business just before time t_i (the i^{th} ordered survival time); d_i is the number of businesses that failed at time t_i .

The standard error of \hat{p} is given by:

$$SE(\hat{p}) = \sqrt{\frac{\hat{p}(1-\hat{p})}{n'}}, \quad (2)$$

where $n' = n -$ number of businesses lost to follow up before time t ;

= effective sample size at time t

A $100(1-\alpha)\%$ confidence interval for the true survival proportion P at time t is given by:
 $P \in [\hat{p} \pm Z_{1-\frac{\alpha}{2}} \times SE(\hat{p})].$

6. The Cox Proportional Hazards Model

The hazard function for the Cox Proportional Hazards Model is given by:

$$h(t, X) = h_0(t) \exp \left(\sum_{i=1}^p \beta_i X_i \right), \quad (3)$$

where $X = (X_1, \dots, X_p)$ is a collection of p explanatory variables that affect survival time.

The Cox model uses survival times and censoring for the estimation of parameters. In Cox regression, the econometric measure of effect is the hazard ratio, which involves only the β 's. Estimates of the β 's are maximum likelihood estimates.

$h_0(t)$ is the baseline hazard function. It involves t , but not the X variables. For the Cox Proportional Hazards Model, $h_0(t)$ is obtained by replacing all the X variables in $h(t, X)$ by zeroes. The proportional hazards assumption requires that the hazard rate is constant over time, or equivalently, that the hazard for one individual is proportional to the hazard for any other individual, where the proportionality constant is independent of time. The assumption of proportional hazards is tested using log-minus-log plots. Parallel curves show that the assumption is satisfied, while non-parallel curves show that the assumption is violated.

The expression $\exp \left(\sum_{i=1}^p \beta_i X_i \right)$ involves the X variables, but not t . The X variables do not depend on the time t .

The Cox proportional hazards model is non-parametric because $h_0(t)$ is unspecified.

In the Cox proportional hazards model, the hazards ratio is estimated by

$$HR = \frac{\hat{h}(t, X^*)}{\hat{h}(t, X)} = \exp \left[\sum_{i=1}^p \hat{\beta}_i (X_i^* - X_i) \right] \\ = \exp \left[\hat{\beta}_1 (X_1^* - X_1) + \hat{\beta}_2 (X_2^* - X_2) + \dots \right] = \theta. \quad (4)$$

In the expression for the hazards ratio, θ is a constant of proportionality, and does not depend on the time t . The expression for the hazard ratio does not involve the time t , because the baseline hazard has cancelled out.

$$\hat{h}(t, X^*) = \hat{\theta} \hat{h}(t, X)$$

At the 5% level of significance, influential predictors of survival are characterized by hazard ratios that differ from 1 significantly, 95% confidence intervals of hazard ratios that do not contain 1, and P-values that are smaller than 0.05.

7. Results of analysis

Table 1 below shows the distribution of factors that affect the long-term survival of firms. The table shows frequency proportions of 6 key predictors for survivors and non-survivors. In the 6-year study period, 93 of the 500 businesses in the study (19%) have failed while the other 407 (81%) have managed to survive. The table shows that 76% of businesses with adequate managerial skills survived, whereas only 23% of businesses with inadequate managerial skills survived the 6-year long study period. The table also shows that businesses that failed are characterized by poor managerial skills, lack of access to finance, inadequate technical skills, non-participation in iqgub schemes, low level of formal education, and poor utilization of free or cheap labor from fellow family members or friends.

Table 1. Group proportions for survivors and non-survivors

Predictor variable	Survivors (n=407)	Non-survivors (n=93)
Managerial skills	Adequate: 76% Poor: 24%	Adequate: 23% Poor: 77%
Difficulty in securing finance	Yes: 17% No: 83%	Yes: 66% No: 34%
Technical skills	Adequate: 76% Poor: 24%	Adequate: 39% Poor: 61%
Participation in iqgub schemes	Yes: 36% No: 64%	Yes: 6.45% No: 93.55%
Level of formal education	Primary or above: 77% Less than primary: 23%	Primary or above: 39% Less than primary: 61%
Utilization of free or cheap labor	Yes: 64% No: 36%	Yes: 39% No: 61%

Kaplan-Meier survival probability plots were used to compare the survival probabilities of businesses with regards to managerial skills. The plot shows that the survival probability curve of businesses with adequate managerial skills is significantly higher than that of businesses with inadequate managerial skills.

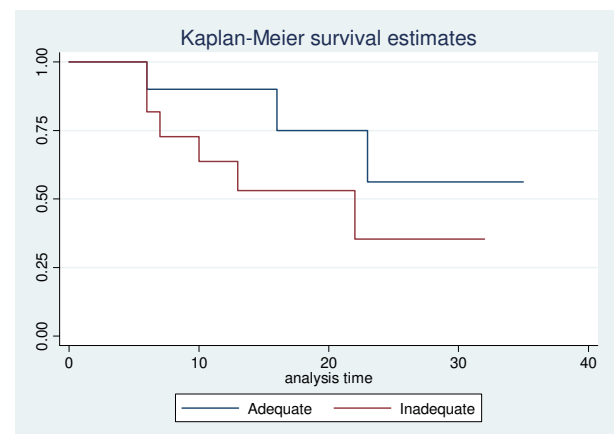


Fig. 1. Kaplan-Meier survival estimates, by level of managerial skills

Hazard ratios estimated from the Cox Proportional Hazards model are shown below in Table 2. The table shows that the survival of businesses is most strongly influenced by 6 of the 19 predictor variables used for survival analysis. These 6 influential variables are the level of managerial skills, difficulty

in securing finance, the level of technical skills, participation in iqqub schemes, level of formal education, and utilization of free or cheap labor from fellow family members or friends. The most influential predictor variable affecting the survival of businesses is the degree of managerial skills.

Table 2. Adjusted hazard ratios from the Cox Proportional Hazards Model

Variable	*Adjusted Hazard Ratio	P-value	95% CI
Inadequate managerial efficiency	5.49	0.000	(3.45, 9.65)
Lack of access to finance	4.03	0.000	(3.13, 7.54)
Low level of technical skills	3.79	0.001	(2.84, 7.01)
No iqqub participation	3.41	0.004	(2.45, 6.55)
Low level of education	3.39	0.008	(2.25, 6.48)
Non-utilization of cheap labor	2.55	0.009	(1.08, 4.74)

Note: *Adjustment was done for geographical region, age of owner and gender of owner.

The hazard ratio of the variable inadequate managerial efficiency is 5.49. This shows that businesses that do not have adequate managerial efficiency are 5.49 times more likely to fail in comparison with those having adequate managerial efficiency. Hence, inadequate efficiency in managerial skills is the most influential variable affecting the survival of small businesses. The hazard ratio of the variable lack of access to finance is 4.03. This shows that businesses that experience shortage of finance are 4.03 times more likely to fail in comparison with businesses that have adequate access to finance. The hazard ratio of the variable low level of technical skills is 3.79. This shows that businesses that are operated by owners with low level of technical skills are 3.79 times more likely to fail in comparison with those that are operated by owners with a moderate level of technical skills. The hazard ratio of the variable no iqqub participation is 3.41. This shows that businesses that do not participate in iqqub activities are 3.41 times more likely to fail in comparison with businesses that participate in iqqub schemes as a means of raising funds. The hazard ratio of the variable low level of education is 3.39. This shows that businesses that are operated by owners or managers with low level of formal education are 3.39 times more likely to fail in comparison with businesses that are operated by managers or owners with moderate or high level of formal education. The hazard ratio of the variable non-utilization of cheap labor is 2.55. This shows that businesses that fail to utilize free or cheap labor from fellow family members or friends are 2.55 times more likely to fail in comparison with those utilizing free or cheap labor from family members and friends.

Adjustment was done for three potential confounding variables: geographic region, age of owner and gender of owner. Unadjusted and adjusted hazard

ratios did not differ much. This shows that none of the three variables used for adjustment was a confounding or effect modifying variable. The adequacy of the fitted Cox model was assessed using log-minus-log plots, the likelihood ratio test and the AIC (Akaike's Information Criterion) as diagnostic procedures. All log-minus-log plots were parallel, showing that the assumption of proportional hazards was satisfied. The P-value from the likelihood ratio test was small ($0.0001 < 0.01$), thereby showing that the 6 variables constituting the fitted Cox model were jointly efficient in explaining variability in long-term survival at the 1% level of significance. The estimated value of the AIC statistic was also small (11.09), thereby showing that the discrepancy between the fitted and true models was insignificant.

7. Discussion of results

The study has shown that high level of managerial skills significantly promotes long-term survival and profitability in small businesses and enterprises. This result is in agreement with findings from Assaf (2009), Gimenez et al. (2007), Caminada & Goudswaard (2009) and Calabrese et al. (2008). Incremental and radical innovation as well as profitability in small businesses and enterprises is a result of competitive managerial efficiency (Hauner, 2009). Successful businesses are significantly associated with the ability to generate profit on a sustainable basis. Profitability has enabled successful businesses to achieve their next level of growth as well as the potential to stay competitive in business. By contrast, unsuccessful businesses are characterized by inability to generate profit on a sustainable basis. Bandiera and Barankay (2006) have pointed out that failure to generate profit is often attributed to poor managerial and technical skills as well as shortage of finance required for business operation.

According to Woldehanna et al. (2008) and Hauner (2009), formal money lending institutions have so far failed to produce innovative, affordable and user-friendly financial products and services with a particular view to assist the struggling MSME sector in Ethiopia. At a time when the MSME sector and free labor from family members starve for money, the Commercial Bank of Ethiopia sits on a 165% excess liquidity. There is an ideal opportunity for a fruitful strategic collaboration between small business operators and the commercial banks as well as micro finance institutions (Goddard et al., 2004). This can be achieved by making more money available to free labor from family members and by integrating free labor from family members with formal money lending institutions so that commercial banks and micro-finance institutions have access to the millions of clientele belonging to free labor from family members. This remedial action is informed by the dramatic success achieved by the Grameen Bank of Bangladesh (Schreiner, 2003).

The study shows that it is prudent to integrate informal financial sectors such as iqqub associations to formal money lending institutions. Experience from non-governmental organizations in Argentina indicates that social capital is immensely useful in providing badly needed financial assistance to small businesses and enterprises (Bandiera and Barankay, 2006). Such authors say that doing so would help both the associations and the banks by broadening the market base of banks, and by providing MSMEs with easy access to finance (Kritikos et al., 2007). Partnerships between the commercial banks and small businesses can create a win-win situation for both parties as the collective collateral guarantee of free labor from family members minimizes the risk of default and high costs of advancing a series of small credits to several borrowers (Schreiner, 2003).

Conclusion

The study has shown that viable businesses have utilized their resources efficiently, and that their managerial and technical skills are much better than those businesses that did not survive the study period. The vocational curriculum used by the Ministry of Education of Ethiopia at high schools and colleges is neither relevant nor helpful for potential entrepreneurs who aspire to run businesses enterprises efficiently. A review of the curriculum for vocational education is called for based on findings of this particular study. This study presents a unique outcome on the contribution of iqqub schemes to the survival and viability of MSMEs in Ethiopia. MSMEs in Ethiopia suffer from a chronic shortage of finance. Formal financial institutions are reluctant

to lend money to MSMEs as a result of adverse selection and moral hazard resulting from asymmetric information in the credit market. Up to the present, the large gap in terms of access to finance has been filled partially by iqqub schemes, but much more needs to be done in order to alleviate the financial problems faced by small businesses and enterprises. Although iqqub schemes are available for help, their capacity is highly restricted. They can only satisfy one member of the scheme at a time. By the time the last member in the scheme is assisted, a number of opportunities may have been lost due to lack of capacity. Lack of efficiency in managerial and technical skills as well as shortage of finance is a well known barrier to the growth and development of small businesses and enterprises in Ethiopia. Although the commercial banks own large amounts of finance, they are reluctant to provide loan monies to needy businesses. The excess capital banks have is often not administered efficiently, to the detriment of needy businesses. The implication of this study is that intervention by the Ethiopian Ministry of Trade and Industry (EMTI) is required in order to improve the worsening plight of the struggling small businesses sector in the country by way of providing training on entrepreneurial skills and finance.

Recommendations

Based on the findings of this study, the following seven recommendations are made to the Ethiopian Ministry of Trade and Industry (EMTI) so that, where possible, remedial action can be taken with a view to assisting small businesses in the country:

1. The Ministry of Trade and Industry should integrate iqqub schemes in Ethiopia with formal money-lending institutions such as the commercial banks and microfinance institutions. The proliferation of poorly resourced and badly administered iqqub associations must be curbed.
2. Competition among financial sectors should be encouraged and non-governmental organizations should be allowed to enter the money lending business. Hence the government needs to revise its policy on the financial sector in order to foster growth and increase competition in the sector.
3. The MSME sector needs to be clearly defined and demarcated on the basis of its economic and social conditions in order to diminish constraints that hinder growth. In this regard, the national government needs to support and promote researchers and academic institutions so that intervention can be informed by concrete findings from research. At present, not enough research is being conducted, and not much real information

is available. Factual information must come from a comprehensive and dedicated database of all MSMEs. This is critically important for supporting the sector in terms of determining tax amounts, levies, licensing fees and monitoring and evaluation activities.

4. Operational regulations that are applicable to small businesses should be liberalized so that small businesses can realize their full potential with minimum inconvenience. Tax exemption should be allowed to the majority of MSMEs operating in the agricultural sector with the view of promoting value addition in primary products.
5. The Ethiopian Ministry of Education should develop a curriculum that equips young graduates with vocational, entrepreneurial, industrial and commercial skills that are required by small

and medium enterprises. The educational system should give attention to skills-based training to enhance self-employment in the MSME sector.

6. The Ethiopian Government should promote and implement programs that facilitate local and cross-border business activities, helpful linkages, strategic partnerships, skills-related networking and the outsourcing of activities among MSMEs and large enterprises.
7. The Ethiopian government is heavily dependent on the agricultural sector. It is essential to diversify investment in the direction of sectors other than agriculture. In this respect, particular attention should be given to sectors such as industry, manufacturing and services. Doing so will have potential for uplifting the status and role of MSMEs in the economy.

References

1. Abebe, T., T. Kjørholt. Social Actors and Victims of Exploitation: Working Children in the Cash Economy of Ethiopia's South // *Journal of Childhood*, 2009. – Vol. 16. – pp. 175-194.
2. Aga, F., J. Kylmä, M. Nikkonen. The Conceptions of Care Among Family Caregivers of Persons Living with HIV/AIDS in Addis Ababa, Ethiopia // *Journal of Transcultural Nursing*, 2009. – Vol. 20. – pp. 37-50.
3. Aguirregabiria, V. Entrepreneurship, Growth, and Innovation: The Dynamics of Firms and Industries // *Journal of Economic Literature*, 2007. – Vol. 45 (1). – pp. 198-201.
4. Alemayehu, H. Ethiopia: Excess Liquidity of Commercial Bank of Ethiopia up 165%: Report by The Daily Monitor of 23 March 2006 // Online report at <http://allafrica.com/stories/200603230638.html>, accessed 08 August 2009.
5. Andersson, F., Burgess, S., Lane, J. Cities, matching and productivity gains of agglomeration. *Journal of Urban Economics* 2007, 61 (1), 112-128.
6. Assaf, A. A Two-Stage Approach to Efficiency Modeling: an Application to the Australian Hospital Food Production Industry // *Journal of Hospitality and Tourism Research* 2009. – Vol. 33, No. 3. – pp. 284-304.
7. Bandiera, O., I. Barankay. The Evolution of Cooperative Norms: Evidence from a Natural Field Experiment // *Journal of Advances in Economic Analysis and Policy*, 2006. – Vol. 6, No. 2. – pp. 1484-1484.
8. Benjamin, S. The Feminization of Poverty in Post-Apartheid South Africa: A Story Told by the Women of Bayview, Chatsworth // *Journal of Developing Societies*, 2007. – Vol. 23, No. 1. – pp. 175-206.
9. Buldyrev, S.V., M. Riccaboni, J. Growiec, H.E. Stanley, F. Pammolli. The Growth of Business Firms: Facts and Theory // *Journal of the European Economic Association*, 2007. – Vol. 2, No. 2-3. – pp. 574-84.
10. Calabrese, A., M. Gastaldi, I. Iacovelli, N. L. Ghiron. Innovation and Competition in two-sided Markets: The Case of Payment Systems // *International Journal of Management and Network Economics*, 2008. – Vol. 1, No. 1. – pp. 1-20.
11. Caminada, K., K. Goudswaard. Effectiveness of Poverty Reduction in the European Union: A Descriptive Analysis // *Journal of Poverty and Public Policy*, 2009. – Vol. 1, No. 2. – pp. 1022-1028.
12. Cleves, M., W. Gould, R. Gutierrez. An Introduction of Survival Analysis Using STATA, Revised Edition.- Houston, Texas: STATA Press, 2004. – 401 pp.
13. Currie, J. Healthy, Wealthy, and Wise: Socioeconomic Status, Poor Health in Childhood, and Human Capital Development // *Journal of Economic Literature*, 2009. – Vol. 47, No. 1. – pp. 87-122.
14. Decron, S., P. Krishnan. Vulnerability, Seasonality and Poverty in Ethiopia // *Journal of Development Studies*, 2000. – Vol. 1, No. 1. – pp. 23-35.
15. Deyessa, N., Y. Berhane, A. Alem, U. Hogberg, G. Kullgren. Depression among Women in Rural Ethiopia as Related to Socioeconomic Factors: A Community-Based Study on Women in Reproductive Age Groups // *Scandinavian Journal of Public Health*, 2008. – Vol. 36, No. 1. – pp. 589-597.
16. Devereux, S., K. Sharp. Trends in Poverty and Destitution in Wollo, Ethiopia // *Journal of Development Studies*, 2006. – Vol. 42, No. 4. – pp. 592-610.
17. Dowla, A. In Credit We Trust: Building Social Capital by Grameen Bank in Bangladesh // *Journal of Socio Economics*, 2005. – Vol. 1, No. 2. – pp. 23-38.
18. Dulleck, U., P. Frijters, R. Winter-Ebmer. Reducing Start-Up Costs for New Firms: The Double Dividend on the Labour Market // *Scandinavian Journal of Economics*, 2006. – Vol. 108, No. 2. – pp. 317-337.
19. Easterly, W. Can the West Save Africa? // *Journal of Economic Literature*, 2009. – Vol. 47, No. 2. – pp. 373-447.
20. Ethiopian Central Statistical Authority. Report on the Urban Informal Sector Sample Survey, Vol. 282. Addis Ababa: Ethiopian Central Statistics Authority, 2003. – 208 pp.

21. Gimenez, V., D. Prior, C. Thieme. Technical Efficiency, Managerial Efficiency and Objective-Setting in the Educational System: An International Comparison // *Journal of the Operational Research Society*, 2007. – Vol. 58, No. 1. – pp. 996-1007.
22. Goddard, J., P. Molyneux, J. O. S. Wilson. Dynamics of Growth and Profitability in Banking // *Journal of Money, Credit, and Banking*, 2004. – Vol. 36, No. 1. – pp. 1069-1090.
23. Grada, C. Making Famine History // *Journal of Economic Literature*, 2007. – Vol. 45, No. 1. – pp. 5-38.
24. Harvey, P. Poverty Reduction Strategies: Opportunities and Threats for Sustainable Rural Water Services in Sub-Saharan Africa // *Journal of Progress in Development Studies*, 2008. – Vol. 8, No. 1. – pp. 115-128.
25. Hanushek, E.A., L. Woessmann. The Role of Cognitive Skills in Economic Development // *Journal of Economic Literature*, 2008. – Vol. 46, No. 3. – pp. 607-68.
26. Hauner, D. Public Debt and Financial Development // *Journal of Development Economics*, 2009. – Vol. 88, No. 1. – pp. 171-183.
27. Hope, K.R. The Poverty Dilemma in Africa: Toward Policies for Including the Poor // *Journal of Progress in Development Studies*, 2004. – Vol. 4, No. 1. – pp. 127-141.
28. Josie, J.G. MacDonald, J. Petchey, J. A Dynamic Equalisation Model for Economic and Social Capital Grants with a South African Example // *Journal of Development Studies*, 2008. – Vol. 44, No. 8. – pp. 1169-1189.
29. Kebede, W., A.K. Butterfield. Social Networks among Poor Women in Ethiopia // *Journal of International Social Work*, 2009. – Vol. 52, No. 1. – pp. 357-373.
30. Kedir, A.M. Understanding Urban Chronic Poverty: Crossing the Qualitative and Quantitative Divide // *Journal of Environment and Urbanization*, 2005. – Vol. 17, No. 1. – pp. 43-54.
31. Kritikos, A., F. Bolle, J.H.W. Tan. The Economics of Solidarity: A Conceptual Framework // *Journal of Socio-Economics*, 2007. – Vol. 36, No. 1. – pp. 73-89.
32. Ladzani, W., G. Netswera. Support for Rural Small Businesses in Limpopo Province, South Africa // *Journal of Development Southern Africa*, 2009. – Vol. 26, No. 2. – pp. 225-239.
33. Lahat, L., G. Menahem. Causes and Remedies for Poverty: Perceptions among Local Elected Leaders in Israel // *Journal of Poverty and Public Policy*, 2009. – Vol. 1, No. 2. – pp. 1029-1032.
34. Lerner, J., J. Wulf. Innovation and Incentives: Evidence from Corporate R&D // *Journal of Review of Economics and Statistics*, 2007. – Vol. 89, No. 4. – pp. 634-644.
35. Liou, K.T. Applying Good Governance Concept to Promote Local Economic Development: Contribution and Challenge // *International Journal of Economic Development*, 2007. – Vol. 1, No. 1. – pp. 43-52.
36. Lizi, S., M.A. Hamouda, F. Sigrist, E. Tauchnitz. Water Policy Networks in Egypt and Ethiopia // *Journal of Environment and Development*, 2008. – Vol. 17, No. 1. – pp. 238-268.
37. Luttmer, E. G.J. Selection, Growth, and the Size Distribution of Firms // *Quarterly Journal of Economics* 2007. – Vol. 122, No. 3. – pp. 1103-1144.
38. North, D. *Institutions, Institutional Change and Economic Performance*. – New York: Cambridge University Press, 2005. – 302 pp.
39. Schreiner, M. A Cost-Effectiveness Analysis of the Grameen Bank of Bangladesh // *Journal of Development Policy Review*, 2003. – Vol. 21, No. 3. – pp. 357-382.
40. STATA Corporation. *STATA Version 10: User Guide*. –Houston, Texas: STATA Press, 2007. – 386 pp.
41. Woldehanna, T., N. Jones, B. Tefera. The Invisibility of Children's Paid and Unpaid Work: Implications for Ethiopia's National Poverty Reduction Policy // *Journal of Childhood*, 2008. – Vol. 15, No. 1. – pp. 177-201.