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Women Entrepreneurship in Micro, Small and Medium Enterprises: The Case of Ethiopia

By Eshetu Bekele¹ and Zeleke Worku²

Abstract

This research article examines factors that influence the long-term survival and viability of a random sample of 500 micro small and medium enterprises (MSMEs) located in five geographical regions of Ethiopia based on a 6-year long follow-up study. The objective of the study is to identify key predictors of long term survival and viability in small businesses and enterprises in Ethiopia, and to find out if small businesses and enterprises operated by male entrepreneurs perform better than those operated by female entrepreneurs in Ethiopia. Data was gathered on key determinants of survival such as access to finance, managerial skills, level of education, level of technical skills, ability to convert profit back into investment, etc between 1996 and 2001. Econometric methods such as Kaplan-Meier survival probability curves and the Cox proportional hazards model were used for data analysis. 221 of the 500 businesses in the study (44%) were operated or owned by women. 110 of the 500 businesses in the study (22%) had failed at the end of the study period. The majority of businesses that failed were operated by women (78%). Female-headed firms that ceased operation had an average lifetime of 3.2 years, while male-headed firms that ceased operation had an average lifetime of 3.9 years. Businesses that failed were characterized by inability in obtaining loans from formal money lending institutions such as commercial banks (61%), inability to convert part of profit back into investment (46%), poor managerial skills (54%), shortage of technical skills (49%), and low level of education (55%). Based on hazard ratios estimated from Cox regression, businesses operated by women were 2.52 times more likely to fail in comparison with businesses operated by men.

Keywords: MSME, survival, gender in Ethiopia

Introduction

In spite of the enormous importance of the micro, small and medium enterprises (MSME) sector to the national economy with regards to job creation and the alleviation of abject poverty among impoverished women in Ethiopia, the degree of recognition and strategic support provided to the sector is grossly inadequate. Three successive governments that were in power since 1960 have failed to improve the plight of women entrepreneurs in Ethiopia (Ethiopian Welfare Monitoring Unit, 2002). Although several economists have argued that the promotion of women entrepreneurs is a prerequisite for

¹ Eshetu Bekele is a Ph.D. student of economics at the University of the Western Cape at Bellville, South Africa. This article is based on his doctoral study. The study is based on a 6-year follow-up study of 500 small businesses and enterprises in five major cities of Ethiopia, and compares businesses operated by women entrepreneurs with businesses operated by male entrepreneurs with regards to long term survival

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overall economic growth and the alleviation of poverty, women entrepreneurs in Ethiopia have not been provided with meaningful assistance from the national government of Ethiopia in terms of recognition, access to finance and skills required for operating small businesses and enterprises profitably and efficiently. Intervention strategies that are meant to address inefficiency in the sector are often irrelevant, half-hearted and grossly inadequate in terms of resources that are essential for optimal performance and utilization of resources. Although the MSME sector in Ethiopia provides livelihood to 49% of all employed women in Ethiopia, the strategic support it receives from the national government has been minimal (Abegaz, 2004; Abera, Hailu & Solomon, 2002; Admassie & Amha, 2004; Ageba & Amha, 2006; BESO, 2004). The plight of destitute women has been significantly improved due to MSMEs in countries such as Bangladesh, Singapore, Japan, China, South Korea, Taiwan and Malaysia. In Sub-Saharan Africa, some measure of success has been achieved in South Africa, Botswana and Mauritius. The success achieved in each of the above countries is mostly attributed to support to MSMEs in terms of policy, respect for the basic rights and needs of women, the availability of resources such as finance, good infrastructure, skills and appropriate technology and an enabling macro-economic environment for attracting international investors. According to Rahel (2004) and Rahmato (2004), small businesses and enterprises constitute the only livelihood available to the majority of impoverished women in Ethiopia.

Women depend on MSMEs as a source of livelihood essentially because national governments fail to meet their requirements for survival and entrepreneurial aspiration. Economic have actively engaged and earn their livelihood in small enterprisers where government policies, regulations, owner’s business skills, availability of finance, appropriate business trainings, and market matter most for their survival. Surveys conducted by the World Bank (2005), the World Trade Organization (2002), the Ministry of Finance and Economic Development of Ethiopia (2002), women entrepreneurs in Ethiopia initiate new businesses and enterprises at a rate twice as fast as men, and that they find it harder at the outset to grow their business to the next higher level. Survival of a business firm is defined as the ability of the firm to continue its operation and remain in business during a certain period of time in a competitive market. Based on a survey of 15 representative sites of study, Kebede (2002) has shown that only one in three small businesses survive to their third anniversary, and that the likelihood of survival of small firms operated by women entrepreneurs is closely associated with the degree of support given to women in terms of access to finance, improved skills and an enabling macroeconomic environment.

Women entrepreneurs are compared with male entrepreneurs with regards to long-term survival, profitability, access to finance, skills, etc using econometric methods such as Kaplan-Meier survival probability curves (Kleinbaum, 1996), logistic regression (Cramer, 2003) and hazard ratios obtained from the Cox proportional hazards model (Cleves, Gould & Gutierrez, 2004). Hazard ratios are used as an econometric measure of effect. The study aims to identify key differential factors of long term survival and viability in small businesses and enterprises that affect women entrepreneurs in particular. In so doing, the study examines how well women entrepreneurs fare in comparison with their male counterparts. Feasible recommendations are made in order to improve the plight of women entrepreneurs, and to help them improve their economic contribution to the national economy.
Background to study

A national survey conducted by the Ethiopian Welfare Monitoring Unit (2002) shows that women entrepreneurs in Ethiopia are not provided with adequate policy related and strategic support from the national government, and that the promotion of vibrant MSMEs should be one of the most important priority strategies for empowering women, addressing abject poverty and unemployment in Ethiopia. Although women entrepreneurs contribute significantly to the national economy in terms of job creation, skills development and the alleviation of abject poverty among men and women alike, the literature clearly shows that small businesses and enterprises operated by women entrepreneurs are not being provided with adequate strategic support in terms of policy, access to finance, tax assessment, skills development and managerial training, technological transfer and infrastructural development (Berhanu, Abraham & Van der Berg, 2007). Although MSMEs operated by women cater for the poorest of the poor and make a sizeable contribution to the national economy, the level of support and recognition given to them has been minimal historically (Mogues, 2004). Businesses and enterprises operated by women contribute for economic dynamism, diversification, productivity, competition, innovation and economic empowerment of the poorest of the poor. Historically, there has been a well established tradition of women being involved in small businesses and enterprises. However, it is only recently that women’s entrepreneurship has gained the attention of economic planners and policy makers. Although the national government has come to acknowledge that supporting enterprises operated by women promotes gender equality and economic empowerment, the majority of enterprises operated by women face difficulty in terms of access to finance, resources, business skills and institutional support from the national government (Ethiopian Ministry of Trade and Industry of Ethiopia 2003; National Bank of Ethiopia, 2002; Negash & Kenea, 2003). MSMEs owned or operated by women in Ethiopia survive against tremendous odds of failure. There is an acute shortage of studies conducted with a specific objective of comparing enterprises operated by men with those operated by women in terms of business-related challenges, internal efficiency, viability, long term survival and profitability. This study aims to fill the gap by identifying specific factors that are responsible for resilience in MSMEs operated by women entrepreneurs, and shade light on gender-specific differentials that affect long term survival and viability.

Literature review

According to the Ethiopian Central Statistical Authority (2004), almost 50% of all new jobs created in Ethiopia are attributable to small businesses and enterprises, and roughly 49% of new businesses that were operational between 1991 and 2003 were owned by women. According to Aregash (2005), 98% of business firms in Ethiopia are micro and small enterprises, out of which small enterprises represent 65% of all businesses. More than half of all women entrepreneurs in Ethiopia often face gender related challenges related to establishing new businesses as well as operating or expanding existing businesses (Amha & Admassie, 2004). Women are disadvantaged due to culture, religion and tradition. For instance many women face difficulty in raising credit finance from banks as well as borrowing via informal networking. The survey shows that women-headed firms started their businesses with an average capital of
$2,115 while male-headed businesses started their businesses with an average capital of $3,161. On average 5.5%, 10.5%, 10.5% and 7% of female-headed enterprises managed to get credit from banks, microfinance, iqqub schemes and personal donations respectively. The corresponding figure for male-headed firms was 12.7%, 8.4%, 13.7% and 4.6% respectively (Amha & Narayana, 2004).

According to the Ethiopian Economic Association (2004), small businesses and enterprises operated by women entrepreneurs contribute significantly to the national economy in terms of job creation and the alleviation of poverty, but are provided with little or no policy related support from the Ethiopian Ministry of Trade and Industry. Women entrepreneurs in Ethiopia often experience severe problems in terms of technical skills, raw materials, technological input, infrastructural development, access to water and lights as well as finance. Development economists who have monitored the growth and development of small businesses and enterprises in Ethiopia over the past several years have pointed out that the level of strategic support provided to MSMEs since 1991 is not commensurate with the contribution made by the sector to the national economy (Demeke, Adenew, Deininger, Gebresilassie & Jin, 2003).

Pankhurst (2003), Rahmato (2004), Rahel (2004) and Belay (2000) have reported that women do not have adequate access to finance from commercial banks, and that they rely heavily on indigenous social capital schemes called “iqqub” for raising finance needed for business ventures. According to the authors, although commercial banks sit on excess liquidity, they are quite reluctant to lend money to women entrepreneurs due to gender based bias. The authors have pointed out that the national government needs to intervene to improve the plight of women entrepreneurs, especially in the agricultural sector. Demeke, Guta & Ferede (2003) have reported that although 49% of all new jobs created between 1991 and 2003 are directly attributed to the MSME sector, the sector has not been provided with the support it needs for growth and expansion. The key challenge faced by the sector is lack of access to finance on favourable terms from commercial banks, and the plight of women entrepreneurs has not improved much between 1991 and 2003 (Negash & Kenea, 2003; Gebeeyhu & Asefa, 2004; Tegene, 2004). According to Aredo (1993), women entrepreneurs in Ethiopia have historically been heavily dependent on “iqqub” schemes for raising money needed for business ventures. According to Pankhurst (2003) and Ageba & Amha (2006), the Ethiopian Ministry of Trade and Industry has not done enough to alleviate the acute shortage of finance experienced by women entrepreneurs. Women entrepreneurs in Ethiopia are often discriminated against in terms of approval of applications for business licenses and loans from money lending institutions such as commercial banks (Wole, 2004; Onyx, 2000; Belay, 2000).

Studies conducted by the World Bank (2005), Senbetta (2003), Serneels (2004), Sharma & Oczkowski (2005) and Stevenson & St-Onge (2005) have shown that the MSME sector in Ethiopia is over-regulated, and that women are particularly vulnerable to lack of essential services such as access to finance and improved technological development. Abegaz (2004) and Admassie (2004) have both attributed the lack of growth in the MSME sector to lack of strategic support to women entrepreneurs, and to the poor level of support provided to the sector since 1991. According to reports by the UNCTAD (2003), the UNDP (2003) and Wole (2004), the level of strategic support provided to women entrepreneurs in Ethiopia since 1991 has been grossly inadequate and vastly ineffective. Kebede (2002) has argued that the current economic policy must be re-
evaluated with a view to fulfil the basic needs of women entrepreneurs in Ethiopia. A study conducted by Geda & Degefe (2002) has shown that the contribution of the agricultural sector to the GDP declined from 70% in 1960 to 50% in 1974, and that the decline was mostly due to lack of support for women entrepreneurs involved in the agricultural sector. Studies conducted by Geda, Shimeles & Weeks (2003), Degefe & Nega (2001), Fortune (2003) and Rahmato (2004) have shown that women entrepreneurs in Ethiopia often fail due to gender-based discrimination in terms of access to finance, tax assessment, approval of new business ventures as well as skills development. Women entrepreneurs in Ethiopia fare far below their counterparts in South Africa mostly due to lack of strategic support from the national government. In addition to bearing the brunt of cooking, fetching water, feeding the family, raising children, working the farms, women entrepreneurs in Ethiopia are also expected to prevail in small businesses and enterprises with little or no support from the national government (Kebede, 2002; Pankhrust, 2003).

**Methods and materials**

The study design is longitudinal (1996 to 2001). Data was gathered from a random sample of 500 small businesses and enterprises selected from five major cities of Ethiopia. Data collection was done using structured questionnaires, personal interviews and personal observations. Data was gathered on a total of 112 variables from each of the 500 businesses that took part in the study. Frequency proportions, the Pearson chi-square test of association, logistic regression (Cramer, 2003), Kaplan-Meier survival probability curves (Kleinbaum, 1996) and the Cox Proportional Hazards Model (Verbeek, 2000) were used for econometric data analysis. Hazard ratios were used as an econometric measure of effect. The Cox Proportional Hazards Model accommodates censored observations. As such, Cox regression is superior to classical methods such as logistic regression because it distinguishes businesses that have failed from businesses that are still operational. The duration of survival is denoted by $T$, and measures the length of time from the start of business operation to the end of the study for businesses that were operational at the end of study. For businesses that were out of operation prior to the end of study, survival time is measured from the start of business operation to the date of failure. The variables $X_1$, $X_2$, $...$, $X_k$ denote $k$ predictor variables that affect the survival of businesses in one way or another. The regression of $T$ on $X_1$, $X_2$, $...$, $X_k$ is performed using the Cox regression model. Right-censored firms were distinguished from uncensored firms using the following indicator:

$$\delta = \begin{cases} 1 & \text{if business firm has ceased operation} \\ 0 & \text{if business firm is still operating} \end{cases}$$

Cox regression was done in order to identify factors that affect the survival of firms over a long period of time. The fact that survival analysis accounts for censored observations (observations whose exact survival times cannot be measured precisely) makes this method superior to binary logistic regression analysis. The econometric measure of effect (survival or failure of business firms) in survival analysis is the hazard ratio. The Cox model hazard function is given by $h(t, X)$ in the expression shown below:
\( h(t, X) = h_0(t) \exp \left( \sum_{i=1}^{p} \beta_i X_i \right) \) where \( X = (X_1, \ldots, X_p) \) is a collection of \( p \) explanatory variables that affect survival time. The econometric measure of effect is the hazard ratio, and involves only the \( \beta \)'s. Estimates of the \( \beta \)'s are maximum likelihood estimates. In this study a total of 19 predictor variables that strongly affect the survival of business firms were used for survival analysis. These variables were selected from among 112 variables based on the Pearson chi-square test of association and binary logistic regression analysis with stepwise backward elimination as screening procedures.

Although the odds ratios obtained from logistic regression are analogous to the hazard ratios obtained from Cox regression, results from survival analysis are more informative and reliable than corresponding results obtained from binary logistic regression analysis. This is mostly because Cox regression takes censored observations into account, whereas logistic regression disregards survival times of business firms. In econometric modelling, disregarding survival times constitutes a major limitation.

Survival analysis is a suitable tool to identify a handful of predictor variables (6 significant variables were identified in this study) that strongly influence the long-term survival of businesses. Hazard ratios were estimated for each predictor variable in the model. \( h_0(t) \) 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 \( X \) variables by zeros in the expression for \( h(t, X) \). 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 and that the proportionality constant is independent of time. The expression \( \exp \left( \sum_{i=1}^{p} \beta_i X_i \right) \) involves the \( X \) (predictor) variables, but not the time, \( t \). The \( X \) variables do not depend on the time \( t \). The hazard ratio is defined as the hazard for group 1 (businesses that fail) divided by the hazard for group 2 (businesses that survive). The two groups being compared can be distinguished by their values for the set of predictor variables, or the \( X \)'s. For a predictor variable with values of \((1, 0)\), the hazard ratio is estimated by \( \exp(\hat{\beta}) \). In the Cox proportional hazards model, the hazards ratio is estimated by:

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

Hence, \( HR = \frac{\hat{h}(t, X^*)}{\hat{h}(t, X)} = \theta \), where \( \theta \) is a constant. This fact makes the Cox Proportional Hazards Model suitable and convenient for panel data analysis. Note also that the expression for the hazard ratio does not involve the time \( t \), because the baseline hazard has cancelled out.
Long term survival and viability were corroborated by the profitability of business enterprises. Viable businesses were characterized by the presence of a net positive profit. That is, a positive or zero net profit was taken as proof that firms were viable. Net profit was defined as gross profit minus total operational cost including the cost of closing down business. Data analysis was performed in the statistical package STATA version 10 (STATA Corporation, 2007).

**Results of Analysis**

Table 1 shows that the majority of businesses that failed were operated by women (71%), and were characterized by difficulty in securing loan from formal money lending institutions such as commercial banks (69%), inability to convert part of profit back into investment (66%), poor managerial skills (72%), shortage of technical skills (74%), and low level of education (55%). The fact that 78% of all failed businesses were owned or operated by women shows that the level of support provided to women entrepreneurs was minimal.

**Table 1**

Distribution of key characteristics of businesses by gender

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Overall (n = 500)</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure or bankruptcy</td>
<td>110/500 = 22%</td>
<td>32/110 = 32%</td>
<td>78/110 = 78%</td>
</tr>
<tr>
<td>Difficulty in obtaining loan from commercial banks</td>
<td>305/500 = 61%</td>
<td>144/305 = 47%</td>
<td>161/305 = 53%</td>
</tr>
<tr>
<td>Failure to convert profit back into investment</td>
<td>230/500 = 46%</td>
<td>121/230 = 53%</td>
<td>109/230 = 47%</td>
</tr>
<tr>
<td>Poor managerial skills</td>
<td>270/500 = 54%</td>
<td>137/270 = 51%</td>
<td>133/270 = 49%</td>
</tr>
<tr>
<td>Shortage of technical skills</td>
<td>243/500 = 49%</td>
<td>108/243 = 44%</td>
<td>135/243 = 56%</td>
</tr>
<tr>
<td>Low level of education</td>
<td>275/500 = 55%</td>
<td>126/275 = 46%</td>
<td>149/275 = 54%</td>
</tr>
</tbody>
</table>

MSMEs in Ethiopia cover a wide range of business activities that are generally classified into 4 major categories (manufacturing, wholesale and retail trading,
construction, and service sector activities). If firm size is measured on the basis of number of employees and/or capital turnover, the majority of MSMEs in the sample fall under the small enterprises category. On average, 91.4% of firms employed less than 10 employees (including non salaried family support workers in the firm), and 83% of firms were owned and directly managed by the owners. 53% of start-up firms began as a one-person enterprise or self-employed enterprises and only 42.3% of these firms grew enough to employ at least one or more workers during the study period. The average relative share of employment of the sector shows that micro, small, and medium firms account for 14.4%, 71.8% and 13.8% of employees respectively. This indicates that micro and medium enterprises jointly account for less than half (28.2%) of jobs created, while small enterprises alone account for more than 70% of all jobs created. This higher share of employment by small enterprises is associated with their relatively higher number of representation in the national economy.

21.2% and 4.3% of jobs were lost during the study period due to the closure of 18.6% of firms and the reduction of workers in surviving firms respectively. On average, 2 jobs were lost per establishment. However, despite the job loss, the firms in the study created 1,937 net employment opportunities during the period 1996 to 2001. The average employment growth rate in the sector during the six-year period was 18.6%. This small increase in net jobs as well as the loss of the majority of newly created job opportunities indicates that although the sector has the potential to create job opportunities by virtue of their small capital requirement and their low level of technology, the lack of appropriate promotional strategies adversely affected their growth and minimized the benefits obtained from the sector.

Table 2
Distribution of failed businesses by duration of operation, sector and gender (n=110)

<table>
<thead>
<tr>
<th>Duration of operation</th>
<th>Manufacturing</th>
<th>Retail</th>
<th>Service</th>
<th>Construction</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td>Less than 3 years</td>
<td>6</td>
<td>18</td>
<td>30</td>
<td>2</td>
<td>16</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 6 years</td>
<td>3</td>
<td>14</td>
<td>16</td>
<td>2</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 years &amp; above</td>
<td>2</td>
<td>3</td>
<td>13</td>
<td>1</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sector total</td>
<td>11</td>
<td>35</td>
<td>59</td>
<td>5</td>
<td>32</td>
<td>78</td>
</tr>
</tbody>
</table>

Table 2 shows that 56 of the 110 failed businesses in this study (51%) ceased operation before their 3rd birthday, 32% of all failed businesses ceased operation before their 7th birthday, and 17% of all failed businesses ceased operation before their 10th birthday. The fact that the majority of businesses that went bankrupt were at their early stages of development shows that small businesses that failed were not provided with adequate support by the government in terms of policy, technology, skills development
and access to finance. The fact that 78 of the 110 businesses that failed (78%) were owned by female entrepreneurs clearly shows that women entrepreneurs were particularly vulnerable. Table 2 shows that 59 of the 110 businesses that failed (54%) were in the services sector, a sector that is much more labour intensive and women-friendly in comparison with the manufacturing, retail and construction sectors.

Table 3
Results from the Pearson chi-square test of association with gender

<table>
<thead>
<tr>
<th>Interaction with female business ownership</th>
<th>P-value</th>
<th>Order of strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure of business or bankruptcy</td>
<td>0.0003</td>
<td>3</td>
</tr>
<tr>
<td>Difficulty in obtaining loan from commercial banks</td>
<td>0.0000</td>
<td>1</td>
</tr>
<tr>
<td>Failure to convert profit back into investment</td>
<td>0.0001</td>
<td>2</td>
</tr>
<tr>
<td>Poor managerial skills</td>
<td>0.0058</td>
<td>5</td>
</tr>
<tr>
<td>Shortage of technical skills</td>
<td>0.0014</td>
<td>4</td>
</tr>
<tr>
<td>Low level of education</td>
<td>0.0204</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 3 shows results obtained from the Pearson chi-square test of association between female ownership of business and 6 key predictors of long term survival. The table shows that female business ownership is significantly associated with the 6 influential predictors of business viability or long term survival. The table shows that the female business owners are significantly and adversely affected by each of the 6 key predictors of survival including access to loan from commercial banks. Although most of the 500 businesses in the study have been affected by the 6 factors shown in the table, the result clearly shows that women entrepreneurs were relatively more affected in comparison with their male counterparts.
Table 4
Adjusted hazard ratios from the Cox Proportional Hazards Model

<table>
<thead>
<tr>
<th>Failure of business</th>
<th>*Adjusted Hazard Ratio</th>
<th>P-value</th>
<th>95% C. I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female ownership of business</td>
<td>2.52</td>
<td>0.0001</td>
<td>(1.02, 3.45)</td>
</tr>
<tr>
<td>Difficulty in obtaining loan from commercial banks</td>
<td>3.08</td>
<td>0.0000</td>
<td>(2.46, 4.25)</td>
</tr>
<tr>
<td>Failure to convert profit back into investment</td>
<td>3.11</td>
<td>0.0000</td>
<td>(2.47, 4.26)</td>
</tr>
<tr>
<td>Poor managerial skills</td>
<td>2.08</td>
<td>0.0012</td>
<td>(0.97, 3.11)</td>
</tr>
<tr>
<td>Shortage of technical skills</td>
<td>2.14</td>
<td>0.0008</td>
<td>(1.14, 3.24)</td>
</tr>
<tr>
<td>Low level of education</td>
<td>2.11</td>
<td>0.0009</td>
<td>(1.13, 3.23)</td>
</tr>
</tbody>
</table>

* Adjustment was done for geographical region, age of owner, participation in social capital and language group.

Table 4 shows hazard ratios estimated from the Cox Proportional Hazards Model. At the 5% level of significance, significant predictors of failure are characterized by estimated hazard ratios that significantly differ from 1, P-values that are smaller than 0.05, and 95% confidence intervals of odds ratios that do not contain 1. Accordingly, the table shows that businesses operated by women were 2.52 times more likely to fail in comparison with businesses operated by men. Although the majority of businesses in this study were started by women entrepreneurs, their long term survival rates were relatively smaller. Adjustment was done for four potential confounding variables: geographic region, age category, participation in iqquub schemes (social capital) for raising finance, and language group.

Unadjusted and adjusted hazard ratios did not differ much. This shows that none of the four 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 (12.38), thereby showing that the discrepancy between the fitted and true models was insignificant.
Figure 1 shows a Kaplan-Meier survival probability curve that compares the probabilities of male and women entrepreneurs. The figure shows that the probability of survival of women entrepreneurs is smaller than that of male entrepreneurs. Female-headed firms that ceased operation had an average lifetime of 3.2 years, while male-headed firms that ceased operation had an average lifetime of 3.9 years.

Discussion

In the 6-year study period, 110 of the 500 businesses (22%) failed. The relatively higher failure rate (78%) of firms owned by women is directly associated with the low level of support given to women entrepreneurs in the sector. Based on hazard ratios estimated from Cox regression, women entrepreneurs are 2.52 times as likely to fail in comparison with male entrepreneurs. The study has shown that 53% of the 110 businesses that failed during the period of study were businesses that were operated by women who experienced difficulty in securing loans from commercial banks. Women entrepreneurs who failed were characterized by inability to convert part of their profit back into investment (47%), poor managerial skills (49%), poor technical skills (56%) and low level of education (54%). Female-headed firms that ceased operation had an average lifetime of 3.2 years, while male-headed firms that ceased operation had an average lifetime of 3.9 years.

Although male entrepreneurs were not immune to the numerous challenges experienced by women entrepreneurs, the study clearly shows that businesses owned or operated by women were particularly disadvantaged with regards to key differentials of survival such as access to finance, skills and conversion of profit back into investment. In the context of Ethiopia, it must be noted that small businesses and enterprises are the predominant means of livelihood for the majority of impoverished rural and urban women who are provided with little or no policy related support from the national government. Although the proportion of women entrepreneurs (44%) in the sample is lower than that of male entrepreneurs (56%), the majority of women entrepreneurs (75.4%) are involved with micro enterprises. By contrast, only 32.6% of male entrepreneurs are involved with micro enterprises. The methods used in this study are similar to the ones used by Glogova, Halling, Hyaden & Hoger (2005). Findings from
this study are in agreement with a similar study conducted by Hazelhurst (2006) in which it was pointed out that supporting women entrepreneurs involved in small businesses and enterprises is a prerequisite for overall economic growth and the alleviation of poverty among impoverished women. This study has shown that in Ethiopia, although women initiate more new businesses in comparison with men, they find it relatively harder to grow their businesses to the next higher level mostly due to lack of access to finance, technical skills and policy related support from the national government.

Shortage of technical and business related skills constitutes a major problem experienced by female entrepreneurs. The educational curriculum prepared for students at the undergraduate level lacks focus, practical content and depth on vocational and business related skills that are essential for successfully initiating and operating micro enterprises. Almost half (49%) of women entrepreneurs who failed had inadequate managerial skills, and lacked basic accounting and bookkeeping skills. The fact that 56% of women entrepreneurs who failed had poor technical skills shows that the Ethiopian Ministry of Education has not done enough to empower potential women entrepreneurs. As many as 86.8% of respondents in this study were not provided with any kind of business related training opportunities by the Ministry of Trade and Industry since they started operation. Only 27.88% of owners were provided with such training opportunities. The Ministry of Trade and Industry has to provide small businesses and enterprises that are operated by women with on-the-job-training services with a view to alleviate the shortage of basic managerial and technical skills that characterize unsuccessful businesses.

Most of the firms in the study were owned and run by owners who played an additional role as business manager. Lack of formal education, skills and on-the-job training are some of the key factors that retarded the growth and productivity of MSMEs. High level of human capital was positively associated with business success and growth. The distribution of failed firms by level of education of owners shows that 71.4% of non-operational firms in the survey accounted for owners whose education level is below secondary level. In this study (63.5%) women their education level is below secondary level while the corresponding figure for male represents (47.3%). However, until recently, the high school curriculum of education in Ethiopian schools did not consist of technical and vocational training that is suitable for the development of entrepreneurs. The curriculum does not provide formal training on the acquisition of basic technical skills needed for promoting successful MSMEs. The curriculum by and large places low emphasis on self-employment as an option in the choice of a career. The curriculum fails to adequately prepare graduates for jobs in the private sector. There is also a negative attitude towards private MSMEs run by private individuals. A number of surveys conducted by economic researchers in Ethiopia have shown that young female graduates of academic institutions in Ethiopia are ill-equipped and vastly under-prepared to effectively utilize self-employment opportunities in small businesses and enterprises (Gebeyehu & Assefa, 2004; Ermias, 2001; Endanchiyelem, 2002; Dercon, 2000).

**Conclusion**

An enabling macroeconomic environment is a key requirement for a free market economy. Businesses operated by women were particularly disadvantaged with regards to access to finance, shortage of managerial and technical skills and inability to convert
profit back into investment. More than half of women entrepreneurs who failed (53%) were unable to secure badly needed loans from the commercial banks. At a time when the private sector in Ethiopia suffers from severe credit constraint, the state-owned Commercial Bank of Ethiopia sits on a 165% of excess liquidity (Alemayehu, 2006). An economy without a well functioning financial sector is unable to generate the rate of growth and investment needed for promoting viability in businesses operated by impoverished and poorly equipped women. This shows that intervention is needed by the national government of Ethiopia if the acute shortage of finance experienced by small businesses and enterprises is to be alleviated efficiently by fundamentally rationalizing the lending principles of the Commercial Bank of Ethiopia. Results from this study have shown that the presence of a favourable macroeconomic policy aimed at creating an enabling business environment is crucially needed for the growth and expansion of small enterprises operated by women as well as the economic empowerment of women in Ethiopia. Policy-related and institutional support from the government to businesses operated by women is a key significant determinant of survival based on experience from countries in the Far East and South East Asia. The presence of well defined business laws and property rights improves the likelihood of survival in most small businesses. Removing gender-based barriers and promoting competition and entrepreneurial activities with a specific focus on women is essential for the creation of vibrant businesses and enterprises that could ultimately improve the plight of impoverished women in Ethiopia.

**Recommendations**

Based on the findings of this study, the following recommendations are made so that where possible, remedial actions can be taken with a view to assist small businesses and enterprises operated by women in Ethiopia. Women entrepreneurs constitute the majority of operators in the micro enterprises sector. In addition to facing gender-related challenges, they suffer from the unfair denial of operating licenses, severe tax assessment, lack of access to finance, shortage of skills and lack of training opportunities. The national government should alleviate these challenges by introducing an enabling macroeconomic environment, and by using legislative tools, awareness campaigns and education with a view to remove chronic barriers to economic growth and to minimize the incidence of gender-related discrimination against women entrepreneurs. Based on lessons learned from the Grameen Bank of Bangladesh (Dowla, 2005), this goal can be achieved by improving the degree of participation of impoverished and disadvantaged women in the economy. To this end, tailor made loan and training programmes directed at women should be implemented and aggressively promoted.

Access to finance must be made significantly easier. This can be done by attracting foreign competitors to come into the local market. Commercial banks and micro-lenders must be given an incentive so that they come up with innovative money lending mechanisms to small businesses and enterprises owned or operated by poor women. The Grameen Bank of Bangladesh has shown that this is quite feasible. Competition among financial sectors should be encouraged and non-governmental organizations should be allowed to enter the money lending business. This implies that the national government needs to rationalize its current policy on financial institutions operating in the country.
The Ministry of Education must produce a curriculum that adequately prepares young graduates with social, entrepreneurial, industrial and commercial skills that are essential for successfully operating small and medium businesses. The educational system should give attention to skills-based training for enhancing self-employment in the MSME sector. Furthermore, on-the-job training opportunities are critically important for the survival of businesses operated by women.

Globalization has brought about both opportunities and threats to small businesses and enterprises currently operating in Ethiopia. Enterprises operating in Ethiopia are quite incapable of competing with foreign businesses and enterprises in their present form as they are poorly equipped and under-resourced. Hence, the government must use macroeconomic policy as a tool to assist local MSMEs in terms of capacity building, infrastructure, access to finance and technology as a matter of urgency. Failure to do so may result in the elimination of the majority of local businesses and enterprises in the country.

References


