



What Factors Influence Entrepreneurship? Evidence from Urban Malawi

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ABSTRACT

This study analyzes the determinants of entrepreneurship in Malawi using Lilongwe city as a case study. The specific objectives of the study were three-fold: To find economic factors that influence entrepreneurship in Lilongwe City, to analyze the social factors that affect entrepreneurship in Lilongwe City, and to examine the demographic factors that influence entrepreneurship in Lilongwe City. The study used secondary data collected from Malawi's Small Enterprises Development Institute. The results indicate that the attainment of education is negatively associated with entrepreneurship implying that an increase in the number of years of schooling reduces an individual's willingness to undertake entrepreneurship. Additionally, the study has found that there is a statistically significant positive relationship between age of a respondent and the respondent's entrepreneurial intentions. Lastly, the study has found that being male is positively related with entrepreneurship thereby suggesting that males are more likely to venture in entrepreneurship than females. Therefore, policy implications arising from the study are two-fold: Firstly, there is need to ensure that entrepreneurial interventions such as trainings are targeted at the 15-64 age group which is an economically active age group. Secondly, there is need to ensure that females are socialized, at a very tender age, to become risk-tolerant as opposed to being risk-averse.

Keywords: Demographic Factors, Economic Growth, Entrepreneurship, Probit

JEL Classification: M1

1. INTRODUCTION

In recent times, and due to the advent of globalization, entrepreneurship has become one of the much sought after endeavours, globally. Entrepreneurship has become very attractive because it is believed to be an essential element in the economic growth of countries since it is able to offer goods and services of different qualities to consumers, and it is able to create adequate employment for a country's citizenry thereby enabling an expansion of the country's tax base (Kelvin, 2022). Thus, entrepreneurship is an important tool that facilitates economic growth and development of many countries because it is a relevant catalyst for the growth of manpower, innovations and revenue generation (Vukovic et al., 2022).

It is due to the foregoing reasons that, globally, governments have been striving to spur entrepreneurship in their countries with the view of attaining continued social economic development. For instance, the Malawi government has, hitherto, made four-fold attempts aimed at building the entrepreneurial culture of its citizenry. Firstly, it established a public entity called the National Economic Empowerment Fund (NEEF). Secondly, it has revamped and restructured some statutory entities such as Small and Medium Enterprise Development Institute (SMEDI), Technical Education, Vocational and Entrepreneurial Training Authority (TEVETA), and the Malawi Rural Development and Enterprise Fund (MARDEF) whose mandate is to promote and accelerate national entrepreneurship development. Thirdly, the government of Malawi through the National Council for Higher Education (NCHE) is encouraging public as well as private

universities to develop academic programmes that incorporate entrepreneurship with the aim of ensuring that students are equipped with entrepreneurial knowledge that would enable them to start their own new businesses. This initiative has made Malawi see a marked increase in the number of institutions of higher education offering courses or modules in entrepreneurship education and training (Delaney et al., 2019). Furthermore, Malawi government reaffirmed its commitment towards the establishment of entrepreneurship culture among its citizens by strengthening its partnership with the European Union (EU) and the United Nations Development Programme (UNDP) which saw the creation as well as the implementation of a project called “Zantchito Entrepreneurship and Access to Finance” aiming at promoting entrepreneurship development in line with the development goals of Malawi 2063 (UNDP, 2024).

From the aforesaid, it is clear that identifying the factors that drive entrepreneurship is essential to enable countries to create policies that would raise their rate of economic growth and development. As a matter of fact, the drivers of entrepreneurship have been the subject of numerous studies in recent years, although the findings of these empirical studies vary depending on the countries involved and the eras studied (Sener and Tunali, 2019; Ahn, 2010; Liu et al., 2014). Additionally, the majority of these studies have concentrated in the developed countries thereby making information about the drivers of entrepreneurship in developing countries scanty. Hence, further studies are required to produce more precise findings about the factors that influence entrepreneurial activity in Malawi. This study attempts to close this knowledge gap in the literature by empirically finding the factors that influence entrepreneurship in developing countries such as Malawi. The study adds to the body of knowledge by offering fresh empirical information on the factors that influence entrepreneurship in Malawi, one of the least developed countries in Sub-Saharan Africa. The study, therefore, tested the following null hypotheses: (1) economic factors have no influence on entrepreneurship in Malawi, (2) Social factors have no influence on entrepreneurship in Malawi, and (3) Demographic factors do not influence entrepreneurship in Malawi.

The results of the foregoing hypotheses tests provide useful insights on the factors influencing entrepreneurship in Malawi, albeit, using Lilongwe City as a case study. An understanding of the drivers of entrepreneurship in Malawi gives useful insights to policymakers in the institutions of higher learning and other policymakers involved in making decisions regarding enhancing entrepreneurial development in Malawi. Particularly, the policymakers may benefit from the answers to these questions in that they give empirical evidence of drivers of entrepreneurship in Malawi thereby providing insights on what factors to target in order to spur the growth of entrepreneurship so as to achieve economic growth in Malawi.

2. THEORETICAL FRAMEWORK

2.1. Definition of Key Terms

Entrepreneurship is defined as the act of running or starting a new business while entrepreneurial ability the ability to spot or seize fresh opportunities and turn them into workable business plans

(Waluyodi et al., 2023). This suggests that entrepreneurs are always on the lookout for opportunities to capitalize on the market that others miss. With respect to Malawi, starting one’s business and running it is the prevalent understanding of the entrepreneurship concept because most enterprises do not understand innovation fully (Mwatsika, 2021). On the other hand, determinants of entrepreneurship are defined as factors that are necessary for entrepreneurship to take place and are relevant to the application of entrepreneurial activities (Usman and Zuru, 2019). Or put differently, the determinants of entrepreneurship are factors that drive a person’s decision of becoming an entrepreneur (Sener and Tunali, 2019).

2.2. The Creative Destructive Theory of Entrepreneurship

This study was based on the creative destructive theory of entrepreneurship which was developed by the renowned economist, Schumpeter, at the start of the 20th century. Schumpeter defines an entrepreneur as someone who establishes a new business to produce a new product or to make an old product in a new way (Sledzik, 2015). Thus, Schumpeter views an entrepreneur as someone who plays a crucial role in socioeconomic development of any economy because they have three-fold attributes namely; ability to decide, ability to direct, and ability to push matters through. Therefore, an entrepreneur differs from an imitator in the sense that they possess creative ability manifested by their ability to apply new methods of production on the market, and opening up new markets (Sledzik, 2015). This creative ability gives an entrepreneur an opportunity to accumulate a surplus thereby giving rise to temporary monopoly profits. Thus, according to Schumpeter entrepreneurs are not imitators nor individuals who simply recognize and respond to the new situations as entrepreneurs unless their responses consist of forming new firms to create new innovations.

The foregoing indicate that entrepreneurs possess the capacity to recognize or grasp new opportunities and to transform them into practical business activity. This suggests that entrepreneurs must be alerted to recognize economic possibilities, such as the need for new goods or services, that others do not. And, the positive effect of entrepreneurship on an economy include: Boosting economic growth and productivity, creating new job opportunities thereby reducing unemployment and poverty, improving the standard of living and well-being of people in a country, encouraging capital investment and market innovation, and providing economic independence and community development (Sledzik, 2015). Entrepreneurship, therefore, comprises a free enterprise system that is highly enterprising and dynamic, constantly raising the bar for business through new goods and services that are applied in novel ways (Sledzik, 2015). Thus, entrepreneurship centres on concepts related to risk-taking and people are modelled as having varying levels of risk aversion. The determinants of entrepreneurship include an individual’s non-financial attributes such as autonomy and flexibility, human capital; social capital; risk factors such as individuals’ risk aversion or the degree of market risk, psychological and demographic characteristic such as age and gender.

3. EMPIRICAL LITERATURE REVIEW

This section carries out a review of several studies that have been conducted to determine the drivers of entrepreneurship, globally.

Bras (2020) found that low constraints on capital acquisition, low inflation, less government controls on prices of goods and services were the drivers of entrepreneurship in Latvia and the Baltic countries whereas Burbar and Shkukani, (2021) found that access to capital was a key determinant of entrepreneurship in Palestine. Similarly, Ahn (2010) found that risk tolerance was a crucial driver of the decision to enter self-employment in US, while Pollack et al. (2012) found that having greater economic stress brings about a higher depressing effect on an individual, which in turn, results in higher intentions to withdraw from entrepreneurship.

Again, Sener and Tunali (2019) found that, in Turkey, being young and male has a positive effect on entrepreneurship whereas higher education levels and high-income levels decrease the probability of becoming an entrepreneur. Furthermore, Sener and Tunali (2019) found that knowing someone personally who started a business, and possession of skills and experience required to start a new business positively influence the probability of becoming an entrepreneur while fear of failure has a negative influence on starting a new business.

Usman and Zuru (2019) found that lack of access to finance including lack of credits for household and enterprises, high interest rate spread, and lack of collateral, market conditions and regulatory frameworks including licensing restrictions and price controls have negative effect on entrepreneurship in Nigeria. Similarly, Roman et al. (2018) found that the drivers of the creation of new businesses in 18 EU countries of Belgium, Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Netherlands, Portugal, Romania, Slovenia, Spain, Sweden, and the United Kingdom were the macroeconomic and demographic factors such as real GDP per capita, unemployment, the population growth rate, and the costs of starting a business were the most important determinants of the intention and decision to establish a new firm. Furthermore, the study found that credit from financial institutions had no statistically significant effect on the creation of new businesses because early entrepreneurial activities relied much on other funding sources, in particular, the personal funds of potential entrepreneurs. Additionally, the study found that inflation and the costs required to register a new business were negatively correlated with the intention and decision to create a firm.

4. STUDY METHODOLOGY

4.1. Conceptual Framework

The foregoing literature review has established that an individual's decision to venture into entrepreneurship is influenced by the individual's psychological characteristics, individual's demographic characteristics, and the socio-economic factors affecting the individual. Key demographic characteristics include age of an individual, and an individual's gender; while key

socioeconomic factors include individual's income level, capital, and an individual's education. Thus, the conceptual framework for the determinants of entrepreneurship, is presented in Figure 1.

4.2. Research Design

This study adopted a descriptive research design by using secondary data which was collected by means of a survey. The descriptive research design is suited to this study as it tries to paint a picture of the factors influencing entrepreneurship in Malawi. The study has utilized both secondary data as well as primary data collected the list SMEs from Lilongwe City produced by SMEDI. Lilongwe district provided a good setting for the study since it has a lot of people participating in entrepreneurship who also routinely undergo trainings organized by SMEDI (GoM, 2019).

4.3. Sampling Design

The target population for the study was the SMEs operating in the city of Lilongwe. The SMEs were selected using simple random sampling procedure from the data of all SMEs in Lilongwe city kept by SMEDI. The study targeted the owners of the SMEs as respondents because they are the ones responsible for establishing the SMEs. To determine the sample size, the study used the Cochran formula (Zikmund et al., 2009):

$$n = \frac{z^2 p(1-p)}{e^2} \tag{1}$$

Where: *n* is number of respondents (owners of SMEs),

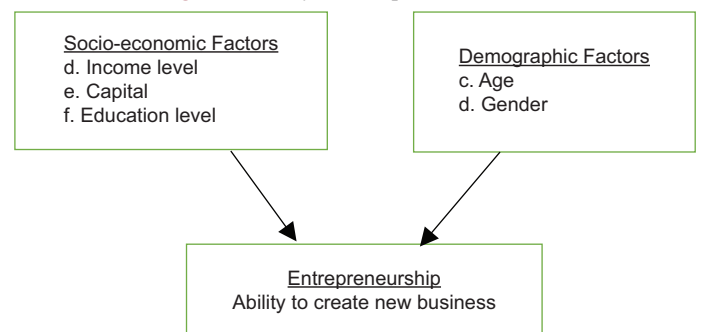
p is proportion of the population of SMEs in the city which, following Doane and Seward (2011) was equal to 50% in this study, *z* is the statistical confidence level. This study will use a 95 percent confidence level which gives a *z* statistic of 1.96, *e* = the maximum allowance for error between the true proportion and the sampling proportion. For this study, the allowance of sampling error will not be >4% points.

Using the above information, the representative sample size for the study was calculated as follows:

$$n = \frac{1.96^2 (0.50)(0.50)}{0.04^2} = 196 \tag{2}$$

Thus, the minimum sample size for the study was 196. Nevertheless, in order to control for the design effect, 34

Figure 1: Study's conceptual framework



observations were added to the sample thereby taking sample size for the study to 230 SMEs. Specifically, the data collected included the socio-economic, demographic characteristics of the respondents, and respondents' entrepreneurial intention.

4.4. Description of Variables Used in the Study

Table 1 presents a description of variables that were used in the study.

4.5. Analytical Framework for the Analysis of the Determinants of Entrepreneurship

Following Sener and Tunali (2019), the study utilized a probit regression to model the determinants of entrepreneurship in Lilongwe city. The probit regression model was deemed to be ideal in this study because the study's dependent variable is binary, taking the form of yes if the owner of the SME was able to create a business after undergoing training with SMEDI and no if not able to create a business after training. The analysis was done using STATA version 17. The probit regression equation was expressed as:

$$ENTR_i = \beta_0 + \beta_1 AGE_i + \beta_2 AGESD_i + \beta_3 NONE_i + \beta_4 PSLCE_i + \beta_5 JCE_i + \beta_6 MSCE_i + \beta_7 MALE_i + \beta_8 INCOME_i + \beta_9 CAPITAL_i + \varepsilon_i \quad (3)$$

Where:

- ENTR is the entrepreneurship, and it is proxied by the ability to create one's own business after training;
- AGE is the age of the business owner;
- AGESD is a square of the age of the business owner;
- NONE is dummy variable equal to 1- if the SME never attained any formal education, 0-otherwise;
- PSLCE is dummy variable equal to 1- if the SME owner attained primary school leaving certificate of education, 0-otherwise;
- JCE is dummy variable equal to 1- if the SME owner attained junior certificate of education, otherwise;
- MSCE is dummy variable equal to 1- if the SME owner attained Malawi School Certificate of Education, 0- otherwise;
- MALE is dummy variable equal to 1- if the SME owner is male, 0-otherwise;
- INCOME is the annual income level of the SME;
- CAPITAL is the SME's initial capital;
- ε_i is the error term.

Table 1: A description of variables used in the study

Variable	Description
Dependent variable	
Entrepreneurship	Binary variable, proxied by the ability to create one's own business after training.
Independent variables	
Age	Age of the business owner
Agesq	Square of age of the age of business owner
Primary	Dummy (1-primary education, 0-otherwise)
Secondary	Dummy (1-secondary education, 0-otherwise)
Male	Dummy (1-male, 0-otherwise)
Income	Annual income level of the SME
Capital	Amount of initial capital of an SME

Source: Sener and Tunali (2019)

5. RESULTS AND DISCUSSION

5.1. Results of Diagnostic Tests

Before presenting results, the study conducted diagnostic tests to ensure that the results presented are not biased. In particular, the study tested for normality, multicollinearity, and heteroscedasticity, and they are presented and discussed subsequently.

5.1.1. Results of normality test

The normality assumption is one of the key assumptions underlying the probit regression model whose violation results in inflated standard errors leading to wider confidence intervals and wrong hypothesis testing. Ultimately, the violation of normality assumption leads to biased estimates. A Kolmogorov-Smirnov test was, therefore, used to test for the presence of non-normality in the data used in the study. The test is performed by subjecting the regression model's residuals to normality test (Gujarati, 2004) where the null hypothesis is that the data are not normally distributed while the alternative hypothesis is that the data are normally distributed. The Kolmogorov-Smirnov test gave a Chi-squared statistic of 49.80 with an associated a P = 0.0000 < 0.01 thereby suggesting the rejection of the null hypothesis of non-normality. This implies that the data used in the study were normally distributed.

5.1.2. Results of multicollinearity test

Multicollinearity occurs when there is a strong correlation between two or more explanatory variables in a regression equation. The presence of multicollinearity problem results in inefficient or inconsistent parameter estimates and inaccurate P-values thereby making it difficult to separate the independent effect of each parameter estimate on the dependent variable (Gujarati, 2004). Hence, in order to detect and measure the presence and the severity of the multicollinearity problem, the study employed the variance inflating factors (VIF) results of which are shown in Table 2.

As indicated by Table 2, the mean VIF value for all the explanatory variables used in the probit regression model was 15.84 there by suggesting that there was multicollinearity problem in the variables used in the probit regression model since some of the regressors had VIF values far more than 10. Therefore, to control for the multicollinearity problem, the probit regression equation was estimated without a constant (Gujarati, 2004).

5.2. Descriptive Statistics

Table 3 presents a cross-tabulation of the respondents' status of business and gender.

Table 2: Results of the multicollinearity test

Variable	VIF	1/VIF
AGESQ	55.30	0.018084
AGE	55.13	0.018139
MSCE	5.18	0.193003
NONE	4.91	0.203616
TERTIARY	2.93	0.341799
JCE	1.27	0.788871
MALE	1.03	0.971880
CAPITAL	1.02	0.980766
Mean VIF	15.84	

Source: own computations (2024)

As shown by Table 3, no females were in partnership and only 2 males were in partnership implying that partnership is a less preferred type of business entity. On the other hand, 156 males, representing about 68% of the respondents, were in sole proprietorship. This suggests that sole proprietorship is the most preferred business entity type amongst the respondents used in the study. Having presented a cross-tabulation of status of business ownership and respondents' gender, the Table 4 presents summary statistics for the for the variables that have been used in study.

As indicated in Table 4, the mean age of the respondents was 32 with a minimum of 19 years and a maximum 55 years, yielding a range of 36 years. This suggests that all the respondents were in the productive age group of between 15 and 65 years. Again, Table 4 shows that capital had a mean of MK191245.37 with the largest standard deviation of MK412937.7 thereby suggesting that there was large variation in the value of capital used by the respondents.

Table 3: Tabulation of status of business ownership and gender

Status of business ownership	Gender				Total
	Female	Proportion	Male	Proportion	
Partnership	0	0	2	0.87	2
Sole proprietor	72	31.3	156	67.8	228
Total	72	31.3	158	68.67	230

Source: Own computations

Table 4: Summary statistics for the variables used in the study

Variable	Obs	Mean	Std. Dev.	Min	Max
ENTR	231	0.31	0.464	0	1
AGE	231	32.358	5.96	19	55
CAPITAL (MK ¹)	231	191,245.37	412937.7	0	4,800,000
JCE	231	0.013	0.113	0	1
MALE	231	0.316	0.466	0	1
TERTIARY	231	0.108	0.311	0	1
MSCE	231	0.433	0.497	0	1
PSLCE	231	0.065	0.247	0	1
NONE	231	0.372	0.484	0	1

Source: Own computations

Table 5: Marginal effects of the probit regression results

Variable	Marginal effects	Robust Std. err	Z-Statistic	P-value	95%	C.I.
AGE	0.140**	0.056	2.480	0.013	0.029	0.251
AGESQ	-0.002**	0.001	-2.520	0.012	-0.004	-0.000
CAPITAL	-0.0003	0.0002	-1.540	0.123	-0.000	0.000
JCE	-0.329***	0.035	-9.290	0.000	-0.398	-0.260
MALE	0.143*	0.074	1.920	0.054	-0.003	0.289
TERTIARY	-0.635***	0.127	-5.000	0.000	-0.884	-0.386
MSCE	-0.994***	0.020	-50.660	0.000	-1.033	-0.956
PSLCE	0.436***	0.062	7.040	0.000	0.314	0.557
NONE	0.979***	0.051	19.230	0.000	0.879	1.079

Source: own computations (2024)

Asterisks represent level of statistical significance: *(5% significance), ***(1% significance)

1. MK stands for Malawi Kwacha, Malawi's currency.

5.3. Results of Econometric Analysis

It has to be pointed out that since the probit regression model that has been employed by the study falls in the category of non-linear regression models, its coefficients cannot be interpreted as slope coefficients. Hence, after estimating the probit regression model, this study proceeded to estimate the marginal effects to show how the probabilities of each outcome variable would change following the changes in the independent variables. Table 5 presents the marginal effects of the probit regression model.

Since the regression equation whose results are depicted in Table 5 contains variables age and its square which are both statistically significant ($P < 0.05$), the study, firstly, conducted joint statistical significance test. The test gave an F-statistic of 45.69 with an associated $P = 0.000 < 0.01$, implying the existence of a joint statistically significant relationship between age of a respondent and the respondent's entrepreneurial intentions. Thus, the results in Table 5 show that age increases the probability of venturing in entrepreneurship by 14% whereas the square of age decreases the probability of venturing in entrepreneurship by about 0.2%. This finding implies that the response of an individual's entrepreneurial intention to changes in an individual's age is significant but non-linear. It, particularly, implies that as an individual's age progressively increases, their probability to undertake entrepreneurship also increases up until it reaches a maximum, beyond which, any further increase in the age results in a decrease in their probability to undertake entrepreneurship. This decrease in the probability of undertaking entrepreneurship can be explained by the fact that as individuals get older, they become more risk averse relative to young ones, a thing that shifts their attentions away from venturing in entrepreneurship. This finding is consistent with the finding by Ahn (2010) who found that risk tolerance plays a crucial role in the self-employment entry decision in the United States.

Furthermore, Table 5 shows that having no education increases the probability of pursuing entrepreneurship by about 98% whereas the attainment PSLCE education increases probability of carrying out entrepreneurship by about 44%. On the other hand, Table 5 shows that the attainment of JCE education, the attainment of MSCE education, and the attainment of tertiary education are negative but statistically significant determinants of entrepreneurship. In particular, Table 5 indicates that the attainment of JCE education

reduces an individual's willingness to undertake entrepreneurship by a probability of about 33%, an individual's attainment of MSCE education decreases the probability of venturing in entrepreneurship by about 99% while an individual's attainment of tertiary education increases the probability of being entrepreneurial by about 44%.

6. CONCLUSIONS AND POLICY IMPLICATIONS

This study set out to find the drivers of entrepreneurial activity in Lilongwe city by testing the following null hypotheses; (1) economic factors do not influence entrepreneurship in Lilongwe city, (2) there are no social factors that affect entrepreneurship in Lilongwe city; (3) demographic factors do not influence entrepreneurship in Lilongwe city. The empirical findings have indicated that the attainment of JCE, MSCE, and tertiary education is negatively related with one's entrepreneurial intentions suggesting that the attainment of formal education in Malawi discourages one from undertaking entrepreneurship. This, in other words, suggests that Malawi's formal education raises an individual's awareness of the risks associated with entrepreneurship thereby making individuals risk-averse. This, consequently, makes entrepreneurship unattractive and increases the value of paid employment thereby making it attractive. Hence, the study rejected its second null hypothesis. Furthermore, the study has found that demographic factors that influence entrepreneurship in Lilongwe city include an individual's age and gender. In particular, it has been found that an individual's age increases the probability of venturing into entrepreneurship. And that as an individual's age progressively increases, their probability of undertaking entrepreneurship also increases up until it reaches a maximum, beyond which, any further increases in the age results in a decrease in their probability to undertake entrepreneurship. With respect to gender, the study has found that being male is positively related with entrepreneurship thereby suggesting that males are more likely to venture in entrepreneurship than females because males tend to have higher levels of confidence in their ability to perform entrepreneurial tasks such as developing a unique and feasible idea for a business, raising venture money, and hiring employees than females.

Policy implications arising from the study are two-fold. Firstly, there is need to ensure that entrepreneurial interventions such as trainings are properly targeted. In actual fact, Malawian policymakers interested in enhancing entrepreneurship must target the 15-64 age group which is an economically active age group. Secondly, there is need to ensure that females are socialized, at a very tender age, to become risk-tolerant as opposed to being risk-averse. In other words, concerted efforts must be dedicated towards ensuring that Malawian girls are not socialized differently from boys as this leads to differences in career aspirations between the boys and girls including the desire to become an entrepreneur.

Having reached this far, it has to be pointed out that this study is not without any limitation. There is a limitation with regards to the way the study has been conducted as it only concentrated in one city which is located in the Central region of the country. It

left out other cities such as Blantyre and Mzuzu which are located in the Southern and Northern regions of the country, respectively. Hence, the results obtained may not truly reflect the determinants of entrepreneurship in these cities. Future research on the determinants of entrepreneurship in Malawi should, therefore, include all the three major cities in Malawi so as to get a much clearer picture.

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