

Mind-set and Entrepreneurial Activities in Rwanda: A firm level investigation

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1. Introduction

Entrepreneurship is having the desire and wish to start and run a new business, to accept any associated risks and to take further action so that more profits can be earned in the future. Hebert and Link (1989) state that an entrepreneur covers existing needs of the consumers but goes beyond to manufacture an innovative product or service that stimulates a new demand. The entrepreneur initiates the process of creative destruction or market instability that enables economic progress. Schumpeter (1942) provided an example of creative destruction with the change in power production from the water wheel to the modern power plant. Entrepreneurial innovations develop new products, interrupt the circular flow of economic life, transform the industry's operations and the disturbance provokes transformation and enables economic development. By developing innovative products or processes that make the existing obsolete, the entrepreneur enables economic development. Entrepreneurship is the ability and willingness of individuals on their own, or in group within and outside existing organizations, to perceive and create new economic opportunities and introduce new ideas in the market while facing uncertainty and other obstacles, by making decisions on the use of resources and institutions (Wennekers and Thurik 1999). The entrepreneurs' motivation is the desire to generate a value added to what exists, through creation and or expansion of economic activities by discovering new products, new processes, new practices or new markets. Since entrepreneurs might not clearly assess the market return for their services, they run greater risk because they depend upon a residual wage; the entrepreneur receives the remaining revenue, if any, after all other deductions.

If there exist many potential factors that affect entrepreneurship, it is agreed that entrepreneurship and entrepreneurs are created by a combination of three factors: opportunities, skilled people and resources (Ahmad and Hoffman, 2007). Skilled people are those with education, experience but also those having an entrepreneurial mind-set. Entrepreneurial mind set is needed since most of companies which are started die at early age. For instance, in South Africa the number of firm's failures in year 5 varies between 50 and 95% (Willemse, 2010) while about 75% of new small and medium enterprises (SMEs) have no chance to become established firms. GEM (2008) reports that only 2.3% of South African owned SMEs remain in existence for over 3.5 years. While there are no available records in other countries, it is sure that the above situation is not specific for South Africa.

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In Rwanda, different development programs give full support to entrepreneurial activities. The Rwanda Development Board (RDB) has a Human Capital and Institutional Development Department (HCID) that aims at encouraging business starts-ups. It is done through training and awareness creation aimed at empowering youth and women with entrepreneurial skills to achieve their dreams. It is believed that that building a young generation of Rwandan entrepreneurs will ultimately lead to vibrant SMEs, contribute to creating decent jobs and reducing poverty. The program is also aimed at preparing students to start thinking with an open mind about business innovation while at school. The objectives include among others developing positive attitudes/mind set towards innovation, enterprise and self-employment.

However, formulation of evidenced-based entrepreneurship policies requires a clear understanding of both the factors that affect entrepreneurship and its benefits. Unfortunately, there exist very limited empirical information relating to these factors and benefits. But again, where there are policy references to entrepreneurship, most simply equate it with SMEs in general, or even number of self-employed (Hoffmann, 2017) while neither of them fully captures what entrepreneurship is and the empirical investigation of the effect of mind set on entrepreneurship was ignored in most of studies.

This study attempts to examine and comprehend the effect of mind set on entrepreneur's activities in Rwanda. By doing so, the study seeks to establish whether lack of entrepreneurial mind set contributes to high rate of SME failures in Rwanda. This is necessary because evidence from various studies conducted by other researchers highlight the fact that a lack of entrepreneurial mind set leads to business failure.

2. Literature review

Mind-set is defined as mental attitude which determines how an individual interprets and responds to situations (Wordweb, 2009). It is a predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object (Schwarz et.al, 2009). Entrepreneurial mind set indicates a way of thinking about business and its opportunities that aim at maximizing the benefits associated with uncertainty (Dhliwayo and Vuuren, 2007). It portrays the innovative and energetic search for opportunities and facilitates actions aimed at exploiting market opportunities within a country or access to foreign markets (Senges, 2007).

There have been attempts to examine the relationship between mind-set and entrepreneurship. Fisbein and Ajzen (1975) documented that mind-set or attitude can only be seen through actions shown impliedly but not made explicitly by an individual. Robinson et al. (1991b) explained that attitude is dynamic in nature and due to this nature it changes across time and from situation to situation. Establishing an entrepreneurial mind set is a very efficient way of sustaining the competitiveness of economic organizations. Ireland et al. (2003) argued that the need for future generation to be more entrepreneurial requires to be creative or innovative with the ability to use and expand existing opportunities. The statement shows that the successful future strategists should exploit an entrepreneurial mind set, the ability to rapidly think, act, and mobilize, even under uncertain conditions. McGrath and MacMillan (2000) assert that individuals/ SMEs owners capture these benefits in their search and attempt to exploit high potential opportunities commonly associated with uncertain business environments.

Dhliwayo and Vuuren (2007) suggested that entrepreneurial mind-set is about creativity, innovation and taking opportunities that leads to organisational wealth creation and success and that this type of mind set enables entrepreneurs to make optimal decisions when faced with uncertainties. Creativity is a means to unlock the entrepreneurial potential of individuals, entrepreneurs and organisations, since new ideas and approaches are key ways on promoting an entrepreneurial culture. Devanna and Tichy (1990) highlighted that creativity is very important for the success of the organisation. Similarly, Trevisan et al. (2002) also found creativity to be one of the strongest distinguishing characteristics. Encouraging creativity is therefore a strategic choice that firms should take into consideration, since creativity creates a significant contribution to organizational innovation.

Mind set or attitude was found to be influential to entrepreneurial conduct (Krueger, 1993a). For instance, Luthje and Franke (2003) documented that if public policies seek to raise the number of new entrepreneurs, an improvement of individual's attitude towards entrepreneurship is for sure an effective tool. Moen et al. (1997) established that programmes and policies should aim at cultivating attitudes towards entrepreneurship as a person may have the business knowledge but without a positive attitude about entrepreneurship, they may not plunge into the field as such a change in their attitude with more positive aspects towards the

entrepreneurial field. Those who wish to foster entrepreneurship must support and reinforce the perceptions that it is personally feasible, and both socially and personally desirable.

Different studies portrayed that the sense of adapting to uncertainty and the ability to act and organize are fundamental to entrepreneurship (Ireland et al., 2003; Krauss et al., 2005; McGrath and MacMillan, 2000). For instance, entrepreneurial mind set of students after following an entrepreneurship education course, as well as the various teaching techniques in improving entrepreneurial awareness and entrepreneurial skills were shown to be a key for business success (Pihie and Sani, 2009).

The inability of SMEs to create more job opportunities because of owner's mind set is well perceived as one of the major causes of SMEs failure rates (Nieman, 2006b). Entrepreneurs with an entrepreneurial mind set consider constraints, problems and challenges as opportunities and thus develop innovative ways to deal with the challenges, exploit and merge opportunities (Eno-Obong, 2006). Having an entrepreneurial mind set is a successful tool that can help individuals to successfully move forward in an entrepreneurial process regardless the problems that a business faces (McGrath and MacMillan, 2000). Dhliwayo and Vuuren, (2007) emphasize that an entrepreneurial mind set is an important success factor for SMEs without which a business will for sure fail. This means that the current business environment needs an entrepreneurial mind set that must unlearn traditional management principles in order to minimize the high failure rates of SMEs (Morris and Kuratko, 2002). However, the effect of mind set may vary from country to country depending on market opportunities. This suggests that there is a need of investigating the impact of mind set on entrepreneurial activities using data from Rwanda.

Other empirical studies linked entrepreneurship programmes to a change in attitude towards entrepreneurship. For instance, Hatten and Ruhland (1995) found that students participating in entrepreneurship programmes are more likely to become entrepreneurs because of the changes in attitudes through trainings and other programs. Similarly, Souitaris et al. (2007) suggested that it is possible to tune and shape individuals' entrepreneurial attitude especially with a well-planned entrepreneurship programs which could further enhance a rich entrepreneurial culture among individuals.

Other potential factors that may affect entrepreneurship were reported in literature. Studies revealed that being woman rather than male was a constraining factor to entrepreneurship suggesting that women are less likely to start a business if there are no supportive factors. High levels of regulation was also found to discourage individuals with business skills from starting a business. While regulation was reported to have an overall negative impact on entrepreneurial activities, the effect is stronger on certain types of people. Storey (2003) showed that public policy on entrepreneurship can be both constraining and supportive in case it provides financial assistance and services. However, the availability of data related to regulation is always a limiting factor to include regulation in models.

Several studies established that risk taking attitude is an important factor in the firm's performance. A risk reflects the degree of uncertainty and prospective losses associated with the outcomes, which may be gotten from a given behaviour or a set of behaviours (Forlani and Mullin, 2000). Dhliwayo and Vuuren, (2007) showed that risk-taking is essential for the success and growth of a business, which is based on entrepreneurs perceive and manage the risks in their environment. Dunlap (2008) highlights that business ventures should adopt an entrepreneurial mind set wherein at the heart, lays the ability of the entrepreneur to accept and manage risk. A study by Nieuwenhuizen and Kroon (2002) revealed a strong relationship between the willingness to take risks (risk taking) and entrepreneurial business success, which further stresses the need for including risk in entrepreneurship education and training programmes. Ward, (1997) concludes that "without risk-taking, the prospects for business growth wane" and thus becomes imperative for entrepreneurial firms to be willing.

Other studies investigated the role of access to capital, research and development (RD) and technology. These factors are well known to be very important to entrepreneurs and entrepreneurship outcomes. The EU (2003) pointed out that access to capital is one of the most important factors that support successful entrepreneurship activities. Capital covers different phases of business life, from access to early seed funds to access to the stock markets. RD creates new inventions that the entrepreneur and entrepreneurial businesses can turn into new products or processes. It should be understood as a resource that can be created or purchased, whether directly or in an embodied or diffused form. Blanchflower and Oswald (1988) suggest that the probability of being self-employed is a joint probability of having an entrepreneurial vision and then having access to the necessary capital to implement it. While

individuals who receive an inheritance are more likely to be self-employed, those who receive an inheritance may be from a background that encourages self-employment.

Other divers of entrepreneurship are the available opportunities created by the market conditions in the country. The market conditions include public involvement in markets, competition in the markets, access to foreign markets, procurement regulation and so on. Entrepreneurship happens within a regulatory framework, which affects performance. A combination of opportunity, capabilities and resources does not necessarily lead to entrepreneurship if opportunity costs (e.g. forgone salary and loss of health insurance) and start-up costs outweigh the potential benefits. Since in this event, a rationale, potential entrepreneur will not pursue the opportunity and will not create value through a new product, process or market.

Experience is another important factor of entrepreneurial success, especially if the experience is in same industry sector of the proposed business venture. Most studies have tested and confirmed a positive relationship between the entrepreneur's prior experience, a firm's growth and survival of their businesses. Pihie and Sani (2009) documented that students who preferred running a real business technique acknowledged that it enabled them obtain real business experience; allowed them to recognize and experience the sense of responsibility in understanding the risks and rewards of setting up a business as well as gain real experience in raising money; and planning all the business management functions (such as production, marketing, finance and the real business operation).

Davies (2001) brings to light the fact that it is difficult to introduce entrepreneurship as a discipline particularly in tertiary institutions because of different mind sets, funding method and confusion between entrepreneurship training and creation of small business managers. In consideration of the above, and on reflecting on the state of entrepreneurship education and training in different countries, it is noticed that the existing strategy in place is not working. This therefore calls for the need to adapt a new strategy.

At individual level, results suggest that the level of entrepreneurial activity is contingent upon the individual levels of need for achievement in a society. Kahneman and Tversky (1979) reveal the utility an individual derives from entrepreneurial activity depends upon their expectations, standard for success or performance of the competition.

If mind set influences business creation and sustainability, it has its own drivers. Mind set literature suggests that some of the people have a fixed mind set while others have a growth mind set. Individuals with a growth mind set, believe that one's ability and success are due to learning and that intelligence can grow and change with effort and believe in trying other approaches or seeking help when face with difficulties and tends to adopt learning goals. The reasoning behind this is because most great business leaders who have been successful had a growth mind set, since building and maintaining excellent organizations in the face of constant change requires such mind set (Dweck, 2006). The mind set drivers include training and education, work experience, risk, creativity and motivation.

Different studies have shown that education is an important factor affecting entrepreneurship mind set. Entrepreneurship education is considered as a lifetime learning process to develop personal qualities and skills that enable to survive in the world of business (Rugtvedt, 2006). Several studies established the correlation between education and business creation. This recommends the need for entrepreneurship education to maximize returns to more technical training in the dominant informal sector perspective. Timmons and Spinelli (2004) and Lüthje and Frank (2002) state that entrepreneurship education has a high contribution to job creation and has an effect on poverty alleviation. This suggests that policies and trainings can influence and direct the individuals of firm heads' attitude.

Ingrid and Yoshie (2006) recommend that entrepreneurship education should begin in the early childhood since the individual values, behaviours, attitudes and skills acquired during this period might have a lasting effect over the rest of their lives. However, if entrepreneurship education is a strategy to reinforce an individual's ability to see and exploit opportunities in an economic, social and cultural perspective, then it should be used as a proactive strategy to build entrepreneurial personalities in organizations and societies. However, Isaacs et al. (2007), posit that education alone cannot completely prepare entrepreneurs to be successful business owners, but can increase the chances of business success.

Numerous studies confirmed that there is a relationship between motivations and opportunities. Shane et al. (2003) established that, individuals differ extensively in their motivation to seize opportunities and that it will be rather interesting to know if certain motivations influence entrepreneurs to take actions in an attempt to discover new

opportunities. Creating the right entrepreneurial mind set is therefore a challenge for educators and trainers, educational institutions, businesses, public authorities, and individuals. This is because the demands for entrepreneurs with the ability to see opportunities and be creative and innovative are affecting all spheres of life.

Different papers reviewed have shown that entrepreneurial mind set is an important success factor for SMEs without which a business would fail. While there are no recent empirical information on the issue, the effect of mind set may vary from country to country depending on market opportunities and other factors. This suggests that there is a need of investigating the effect of mind set on business sustainability using data from Rwanda.

3. Data and Methodology

The study used secondary data collected between June 2011 and February 2012 by the World Bank in Rwanda. Through questionnaires and interviews of manufacturing and services sectors, the survey assessed the constraints to private sector growth. The objective of the survey was to obtain feedback from enterprises on the state of the private sector as well to track changes in the business environment over time, thus allowing, for example, impact assessments of reforms. The primary sampling unit of the study was the establishment. An establishment was a physical location where business is carried out and where industrial operations take place or services are provided. A firm may be composed of one or more establishments. For example, a brewery may have several bottling plants and several establishments for distribution. For the purposes of the survey an establishment must make its own financial decisions and have its own financial statements separate from those of the firm.

The standard Enterprise Survey topics include firm characteristics, gender age of the manager, manager's level of education, economic and individual factors as the work status, individual experience and ability, mind-set, age of the firm, international recognized certification, power outages, water supply, domestic sales, tax exemption, competition, new product or service, annual services as well as the spending or research. The other variables included access to finance, costs of inputs and labor, workforce composition, bribery, licensing, infrastructure, trade, crime, competition, capacity utilization, land and permits, taxation, informality, business-government relations, innovation and technology, and performance measures.

Over 90 percent of the questions objectively ascertained characteristics of a country's business environment. The remaining questions assessed the survey respondents' opinions on what are the obstacles to firm growth and performance. The size of the sample was 241 establishments with 230 from Kigali and 11 from Butare. In the sample, 65.5 percent of the firms were from services sector while 34.4 percent were from manufacturing sector.

In this paper, the dependent variable is the entrepreneurial activities. This is measured by firm's sustainability, proxied by the total annual sales for the firm. Firm's sustainability measure was chosen since firm's owners with a fixed mind set see their firms dying in the first five years. Among the explanatory variables, the variable of interest is the mind set assumed to significantly affect entrepreneurship behaviour. The other independent variables are the age of the firm, manager's level of education, gender of the manager, international recognized certification, the power outages, insufficient water supply, total national sales, tax exemption, competition entered, new product or service and the spending on research. Ordinary least squares (OLS) regression method was used to compute the estimates.

The estimated model is written as

$$Y_i = \lambda_0 + \lambda_1 X_{1i} + \lambda_2 X_{2i} + \lambda_3 X_{3i} + \lambda_4 X_{4i} + \lambda_5 X_{5i} + \lambda_6 X_{6i} + \lambda_7 X_{7i} + \lambda_8 X_{8i} + \lambda_9 X_{9i} + \lambda_{10} X_{10i} + \lambda_{11} X_{11i} + \lambda_{12} X_{12i} + \lambda_{13} X_{13i} + \varepsilon_i$$

Where Y_i measures the entrepreneurial activities of firm i , λ s are the model parameters to be estimated and the subscript i for each variable stands for firm i since the unit of analysis in the survey is the firm. X_{1i} is the owner's mind set for firm i , X_{2i} measures the years of experience in activities or the age of the firm, X_{3i} is the educational level of the manager, X_{4i} the manager's gender, X_{5i} stands for the international recognized certification, X_{6i} is the experience of power outages, X_{7i} is the water supply, X_{8i} measures the percentage of national sales, X_{9i} is the tax exemption, X_{10i} is the competition that entered in the market, X_{11i} captures the competition against unregistered or informal firms, X_{12i} is the new product or service while X_{13i} is the spending on research. ε_i is the disturbance or the error term representing all factors which can influence entrepreneurship but not directly included in the model.

In the model, the use of descriptive statistics helped to capture qualitative information from the data. Since we used a sample of 241 firms and needed generalized conclusions to all Rwanda firms, we used inferential statistics, represented here by regression analysis. The results of the study are relevant for policy formulation. STATA software package was used in all the computation process.

4. Results and discussion

In this chapter, empirical results of the determinants of entrepreneurship are presented. We first report the descriptive statistics related to the model. The coefficients (estimates) from OLS regression model are presented.

4.1 Descriptive statistics

The sample used in this paper shows that among owners of all the 241 firms, only 19.92 percent of firms were owned by only women while about 80.08 percent were owned by men. Gender disparity seems to remain a problem despite the efforts made by the government in terms of gender balance. There seems to be a working experience disparity in the sector for the top manager since it varies from 2 to 42 years. The average working experience 12.84 years. This means that majority of firm's managers have enough experience. However, the standard error is 9.45 showing that the different values are not close to the mean. About 3% of the firm's owners had no education or did not know their educational levels. At least 3.7 percent of the owners of firm's respondents had a primary certificate, 17.4 had at least a high school certificate, 5.8 percent had vocational training, while 70.0 percent had undertaken the university studies.

Only 12.8 percent of firms had internationally recognised certificates, 68.0 % reported to have experienced power outages while about 84% of the firms reported to have enough water supply for their production. Majority of firms, 79.25% stated that they do communicate with clients and suppliers by emails, with 40.25% of firms having their own websites. Majority of firms, 61.41reprted to have introduced new products or services during the last three years.

Regarding the biggest obstacles of firm's development, 20.7 percent of the firm's owners believe that access to finance is the biggest obstacle affecting business development while 17% of them consider that tax rate is the biggest obstacle. For 11.6 percent, the problem is from the practices of competitors while 10.3% think that there are no problems. Other factors affecting business development include access to land, crime, theft and disorder, electricity and tax administration and transport related issues.

Table 1: Descriptive Statistics

| Variable | Number of observations | Mean | Standard deviation |
|---|-------------------------------|-------------|---------------------------|
| Annual sales | 241 | 1.30e+09 | 6.03e+09 |
| Mind set | 241 | 1.59751 | 1.076179 |
| Years of experience | 241 | 12.84647 | 9.455448 |
| Education | 241 | 4.813278 | 2.086262 |
| Gender | 241 | 1.80083 | .4002074 |
| International recognized certification | 241 | 1.3361 | 2.097395 |
| Power outages | 241 | 1.182573 | 1.234853 |
| Water supply | 74 | 1.837838 | .3711156 |
| Domestic sales | 241 | 96.23651 | 16.93314 |
| Tax exemption | 19 | 1.947368 | .2294157 |
| Competition entered in the market | 241 | 1.86722 | 3.859917 |
| Competition against unregistered or informal firms, | 241 | .5477178 | 2.994231 |
| New product or service | 241 | 1.385892 | .4878184 |
| Spending on research | 241 | 1.647303 | .8292083 |

Source: Researchers' own construction

4.2 Determinants of Entrepreneurial activities in Rwanda

In Table 2 the Adjusted R-squared measuring the goodness of fit indicate that the estimated models give an adequate description of the data because it is highly significant implying that all the 13 model parameters are jointly different from zero. The results show that the working experience is an important factor explaining entrepreneurial activities in Rwanda. The variable is significant at the 1 percent level of significance. As working experience increases by 1 year, while holding all other factors constant, entrepreneurial behaviour increases by 0.0027.

The coefficient on gender is positive and significant suggesting that being a man rather than a women improves the entrepreneurship behaviour by 0.00142. Its coefficient is positive and significant at the 1 percent level. This means that while holding all other factors constant, being a man rather than a woman increases the entrepreneurship by 0.00142. The coefficient on water supply is another factor influencing the firm's sustainability. Its coefficient although statistically insignificant shows that water supply shortage harms firm's sustainability. Tax exemption is affects firm's sustainability. The result suggests that benefiting from tax exemption improves the firm's sustainability by 0.0088.

Mind set variable is positive and significant at the 1 percent level. The results suggest that having a grow mind set increases the firm's sustainability. In the data set, a number of variables were used to capture a grow mind set. They included among others whether or not the firm's owners communicated with suppliers through email, used technology licensed from a foreign-owned company, had improved methods of manufacturing products or offering services, had improved organizational structures or management practices, had improved marketing, and whether or not they organised campaigns against HIV-AIDS. The result presented below shows that mind-set is significantly associated with firm's sustainability. This finding is similar to Neneh (2014) who established that entrepreneurs with an entrepreneurial mind set perform better in creativity and risk taking propensity which are vital for business success.

The result finds other support from Dhliwayo and Vuuren (2007) who documented that entrepreneurial mind-set is firm's wealth creation and success and that this type of mind set enables entrepreneurs to make optimal decisions in case of uncertainties. They further elaborate that enterpreneurial mind set unlocks the entrepreneurial potential of individuals, entrepreneurs and firms, as new ideas and approaches are key ways on promoting an

entrepreneurial culture. In addition, Devanna and Tichy (1990) mind set that opens creativity is very important for the success of the organisation. In the same way, Trevisan et al. (2002) stated that mind set is one of the strongest distinguishing characteristics since creativity creates a significant contribution to organizational success. Spinosa et al. (1997) established that, business successes need an entrepreneurial mind set that opens individuals/SMEs to modern styles (creativity, motivation, risk taking) to secure them a place in modern business world and unlearn traditional management principles in order to minimize the high failure rates of SMEs.

In addition, the coefficient of education showed to be important to entrepreneurs since it was statistically significantly different from zero. The study results are in line with Nielse (2014) who documented that higher levels of education encourage innovative thinking and creative problem solving, which helps aspiring entrepreneurs develop proprietary ideas for a new business or its expansion. Higher education levels enhance the entrepreneurs' credibility and helps reduce capital constraints. Alternatively, since employee income increases with education level, education will also increase and this will increase the opportunity cost and reduce the incentive for entrepreneurship. Inger (2006) showed that, entrepreneurship education could be used as a proactive strategy to build entrepreneurial personalities, organizations and societies.

Table 2: OLS Estimates: Dependent variable is Annual sales by the firm

| Variable | Estimates | T-statistics |
|--|------------------|---------------------|
| Mind set | 1.3** | 3.08 |
| Years of experience | 0.11*** | 3.75 |
| Education | -0.93*** | -5.38 |
| Gender | 0.094*** | 4.12 |
| International recognised certification | -0.00147 | -0.29 |
| Power outages | 0.31 | 0.19 |
| Water supply | -0.376 | -1.17 |
| Domestic sales | 0.31 | 1.23 |
| Tax exemption | 0.0088*** | 16.13 |
| Competition in the market | -0.013 | -5.13 |
| Competition with unregistered firms | 0.0092*** | 8.43 |
| New product or service | 1.751 | 1.34 |
| Spending on research | -0.0002*** | -9.78 |
| Constant | -1.22* | -2.94 |
| Adjusted R-squared | 0.9345 | |

Note: *** ** and * = significant at 1%, 5% and 10% levels respectively

Source: Researchers' own construction

5. Conclusion and recommendations

The objective of this paper was to find out the effect of mind set on entrepreneurial activities in Rwandan businesses. A clear understanding of this is necessary can guide the formulation of appropriate policy measures. We estimated an entrepreneurial activities equations using the OLS regression analysis. The factors affecting firm's sustainability include among others entrepreneurial mind set, manager's year of experience, gender and competition that entered in the market. Mind set variable was positive and significant suggesting that having a grow mind set increases the firm's sustainability. This means that entrepreneurs with an entrepreneurial mind set perform better in terms of creativity and risk taking propensity which are vital for business success. The study has shown that entrepreneurial mind set is an important factor of performance and sustainability in Rwanda without which a business would fail.

Since acquiring an entrepreneurial mind set requires re-learning how to motivate themselves, take risk, and become creative innovative, the study recommends entrepreneurial education to nurture and support firm's success. In addition, given that the data used in this study is cross-sectional collected only from Kigali and Butare, there is a need for further research using a more representative data covering the entire country. There should be a national representative data. The study looked at the entrepreneurship mind set at firm's level, for firms that are already established. There is need to analyse the entrepreneurial mind set at household level. Further, a data set collected at different time periods would help in capturing the dynamics of mind set and inform policy making process.

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