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Incubatee Selection Criteria and its Role on Entrepreneurship Growth: A Survey of University Based Business Incubators in Kenya

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Abstract

The importance of entrepreneurship growth around the globe has been well recognized and documented by many scholars. For instance, some scholars have reported that the potential contribution of entrepreneurship growth to employment and income has been generally recognized. Entrepreneurs are widely recognized as the prime movers of economic development; the people who translate ideas into action. The government of Kenya has initiated numerous programs and policies to support entrepreneurship growth in Kenya. For instance, it has undertaken policy reviews that have led to reduction of the required licenses to start and operate a business. It has initiated several monetary funds to assist entrepreneurs, particularly youth and women, obtain financing for their enterprises i.e. the Youth Enterprise Fund, Women Enterprise Fund and Uwezo Fund. Private sector players such as commercial Banks, Non-Governmental Organizations (NGOs), Microfinance Institutions (MFIs) and Savings and Credit Co-operatives Societies (SACCOs) among others have also come up with formal financial support schemes for entrepreneurs. However the start- up failure rate is still very high and the desired growth levels are yet to be achieved. Consequently some scholars and policy makers have turned to business incubators and particularly university based business incubators as a possible boost to entrepreneurship growth through nurturing start-ups. A major area in the operation of an incubator is the selection criteria used to admit incubatees. This study aimed to find out the role of selection criteria into university based business incubators on entrepreneurship growth in Kenya. The six active university based

business incubators in Kenya were investigated with a specific focus on all the fifty nine graduated incubatees from the said incubators. Census technique was used given that the total number of all graduated incubatees (59) could be adequately studied. The study used a semi structured questionnaire as the main tool of data collection. A combination of tools was used to analyze the data because whereas some aspects of the study were qualitative others were of a quantitative nature. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) Version 21 software through descriptive statistics; measures of central tendency (mean and mode), measures of dispersion (standard deviation and variance) and inferential statistics. Thematic analysis was used for qualitative data. The study found out that the kind of selection criteria used by a university based business incubator has a significance impact (79.6%) on entrepreneurship growth. The study recommends among others, that the government through the Ministry of Education, and management of individual universities set up more university based business incubators given the positive potential effect they have on entrepreneurship growth. University based business incubators should continuously enrich their selection criteria in order to attract and incubate only the very potential incubatees. Further studies could be conducted on the role of selection criteria into other kinds business incubators – those not based in universities- on entrepreneurship growth.
Keywords: Business Incubation, Incubatee Selection Criteria, University Based Business Incubators

Introduction to the Study

University based incubators (UBIs) are a special type of business incubators that are located in universities (Bathula et al., 2011). The concept holds out the possibility of linking talent, technology, capital, and know-how to leverage entrepreneurial talent, accelerate the development of new technology-based firms, and speed the commercialization of technology (Bathula et al., 2011). Throughout the world, universities are developing ties with the industry and the government. Some of such initiatives can be seen especially in the developed world where a significant number of universities have set up business incubators (Bathula et al., 2011). However, as noted by Marwanga (2009) business incubators are still a fairly new concept in developing countries. Apart from assisting students who seek jobs, these universities also run business incubators to support students starting their own ventures. Some leading universities in Kenya have taken initiative to establish university based incubators. These are aimed at empowering students to be self-employed upon graduation, thereby reducing pressure on the ever thinning employment space and the chronic unemployment in Kenya (Marwanga, 2009).

Statement of the Problem

Entrepreneurship growth is a very important component of social and economic development. It promotes capital formation and creates wealth in a country. It reduces unemployment and poverty and it's a pathway to prosperity (Kaiburi et al., 2012). Though Micro and Small Enterprises (MSEs) are the embodiment of entrepreneurship, past statistics indicate that the lower end Kenyan MSE employs 1-2 workers while over 70% employ only one person. The majority of MSEs are confined to subsistence and low value activities. Only a few MSEs grow to employ 6 employees or more (Kedogo, 2013). In 2014 the African Development Bank showed, using one-year growth rates in employment as a measure of firm growth, that only about 15% of MSEs in Africa, Kenya included, are high-growth firms. Further statistics show that three out of five business start-ups fail within the first few months of

operation (Mwobobia, 2012). Other studies estimate that as many as 75% of small enterprises started in Kenya fail within three years of their birth. With the high mortality of startups and sluggish growth of MSEs, the economy, in due course of time, will lose the benefits that could have been accrued from the survival and growth of these enterprises. The aim of this study was to find out how incubatee selection criteria to university based business incubators affects entrepreneurship growth in Kenya

Literature Review

Theoretical Review

This study borrowed from the multi objective selection model proposed by (Wulung et al., 2014). Basically the model combines the potential incubatee's technical strengths as judged by various aspects of its business plan and the individual entrepreneur's characteristics within given constraint parameters to assist incubator managers make a decision on the most suitable incubatees. In the model, incubator managers are the decision makers and start-ups or young MSEs are incubatee candidates. The model considers multi-objective functions consisting of profitability maximization, incubatee survivability, and worker absorption maximization to reduce unemployment. Incubatee candidate properties, such as technology level, profitability, survivability, worker absorption and total assets are the inputs, while incubator capacity, maximum total assets, minimum technology level and industry priority proportion are the constraint parameters. Applying the proposed model consists of several steps: First, candidates propose their business plans to the incubator manager. Second, the incubator manager assesses the technology level of the incubates and the personal attributes of the entrepreneurs. Third, the applicants are screened for maximum total assets and minimum technology level to eliminate inappropriate candidates (Wulung et al., 2014).

Incubatee Selection Criteria

The selection criteria into an incubator will majorly focus on start-up businesses that its developers believes to have high potential in that they: Have a product or service that is based on technological knowledge; Are likely to achieve significant growth in three years, in terms of sales and number of employees; and demonstrate considerable export potential (Macadam & Marlow, 2007).

According to Becker and Gassmann (2006) for- profit business incubators look for innovative projects – either start-ups, or spin-offs from existing companies – with a developed business plan and a potential for high growth. In addition, their fit with the corporate technology strategy is of the utmost importance for corporate incubators. University based business incubators on the other hand, are primarily aimed at innovative, technology-oriented small and medium scale enterprises geared towards commercializing research and development results, especially from the parent universities and also provision of opportunities to faculty and students (Adegbite, 2001).

Most university based business incubators are operated as not for profit entities (Salman & Majeed, 2009). Most of the incubator facilities are public-private partnerships, with initial support coming from government bodies. About 80 percent of these facilities operate as not-for-profit entities (NBIA, 2013). Salman and Majeed (2009) note that many university based business incubators today rely incessantly on subsidies (from government, private sponsors and parent universities) to survive. This weak financial capacity has compromised

the entrepreneur selection criteria in the incubators. Because of incubators' cash flow requirements, early tenants are likely to be chosen on their capacity to pay rent rather than their growth potential.
Moreover, virtually no attention is paid to the alignment of companies' objectives and universities' vision. It is not unusual to find a company in a university based incubator with a completely different scope, locating itself in the incubator only to take advantage of low rent space and hence restricting the role of the incubator to a cheap tenancy provider (Salman & Majeed, 2009). Chadra and Chao (2011) note that in the first phase of incubation growth phase in China lasting from 1987 to 1997, during which most business incubators were government sponsored, tenant selection criteria were stated in theory, but do not appear to have been applied evenly in all instances, since political interests seem to have been part of entry equation.

Programs such as business plan competitions are important to provide inflow of potential entrepreneurs into subsequent stages of the incubation process (Djokovic & Souitaris, 2006). Lalkaka (1997) argues that a well-executed business incubation tenant selection criteria saves resources that otherwise would have been wasted. The steps to secure the best mix of tenants are: First, market the incubator to target audiences-particularly banks, technical universities, research and manufacturing organizations, and chambers of commerce - through professionally designed promotion campaigns. Second, develop clear admission and exit criteria, based on the incubator‘s mission and the regional conditions. Third, implement the selection in a transparent and fair manner (Lalkaka, 1997). The standard selection process usually comprises: administration of a questionnaire to the candidates; interview by the incubator manger to assess generally the candidate’s entrepreneurial qualities; review of the technical section of the business plan by a technical review group and the market, management, and financing aspects by a business group; contractual/lease agreements, to enable the tenant to move in (Lalkaka, 1997). Even with a thorough selection process, there will be only a few high-flyers, some “walking-dead,” a majority of steady-growth companies, and a few failures (Lalkaka, 1997).

According to Wulung et al (2014) despite the importance of the incubatee selection process, there have been no efforts to date to formulate a mathematical model that addresses multi-criterion incubate selection. Therefore, only a small number of incubator managers use multiple criteria to select the most promising incubatees. They further argue that the fundamental difficulty in incubatee selection is the lack of reliable data as the candidate’s business plan often includes exaggerated or highly optimistic values.

Ciavarella, Buckholtz, Riordan, Gatewood and Stokes (2004) are of the view that a venture’s survivability is positively influenced by an entrepreneur’s personal attributes of extroversion, emotional stability, agreeableness, conscientiousness, and openness to experiences. Hopefully, the weakness of the business plan can be compensated by evaluating the personality of the entrepreneur (Wulung et al., 2014). Bergek and Norrman (2008) support this viewpoint by noting that incubatee selection can be divided into idea-focused selection and entrepreneur-focused selection. In the idea-focused selection approach, the incubator manager evaluates candidate incubatees based on market and profit potential, while the entrepreneur-focused approach evaluates the characteristics of the entrepreneur, including his experiences and skills.

Methodology

The study adopted a descriptive survey research design. Cooper and Schindler (2011) define research design as the plan and structure of investigation so conceived as to obtain answers to research questions. The population of this study comprised of all the 59 university based incubators' graduates in Kenya. The study adopted a census approach. For all incubators all the graduated incubatees were taken as part of the sample. This is considering that the incubators have so far, a fairly manageable number of graduated incubatees that would adequately be studied within the constraints of this study.

Table 1
Sample Size and Distribution

No	Host University	Incubator	Number of Graduated Incubatees
1	Strathmore University	@iBiz Africa	10
2	Kenyatta University	Chandaria Business Innovation and Incubation Centre	25
3	University of Nairobi	C4D Lab Centre	6
4	Mount Kenya University	Business Incubation Centre	6
5	Technical University of Kenya	Business/ Technology Incubation Unit	7
6	Kenya College of Accountancy University	KCA Business Incubator	5
	TOTAL		**59**

Primary data was collected by use of self-administered semi structured questionnaires. In this study, pre-testing was conducted from among current incubatees of the identified incubators who were at an advanced stage of incubation. A total of six (6) respondents were randomly chosen (one from each university based business incubator) for pre testing. These pilot respondents had close characteristics as the study's population. Split-half technique was used to assess the reliability of the instrument. The validity of the questionnaire was determined using construct validity method. Construct validity is the degree to which a test measures an intended hypothetical construct (Mugenda, 2011). Using a panel of experts familiar with the construct is a way in which this type of validity can be assessed. The experts can examine the items and decide what that specific item is intended to measure (Mugenda, 2011).

A combination of tools was used to analyze the data because whereas some aspects of the study are qualitative others are of a quantitative nature. Data was cleaned, coded and, where necessary, quantified for appropriate analysis. Qualitative data was analyzed using the Statistical Package for Social Sciences (SPSS) Version 21 and Microsoft Excel software through descriptive statistics; measures of central tendency (mean and mode), measures of dispersion (standard deviation and variance) and inferential statistics. Thematic analysis was used for

qualitative data. According to Mugenda (2011) qualitative data analysis seeks to make statements on how categories or themes of data are related.

Findings

The study had an overall response rate of 79.66%. Babbie (2004) asserted that return rates of above 50% are acceptable to analyze and publish, 60% is good, 70% is very good while above 80% is excellent. A majority (80.9%) of the respondents were male, and 19.1% were female. These results are in agreement with those of Minniti et al (2013) who found that although globally the absolute number of women in self-employment has increased in recent years, significant differences still exist in the levels of new firm creation across genders, and the number of women involved in starting a business is significantly and systematically lower than that of men. Specifically in Kenya, we still have a strong male domineering culture where men as seen as the financier and controller of most businesses (Karanja, 2011). A majority (80.9%) of the respondents were within the age bracket of 18-25 years, 19.1% of the respondents were within the age bracket of 26-35 years and 0.0% of the respondents were within the age bracket of 36-45 years. This result indicates that majority of the people involved in the study were within the age brackets of 18-25 years and the business incubators in Kenya are dominated by youth between the ages of 18-25 years. This could be explained by the fact that the main catchment for university based business incubators are undergraduate university students of whom a majority are within the 18-25 years age bracket. According to Bathula et al (2011) one of the main reasons for universities having business incubators is to provide training opportunities for students and as commercial outlets for faculty research. The study found out that a large majority 73% were in the ICT based services category, a significant 19% were in the non-ICT based services while trade and manufacturing had a small 4% each. These findings are in line with those of Bathula et al (2011) who noted that most of university-based business incubators focus on high-technology fields and as such incubatees with a strong focus on technology are preferred. Again, Kenya's ICT sector continues to enjoy a phenomenal growth as noted in the country's Vision 2030 blue print. This coupled with a large base of well-educated youth may be the reason behind an overwhelming combined majority 92% of the enterprises being service focused and more so ICT service based. The ICT based enterprises were majorly involved in computer software development, mobile phone applications development and website/graphical design. A majority (83.0%) of the respondents had a university degree, 12.8% of the respondents had a college certificate, 4.3% of the respondents had a secondary school certificate and there were no respondents with either post graduate degree or primary certificate. This result implies that the incubatees in the incubators generally have a higher level of education with majority having a university degree. A simple majority (53.2%) of the respondents were incubated for less than 6 months, 23.4% of the respondents were incubated for between 6 months- 1 year, 19.1% of the respondents were incubated for a period of between 1- 2 years and 4.3% of the respondents were incubated for over 2 years. From the findings an aggregate majority of 95.7% of the respondents were incubated for between six months and two years.

The study revealed that majority (55.3%) of the respondents were current students of the hosting university, 25.5% of the respondents were former students, 6.4% of the respondents were workers in the university and 12.8% of the respondents were external parties who had no relationship with the university hosting the incubator. The results imply that in total, an overwhelming 87.2 % of incubatees in university based business incubators have a direct

connection to the host university. This is attributed to the fact that the incubators categorically gave preference to their own students and faculty.

A majority (44.7%) of the respondents were admitted on the basis of projected profitability, 29.8% of the respondents were admitted on the basis of projected social benefits and 25.5% of the respondents were admitted on the basis of proprietary software. This results indicates that majority of the incubators were admitted on the basis of projected profitability. The findings agree with those of Macadam and Marlow (2007) who found that potential incubatees that have high potential (in that they have a product or service that is based on technological knowledge; and are likely to achieve significant growth) are preferred by incubators. Notably, a significant 29.8% of the respondents were chosen for incubation on the basis of the social benefits their enterprises proposed to offer. This finding implies that university based business incubators in the country are concerned about providing solutions to social problems, beyond profitability. None of the respondents was admitted on account of a patented product. This may imply that Kenyan startup entrepreneurs are not very keen to patent their products perhaps because of the fairly weak intellectual property regime in the country.

The study sought to investigate the kind of selection tools used by university based business incubators in Kenya when selecting those that will finally be incubated. As the results showed, the incubators use a variety of tools and in some cases a mixture of more than one tool. A significant 35% of the respondents were selected on the basis of oral presentations made during the incubator-organized pitching sessions, 29% were selected on the basis of a combination of a written business plan and oral presentation, 12% were selected through a combination of written business plan, oral presentation and experience of the entrepreneur in running own enterprise, 8% were selected based purely on their experience of running the enterprise, 6% were chosen through a combination of oral presentation and written test, another 6% on the basis of a combination of oral presentation and experience in running the enterprise, 4% on the basis of a combination of oral presentation and having a prototype and the remainder 2% on the basis of a written business plan only. Overall, a majority 57% of the respondents were selected using a combination of more than one selection tool. This selection approach is supported by Bergek & Norrman (2008) who note that incubatee selection can be divided into idea-focused selection and entrepreneur-focused selection.

The study revealed that that majority (70.2%) of the respondents had an experience of less than 6 months in running the incubated business, 14.9% of the respondents had an experience between 6 months- 1 year and 1- 2 years and none of the respondents had an experience of over 2 years. They could then all be comfortably classified as startups. This finding is in line with literature on business incubation which emphasize that the main goal of business incubators is to support startups by providing management guidance, technical assistance and consulting tailored to young growing companies (NBIA, 2013).

The study probed the respondents on what they thought was their contribution to the host university's mission. Their responses were grouped along themes of reputation, promotion of innovation, industry linkage, gender equality, job creation, and skills dissemination. More specifically the study found that 27% of the respondents mentioned generation of job creators as their contribution, 23% said they contributed by building the positive

image/reputation of the university, promoting sustainable innovation and skills dissemination were each mentioned by 8% of the respondents, university-industry linkage and gender equality were each mentioned by 4% of the respondents. However, 27% of the respondents declined or could not tell how their incubation assisted the respective university achieve its mission.

The main focus of university based business incubators is on the generation and transfer of scientific and technological knowledge from universities to companies and an outlet for commercialising university research (Grimaldi & Grandi, 2005). Universities play a significant role in establishing linkages with the industry so as to provide their faculty a platform to conduct research and an opportunity for their students to be job creators (Marwanga, 2009). Salman & Majeed (2009) note that it becomes a conventional symbol for a university to have an incubator; which can be translated to mean that universities have a mission of image building when they set up incubators.

The study sought to find out more on the characteristics of the incubated enterprise and the entrepreneur behind the enterprise so as to get to understand why they had been selected into the incubator. The results showed that a majority of the respondents felt that there was something substantially new/different regarding the products they offered to the market relative to what existed previously. This is in agreement with the study of Wulung et al (2014) who noted that incubators prefer new and innovative businesses. A majority of the respondents (59.4%) strongly agreed with the statement that the size of the organization determines its degree of innovativeness. Startups and small businesses are considered more innovative than larger matured businesses because of the less associated bureaucracy, despite their limited resources. A majority 68% of the respondents also indicated they strongly believed in their abilities as individuals and also considered themselves as risk takers. An appetite for risk and strong internal locus of control have been mentioned as desirable characteristics of entrepreneurs (Drucker, 2006). A majority 76.6% of respondents strongly agreed that the success of their businesses depends on having superior technology. This could be attributed to the fact that most of the respondents were in information communication and technology based businesses particularly software and mobile application development. A combined majority of 93.6% either agreed or strongly agreed that university based business incubators are effective tools for commercialization of research by students and lecturers. This is in agreement with those of (McAdam and McAdam, 2008).

Conclusion and Recommendations

As evidenced in this study, university based business incubators have significant positive role to play in entrepreneurship growth. The selection criteria into these incubators then become a key focus point if the incubators are to effectively perform their role. The study recommends among others, that the government through the Ministry of Education, and management of individual universities set up more university based business incubators given the positive potential effect they have on entrepreneurship growth. University based business incubators should continuously enrich their selection criteria in order to attract and incubate only the very potential incubatees. Further studies could be conducted on the role of selection criteria into other kinds business incubators – those not based in universities- on entrepreneurship growth.

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