An Assessment of Selected Antecedents of Entrepreneurship Intentions and The Level of Entrepreneurial Intention Among Final-Year Undergraduates at The University of Zambia

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ABSTRACT

The present study was designed to assess antecedents of entrepreneurship intentions and the level of entrepreneurial intention among final year undergraduates at the University of Zambia. This was a single method descriptive piece of research. An anonymised and self-completing survey questionnaire was distributed to a cross-section of fourth year 2017 final year students of all faculties at the University of Zambia. Data was analysed using SPSS software version 18 (SPSS Inc., Chicago, Illinois, USA). Pearson Chi-square test of significance was used to examine the relationships between the variables. The bivariate correlation coefficients *Phi* and *Cramer V* were used to determine the strength and direction.

Only n = 136 (30.1%) students out of 452 in the sample were identified as potential entrepreneurs since they intended to start their own businesses. There was a weak significant relationship between entrepreneurial intention and ***p*** = 0.001 and ***phi*** = 0.317. There was a weak significant relationship between entrepreneurial intention and gender ***p*** = 0.001. All schools had more students who intend to work and earn a salary in the public or private sector except the school of veterinary medicine, which had an equal number of students who intend to engage in entrepreneurship activities. None of the schools had the highest proportion of students who had done any topic or a course in entrepreneurship. Generally one can say there was a very low exposure n = 95 (21%) to entrepreneurship education in the university as compared to non-exposure n = 357 (79%). There was no linkage between school and course exposure on entrepreneurship ***p*** > 0.05).

Key words: Entrepreneurship; Entrepreneurship Education; Entrepreneurship Intentions; Family Background; University Students; Youth Unemployment;

1.0 INTRODUCTION

1.1 Background of Study

Entrepreneurship is now considered to be the newest paradigms of the socioeconomic sciences in that it has generated a great deal of interest in the last couple of decades and not only across the scientific and academic community but also in the political sphere (Bawuah et al., 2006; Joao et al., 2012). In Zambia, the debate surrounding this new paradigm of entrepreneurship thinking in colleges and universities is growing (MOY, 2015). This is evidenced by calls in seminars and workshops in Zambia following increasing levels of unemployment and an insignificant involvement of students starting a business immediately after graduation.

Paralleling with emerging concern in student entrepreneurship in Zambia, there has been an increasing interest in the field of entrepreneurship both between policy makers and academicians. Zambia has had a lack of qualified entrepreneurs the first thirty years after independence. In the last twenty years, Zambia has been modernising and following the third republic, which ushered in liberalisation of the economy, a state-initiated economic policy was implemented with institutions of higher learning being encouraged to train graduates who could become entrepreneurs.

The Zambian economy has now a rapidly growing free market economy. In this regard, the importance of entrepreneurship and small business to the economy is today broadly recognized and is serviced by a number of organisations through incentives and notably by the Citizen's Economic Empowerment Commission. The Commission is at centre of rendering credit. In addition, there is a national policy on entrepreneurship for primary, secondary and tertiary education institutions. The policy affirms that the knowledge, practices and attitudes needed for entrepreneurship and personal self-reliance require special emphasis. The Curriculum Development Centre was expected to have given special attention to this issue and to have developed modules related to entrepreneurship for incorporation into suitable Grade 5–7 subjects (Educating Our Future, 1996:37, 48, 55). The policy does not address entrepreneurship education in universities.

In Zambia, just like any other Sub-Sahara African country, an overwhelming number of young men and women are engaged in informal business. This business dominates their economies

but most of these people are not graduates from universities since entrepreneurship education has been directed at very young people in primary and secondary education.

According to the Seventh National Development Plan (7NDP), Zambia's labour force increased by 14 percent from 5 million in 2008 to 5.8 million in 2012 and the 2014 Labour Force Survey estimates the labour force at 6.3 million. Total employment grew by 11.3 percent from 5.3 million in 2012 to 5.9 million in 2014, representing an employment-to-population ratio of 71.9 percent. About 4.9 million persons, representing 84 percent of the employed, were in the informal sector. The main challenge is to increase the quantity and quality of productive employment at all levels of the economy and in all parts of the country, to reduce poverty and achieve inclusive economic growth.

Zambia suffers a skilled-worker gap in manufacturing caused by the mismatch between the skills offered by training institutions and those demanded by industry. The level of self-starting entrepreneurs is also low especially among graduates. The Government will implement a strategy to narrow the employee skills gap in manufacturing during this Plan period and meet manufacturing human capital needs, including entrepreneurship, by implementing the following programmes. Skills development fund establishment; Manufacturing competence model development; Fast-track high skilled manufacturing training programmes development; Innovative technologies skills development facilitation; Vocational and entrepreneurship development promotion; Traditional apprenticeship support; and Entrepreneurship zeal mentorship and talent cream skimming support.

It is clear that there is empirical evidence that there Zambia has low levels of entrepreneurial ventures among college and university graduates. It is worth investigating the factors such entrepreneurial education and family factors in respect of their influence on student's entrepreneurial intentions.

1.2 Study Problem

There is growing empirical evidence that understanding entrepreneurial intentions of college and university graduates does contribute to making appropriate and timely policies to support university-youth entrepreneurship. There are several empirically tested antecedents of

entrepreneurial intentions. However, the major one are: (i) university education, (ii) perceived support, (iii) perceived barriers, (iv) personality factors and (v) family factors.

This study will attempt to assess the two antecedents – university education and family factors Therefore, this study was designed to subject these plausible arguments to empirical testing, to affirm the level of entrepreneurial intention among final year students, and to generate new knowledge about Zambia on antecedents and entrepreneurial intentions. This is justifiable in that unemployment among college and university graduates is on the rise in Zambia. It is against this background that promotion of youth entrepreneurship and self-employment is seen as an alternative by the Zambian Government.

1.3 Study Objectives, Research Questions, Research Hypotheses

1.3.1 Study Objectives

1. To assess the relationship between entrepreneurial education and final-year University of Zambia students' entrepreneurship intentions.
2. To determine the levels of influence of final-year University of Zambia students' family background on their entrepreneurial intentions after graduating from the University?

1.3.2 Research Questions

Given the statement of the problem, this study sought answers to the following research questions:

1) To what extent does entrepreneurial education influence final-year University of Zambia students' entrepreneurship intentions.

2) To what extent does family background influence final-year University of Zambia students' entrepreneurship intentions.

1.3.3 Research Hypotheses

1) HO1: Student participation in entrepreneurship education is not related to entrepreneurial intentions (Social and environmental factors).

2) HO2: Family background is not related to student's entrepreneurial intentions

1.4 Motivation for this study

This study was motivated by the protests conducted by recent graduates from the University of Zambia who were protesting calling for the government to provide employment opportunities to them instead of them being their own employers. The demonstration was captured in most of Zambia's independent and private media. Formal employment and entrepreneurship are mutually exclusive and entrepreneurship. There is evidence of some university graduates preferring entrepreneurship activities to being employed in the private or public formal sectors – they prefer to be self-employed. It is against this background that researchers in this study decided to unravel factors that created the difference in intentions among students.

2.0 LITERATURE REVIEW

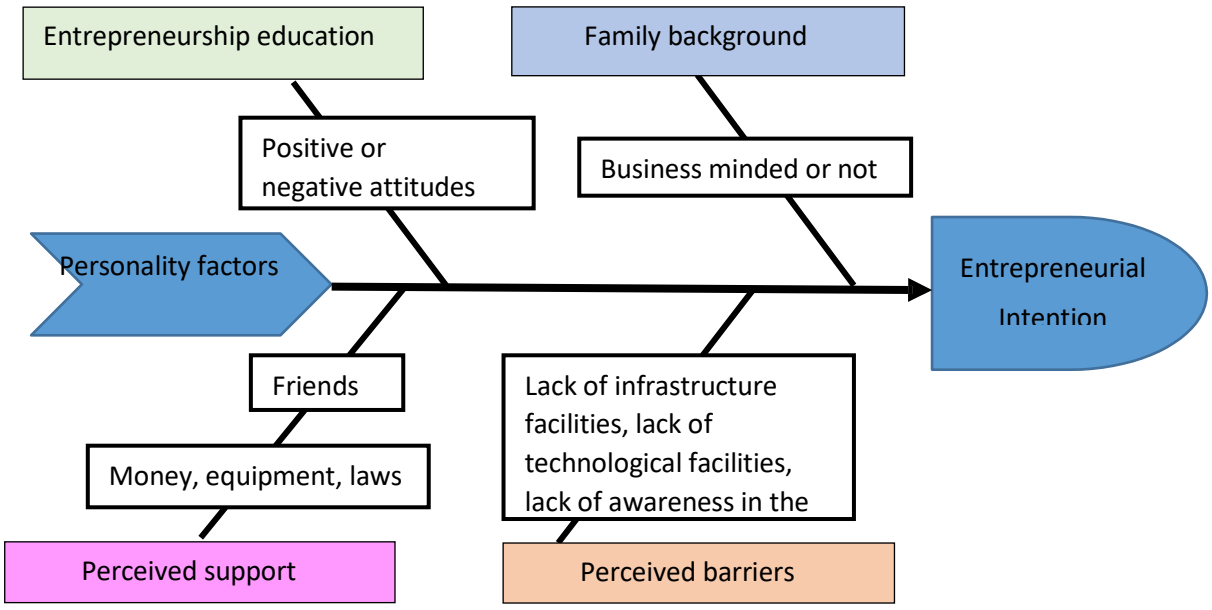
This section presents the gaps in knowledge in students' antecedent's and entrepreneurship intentions. The researcher uses an Ishikawa diagram (see Figure: 1) as a tool that helps to identify, sort and display possible causes of the problem related to entrepreneurial intention (Juran, 1999). The Ishikawa diagram is representing a model of suggestive presentation for the correlations between an event (effect) and its multiple happening causes. The structure provides the researcher to think in a very systematic way (Basic Tools for Process Improvement, 2009). In the typical Fishbone diagram (Figure: 1), the effect is an outcome and is placed at the "fish head". The causes or antecedents are then laid out along the "bones", and classified into different subtypes along the branches.

Though, the fish diagram presented provides five main antecedents of entrepreneurship as already

indicated in the problem statement, the literature that will be reviewed in this study will be limited to entrepreneurial education and family background or family factors.

The deficiency in terms of a commonly recognized and accepted definition of entrepreneurship is a major deterrent for researchers in comprehending and contributing to the understanding of the term, in spite of the fact that there is no generally acknowledged and accepted definition. Most definitions have focused on the wealth creation and economic development aspect of entrepreneurship (Tilley and Young, 2009). Entrepreneurship as a matter of fact is a state of mind which could be referred to the ability and the effectiveness of an individual in recognizing an opportunity, and taking an advantage of it with the purpose of economic transformation and wealth creation and also characterized as an academic field which seek to understand how opportunities transforms in to reality and potential goods and services are created.

Figure: 1. Fishbone diagram of antecedents and outcomes



Entrepreneurs have been described as ambitious and innovators, considering the process in which entrepreneurs discovers opportunities and facilitate economic development. Some

studies have portrayed an entrepreneur as an individual with great visualisation, innovation, creativity, and flexibility. They also look at an entrepreneur as someone who is active and crucial when it comes to conceptualisation. An entrepreneur is a kind of person who envisages change as a probable chance for business to thrive (Timmons and Bygrave, 1997; Kao et al., 2002; Venesaar et al., 2007).

The importance of entrepreneurship which is the fundamental developmental instrument is emphasized in nations striving for advancement in their economies, especially the developing nations. It has been identified as an instrument for economic growth and development, most importantly a rich source of job creation in any economy.

It is a potential impetus and incubator for technological advancement, enhancing products, services and financial market at large (Richards, 1999; Teixeira and Davey, 2008), the development and expansion of an economic are dependent on the stream of entrepreneurship and innovation. New venture creation and entrepreneurial activities are usually the strategies that are being employed in developed nations in order to quicken a stagnated economy and also dealing with unemployment issues by creating job opportunities thereby means of boosting the economy and encouraging growth (Teixeira and Forte, 2007).

The perspectives and beliefs of students toward entrepreneurship are the results of their immediate social and cultural environment. Consequently, the orientation and conducts of youth and young graduates are affected by various individual and ecological variables, which imply that the decision and desirability of becoming an entrepreneur or employee is a reflection of environmental and economic forces (Alain et al., 2006).

Many studies have revealed that entrepreneurs are not naturally conceived but made through their environment and experiences as they develop and learn, being impacted by guardian, mentors, tutors, instructors and role model during their development process (Teixeira and Davey, 2008). Huge number of exploration studies have examined and acknowledge the impact of entrepreneurship education, family background, gender, availability of capital and risk tolerance on the notion of entrepreneurship (Veciana and Urbano, 2005; Robertson and

Wilkinson, 2005**;** Venesaar et al., 2007).

2.1 Entrepreneurship Education

There is broad consensus as to the role played by the education system in overall entrepreneurship (Lundström and Stevenson, 2002). There have been arguments that education for entrepreneurship should begin as early as possible (Cheung and Au, 2010; Paço et al., 2011a, b; Rodrigues et al., 2012). The phases of infancy and adolescence are frequently identified as the preferential periods for developing positive attitudes in relation to entrepreneurship and the acquisition of basic knowledge on the theme (Peterman and Kennedy, 2003). According to Gorman et al. (1997), this is especially valid in the cases of primary and secondary school students.

The pertinence of entrepreneurship education, specifically in the field of secondary school education, may be justified on various grounds. First, these students are already about to face choices over their professional careers. This remains valid whether or not students intend to proceed with higher education studies or to join the workforce. Developing entrepreneurial potential in secondary schools brings another advantage as it raises the likelihood of self-employment. However, this likelihood of self-employment is dependent on the type and content of entrepreneurship (Galloway and Brown, 2002).

There is currently a great deal of activity in the field of entrepreneurship education in universities and colleges throughout the world (Koh, 1996; Hansemark, 1998; Jones and English, 2004). The USA seems to take the lead in entrepreneurship education. As Kuratko (2003) noted in his study, the number of colleges and universities that offer entrepreneurship courses has grown from a handful in 1970 s to more than 1,600 in 2003.

Elsewhere, though, there is evidence of a growing number of Australian universities, for example, offering entrepreneurship programs and in the UK business and entrepreneurial development has been listed as one of the four strategic goals for British universities (Kirby, 2004). In sum, the literature comprises studies emphasizing that entrepreneurship and small business education have been rapidly promoted in education institutions in European, Asian

and African countries (Brockhaus, 1991; Gibb, 1993; Hytti and O'Gorman, 2004). Whilst it would not be unreasonable to suggest that entrepreneurship education in Turkey is far from being a national policy matter nevertheless, courses on entrepreneurship have recently begun to be offered as elective courses in undergraduate business administration programs of a limited number of Turkish universities.

A review of curricula of business schools in 53 state and 23 private universities has shown that 15 state universities have elective entrepreneurship course in their undergraduate curricula while seven private universities offer entrepreneurship provision. In four private universities, an entrepreneurship course is compulsory. In terms of MBA programs, nine state universities and four private universities offer elective courses on entrepreneurship. However, there is only one private university offering a major in entrepreneurship and there is a young entrepreneur development program in only four universities.

2.2 Relevance of Entrepreneurship Education

Economic growth in all industrialized and developing countries is a key issue and particular interest is being focused on the role of entrepreneurship and small business (Garavan and O'Cinneide, 1994). Garavan and O'Cinneide (1994) for instance advances the explanation that economic recession, high unemployment rates and fluctuations in international trade cycles have contributed to the revival of interest in entrepreneurship as a possible solution to rising unemployment rates and as a recipe for economic prosperity. In the same vein, Wennekers and Thurik (1999) affirm that entrepreneurship is essential for economic growth in modern open economies. The reason being that globalisation and the information and communication Technologies (ICT)-revolution induce an intense demand for entrepreneurship (Brockhaus et al., 2001).

Since entrepreneurship can positively affect economic growth and development, governments should attempt to increase the supply of entrepreneurs and initiating entrepreneurship educational programmes is one of the factors that can affect the supply of entrepreneurs (Burnett, 2000). A report by the European Commission regards education as an important means to create a more entrepreneurial mind-set among young people and they assert that

promoting entrepreneurial skills and attitudes provides benefits to society even beyond their application to new business ventures. Alberti, et al. (2004) indicate three sources of demand for entrepreneurship, namely governments, students, and the business-world:

a) Through education, Government driven by the post-Fordist economy, aim at developing an entrepreneurial culture oriented to job creation. In fact it is documented that most of the new jobs arise from entrepreneurial small firms;
b) Young (1997) suggests two sets of reasons for students to study entrepreneurship: firstly, they may want to start up their own businesses; secondly, they may wish to acquire knowledge which will be helpful in their careers in larger organizations; and
c) The third source concerns both large and small firms. Alberti, *et al.* (2004) point out that, on one hand, there seems to be a general shortage of managerial skills in SMEs and on the other hand, within larger companies there is a need for managers who are oriented to the development of new business initiatives to ensure a continuous renewal.

Given the relevance of entrepreneurship perceived at both the macro level of economic development and at the micro level of personal satisfaction and achievement (Alberti, et al., 2004); and considering the recognition of the possibility to increase entrepreneurship ability through education (Gorman, Hanlon and King, 1997; Ronstadt, 1987), there is an increased interest of developing educational programmes to encourage and foster entrepreneurship within the education system (Kuratko, 2005; Carrier, 2007;Souitaris, 2007).

2.3 The Main Effects of Entrepreneurship Education on Entrepreneurial Intentions

The literature has identified two theoretical perspectives that argue that entrepreneurship education is positively related to entrepreneurial intentions: (1) human capital theory and (2) entrepreneurial self-efficacy (Chen, Greene, and Crick, 1998).

First, entrepreneurship scholars have viewed human capital as a determinant of entrepreneurial intentions (Davidsson and Honig, 2003). We define it as “the skills and knowledge that

individuals acquire through investments in schooling, on-the-job training, and other types of experience" There may be a positive relationship between performance and human capital investment if it can be deployed to perform tasks. An entrepreneurship education may cultivate a student's attitudes and intentions, as well as the founding of a new firm found a statistically significant relationship between entrepreneurship education and human capital outcomes, such as entrepreneurship- related knowledge and skills (rw = .237), a positive perception of entrepreneurship (rw = .109), and intentions (rw = .137).

Second, entrepreneurship education is associated with entrepreneurial self-efficacy, which may increase entrepreneurial intentions (Zhao et al., 2005; Wilson et al., 2007). Entrepreneurial self-efficacy refers to a belief in one's ability to successfully perform the various roles and tasks of entrepreneurship (Chen et al., 1998; De Noble et al., 1999; It is well known as one of the triggers of entrepreneurial intentions (De Noble et al. 1999) In addition, entrepreneurship education could enhance entrepreneurial self-efficacy because it is associated with four of its determinants, which are (1) enactive mastery, (2) vicarious experience, (3) verbal persuasion, and (4) emotional arousal (Bandura, 1982, 1986). As students enroll in entrepreneurship education, they are exposed to examples of successful business planning or proactive interaction with successful practitioners (Honig, 2004). These pedagogical elements facilitate coping strategies, which help maintain motivation and interest, leading to greater expectations of success (Stumpf et al., 1991) and increased entrepreneurial self-efficacy (Zhao et al., 2005). It was found that entrepreneurial self-efficacy was a positive mediator of the relationship between entrepreneurship education and entrepreneurial intentions, although mediation testing is beyond the scope of this study.

2.4 Family Factors

Prior exposure to entrepreneurial activity could be in the form of early exposure to a family business, which influences attitudes toward entrepreneurship (Krueger, 1993). It was found that those who reported a positive view of their family's business experience perceived starting a business as both desirable and feasible. They found that other childhood experiences that involved facing adversity or frequent relocation also had a positive effect on

individuals' perceived autonomy and attitude toward self-employment. At the same time, it can be argued prior exposure in the form of direct experience in starting or attempting to start a new business would affect attitudes and perceptions about entrepreneurship as a career.

The Theory of Entrepreneurial Opportunity Identification identifies entrepreneur's personality traits, social networks, and prior knowledge as antecedents of entrepreneurial alertness to business opportunities. Each person's idiosyncratic prior knowledge creates a ''knowledge corridor'' that allows him/her to recognize certain opportunities, but not others. According to Ardichvili, three major dimensions of prior knowledge are important to the process of entrepreneurial discovery: prior knowledge of markets, prior knowledge of ways to serve markets, and prior knowledge of customer problems. Basu and Virick (2008) for instance found that previous acquaintance to entrepreneurship education tends to have a positive effect on students' attitudes toward a career in entrepreneurship. While this appears so, it is not surprising that a person's exposure to entrepreneurship based on family background is significantly linked to attitudes, norms, and greater self-efficacy.

It has been noted that if a son had a self- employed father, this was in essence significantly related to the student's positive attitudes, stronger norms, and greater self-efficacy with respect to entrepreneurship. There is a kind of social learning that takes place between the father and the son where he father acts by signification as a role model (Bandura, 1977). It is for his reason that students who have self- employed fathers gain business acumen to and tacit knowledge of entrepreneurship from an early age. It is this tacit knowledge which in turn affects moderates their positive attitudes and perceptions of self-efficacy toward entrepreneurship. All these are moulded by entrepreneurial family background which refers to those siblings where a father or mother or both or other family member(s) is (are) involved in self-employment (Stavrou and Swiercz, 1999).

Research in family business examines the means by which family-owned businesses handle succession (Stavrou and Swiercz, 1999). This is certainly understandable, since the nature of family ownership and succession lead to interesting (and at times troubling) challenges (Dyer and Handler, 1994). There are numerous family factors that play a significant role in laying a foundation for being an entrepreneur. Carr and Sequeira (2007) for instance while examining

business exposure as intergenerational influence and entrepreneurial intent revealed that exposure to family business constitutes important intergenerational influence on intentions to entrepreneurship.

In a related study involving children who grew up with entrepreneur parents, McElwee and Al-Riyami (2003) observed that children had a greater propensity to choose an entrepreneurial career. Mueller (2006) also concurred that putting all personal factors influencing a person's entrepreneurial intention together, parental role modelling seemed to be the most significant. On the other hand Mueller (2006) found that entrepreneur parents aced as role models and this tended to generate entrepreneurial minded children. Conclusions have been made in some studies that self-employment experience is directly related with entrepreneurial intention of students within the family, financial resources tend to provide opportunities for children to engage in entrepreneurial activities.

Researchers have found that children who have been in a family business tend to acquire certain business skills prior to their business start-up (Franke et al., 1991; Matthews and Moser, 1996; Basu and Virick, 2008; Linan et al., 2005; Carr and Sequeira, 2007).Past experience tends to provide experience, ideas, vision and confidence to start a new business.

The time requirements and resource shortfalls (as well as the financial rewards and autonomy) of family business ownership have powerful and lasting impacts on the social interactions and psychological development of the "family" in the family business. Individuals who come from families who own businesses are likely to beware of these impacts (Fairlie and Robb, 2005). As a result, individuals with prior family business experience may incorporate their experiences, such that their attitudes and behaviours towards entrepreneurial action are shaped positively or negatively towards business ownership.

Despite the motivational benefits of an entrepreneurial family background for forming a student's career path, Zellweger et al. (2011) indicated that entrepreneurship education is less likely to improve the entrepreneurial intentions of students who come from such backgrounds. First, students from an entrepreneurial household are more likely than those without a similar

background to access the critical resources and social networks. Because they are more likely to be able to have entrée to these valued inputs, it reduces their necessities of added contributions from entrepreneurship education. Second, it is possible that students from an entrepreneurial family background could interpret the materials offered by entrepreneurship education more critically than those from a non-entrepreneurial

family. This is because early exposure to entrepreneurship provides people from an entrepreneurial family background with indirect experience about the difficulties of being an entrepreneur. Thus, entrepreneurship education may be less effective on entrepreneurial intentions for students from an entrepreneurial family than forstudents who do not have a family background in entrepreneurship.

Beyond family background, there is also a relationship between entrepreneurial intentions and culture, defined as "the values, beliefs and assumptions learned in early childhood that distinguish one group of people from another" (Newman and Nollen, 1996: 754).

3.0 RESEARCH METHODOLOGY

This was a non-experimental case study, which was designed to explore and to describe reality surrounding entrepreneurial intentions and its antecedents. A non-experimental case study design was considered ideal in that it was feasible to investigate complex social units (like students of varying backgrounds) and as such, the design provided multiple variables of critical consideration in understanding antecedents to entrepreneurial intentions.

The answers did not require a developmental approach but needed a description and a correlation of antecedents and entrepreneurial intentions. Non-experimental case studies are descriptive in nature and as such cannot account for causation. Therefore, the study was designed to look at how things are now, without any sense of whether there is a history or trend.

Looking at the nature of the research questions that were being asked were about one unit of analysis, which was the University of Zambia, a one-shot or cross-sectional embedded mixed study design (QUAN + qual model) was chosen. In essence, the QUAN + qual model was adopted as it took an explanatory approach where the quantitative data were collected first and were more heavily weighted than the qualitative (Creswell & Plano Clark, 2011).

Looking at the onion diagram of research thought (Figure: 7) below, this study's orientation was therefore positivistic and interpretivist in nature (Figure: 7) see orientation in red font.

Positivism, which is related to the realist ontology and positivist epistemology (embracing induction and deduction) as a model chosen to answer the first and second research question in this inquiry is anchored on an understanding of material facts that reality (*entrepreneurial intentions and its antecedents*) are objective, singular, tangible and above all value free.

Positivism is bent on measuring social facts (Durkheim, 1979; 1982) and as such the two research questions require measuring facts. In this case, "a social fact' is taken as an empirical observation in form of every way of acting, fixed or not, capable of exercising on the student being an individual an external constraint; or again, or every way of acting which is general throughout this university society." Since the researcher was committed to measure real antecedents of entrepreneurship and entrepreneurial intentions being a quantitative study, positivism was the ideal model for the collection of factual data from which predictions could be made.

On the other hand, the humanist ontology with interpretivism as its epistemology, which are used to answer the third research question, is anchored on the premise that humans interpret their own social reality and that multiple mental interpretations exist to one phenomenon since every social actor has their own viewpoint and some which may be in conflict with each other. In addition, perceptions of reality may change from person to person, from time to time and place to place. In the interpretivist's epistemology, the assumptions are derived from day-to-day life situations where concepts are coined to assign meaning to things (what is done or what is said) (Weber, 1978: 2004; Giddens, 1976: Blaikie, 2010). The interpretivist stance takes knowledge to be personal, concerned with experience and insights, almost spiritual in nature, and lacking laws. It was for this reason that face-to-face interviews were considered in this study.

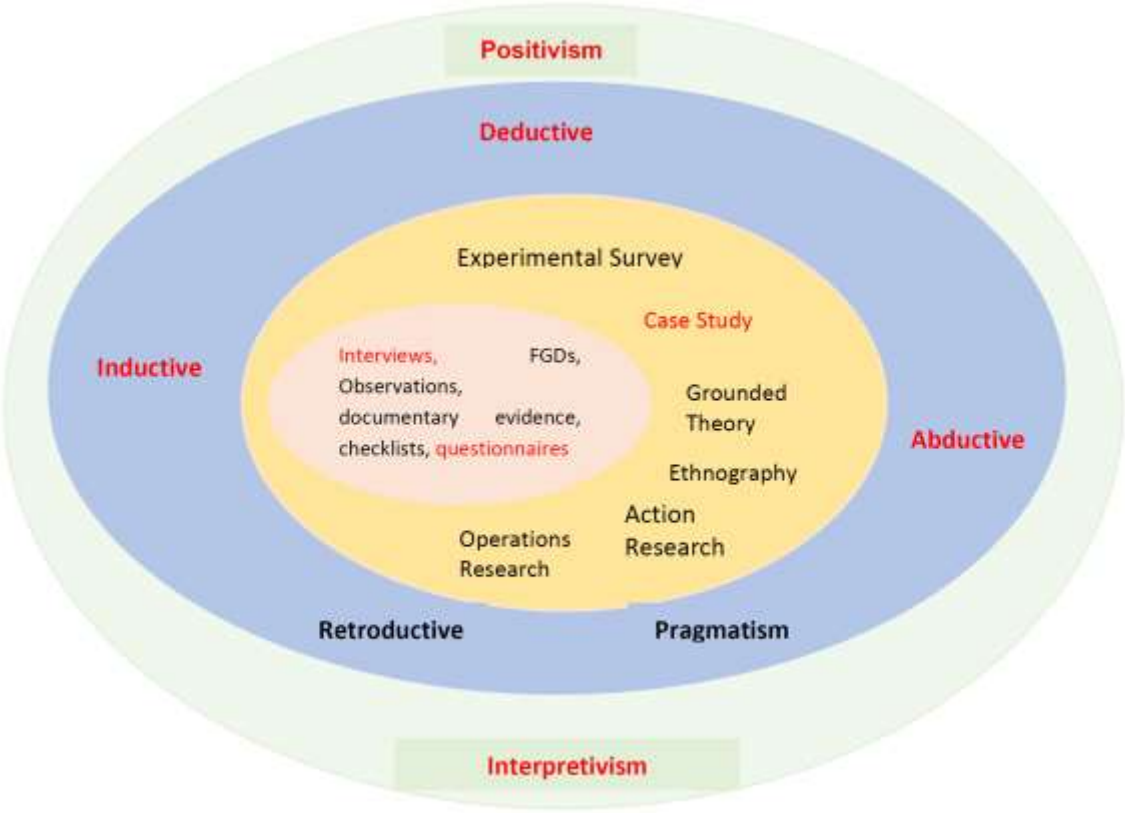


Figure 2: Onion logical diagram of research thought

3.1 Study Population

This study explored the entrepreneurial intentions of University of Zambia full time students who were in their final year. The University of Zambia is the largest and premiere university in the country with about 21,000 students studying both full time and part time. Of these, about 4,000 were full time final year students at the time of the study who were eligible to graduate in 2014. At the University of Zambia, full time students are registered to take a course load of four to five in academic year. Part-time students are those who were once enrolled as full time students but have failed one or two courses from a normal load. These students are not allowed to continue until the pass the failed course**.**

A sample of undergraduate students and especially in their final year is very common in entrepreneurship intention studies as this is considered the best time to make an assessment (Brenner et al., 1991; Krueger et al., 2000; Robertsonand Wilkinson, 2005; Veciana et al. 2005; Shariff et al., 2010; Achchuthan and Nimalathasan, 2012). In this study,

students were drawn from all faculties. The reason for including all faculties was to fulfil the purpose of including a wide range of different characteristics of courses and different programmes. Students were sampled from their respective strata (schools) to ensure representation according to the strength of their s u b populations (disproportionate sampling). Disproportionate stratified sampling was considered in this study in order to provide the greatest advantage in the ability to study the responses of subgroups that were generally small in the University like the schools of veterinary medicine, mines and agriculture. Questionnaires were chosen as the main data collection method in this study.

3.2 Sample Size Determination

The researcher used the formula below by Yamane (1967:886) who provides a simplified formula to calculate sample sizes. A 95% confidence level and P = 0.5 are assumed for the equation. This is sufficient and suitable for most of our needs.

$$n = \frac{N}{1 + Ne^2}$$

Where N = population size, n = sample size, e = error

Since the population N of fourth year final students is 4000 and the margin of error is 5%. The sample size is, n is thus determined as follows

$$n = 4000/ \{(1 + 4000(0.05)^2\} = 364 \text{ (rounded).}$$

That is, a sample size of 364 is selected, at a 95% certainty and a 5% margin of error for a population of 4000. The sample size also is often increased by 30% to compensate for nonresponse. Thus, the number of mailed surveys or planned interviews can be substantially larger than the number required for a desired level of confidence and precision (Glenn, 1992). In this study, it was increased by 109.

3.3 Presentation of Results

In total, a sample of 473 respondents, students, filled the questionnaire and all of them were returned. After checking for completeness and checking the missing values, 21 questionnaires were disregarded due to the high percentage of missing values. In essence, 452 questionnaires were usable and formed the analysis of this study. Overall, the response rate was 95.5%.

The sample was drawn from eight of the nine schools in the University covering the schools of Humanities and Social Sciences, Law, Natural Sciences, Engineering, Mines, Agricultural Science and Veterinary Medicine. The school of medicine was excluded because final year students are not permitted by law to engage into entrepreneurship after graduation. As such their intentions are pre-determined. Table 1 shows the distribution and no school was over represented since the proportions are close to the population's distribution.

Table 1: Distribution by school n = 452

School	***Frequency***	***Percent***
Education	128	28.3
Humanities and Social Sciences	103	22.8
Law	22	4.9
Natural Science	84	18.6
Engineering	63	13.9
Mines	14	3.1
Agriculture	22	4.9
Veterinary Medicine	16	3.5
Total	***452***	***100.0***

3.4 Data Analysis

Table 1: Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
After completion of your studies what are you intending do?		Statistic	df	Sig.	Statistic	df	Sig.
Educational support	Yes	.069	451	.200*	.985	451	.137
	No	.065	451	.003	.989	451	.022
Personal characteristics on intention	Yes	.093	451	.006	.963	451	.001
	No	.096	451	.000	.968	451	.000
Perceived barriers on intention	Yes	.063	451	.200*	.987	451	.232
	No	.088	451	.000	.991	451	.050
Perceived support	Yes	.056	451	.200*	.989	451	.335
	No	.044	451	.200*	.994	451	.229

a. Lilliefors Significance Correction

*This is a lower bound of the true significance.

The second method is the use of Q-Q Plots. In the figures below, the data are normally distributed because the data points are close to the diagonal line. If the data points stray from the line in an obvious non-linear fashion, the data are not normally distributed.

In the figures that follow, a graphical tool for assessing normality is presented. This is done in form of a normal probability plot, a quantile-quantile plot (QQ plot) of the standardized data against the standard normal distribution. Here the correlation between the sample data and normal quantiles (a measure of the goodness of fit) is measuring how well the data are modelled by a normal distribution. For normal data, the points plotted in the QQ plot fall approximately on a straight line, indicating high positive correlation (see figures 3 and 4).

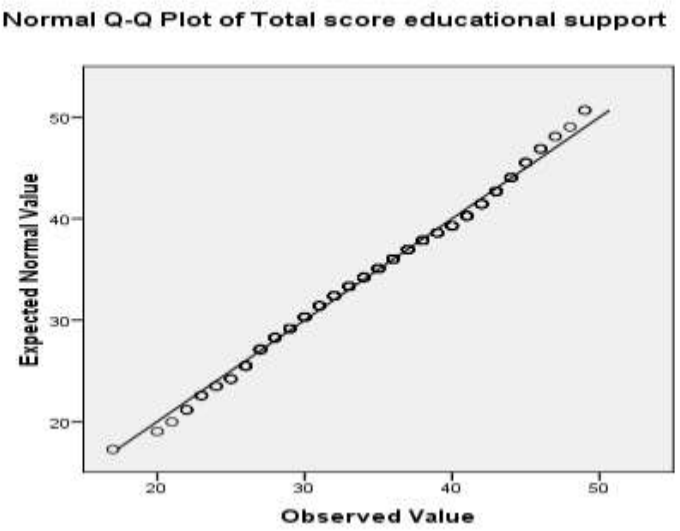


Figure 3: Normality for Educational Support

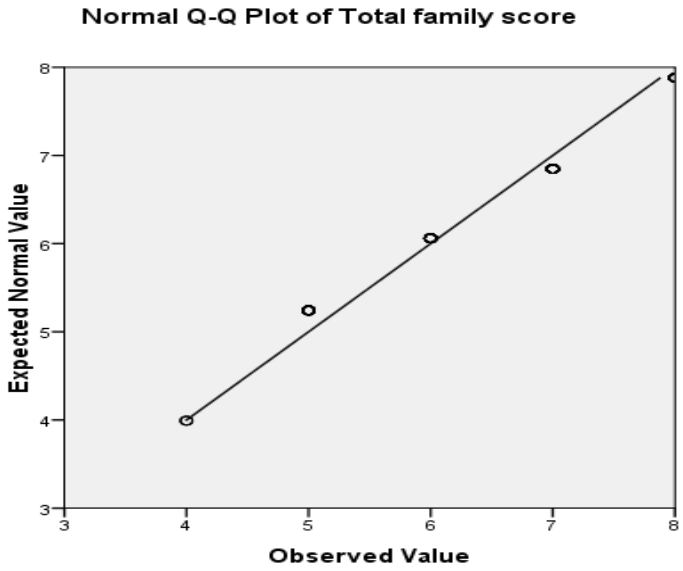


Figure 4: Normality for Family

3.5 Sample Characteristics

The sample was drawn from a population where a minority of the family's financial position n = 65 (14.4%) could be considered as supportive in terms of wealth to support the children's entrepreneurial activities. A sum account for a greater proportion n = 387 (85.4%) including the median decision point of those who said "somewhat sufficient to initiate some business" n = 114 (25.2%), n = 179 (39.6%) who said "less to initiate some business and n = 94 (20.8%) who said "too little to initiate some business" could be considered to come from financially un-supportive families to support the children's entrepreneurial activities.

3.6 Hypotheses Testing

HO1: Student participation in entrepreneurship education is not related to entrepreneurial intentions

The researcher desired to determine the extent entrepreneurial intentions may be sustained following class work through an inferential process or "mentalising" when students are exposed to extra-curricular entrepreneurial programmes. Here, the researcher assessed thirteen education Likert items. Results for each item or statement show that in all thirteen variables, the sum of students who either disagreed or strongly disagreed that while they were in the university, they had an opportunity to participate in a seminar or workshop on empowerment to engage in entrepreneurship was higher than the sum of those who strongly agreed or agreed. Table 2 shows that more students were located on the left of the midpoint (Agree to some extent - ASE) than to the right of the midpoint relating to each item or statement.

Table: 2. Education /support Factors n = 452

Education variables	*SDA*[1]	*DA*	*ASE*	*A*	*SA*
I took part in colloquia on financing entrepreneurial ventures	152	182	26	80	12
I took part in colloquia on technology and entrepreneurship	139	111	43	111	48
I took part in colloquia on social entrepreneurship	75	193	27	53	104
I took part in colloquia on entrepreneurial marketing	49	258	22	55	68
I took part in colloquia on innovation and idea generation	47	288	14	56	47
I took part in colloquia on business planning	13	184	81	68	106
I took part in colloquia on networking with other entrepreneurs	41	194	33	85	129
I took part in colloquia in networking and coaching activities or contact platforms with investors	17	188	34	87	132
I took part in colloquia on networking and developing business plans	77	184	34	67	90
I took part in colloquia on networking and mentoring programs for entrepreneurs	75	235	27	69	49
I took part in colloquia on coaching on entrepreneurial risk taking	71	231	21	73	56
I took part in colloquia on technology and research use in entrepreneurship	111	261	21	42	17
I took part in colloquia on seed funding / financial support	74	310	18	23	27

[1] SA = Strongly agree; A= Agree; ASE = Agree to some extent; DA= disagree and SDA = strongly disagree

Drawing on Likert's original thinking, the phenomenon of interest is measured by the aggregate group of items in the scale, not simply by any one item on its own (Spencer, 2015). In order to get the general outlook of the frequencies of education factors, the scores on each of the thirteen Likert items for every respondent were summed together to get a composite score as is the norm (Spencer, 2015). From the summed up composite scores, three interval scales with two outermost categories having equidistant values were created *a priori* (see Table: 19) below. These categories are (a) ideal education scores ranging from 13 to 27 (b), mid- point education scores ranging from 28 to 40 and (c) Not ideal education scores ranging from 41 to 65. In Table: 20 more than half of the students n = 299 (66.2%) had mid- point education scores as compared to n = 113 (25%) who did not have ideal education scores and a paltry n = 40 (8.8%) had ideal education scores. To affirm this distribution, the researcher triangulates with the mean value of the composite score. The sample mean was 34.5 (± SD 5.7) and this lies within midpoint education scores ranging from 28 to 40.

Table: 3. Education /support Factors Scores n = 452

Category of Education Factors	***Scores***	
	Frequency	***Percent***
Ideal scores	40	8.8
Mid-point scores	299	66.2
Not ideal scores	113	25.0
Total	452	100.0

A further description of the distribution using statistical values shows almost a Gaussian distribution. The sample distribution is skewed and value 0.033 is a near 0 the value which affirms a Gaussian distribution. The distribution shows a kurtosis value of -.487 indicating that the distribution is somewhat flatter (though with few hives) than which is seen in a Gaussian distribution.

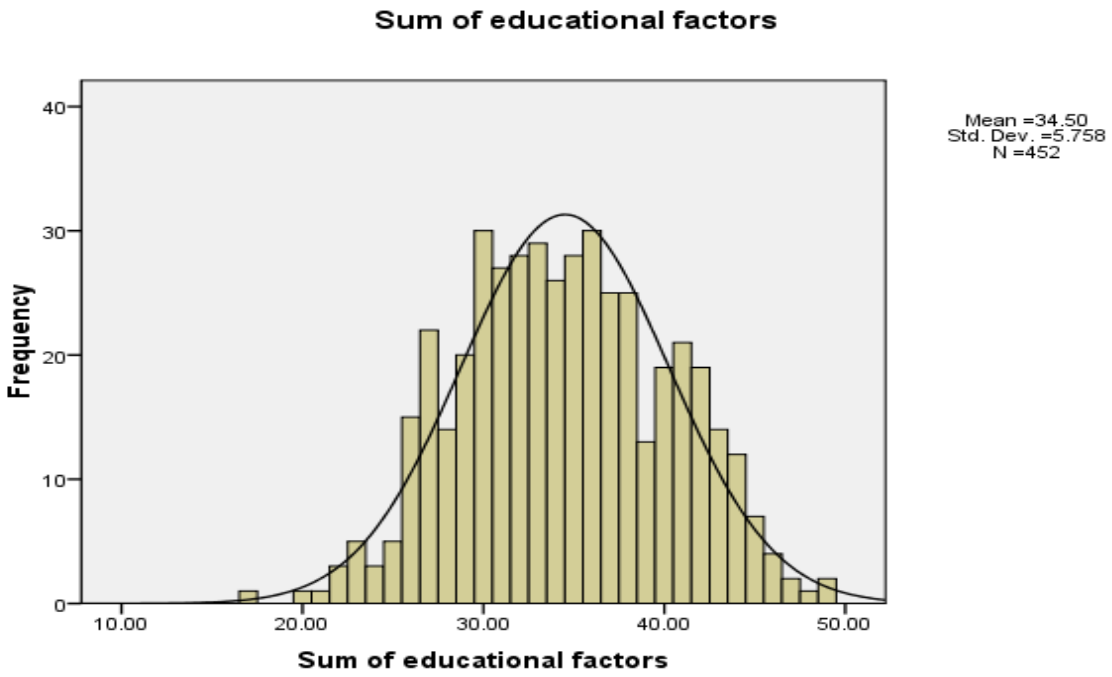


Figure 3: Histogram of entrepreneurial fortifiers after class work

Correlation tests using chi square test and *phi* coefficient between intention and education (classroom based learning) were assessed. The results shows no association since the ***p*** value was >.0.05 (X^2 = **0.**029; ***df*** =1; ***p*** = 0.866). Additional tests were done for fortifiers (complimentary factors to educational factor) which included attending seminars and workshops on entrepreneurship were analysed. The results showed no significant to significant correlation for the variables though some of the variables when subjected to a post hoc analysis, the Cramer V test showed a low effect size of association (see Table: 21).

Table: 3. Association of intention and education factors n = 452

	$X^2_{obs.}$ value	df	p and Cramer V values	Comment of association test
I took part in colloquia on financing entrepreneurial ventures	13.19	4	.010 and Cramer V =0.171	low association
I took part in colloquia on technology and entrepreneurship	1.10	4	0.894	No association
I took part in colloquia on social entrepreneurship	1.20	4	0.878	No association
I took part in colloquia on entrepreneurial marketing	6.70	4	0.152	No association
I took part in colloquia on innovation and idea generation	4.00	4	0.405	No association
I took part in colloquia on business planning	7.36	4	0.118	No association
I took part in colloquia on networking with other entrepreneurs	14.04	4	0.007 and Cramer V =0.176	Low association
I took part in colloquia in networking and coaching activities or contact platforms with investors	17.88	4	0.001 and Cramer V =0.199	Low association
I took part in colloquia on networking and developing business plans	8.69	4	0.069 and Cramer V = 0.139	Low association
I took part in colloquia on networking and mentoring programs for entrepreneurs	1.15	4	0.885	No association
I took part in colloquia on coaching on entrepreneurial risk taking	10.39	4	0.034 and Cramer V = 0.15	Low association
I took part in colloquia on technology and research use in entrepreneurship	11.04	4	.0026 and Cramer V = 0.15	Low association
I took part in colloquia on seed funding / financial support	21.06	4	0.001 and Cramer V =0.21	Low association

This study affirms that education does not play any significant role in enhancing entrepreneurship intention of the students at the University of Zambia. Drawing from this evidence, this study concludes that the students' entrepreneurial intentions are free from the influence of education. In essence, the null hypothesis: ***HO1:*** Education is not related to entrepreneurial intentions is sustained.

HO2: Family conditions are not related to entrepreneurial intentions

In order to capture prior family business exposure or conditions, an index of four questions was used. Respondents were asked to indicate Yes or no to the following questions: "I have participated in my family business undertaking, My parents are/were business owners (self-employed), I have/will inherit(ed) my parent's business and my family has played an important role in developing confidence in me by creating new ideas about me desiring to be an employer".

Based upon a "Yes" or "No" response, a profile of family business or factors of exposure was assessed singularly. The results in Table 4 shows that the frequencies of family factors influencing entrepreneurial intentions were far lower than those not influencing entrepreneurial intentions. In fact, the frequencies were less than 50%.

Table 4: Profile of family factors n = 452

	Frequencies			
	Yes		No	
	n	%	n	%
I have participated in my family business undertaking	131	29.0	321	71.0
My parents are/were business owners (self-employed).	161	35.6	291	64.4
I have/will inherit(ed) my parent's business.	96	21.2	356	78.8
My family has played an important role in developing confidence in me by creating new ideas about me desiring to be an employer	158	35.0	294	65.0

Correlation tests using chi square test and *phi* coefficient between intention and family conditions were analysed and showed no correlation (see Table 5).

Table: 5. Association of intention and family factors n = 452

	X^2obs. value	***df***	***p and phi values***	***Comment of association test***
I have participated in my family business undertaking	1.502	1	0.220	No significant association
My parents are/were business owners (self-employed).	7.842	1	0.005 and *phi* = - 0.132	A strong negative association
I have/will inherit(ed) my parent's business.	10.992	1	0.001 and *phi* = - 0.156	A strong negative association
My family has played an important role in developing confidence in me by creating new ideas about me desiring to be an employer	0.022	1	0.882	No significant association

Therefore, this study agrees to the notion that family factors are not antecedents of the students' perceived intention of entrepreneurship. Drawing from this evidence, this study concludes that the students' entrepreneurial intentions are free from family conditions. In essence, the null hypothesis: ***HO1:*** Family conditions are not related to entrepreneurial intentions is sustained.

4.0 DISCUSSION AND CONCLUSION

4.1 Education and intention

The fact that entrepreneurship education was not existent in the University curriculum points to the low levels of students who intend to break into entrepreneurship. This conforms the current reality and the government's hope of increasing the number of graduate entrepreneurs in Zambia is a pipe dream. According to the result of empirical study of on technology students from four different countries, and another study by Akpomi (2008) in Nigeria, entrepreneurial intentions tend to be shaped by the positive image of entrepreneurship and the supportive environment provided by their university.

There are numerous studies that have been conducted which have demonstrated a positive trend or creating a positive expectation that entrepreneurship education plays a significant role in cultivating entrepreneur-ship among graduates. Kolvereid and Moen (1997),

established that comparable to other students, those who specialise in entrepreneurship expressed that they had greater interest to become entrepreneurs and these students act more entrepreneurial than other students in taking up the experiment to initiate a new business. Thus, it is suggested that although it may not be possible to develop entrepreneurship from education exclusively, to certain extent, education has been shown elsewhere to have positive effect on personality factor that alter and contribute to the formation of entrepreneurship.

The implementation of entrepreneurship education in the courses being offered in all programmes at the University of Zambia seems to have failed to nurture and develop the characteristics and quality of entrepreneurship among students and this is because it is conspicuously missing in the curriculum. This was also a finding by Mohd Fauzi et al. (2007) when they assessed entrepreneurship and business competitiveness in Selangor in Malaysia.

While some students may have extracurricular entrepreneurial induction workshops or exposures, these have been disappointing in persuading students to engage in entrepreneurial activities. If education programs on entrepreneurship do have a positive impact on students 'entrepreneurial intentions as some studies have demonstrated, it could be argued that this effect is not consistent across different countries.

There is evidence on the contrary which affirms the reasons students may not break into entrepreneurship. These reasons may apply in some cases among the prospective graduates who participated in the study. Salmah (2009) for instance explored aspirations towards entrepreneurship as career among students and found that the graduates who become entrepreneurs do so through unplanned career paths, venturing into business in order to gain experience, while waiting to secure employment. The research outcomes in this study contradicts the findings of researchers like those by Sluis et al. (2004); Heinonen, (2007) and Strydom and Adams, 2009). These researchers posit that entrepreneurship education and training tend to successfully create a kind of stimulus and fosters in a culture a sense of entrepreneurship among graduates. Given the contradictory position by Salmah (2009) that the graduates who become entrepreneurs do so through unplanned career paths and not by virtue of education, venture into business in order to gain

experience, while waiting to secure employment, one may argue that it may not be prudent to buy into Lüthje and Franke (2003) arguments who suggest that public policy and universities ought to intensify their activities to implement educational, research and resource programs on entrepreneurship. Türker and Selçuk (2009) would also argue that university education is an efficient way for obtaining necessary knowledge about entrepreneurship.

The researcher recognises further the positive role played by complimentary education factors like seminars and workshops which was rather low in this study. In this study, though most of the students were not exposed to learning about entrepreneurship in class, a considerable number were going to complete their bachelor's degree with exposure following practical exposure to entrepreneurship through workshops and seminars. Some of the entrepreneurship activities like seminars and workshops had some association though of low impact.

There are notable points of departure from previous research. Opoku-Antwi et al. (2012), established that majority (91%) of the respondents were of the opinion that entrepreneurship could be developed through education as long as they taught entrepreneurship in their schools. This study has proved the initial assumption that university education at this highest institution is mainly oriented towards preparing students for employment in the public and private sectors and that most of the graduates do not have an entrepreneurial mind-set. The curricula content and context of courses conveyed do not embrace entrepreneurship and as such, students opt for an occupation rather than being an employer. This evidence contrasts sharply to crafting careers in and out of organizations (Baruch, 2004; Hall, 2002). It can be inferred that since nearly all former students have passed through the same programmes and their learning contexts are similar, it therefore follows that the former graduates are also trained to be employment seekers instead of employment creators. It is not evident from the crop of final year students that at the macro-level that there will be any significant contribution to job creation, innovation and economic growth.

4.2 Family Factors and Intention

A critical examination of the findings in this study shows that as far as the influence of the families' entrepreneurial background on students 'entrepreneurial intention is concerned,

the study was unsuccessful to powerfully support the notion that students who had entrepreneurial family experiences have more entrepreneurial intention than those who come from non-entrepreneurial families. Despite the fact that the number of students whose family members have business enterprises were few, the research outcomes are similar with Frazier and Niehm's (2006) work. The two posited that exposure to family entrepreneurial activities could lower entrepreneurial students' entrepreneurial intentions because students may experience a less attractive side of business ownership. He submitted that although students whose families had enterprises, they were generally not inclined towards becoming entrepreneurs. This was due to the fact that students were highly critical of their interests towards entrepreneurship as a career in spite of the exposure in the family to entrepreneurship.

Unlike this study, it is an established fact in some studies that family with a business background has an influence and motivates children to venture in entrepreneurial activity. In addition, parents expect their children to possess a greater propensity to initiate a business in future (Kirkwood, 2007). In this study, socio-cultural background, which may take the form of an entrepreneurial family tradition, would not play a significant role in spurring confidence, generating ideas and lead to a career path. The families were not in a position to create the need for students to become entrepreneurs. It is also not true from this study that children tend to acquire certain business skills from family induction prior to their business start-up as previous research would claim things to be (for emphasis see Franke et al., 1991; Matthews and Moser, 1996; Basu and Virick, 2008; Linan et al., 2005; Carr and Sequeira, 2007). In addition, past family entrepreneurial experience has not provided ideas, vision and confidence to start a new business as argued in previous studies like those of Mueller (2006) and Carr and Sequeira, 2007). In this study, therefore, parents do not function as carriers of values (Rahmawati et al., 2012) and a beacon towards business ownership (Carr and Sequeira, 2007).

In this study therefore, and contrary to previous research, the general hypothesis where individual entrepreneurial traits and the good impact brought by family add to higher intention towards entrepreneurship has been found to be unsustainable (Din 1992; Kirkwood 2007; Koh 1996; Mazzarol et al. 1999). Wang and Wong (2004) in Singapore found main obstacles to intention as inadequate business knowledge and perceived risk. Demographic variables affecting the intention were gender, and family experience with business. The results indicate that family income status, ethnicity and citizenship do not

significantly affect intention. Unlike this study, Zain et al., (2010) conducted a study on Malaysian undergraduate business students in public university.

The Malaysian study further revealed that more graduating students have a desire to pursue entrepreneurship and they are influenced by entrepreneurial courses which family members may have taken and family members who are entrepreneurs and academics who are in business related disciplines. Reitan (1996) for instance while using a combined model approach like this study showed that experience with family business tended to create positive impacts on perceptions that siblings had of feasibility and desirability of new ventures. In a related argument, while examining the impact of childhood experiences on the development of entrepreneurial intentions found that children that reported a positive view of their family's business experience perceived starting a business as both desirable and feasible. Harris and Gibson (2008) in a study that examined entrepreneurial personality factors of students did demonstrate that business students who reported having previous entrepreneurial exposure through one's family small business tended to exhibit strong entrepreneurial attitudes. Krueger (1993) also postulated that young people from households that owned their own businesses were more likely to start their own business than those households who had no business.

4.3 Conclusion

The research has provided credible information on the levels of student entrepreneurial intentions and antecedents. The integrative, multi-perspective framework does not hold for the students at the University of Zambia in influencing students' individual entrepreneurial intentions. The University of Zambia should ensure that offering these programs should be encouraged across different academic faculties. Stimulating entrepreneurship interest among students in institutions of higher learning should be one way of curbing youth unemployment.

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