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THE IMPACT OF INTEGRATING ENTREPRENEURSHIP EDUCATION IN A REAL ESTATE DEGREE PROGRAMME ON ENTREPRENEURSHIP INTENT

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A research report submitted to the Faculty of Engineering and the Built Environment, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the MSc (Building) in Property Development and Management

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DECLARATION

I, Karabo Masia, student # 0304109J, am a student registered for the course Master of Science in Building in the year 2017. I hereby declare the following:

I am aware that plagiarism is wrong. I confirm that the work submitted for assessment for the above course is my own unaided work except where I have stated explicitly otherwise. I have followed the required conventions in referencing thoughts, ideas and visual material of others. For this purpose, I have referred to the Graduate school of Engineering and the Built Environment style guide. I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this work is not my own unaided work or that I have failed to acknowledge the source of ideas or words in my own work.

Signed:_____ Date:_____

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Abstract

The lack of entrepreneurship is an obstacle to economic development. In South Africa (SA), disciplines are taught in a context that is enterprise-based, with no emphasis on the need to impart business start-up skills within specific disciplines. A culture of entrepreneurship is lacking, resulting in low records of entrepreneurship incidents in SA.

The challenges and/or benefits of integrating entrepreneurship education within the South African real estate (RE) course and its effects on graduates' entrepreneurial intent, is not well understood. The purpose of the research is to investigate whether the introduction of entrepreneurship education within the RE discipline would encourage graduates to become entrepreneurial in the practice of real estates.

A mixed methodology approach has been used in this research. Primary and secondary research data has been made available in the form of questionnaire surveys of graduates and course directors/lecturers from the University of the Witwatersrand and other international universities that have entrepreneurship education embedded within their real estate programmes, as will be selected by the researcher.

The research has found that both pedagogical strategies of course work and applying experiential learning teaching methods would be required to effectively integrate entrepreneurship education within a real estate programme in a manner that would stimulate graduates to be entrepreneurial in the practice of real estate, although it was not known whether the graduates would actually start businesses and when they intended to do so. It was also found that those students whose studies took place in real estate programmes that had entrepreneurship education embedded in them were more commercially aware. The integration of entrepreneurship education also resulted in an improvement of graduate self-esteem and confidence. Graduates were endowed with adequate professional, interpersonal, technical and business skills. The research, however, found the majority of real estate courses lacked in teaching graduates to be more versatile. The courses largely lacked in the provision of industry exposure and were inadequate in teaching graduates how to market themselves and their real estate businesses. According to the findings on the individual entrepreneurship test, graduates that studied entrepreneurship-based real estate courses had a higher probability of starting a business.

Chapter 1: Introduction

1.1. Research Background

Epley (1996: 229-236), Black and Rabianski (2003), Weinstein and Worzala (2008: 378-413), Chambers, Holm and Worzala (2009), Cloete (2002), Poon et al (2012), Saginor et al (2014), Poon (2014) and Egwuatu (2013), performed studies looking at stakeholder requirements for real estate degrees. The stakeholders included real estate students, graduates, employers and course directors. Poon (2014) found that real estate graduates were worried that they were insufficiently prepared for the real world. This made them suspicious of their abilities to behave entrepreneurially by starting a real estate business. She, however, noted that the graduates were above average in "analytical, computer and communication skills," but their acquired knowledge and the practice of building construction and property development suffered greatly due to a lack of experience. Pine et al (1995: 103-119) also found that both employers and graduates affirm their lack of readiness for the real estate business. They attribute it to this to lack of commercial awareness. Epley (2004: 45-60) is also of the view that real estate education requires "basic business and management skills". It is the view of the researcher that currently these skills may be acquired for the few that have access to business schools. The cost of education, coupled with the geographic limitation of institutions where business skills may be acquired limits the number of students that may enter such programmes and benefit from exposure to an environment created to support entrepreneurship.

Egwuatu (2013) is also of the view that entrepreneurship education should be embedded into the real estate property management course in Nigeria. She identified gaps in the teaching, learning and assessment of real estate management and proposes the integration of entrepreneurship within the real estate course as a solution in dealing with such gaps. It is the opinion of the researcher that such gaps can also be identified in other disciplines and are not restricted to real estate courses.

Other studies where entrepreneurship education was identified as a requirement include Callanan and McCarthy (2003: 23-30) in New Zealand, Nappi-Choulet (2003: 55-62) in France, Lizieri and Baum (2002) in the UK as well as Anderson, Loviscek and Webb (2000: 35-41), Chambers, Holm and

Worzala (2009) identified a gap between real estate education and the industry. They proposed the integration of entrepreneurship education within real estate studies in order to establish closer links between real estate education and industry.

According to Herrington et al (2009), there are a significantly large number of young South Africans that believe that they are insufficiently equipped with entrepreneurial competencies. They believe that they lack the knowledge, skills and experience to initiate their own businesses. This exacerbates the need to entrench learning and teaching methods that will equip students and graduates with entrepreneurial skills. Similarly, according to Isaacs et al (2007: 613-629), SA students are not self-driven in becoming employers due to a lack of entrepreneurial skills. Herrington et al (2012) share the same view by stating that SA primary and tertiary education does not sufficiently equip graduates with entrepreneurial skills. It is the view of the author that this may also be a resultant of an environment in South Africa that is not conducive to business start-ups. Other factors may be those regarding gender disparity and cultural differences, which act as a hindrance to accessibility to business opportunities.

Ghulam et al (2008: 545-551) interrogated the relationship between tertiary institutions and business start-up. They assert that Higher Education Institutions (HEI's) have an important role to play, given their influence on student's decision-making processes and shapes perceptions of the feasibility of a business start-up, instead of an intense move to produce job seekers. The introduction of entrepreneurial education will help in stimulating a culture of entrepreneurship in real estate schools. Volkmann et al (2009), agree with this notion through their views that the concept of entrepreneurship in HEI's is important. Like most other disciplines, real estate education is based on the need to meet the requirements set by industry practitioners and corporates. Manning and Epley (2006: 37-59) posit that less focus has been placed on equipping students with entrepreneurial skills (Gibler K., Black R. and Moon K., 2002).

Yar Hamidi et al (2008: 304-320) stated that "there seems to be consensus amongst stakeholders that entrepreneurship education has a positive impact on entrepreneurship intentionality" but it is unclear as to what extent, as it brings about entrepreneurial skills development, increase in business

knowledge and builds up other attributes associated with entrepreneurial education (Krueger, N.F., Reilly, M.D. and Carsrud, A.L., 2000). It seems however "unclear that improved intentionality leads to an increase in entrepreneurship or whether it contributes to greater success upon establishing a new venture" (Pittaway, L. and Cope, J., 2007).

1.2. Statement of the Research Problem

However, it is unknown which programs now include entrepreneurship as a course, which programs embed aspects of entrepreneurial skills into the programs and to what extent the inclusion of entrepreneurship affects entrepreneurial intent.

Ezepue and Ezepue (2008) indicated that one of the challenges in pedagogy has been the difficulty of translating knowledge that has been learnt into practice that results into a new venture. This notion is also supported by Egwuatu (2013) who notes the disconnection between knowledge that is acquired from Higher Education Institutions (HEI's) and the practical application of that knowledge in business. Schwab (2013) found a link between entrepreneurship and education. The report advocates integrating entrepreneurship education with "entrepreneurship-themed university programmes". He, further, argues for an earlier start through close relations between secondary school programmes and those of higher learning institutions. It, further, provides empirical evidence of this through Florida's Buchholtz High School Academy of Entrepreneurship, which provides opportunities for students to manage their own start-up businesses. The notion of this link is also supported by Luthje and Frank (2002), Robinson and Sexton (1994: 141-156); and Charney and Libecap (2000) who postulate that "a positive correlation exists between education and business creation." The problem is emphasized when the academic objectives of the real estate educational programme are not systematically linked to entrepreneurial wealth-making objectives. Furthermore, they noted the disconnection between various teaching styles and the characteristic learning abilities of students (Isaacs, E.; Visser, K.; Friedrich C. and Brijlal, P., 2007). Chambers, Holm and Worzala (2009) found that it may be difficult for students to see the broad application of their knowledge due to lack of practical exposure in the field. It, therefore, is incumbent upon higher education institutions to create the platform for real estate education to have a closer relationship with industry.

Currently in South Africa, entrepreneurship education is restricted to the confines of business schools, which have their own geographic limitations thereby limiting the number of students that may enter such programmes and benefit from exposure to an environment created to support entrepreneurship (Schwab, 2009); Gibb et al (2006: 73-110). The training courses are often costly, time-consuming and offer a more generalized approach to entrepreneurship, rather than discipline-focussed entrepreneurship (Gibb, 1997). Egwuatu (2013) suggests that a more effective way of teaching entrepreneurship is within the context of a particular discipline where entrepreneurial outcomes may be aligned in accordance with industry needs. A report by the European Commission (2008) stated that entrepreneurship education is not to be confused with general business and economic studies. Researchers in the field of entrepreneurship have reached a consensus that more attention is to be given to entrepreneurship education than business education (Isaacs, E.; Visser, K.; Friedrich C. and Brijlal, P., 2007: 615).

Westhead et al (2001: 14-20) found that there are difficulties in measuring output or performance of entrepreneurship programmes. Currently, there seems to be no universally accepted criterion that is used to measure effectiveness of entrepreneurship programmes. Henry, Hill and Leitch (2005a: 98-111) suggest that the best way to measure effectiveness of the training is to relate the programme outcomes to objectives, which for a programme that is entrepreneurially focussed should largely be economic. In SA HEI's, subjective views of students or those participating in the course is used as the basis for evaluation.

1.3. Importance of the Research

The purpose of this research was thus to investigate the challenges and/or benefits of integrating entrepreneurship education within a South African Real Estate Property Development (REPD) course and its effects on graduates' entrepreneurial intent, which is currently not well understood. The research looked at whether the introduction of entrepreneurship education within the Real Estates (RE) discipline would enable graduates to become more entrepreneurial in the practice of real estate. It has done this by considering the views and opinions of students and graduates.

Students, graduates and course directors, as key stakeholders, stand to benefit from embedding entrepreneurship education within the real estate discipline as they are the receivers and conductors of such an educational program and would have the benefit of practically applying it. Notwithstanding that there may be other indirect beneficiaries such as industry role players; however, for the benefit of this research, this document will focus on the impact that embedding entrepreneurship in real estate programs has on graduate's entrepreneurship intent. It seems important to also focus on course directors and to obtain their views and opinions on which pedagogical models they have applied in designing and structuring real estate programs that integrate entrepreneurship competences within it.

Isaacs et al (2007) highlighted the need for a culture of entrepreneurship to be adopted within higher education institutions (HEI's) in order to encourage graduates to act more entrepreneurially. This is supported by the notion that HEI's play a pivotal role in influencing student's decisions and perceptions on career choices. Through addressing this matter, students and graduates from Real Estates (RE) institutions of higher learning may be motivated to opt for entrepreneurship within the real estate discipline as a career choice.

Poon (2014) and Epley (2004) highlighted concerns about the lack of business skills, commercial awareness and readiness of graduates for the real world. Addressing the problem will yield graduates that are endowed with an entrepreneurial mind-set and skill that can be put to practice upon graduation from university. By having more graduates behaving entrepreneurially, this may help in contributing to the growth of the economy and job creation efforts of the country.

As a result of producing graduates that are equipped with entrepreneurial skills that are relevant for the industry, this will also help in bridging the gap between real estate education and industry by bringing them closer.

Embedding entrepreneurship education within the real estate discipline aims to address the need to improve real estate programs' learning and teaching outcomes by integrating entrepreneurship competencies within its curriculum, thereby aligning the course objectives with objectives that have entrepreneurial outcomes. It may be suggested that course directors will indirectly benefit by making

provision for a more effective manner of learning, teaching and assessment of curriculum outcomes. This may result in the improvement of the quality of graduates.

Extensive research has been done on pedagogy of entrepreneurship education, but little is known on the impact of entrepreneurship education on entrepreneurial intentions. The research is important as it contributes to the body of knowledge that deals with the impact of entrepreneurship education within a real estate program on graduates' propensity to start a business.

1.4. Aims and Objectives of this research

Aims

The aim of this research is to ascertain the impact of integrating entrepreneurship within the real estate degrees on the graduates' entrepreneurial intent.

Objectives

Objective 1: To determine the existing linkages between entrepreneurship and education programs in real estate.

Objective 2: To explore which real estate programs have incorporated entrepreneurship education training within their programs and what proportion of these have entrepreneurship skills embedded within them.

Objective 3: To investigate how the introduction of entrepreneurship education into real estate programs has impacted graduate's entrepreneurial intent.

1.5. Research Questions

1. Which real estate programs have incorporated entrepreneurship education training within their programs? What proportion of these have entrepreneurship skills embedded within them. (Objective 1)
2. How would entrepreneurship education be integrated within a RE programme in order to stimulate graduates to be entrepreneurial in the practice of real estate? (Objective 1)
3. What are the specific entrepreneurial skills and proficiencies required to inform the learning and teaching of such a programme? (Objective 1)

4. What are the current gaps in the teaching and learning of Real Estate as identified by students, graduates and other stakeholders in the industry? What pedagogical models would be appropriate for the teaching and learning of entrepreneurship education within a real estate degree? (Objective 2)

1.5.1. Research Sub-questions

1. What is entrepreneurship and what are the character traits of an entrepreneur?
2. What is entrepreneurship education and what is entrepreneurial intent?
3. What are the important aspects of entrepreneurship would be considered important in order to stimulate entrepreneurial intent?
4. How can real estate education be linked with the entrepreneurial pipeline?
5. Should entrepreneurship education be part of a real estate program and how can it be embedded into the program?

1.5.2. Structure of the rest of the research

Chapter 2 provides the main body of the study, which relates to the literature review of the existing body of knowledge in this research area. The research is confined to the main issues relating to the following discussion topics:

- Entrepreneurship concepts and theories within the real estate discipline
- Entrepreneurial skills and attributes
- The Entrepreneurial Mind-set
- The pedagogy of entrepreneurship
- Entrepreneurship in the real estate sector
- Entrepreneurship and the real estate sector
- Entrepreneurship Education in South Africa
- Conclusion

Chapter 3 focuses on the quantitative research methodology. It provides an analysis of the instruments that have been used to collect the data. It looks at the make-up of the questionnaire survey as the data collection method as a result the quantitative research methodology.

Chapter 4 presents the analysis of the data that has been collected and the analysis approach. Data will be collected from real estate property development students and graduates locally and abroad.

Chapter 5 presents a conclusion by summarising results obtained from the data analysis. Furthermore, the research proposes future studies that could be conducted in this area of research.

Chapter 2: Literature Review

2.1. Introduction

According to Amoros et al (2013: 27), with reference to the 2013 Global Entrepreneurship Report, South Africa has one of the lowest entrepreneurship Intentions rates in Sub-Saharan Africa. This is as a result of a lack of a culture of entrepreneurship, entrepreneurial education and youth entrepreneurship initiatives, which is of great concern given that South Africa's economic backbone is primarily premised on the growth and development of small to medium enterprises. Isaacs et al (2007) highlighted the intention of HEI's in creating job seekers rather than entrepreneurs. It may be suggested that the role of HEI's is therefore important, as such institutions play a pivotal role in influencing student's decisions and perceptions towards considering entrepreneurship as a career choice. Schwab (2009) postulated the connection between entrepreneurship and education. He believes that entrepreneurship stimulates "innovation, employment and economic growth", therefore pointing out the importance of developing the kind of education that will provide outcomes that will equip students and graduates with entrepreneurship skills and attributes.

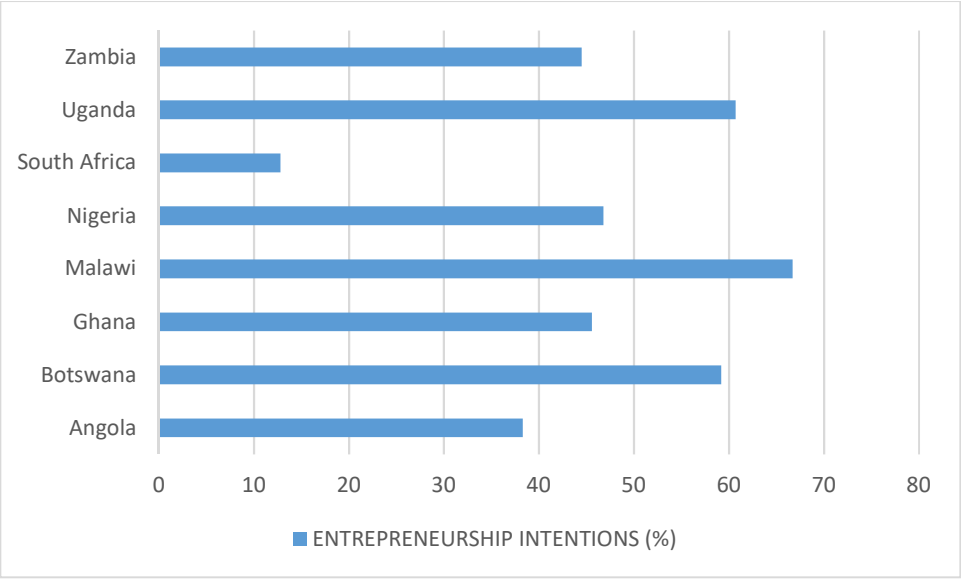

Figure 1. Entrepreneurial attitudes and perceptions in GEM economies in 2013 by Geographic region (% of population aged 18-64) (Amoros, J. E. & Bosma, N., 2013: 27)

By focussing the research on a real estate education programs in South Africa and comparing them to other more established international real estate programs that have embedded entrepreneurship education within their curriculum, the research has interrogated the learning and teaching methods and outcomes yielded by the education programs in an attempt to interrogate whether it equips students and graduates with entrepreneurship competencies. The development of entrepreneurship education within the real estate discipline may provide opportunities to create human capital that is equipped with entrepreneurship skills and attributes.

Currently, entrepreneurship education does not form part of education policy in South Africa. This has resulted in the lack of development of critical entrepreneurial skills among real estate graduates. The outcome is highly knowledgeable graduates who are unable to link the knowledge that they have acquired with practice (Egwuatu, 2013: 1-3). According to Egwuatu (2013: 1), the government of Nigeria have put in place an initiative to ensure that tertiary institutions in Nigeria establish entrepreneurial Study Centres to co-ordinate the teaching of entrepreneurial education and initiate business development.

According to Scott et al (2016: 82-93), many studies have been conducted in the area of entrepreneurship. Extensive research has been conducted on the pedagogy of entrepreneurship education; however, less focus has been dedicated to the impact of such an education. The research has discussed the pedagogy of entrepreneurship education in order to provide a critical appraisal between lecture-based teaching and learning; and experiential learning, in an effort to highlight the one that seems more effective in equipping students and graduates with entrepreneurial skills and attributes. The research has also focussed on the impact of pedagogy of entrepreneurship on graduate entrepreneurship intent within the real estate property development sector. This research may be adapted for other courses within the RE discipline. The research has also studied the curriculum outcomes and objectives of real estate programs in relation to entrepreneurial objectives of the program.

2.1.1. Definition of Key Terms

Entrepreneurship: According to Rwigema and Venter (2004), entrepreneurship is a life-long process whereby an innovator and someone who is willing to assume business risk identifies an opportunity and start up a business under varying circumstances and environments. It is the researcher's view that entrepreneurship is the process of creating a new business or bringing about a new business concept or initiative. It may be suggested that there may be a difference between an entrepreneur and a businessperson. According to the researcher, though an entrepreneur and a business person are similar, a business person is one that simply sets up a business and takes on financial risk. An entrepreneur goes further by bringing about innovation to the business start-up. An entrepreneur is also not limited by the confines of their industry but finds ways of adapting to different business environments. An entrepreneur identifies new opportunities that may have not been sufficiently explored previously, and takes on an added commercial risk by investing in such a new opportunity.

Entrepreneurship Education: According to Isaacs et al (2007) "[e]ntrepreneurship education can be defined as the purposeful intervention by an educator in the life of the learner to impart entrepreneurial qualities and skills to enable the learner to survive in the world of business." In the view of the researcher, entrepreneurship education is an entrepreneurship-based pedagogy, imbued in an environment that is created to stimulate and enhance business creativity, where a culture of entrepreneurship can flourish.

Entrepreneurship Intentions: According to Fini et al (2009: 1-36) entrepreneurial intentions are a result of "psychological characteristics" such as ability to take on risk and self-esteem (Zhao, H., Seibert, S.E. and Hills, G.E., 2005: 1265-1272), individuals skills, and environmental influences" (Lüthje C & Frank N, 2002). To the researcher, entrepreneurship intention is the purposeful goal and mind-set to start a business. It is to be stated that entrepreneurship intentions may not necessarily result in a business start-up, but in the opinion of the researcher, it is the aim or high probability that an individual may express their interest in setting up a business, which is motivated and encouraged by an enabling entrepreneurial environment that stimulates an individual to consider setting up a start-up business or taking up entrepreneurship as a career choice.

2.2. Entrepreneurship Concepts and Theories

In order to effectively analyse the process of integrating entrepreneurship education in an effort to understand whether it yields its desired results, the research must briefly look at some themes that have been explored within entrepreneurship education as depicted by Pittaway and Cope (2007: 479-510). The research is a discussion on findings based on a thematic framework. The purpose of the thematic framework highlights the relationships between the various themes and the knowledge gaps. The diagram below indicates some empirical research areas within entrepreneurship education. This research seeks to investigate this further. Pittaway and Cope (2007: 479-510) found that the development of entrepreneurship education has been a response to government policy and that it also helps to raise awareness of business opportunities and perceptions.

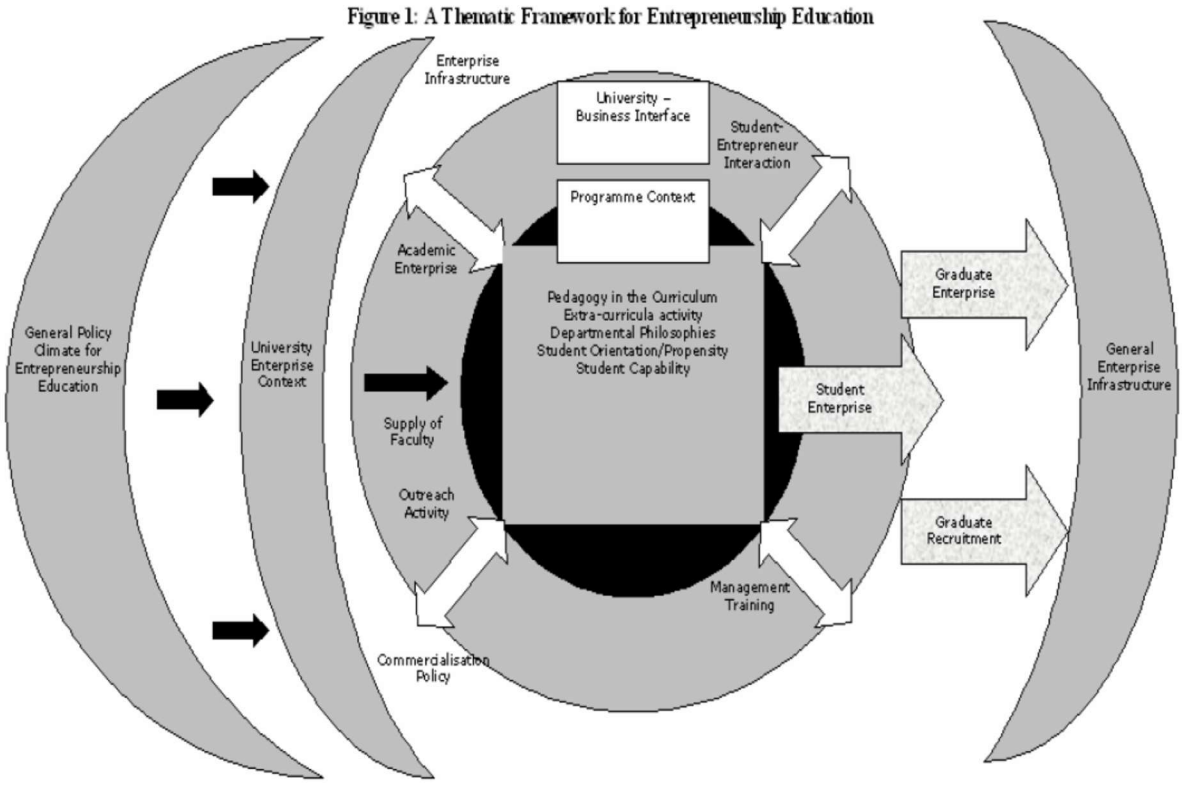

Figure 2. Thematic Framework for Entrepreneurship Education (Pittaway, L. and Cope, J., 2007)

According to Rwigema and Venter (2004), entrepreneurship is defined as the "process of conceptualising, organizing, launching and, through innovation, nurturing a business opportunity into a potentially high growth venture in a complex, unstable environment." An entrepreneur is the one who assumes business risk. Furthermore, an entrepreneur is an innovator, or developer who identifies and seizes business opportunities and realizes economic benefits from it (Morris, M.H. and Kuratko, D.F., 2001). Wilson et al (2009: 42-79) also sees entrepreneurship as a lifelong process where entrepreneurial skills, abilities and mind-set are developed. According to Shane and Ventakataran (2000: 217-236), entrepreneurship is a process of discovery, exploiting of opportunities, managing risk and co-ordinating resources. Louw and McMillen (1988: 139-161) stated that entrepreneurship is a process of creating something different or new. A panel of experts in the field of entrepreneurship education representing the European Commission (2008) describe an entrepreneur as "an individual who turns ideas into action. They state that entrepreneurship includes creativity, innovation and risk taking. The ability to plan and manage a project with the purpose of achieving an economic objective."

The consortium for Entrepreneurship Education (2004) share a similar view of entrepreneurship and further point out the fives phases of the entrepreneurial pipeline, namely: "basics, competency awareness, creative applications, start-up and business growth."

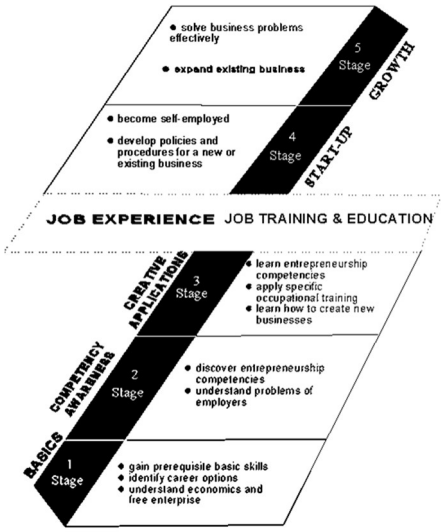

Figure 3. Entrepreneurial stages as depicted by the Consortium for Entrepreneurial Education (Entre-Ed, 2004)

Two schools of thought or theories are interrogated when dealing with the concept of innovation and entrepreneurship, namely Schumpeter and Drucker's schools of thought. These are the leading theorists on the subject. Schumpeter's theory advocates that entrepreneurial activities play an important role in the dynamics of innovation. The theory argues that "innovation and technological change of a nation are initiated by entrepreneurs or by an entrepreneurial culture." It calls for a new approach to business activities that is more innovative. Schumpeter's theory also argues that "it is the large venture capitalist companies that have invested in research development, including small to medium sized business enterprises, that have contributed to the development of new products, resulting in an improvement of living standards in society" (Hagedoorn, 1996: 883-896). Innovation is seen as a "successful introduction of new products and processes," resulting in new industries (Schumpeter, 1934). Drucker's school of thought advocates for the disciplines of innovation and entrepreneurship within big business, otherwise known as entrapreneurship. "This is the ability to apply entrepreneurial (notions), attributes and skills while under employment." It is important to distinguish between the two theories. For the purpose of this research, entrepreneurship was viewed in line with Schumpeter's interpretation of entrepreneurship, which emphasized the importance of new ventures by individual entrepreneurs, in this instance, recent graduates.

2.3. Entrepreneurial Skills and Attributes

This part of the research discusses the characteristics of an entrepreneur in relation to entrepreneurial skills and attributes. It looks at variables that contribute towards the attitude and behaviour that may be used to determine a person's propensity towards entrepreneurship. Nabi and Holden (2006: 373-385) investigated the theory of entrepreneurial behaviour and how it impacted the success of a new venture by assessing the activities of entrepreneurs in order to determine which activities promote successful businesses and which hinder it.

Some personal characteristics common in individuals that have a propensity towards entrepreneurship are high self-esteem, confidence, ability to be initiative, innovative, creative, risk taking and versatile (Lüthje C & Frank N, 2002) (Stewart, W.H., Watson, W.E., Carland, J.C. and Carland, J.W., 1999:

189-214). All the above-mentioned attributes and characteristics can be developed in individuals from primary to tertiary level of education.

Egwuatu (2013) stated that the mind-set of entrepreneurship graduates is shaped by their daily activities. Such daily activities also play a role in the success or failure of any new ventures that RE students and graduates may undertake. She believes that a person's attitude and decision-making capabilities will ultimately contribute towards the motivation to start their own venture. Luthje and Franke (2002) proposed a model of entrepreneurial intent among engineering Students. This model, amongst others, will be briefly studied. Some aspects of it may be proposed as an effective pedagogy of embedding entrepreneurship within the RE discipline within a SA context.

Manning and Empley (2006) found that "strategic planning and real estate portfolio management are critical knowledge and skills for future corporate real estate managers." They also stated that "soft skills such as negotiation and deal-making were crucial skills" that real estate graduates should not be without. It is the view of the researcher that such skills can be more effectively taught through processes of work-integrated learning or experiential learning. Dhliwayo (2008: 329-340) affirms this notion in that HEI's should provide the necessary platform for entrepreneurial skills to be developed through a graduate entrepreneurship program that encompasses work-integrate learning within the real estate curriculum.

Morris and Jones (1999) commented that additional entrepreneurial skills and attributes were required in order to be more effective as an entrepreneur. Their study focussed on the need for the development of soft skills critical for the success of an entrepreneur. This includes networking skills, team work, business strategy and the ability to co-ordinate a team of people towards a business orientated goal. It may be suggested that HEI's are best positioned to create the suitable environment to nurture and develop personal and professional skills and attributes within in a controlled setting.

Pine et al (1995: 103-119) and Poon (2014) found that both the employers and graduates affirm that the real estate courses do not prepare them sufficiently for the real world, thereby compromising graduates' future entrepreneurial and business potential. After Callanan and McCarthy (2003: 23-30)'

assessed the requirements of evaluations and property management concluded that the students need to gain the necessary skills through doing, thereby enabling them to obtain acquired knowledge through practical means. Dhliwayo (2008) suggests the importance of work-integrated learning in order to develop certain entrepreneurial behavioural skills that are important upon setting up practice. Many educators and researchers have been working on integrating real estate academics with the industry. Facilitation of this process can be realized optimally when there's direct relationship that's been established between the two (Worzala, 2002: 3-14).

2.4. The Entrepreneurial Mind-set

Heinonen and Poikkijoki (2006: 80-94) emphasized the concept of developing an entrepreneurial mind-set as part of the entrepreneurial process. It is understood that everyone is naturally gifted with entrepreneurial characteristics, they at varying quantities. Factors that, ultimately, determine whether one acts in an entrepreneurial manner are: "environmental, cultural and institutional" circumstances (Storey, J. and Salaman, S., 2005). Irtwane (2008: 199-212) believed that interest in entrepreneurship can be encouraged through creating an atmosphere of learning that resonates with a culture of entrepreneurship. Ezepue and Ezepue (2008) stated that it is important that creativity and innovation become a core part of real estate education; as a result graduates will develop entrepreneurial skills through the day-to-day teaching and learning.

Shane & Venkataraman (2000) suggest that one may be "initiative in creating a new product or coming up with a new strategy. This is also made manifest through the development of an entrepreneurial mind-set;" a mind-set that should be developed as part of the education and training at a higher institution level.

The ability to be innovative comes through the development of an innovative mind-set and the awareness of the industry. This awareness can be brought about through increased engagement and direct relationship with the industry or industry role players. It is also brought about through practical application of the knowledge that has been obtained. Martinez et al (2011: 7-38) recognized the "process of innovation and studies the effects of cohesion and diversity in the three stages of entrepreneurial activity, namely: identifying opportunities; development, technology and

organizational creation; and exchange." This research has explored the process of how the RE course objectives may be aligned with these stages of entrepreneurship. As a result, graduates that complete the course become more entrepreneurial as they meet course objectives.

The research has indicated ways in which an individual's entrepreneurial mind-set can be developed. Even with a naturally-gifted entrepreneurial ability and skill, improvement can be made through entrepreneurial training at a HEI level and exposure to the industry. Not only does the literature encourage industry awareness (Martinez, M.A.and Aldrich, H.E., 2011), however, Egwuatu (2013: 10-12) encourages an entrepreneurial education that brings about a sense of self-awareness. It is believed that such self-awareness will allow an entrepreneur to embrace their own strengths and work on their weaknesses, further reinforcing the development of an entrepreneurial mind-set. This is significant as such entrepreneurial skills and mind-set will be required to conform to the context within which the entrepreneur finds themselves.

The greater debate about whether entrepreneurs can be taught still remains as a topic for discussion amongst field experts. This forms part of a discourse in entrepreneurship of whether entrepreneurs are born or made. Henry, Hill and Leitch (2005: 158-169) found that some aspects of entrepreneurship can be taught. This was also uttered by Timmons et al (1994) who believed that entrepreneurship can be taught. Even though research indicates that an entrepreneurial mind-set can be developed with sufficient entrepreneurial training, however, there still lies knowledge gaps within RE program on how a mind-set can be developed specifically for the SA context and the skills that a graduate needs to be equipped with in order to be able to portray entrepreneurial behaviour upon graduating from a real estate HEI. Training the mind to adapt to different environments and contexts is key for any entrepreneur who seeks for success and longevity in business. Kuratko (2003) makes reference to several real estate institutions in the "United States of America, Europe, East Asia and Latin America" that have successfully integrated entrepreneurship education into their standard curriculum.

2.5. The Pedagogy of Entrepreneurship

Entrepreneurship education is an educational programme that seeks to provide students with entrepreneurial skills and knowledge; and to develop entrepreneurial awareness in a manner that encourages entrepreneurial behaviour for starting a business in a variety of settings (Wilson, K.E., Vyakarnam, S., Volkmann, C., Mariotti, S. and Rabuzzi, D., 2009). Isaacs et al (2007) define entrepreneurship education as "the purposeful intervention by an educator in the life of the learner to impart entrepreneurial qualities and skills to enable the learner to survive in the world of business." According to Alberti, Sciascia and Poli (2004, July) "entrepreneurship education is the structured formal conveyance of entrepreneurial competencies, which in turn refers to the concepts, skills and mental awareness used by individuals during the process of starting and developing their growth oriented ventures." The main purpose of entrepreneurship education is to produce graduates that are entrepreneurial, equipped with the ability to identify and take advantage of opportunities resulting in the development of new ventures (Egwuatu, 2013). It is the view of the researcher that entrepreneurship education is an entrepreneurship-based method of learning taught within an innovative environment where an exploration of business opportunities is encouraged.

Ezepue and Ezepue (2008) state that "by understanding the dimensions of creativity, it is possible to achieve entrepreneurial education that is applied to a specific discipline such as engineering." By implication such an entrepreneurial education may be adapted to the real estate discipline. Graaskamp (1976: 40-50) stated that "Real estate should be taught as a process of dynamic interactions rather than functional and historical facts."

Though different variations of entrepreneurship education are offered at various levels of educational institutions, many stakeholders in the field on entrepreneurship still perceive HEI's as the best position to drive entrepreneurship education. This research, therefore, views entrepreneurship education should be an accepted part of the real estate program (Isaacs, E.; Visser, K.; Friedrich C. and Brijlal, P., 2007). Ghulam et al (2008) believe that HEI's have a significant role to play, given their influence on student's career decision-making processes. It may be suggested that HEI's may act

as incubators for potential entrepreneurs, where students can connect with successful entrepreneurs and significant role players in the industry (Egwuatu, 2013).

2.5.1. Overview of Radiant Model

Egwuatu (2013) discusses two possible models for structuring entrepreneurship education, namely the Magnet model and the Radiant model. The Magnet model offers a university-wide program in entrepreneurship education for all students. The magnet model programs draw students into courses offered in business schools. She found the model to be more cost effective as resources are focussed to support the planning and co-ordination of business schools. An inter-disciplinary approach is used, which encourages networking amongst students, graduates, professors and entrepreneurs. It was found, however, that this model is not suitable for dealing with discipline specific training within the context of the HEI. The Radiant model is, however, geared towards the requirements of the regular course and can be adapted to each discipline. In this instance, the faculty is responsible for designing the entrepreneurship course in order to align it with course objectives. Unlike, the Magnet model, the Radiant model is able to focus on the various departments of the course rather than a "one-size-fits-all" solution for business school (Egwuatu, 2013).

2.5.2. An overview of the Magnetic Model

The Magnet model was found to be too generic. It accentuates the disconnection between the intended entrepreneurship program and the engineering course, thereby creating a gap. There lies a systematic disconnect between an individual seeking to develop an entrepreneurial mind-set and someone seeking to become an entrepreneur within the engineering and sciences field of study (Egwuatu, 2013). One may suggest that, this is the current existing model in the SA context.

A further challenge in making entrepreneurship education available is the use of language. Egwuatu (2013) and Feit (2000: 101-17) note that jargon used in business schools may not necessarily match those of the real estate schools. There remains, also, a disparity in who should teach the course and where such a course can be taught. Egwuatu (2013) recognizes some other challenges in the implementation of an entrepreneurship-focussed course within other disciplines, namely:

- "Using existing entrepreneurs as models, creating teams and developing entrepreneurial ideas." (Egwuatu, 2013: 14)
- Challenges in encouraging students to take advantage of opportunities to start new businesses and that they should accept failure, should it arrive, as part of the learning process (Volkmann, C., Wilson, K.E., Mariotti, S., Rabuzzi, D., Vyakarnam, S. and Sepulveda, A., 2009).
- Lack of research on the influence of entrepreneurship education in establishing closer relations between the university and the industry (Nelson, A. and Byers, T., 2005: 275 - 311).

2.5.3. An overview of CDIO model

The CDIO (Conceive, Design, Implement and Operate) is an initiative created for the development of engineers. According to Crawley (2001), the model was invented in Massachusetts Institute of Technology (MIT) in the 1990's. It served the purpose of addressing the gap between engineering education and professional practice. The model came as a result of an effort to ensure that an engineering student should be fully equipped and proficient with the necessary skills and attributes as required by the industry. The stakeholder revealed that modern day requirements for engineering requires more than acquired knowledge of engineering fundamentals. It required practical experience and a systematic integration of content from different engineering courses. It also required personal skills, and a great appreciation for teamwork (Crawley, E.F. Malmqvist, J. Ostlund, S. and Brodeur, D., 2007) (Crawley, E.F. Malmqvist, J. Ostlund, S. and Brodeur, D., 2014) (Edstrom, K. and Kolmos, A., 2014: 1-7).

According to Edstrom et al (2005), the CDIO process involves stakeholder input and survey for an informed compilation of course content. The program goals and objectives are systematically subdivided within the course subjects. This makes it possible for soft skills such as presentation skills, teamwork and negotiation to be incorporated within course content, without teaching them individually. The existing real estate courses would be re-organized in order to establish links that would incorporate and integrate CDIO skills within them. Some of the CDIO skills are personal skills

and attitudes, teamwork, communication, experimentation, knowledge discovery, conceive, design, systematic thinking, negotiation, professional skills and attitudes, implementation and application of real estate systems.

Even though the program was originally designed for engineering students, it can, however, be adapted to cater for other disciplines in various contexts. The main objective of the CDIO concept is the equip graduates with the ability to conceive, design, implement and operate entrepreneurial systems in any context that a graduate may find themselves.

Entrepreneurial Skills Integration within CDIO model

The fundamental aspect of the CDIO model is the process of integrating a set of skills, including entrepreneurial competencies within the real estate program. This can be done in two ways, namely the systematic integration of entrepreneurial skills within each course by incorporating certain entrepreneurial competencies within specific subjects. This may be competencies such as communication, interpersonal, professional, presentation, negotiation and business skills. This is done in a manner that would not require entrepreneurship to be taught as a separate course. Students would be required to learn in a manner that is coordinated and would be provided with the necessary support structure. The second manner of integrating entrepreneurial competencies within the real estate program is to have entrepreneurship as a course which will be incorporated within the real estate discipline, rather than general business education. Thus, entrepreneurial skills and attributes would be embedded within courses. As a result, as students complete their course competencies, they would be endowed with entrepreneurial, professional and interpersonal skills and this may motivate them to act entrepreneurially when they graduate in real estate practice (Edström, K., El Gaidi K., Hallström, S. and Kuttenkeuler, J., 2005).

This would result in a real estate program that has entrepreneurial skills integrated within the curriculum, thereby yielding graduates that meet industry requirements. Such an integrated program would require continual assessment, refinement, modification and development in order to improve the learning, teaching and assessment of the curriculum.

2.5.4. Comparison of learning outcomes based on lecture-based learning versus experiential learning

Most real estate courses within the higher learning institution are still being taught in a traditional lecture-based environment. This has certainly been proven to be an effective way of acquiring "knowledge and expertise" within real estate and has therefore been able to contribute towards the achievement of learning outcomes, however, such as Cooper et al (2004: 11-22), and Heinonen and Poikkijoki (2006) have questioned whether it is the most effective way of achieving entrepreneurial-based outcomes. Poon (2014) has also reiterated the lack of readiness of real estate graduates for the industry due to lack of experience. Heinonen and Poikkijoki (2006) argue that by integrating entrepreneurship education within the real estate program, this should yield "entrepreneurial skills and behaviour".

Though there is a large body of research that has been performed on work-based or experiential learning in entrepreneurship, very little is known about how this approach to learning contributes towards the successful achievement of intended learning outcomes. It is believed that an experiential approach to learning may by a more effective way of achieving learning outcomes that may have impact on the entrepreneurial intent of graduates (Scott, J.M., Penaluna, A. and Thompson, J.L., 2016: 82-93) (Egwuatu, 2013). Blenker et al (2008) are of the view that entrepreneurship skills cannot be taught effectively in universities as they lack the ability to motivate students through experiential learning. The author furthermore indicates the necessity of further research on student evaluation metrics that will highlight methods of learning and their impact on "entrepreneurial competencies" (Henry, C., Hill, F. and Leitch, C., 2005a) (Henry, C., Hill, F. and Leitch, C., 2005). Heinonen and Poikkijoki (2006) postulate that through the process of learning practically, a real estate student becomes more competent and is equipped with abilities that are critical for entrepreneurs such as identifying business opportunities and being more commercially aware. Taatila (2010: 45-66) states that experiential learning is more "pragmatic". Cooper et al (2004) are of the view that traditional lecture-based form of learning is insufficient in equipping graduates with the entrepreneurial competencies, thus the research may assume that learning outcomes based on purely lecture-based

teaching and learning programs, even though they may have elements of entrepreneurship education within them, may prove to be insufficient in achieving entrepreneurial outcomes.

Leitch and Harrison (1999) believe that "action learning" is a more effective way of acquiring knowledge. Solomon (2007) is in support of the usage of more technology and an increase in "business plan writing", invitation of guest lecturers who are themselves entrepreneurs; and an increase in class participation and teamwork rather than "traditional lectures". This notion is also supported by evidence that lecture-based acquired knowledge differs from that which graduates do in practice (Edelman, L.F., Manolova, T.S. and Brush, C.G., 2008).

Dhliwayo (2008) is of the view that an entrepreneurship orientated real estate program may require a combination of experiential learning together with the traditional theory-centred passive type of training. It is important that REPD graduates are aware of the events, environment and activities taking place within the industry if they are to develop in to successful graduate entrepreneurs. Market awareness is crucial. It seems important to demonstrate that commercial awareness can only come about in a schooling environment, if there's a direct relationship with industry role players. It is, therefore, important that industry/market awareness should be embedded into the REPD courses (Poon, J. and Brownlow, M., 2014).

Other key topics within entrepreneurship education are how to "learn from and deal with failure and its emotional impact" (Shepherd, 2004), social entrepreneurship (Tracey, P. and Phillips, N., 2007) and "problem-based learning" (San Tan, S. and Ng, C.F., 2006). Hamidi et al (2008) concluded that evidence indicates that students that are more creative or have been given the tools to think creatively within their discipline are more likely to act entrepreneurially by starting a business. As part of the process of experiential learning, simulation of the process of starting a business is also encouraged (Crant, 1996).

2.5.5. How Learning and teaching outcomes can assist in entrenching entrepreneurial skills in students

It is the view of the author that the role of HEI's in creating an environment where students can acquire knowledge and entrepreneurial skills through engaging in the real estate property

development curricula as entrepreneurial competences should be embedded in the curricula. In light of this, one may suggest that there lies a gap between the newly revised real estate curricula and the legislative standards given that acquiring entrepreneurial competencies is not government policy in South Africa. This assertion further gives credence to the HEI's position as an institution that has influence on student's decision-making processes and shapes perceptions of the feasibility of a business start-up, instead of an intense move to produce job seekers (Isaacs, E.; Visser, K.; Friedrich C. and Brijlal, P., 2007).

The type of learning and teaching methods that will assist in entrenching entrepreneurial skills in students and graduates are those that recognise the need for curricula that is "skills-based, which allows students to be more "self-aware and to be able to productively criticize and solve problems relating to the real estate industry. Such learning and teaching methods must give cognition to the value of networking (Gibb, 1993), must embrace teamwork and "active student participation" (Heinonen, J. and Poikkijoki, S.A., 2006), must motivate for activities that create an environment for entrepreneurship intention in order to students and graduates to behave entrepreneurially (Egwuatu, 2013).

2.5.6. Conclusion

Poon (2012) highlights the existence of a gap between graduate attributes and industry requirements due to a lack of practical skills, thus a pedagogical model that may embed experiential learning within it may be found to be more effective in promoting entrepreneurship intentions amongst graduates.

Given that most real estate property development programs are focussed on lecture-based system of learning and teaching, this makes such programs heavily reliant on the teacher/lecturer, with assessments mainly being comprised of "tests, quizzes", assignments and bi-annual "examinations", meaning that students are tested on the knowledge that they have acquired and not the practical application of those skills (Egwuatu, 2013).

One would suggest that entrepreneurial skills is a critical skill for a real estate graduate to have and should thus a part of the real estate property development program curricula through a CDIO-

orientated integrated real estate program. This seems to be the most effective way to endow students and graduates with entrepreneurial competencies that would allow a university graduate to be able to apply the entrepreneurial competence in real life situations and in various contexts. The lack of legislative initiative to include entrepreneurship education in real estate education has further contributed to the gap in entrepreneurial outcomes in the university curriculum (Egwuatu, 2013).

2.6. Entrepreneurship in the real estate sector

This portion of the chapter explores entrepreneurship in the real estate sector, together with the potential structural and legislative barriers that may exist affecting the teaching of entrepreneurship education. Inherent in most universities are the increasing challenges of winning students, teachers and funding for university programmes. These global challenges have made demands for institutions to transform and become more entrepreneurial in their approach (Gibb, 2005). Such barriers may either be a hindrance or discouragement towards the creation of an environment of innovation and creativity within the real estate programme. Certain constraints may be psychological owing to the history of South Africa (SA). Such psychological constraints impact on the entrepreneurial mind-set and require further research. It has, therefore, not be the main focus of this research.

Occupations that are found in real estate that provide opportunities for entrepreneurship are estate agency, valuation, real estate management and property development. For the purpose of this research, emphasis was placed on Real Estate Property Development. The relatively low start-up capital requirements and the potential for high yields attracts real estate entrepreneurs to the sector, however, it seems that real estate graduates are not taking advantage of this (Mooya, 2003). Ezuepo and Ezuepo (2008) indicated that part of the challenge has been the difficulty of translating knowledge that has been learnt into practice which ultimately results into new ventures.

Schwab (2009) presented a report to the World Economic Forum discussing specific barriers of entry into the real estate markets by graduate entrepreneurs. Some areas that have been identified as areas of concern are: “accessibility to finance, availability of opportunities, networking and availability of teaching models.”

Schwab (2009) is of the view that the challenges mainly relate to funding. Given the lack of experience and collateral by graduates, it may be challenging for entrepreneurs to access the necessary funding. Furthermore, he discusses the point that starting a business requires capital which students may not easily have access to. This further emphasizes the need for REPD education to have close and direct relationships with industry, which have access to such funding and may be willing to mentor or provide internship programmes to graduates as a way of stimulating entrepreneurship amongst students. Students may also be encouraged to take on available employment opportunities rather than behave entrepreneurially by choosing entrepreneurship as a career path.

Networking is important in the field of entrepreneurship as it is the main vehicle for successful business start-up (Schwab, 2009); (Johannisson, B. and Nilsson, A., 1989: 3-15). The intention of networks is to promote knowledge transfer and the generation of business opportunities. The integration of entrepreneurial education within the real estate programme would allow the industry to create closer relationships with existing, established real estate companies or entrepreneurs, thereby creating potential networks for students. As part of a case study, the researcher has looked at the example where business mentors, venture capitalists and professors at universities are able to link new business enterprises with potential network partners. The operational assistance provided may help the new venture to be more successful and independent. The research does, however, acknowledge the existence of negative networks as portrayed by (Martinez, M.A. and Aldrich, H.E., 2011: 3-35). In the balancing of cohesive and diverse networks, some factors relating to networks that graduate entrepreneurs may face are: favouritism, head hunting, nepotism and conflict of interest.

2.7. Entrepreneurship and the real estate sector

There seems to be a global discourse in entrepreneurship where it has been identified that there is a need to integrate entrepreneurship education in higher education institutions within non-business studies, in this instance, Real Estate Property Development (Wilson, 2008). The introduction of Real Estate Property Development as an entrepreneurship based course would contribute towards identifying areas within the entrepreneurial pipeline where course objectives can be met while addressing issues relating to entrepreneurship and resulting in the starting of a new venture. Such new

ventures will contribute to job and wealth-creating efforts in society (Heinonen, J. and Poikkijoki, S.A., 2006); (Shane, S. and Venkataraman, S., 2000).

This research has also looked at ways in which the RE course may be enhanced to produce higher quality graduates that will be able to meet the demands of a constantly changing industry. One of the ways may be to improve the education process by creating better links between institutions of higher education and industry. Roulac (2002) states that real estate's graduates are unlikely to possess the required knowledge for effective property involvements within varying contexts.

The research has made reference to the case studies conducted by Chambers and Worzala (2009) where they discuss the results of a study of a graduate real estate program where the real estate programme was integrated with the industry. The study included programs certified by the Royal Institution of Chartered Surveyors (RICS). The main purpose of the study was to establish whether real estate programs were enhanced by directly incorporating real estate industry professionals. The program strategies included project-based courses, mentoring and shadow programs, internships, network events, guest lecturers, speaker series and field trips. The case study also looked into alternative performance measures and assessment tools that could be used to gauge the performance of real estate educational programs. Other case studies to be considered are the Wisconsin program, which has integrated industry into real estate education (Chambers, L.; Holm, J. and Worzala, E., 2009).

The literature above confirms the need for a focussed approach to entrepreneurship which is specific to real estate. This will make the efforts of imparting knowledge and developing the student's entrepreneurial skills more effective. Given that this currently does not exist as a model in South Africa, this research will contribute and may act as a basis on which such a programme within real estate studies may be carried out. Such a model would be able to be adapted to other disciplines within the SA context.

2.8. Entrepreneurship Education in South Africa

2.8.1. Review of Legislative qualifications standards and requirement

This chapter provides an overview of real estate qualifications and their outcomes. When one studies real estate educational programmes, it seems important to look at the role of the South African Property Education Committee. Formal tertiary education is offered by educational institutions such as technikons and universities; and professional bodies in real estate education. All South African real estate qualifications are regulated by the National Qualifications Framework (NQF) Act 67 of 2008. The research will then compare such outcomes to those linked with entrepreneurial education (Cloete, 2002: 369).

Real estate education has only been into South African several decades ago (Cloete, 2002: 369-382). Key legislative documents that regulate education and training in real estates are the NQF and the South African Qualifications Authority (SAQA). South Africa (SA) education system is outcomes based and this was initiated on the basis of the South African Qualifications Authority (SAQA) Act No. 58 of 1995. This was followed by the NFQ in 1998. It consisted of eight levels of education, with levels 5 to 8 being those of higher learning institutions. Bachelors and honours degree were rated at level 6, Master's degree was level 7 and lastly, doctorate and post-doctorate qualifications are at level 8 (Cloete, 2002: 370).

The objectives of the National Qualifications Frameworks are to:

- "create an integrated national framework for learning achievements" SAQA (2015: 6)
- "facilitate access to and mobility and progression within education, training and career paths"; SAQA, (2015: 7)
- "accelerate the redress of past unfair discrimination in education, training and employment opportunities and thereby" SAQA (2015: 7)
- Contribute to the full personal development of each learner and the social and economic development of the nation at large". SAQA (2015: 7)

The NQF consists of 12 fields of study. Real estate education is located in fields 11 and 12. Service orientated programmes such as property valuation; property management and estate agency are located in field 11. Physical planning and construction orientated programmes such as property development are located in field 12. Business orientated courses such as Property Finance and investment are located in field 3. The national standards body (NSB) is responsible for standardization of each learning and training course in order to guarantee compliance with a set of standard. The Education and Training Qualification Authority (ETQA) manages the quality of outcomes (Cloete, 2002: 370). It seems that learning entrepreneurial skills does not form part of government policy. It is, therefore, not a requirement for acquiring real estate education.

The National Skills Act regulated the National skills levy fund which is funded by employers, who are incentivised to provide training for their employees. Courses are regulated by means of credits. According to the notional learning hours, one credit is equivalent to ten learning hours (Cloete, 2002: 371).

2.9. Conclusion

The conclusion provides a brief discussion on the extent of the body of knowledge that is understood. More significantly, it has outlined what is not understood well enough and where gaps exist in the research. It has, also, highlight weaknesses in previous studies that were conducted and culminate with a set of research questions derived from the literature review.

2.9.1. Extent of existing research

Extensive research has been conducted in the area of entrepreneurship. The pedagogy of entrepreneurship education has also been studied extensively, with very little focus on the impact of such an education. Scott, Penaluna and Thomson (2016), Dhliwayo (2008), Heinonen and Poikkijoki (2006), Taatila (2010), Cooper et al (2004), Leitch and Harrison (1999) place emphasis on research in the area of experiential learning which relates to an effective manner of endowing students and graduates with entrepreneurial skills and attributes. Research has also been conducted with regards to the formation of real estate program curriculum outcomes and objectives that relate to entrepreneurial objectives.

2.9.2. What is not well understood?

According to Hamidi (2008), Krueger et al (2000); Schwab (2009), Pittaway and Cope (2007), the impact of entrepreneurship education on entrepreneurship is not well understood. The notion of whether improved entrepreneurship intentionality brings about an increase in entrepreneurship or whether it guarantees a greater level of success upon starting a business has been investigated by this research. This is a further indication of the importance for this study.

The notion of whether entrepreneurship can be taught led to the question of whether entrepreneurs are born or made. Flora (2006: 1-7) noted that there is an on-going debate in the entrepreneurship discourse about whether entrepreneurship can be taught. The author, Gibb (1997) believed that some elements associated with education and training can be taught. Given that entrepreneurship education and training programs are not the same in different environments, they are thus incoherent (Sapienza, H.J., Herron, L. and Menendez, J., 1991), thereby allowing for the existence of knowledge gaps in the teaching and learning of entrepreneurship education. Each discipline seems to have its own approach to entrepreneurship. Freidrich et al (2005) have identified limited geographic coverage of programmes that do offer entrepreneurship education. "The lack of exposure to entrepreneurial skills and motivational skills" has also been highlighted by Ladzani et al (2002) and Hytti (2002).

2.9.3. Identifying gaps and weaknesses in previous studies.

Chambers et al (2009) are of the view that a gap exists between real estate education and the industry, causing low entrepreneurial intent from the real estate graduates. This research has identified some of those gaps that differ from the global research done on this topic, which are prevalent in the South African context and specific to the Real Estate Property Development programme. A further question is whether the introduction of entrepreneurship education content can address some of those gaps. This research has made a contribution towards this notion. Currently, South Africa's HEI's that teach the REPD programmes, do not have an entrepreneurship education program that can effectively connect knowledge acquired in the lecture halls and link it directly to the industry. Therein lies the potential for gaps in the learning and teaching of REPD. Such gaps expose themselves more effectively when students are practicing or are challenged to start their own businesses. One may

argue that as a result of this disconnection, REPD students are therefore not stimulated to consider entrepreneurship within the field of property development as a career choice (Egwuatu, 2013: 7).

Real Estate Property Development practitioners recognize gaps in the application of the acquired knowledge as a hindrance of potential entrepreneurial intent. This seems to be a gap established between graduate attributes and industry requirements. Poon (2012) performed interviews with human resource managers of firms and course directors. She found that employers and graduates did not find RICS accredited courses sufficiently equipped graduates with the necessary skills for the industry. She identified the need for practical skills and knowledge among other skills. This research is primarily a stakeholder survey that focuses on the opinions and views of real estate property development graduates. This will form part of the research methodology of collecting and analysing data for this research. In this way, one would be able to identify existing gaps in the teaching and learning of REPD and obtain views on how entrepreneurship education may assist in addressing such gaps within the SA context. There seems to be sufficient international literature that have identified some of these gaps, however, contextual literature identifying such gaps is minimal. , Lisa Chambers, Jen Holm and Elaine Worzala (2009) have identified that there lies a gap between real estate education and the industry. Poon, Hoxley and Fuchs (2011) also found a gap between positive employer views and negative graduate views of skills acquired. Analytical, computer and communication skills were rated highly, whereas practical skills and knowledge were found lacking.

The research looked at interactions between the industry and how educational systems interact with the industry. This assists real estate education programme planners to incorporate skillsets required by the industry within the real estate curriculum (Hardin, 2001: 17-34). Chambers et al (2009) have conducted a study in which real estate education may be integrated with the industry exposure in several ways: mentoring and shadowing programs, project-based courses, internships and field trips. These will be interrogated from an operational point of view within the SA context. The effects of such programmes on students will be assessed by this research.

2.9.4. Research Questions

1. Which real estate programs have incorporated entrepreneurship education training within their programs? What proportion of these have entrepreneurship skills embedded within them. (Objective 1)
2. How would entrepreneurship education be integrated within a RE programme in order to stimulate graduates to be entrepreneurial in the practice of real estate? (Objective 2)
3. What are the specific entrepreneurial skills and proficiencies required to inform the learning and teaching of such a programme? (Objective 3)
4. What are the current gaps in the teaching and learning of Real Estate as identified by students, graduates and other stakeholders in the industry? What pedagogical models would be appropriate in addressing such gaps? (Objective 3)

Chapter 3: Methodology

3.1. Introduction

This part of the research provides a description of the methodology used to investigate the research objectives and questions. The chapter focuses on the manner in which data has been collected, how sampling has been conducted, provisions for analysis of data; and provides restrictions and limitations of the research. It has also discussed the different research approaches with regards to a mixed method of research and the various research paradigms that this type of research will follow.

3.2. Mixed-methods

Mixed-methods research has been used in order to obtain more accurate results to this type of exploratory research. The research questions of this study call for the need to make use of mixed use method of research. This involves the analysis, collection and interpreting of data for a single phenomenon, thereby requiring the integration of both quantitative and qualitative data collection and analysis. This was shaped by the purpose of the study, which was to explore, discover and understand the effect of integrating entrepreneurship education into a real estate course and its impact on graduate's entrepreneurial intent. In this instance, it seemed necessary for both qualitative and quantitative methods to be used (Creswell, J.W. and Clark, V.L.P., 2007).

The research poses an over-arching question that guides the study which states: "which programs now include entrepreneurship as a course, which programs embed aspects of entrepreneurial skills into the programs and to what extent the inclusion of entrepreneurship affects entrepreneurial intent?" These questions include both qualitative and quantitative properties. The findings of this type of research question suggest an integration of qualitative and quantitative findings as the one informs and gives meaning to the other. Collins et al (Onwuegbuzie, A.J. and Collins, K.M., 2007) explored the sequence that a mixed method of research should follow. They suggest that the research may begin with a quantitative analysis of components of the research, followed by the qualitative analysis (Creswell, J.W. and Tashakkori, A., 2007).

3.2.1. Qualitative and quantitative research approach:

Research questions in mixed method studies drove the research design, sampling framework, research instruments used and the manner in which the data was analysed. The question: "which programs now include entrepreneurship as a course, which programs embed aspects of entrepreneurial skills into the programs" is largely quantitative. It falls under the category of a descriptive quantitative research question, which, according to Tashakkori and Teddlie (2008), sought to quantify responses. Quantitative research has to do with an approach to research that is objective and can be easily repeated by other researchers. It has to do with components that can be measured or independently observed.

The qualitative research question states: "…to what extent the inclusion of entrepreneurship affects entrepreneurial intent" led to a research process that is exploratory, interpretive and constructive. The qualitative method of study focuses on the meaning that events have on individuals. This form of research is a realist approach and accepts that reality is subjective and socially constructed (Bryman, 2007). The research objective is an exploratory one, thereby making use of inductive methods to explore a phenomenon in order to develop a hypothesis. The rationale behind the integration of the quantitative and qualitative method involved an increase in the number of participants, ensuring that the selected research instrument(s) are appropriate for the study by piloting and refining the research instrument; the assessment of trustworthiness and reliability of data and integration of qualitative and quantitative techniques in order to enhance the researcher's interpretation of data (Tashakkori, A. and Teddlie, C., 2008).

3.2.2. Research design framework

RESEARCH DESIGN FRAMEWORK								
	Research objective	**Research strategy**	**Research techniques and instruments**	**Population**	**Sampling plan**	**Data collection**	**Aspects of validity and reliability**	**Ethical considerations**
1	To determine the existing linkages between entrepreneurship and education programs in real estate.	**Quantitative Descriptive Research**	Secondary data will be used to research and assess some higher education institutions that offer real estate programs that incorporate entrepreneurship education within their curriculum. Quantitative Descriptive Statistics will be used to explain findings.	30-60 students from universities located both locally and in other countries	• Global Entrepreneurship Monitor • Statistics South Africa • Government policies and legislation on Property Development, Property Valuation, Property Management and Estate Agency.	Secondary data from real estate course outlines, websites, prospectus, journals	This research will primarily be secondary data as it relies on data being collected from websites and course prospectuses.	Data collected is accurate and information is available on public platforms.
2	To explore which real estate programs have incorporated entrepreneurship education training within their programs and what proportion of these have entrepreneurship skills embedded within them.	Quantitative Descriptive Research	Secondary data in the form of documents provided by the regulatory bodies that regulate Real Estate Property courses such as the Estate Agency Affairs Board and the South African Qualifications Board in order to understand course structures. The research will also investigate teaching, learning and qualification requirements by international regulatory associations and affiliations that endorse Property Development courses in South Africa. Secondary data is made up of journals, conference papers and research reports will be used. Critical analysis of education programs offered in different parts of the world will also be looked ast as a case study.	30-60 students from universities located both locally and in other countries	1. To document real estate courses offered by other institutions.	Secondary data from real estate course outlines, websites, prospectus, journals	This research will primarily be secondary data as it relies on data being collected from websites and course prospectuses.	Data collected is accurate and information is available on public platforms.
3	To investigate how the introduction of entrepreneurship education into real estate programs has impacted graduate's entrepreneurial intent.	Mixed Methodology: Qualitative Phenomenal Research	This is largely qualitative. The research is thus interpretive -constructivist in that it is a construct of the participant's reality and experience. Data analysis triangulation will be used to ensure validity of the data. Data will be collected in the form of open-ended and close-ended questionnaire survey. Analysis will be carried out through a thematic analysis which focusses on participant's views, feelings, perceptions and personal experience.	Students and recent graduates from Wits University as will be selected by the Researcher.	1. 10 recent graduates from Wits university's previous property development programme, as will be selected by the Researcher. 2. 10 recent graduates from another international University real estate programme, as will be selected by the Researcher. 3. Other Stakeholders: 2 employers and/or managers from property development firms. 4. 2 Course Directors from different universities offering real estate entrepreneurship courses	Interviews and surveys in the form of a Research Questionnaire that will contain rating scales, attitude scales and statistical analysis. Charts, graphs and tables will be used to represent the data collected.	The research will be primarily qualitative. Given that data is collected based on personal views and opinions, some data may be skewed.	Students/Graduates are considered as persons with diminished autonomy and thus should not be coerced into participating in the research. Consent will be obtained prior to interviews.

Table 1. Research Design Framework

3.2.3. Research Paradigm: philosophy, approach and design

Qualitative Phenomenal Research Design

In the qualitative section of the study, a sample of students, recent graduates and course directors were given a survey that asked about their personal experiences and perceptions of their real estate studies, in order to establish to what extent their real estate program may or may not have inspired them in considering entrepreneurship in the field as a career path. The purpose of the survey was to explore this phenomena from an interpretivist – constructivist perspective. The research design was sequential given that the qualitative data analysis had an influence on the outcome of the qualitative data nalysis. The researcher investigated which real estate program have entrepreneurship embedded withn their curriculum or as a course and rank the data in collected in relation to the number of graduat s that acted entrepreneurially or have an intention to start a business.

3.2.4. Data Collection Instruments and Research Techniques: Quantitative and qualitative Data Analysis

Quantitative analysis makes use of numbers to explain or describe findings. According to Punch (2013), counting can be used in quantitative analysis to document the frequency of experiences or activities. In this case, experiences will be related to course director's and student's views. This forms the basis of descriptive analysis.

There are several ways in which qualitative phenomenal data could be analysed. Leech and Onwuegbuzie (2006) suggest that researchers make use of two procedures for purposes of validity of the data analysis. This will assist in the process of "data analysis triangulation". The qualitative research will follow a data reduction and data display mixed method of analysing qualitative data. Data collected from a survey was be analysed through thematic analysis, which involved the reduction of data into charts, graphs and tables. This type of qualitative research focused on specific themes or information within the data. Questionnaire surveys containing close-ended questions and individual entrepreneurship tests were used. Sub-questions were deduced to rating and Likert scales.

In testing the collection instruments, the author made use of a small sample consisting of former classmates who studied post graduate studies in real estate property development to test the questionnaire. Comments received were on the clarity of some questions and that some questions seemed to be repetitive. This warranted the review of the questionnaire survey. A cover letter was attached at the beginning of the questionnaire outlining the purpose of the research, together with the required confidentiality clauses as required for ethical considerations. The questionnaire survey was an online questionnaire survey, which was sent to random participants within the real estate property development program at Wits University and another international university as will be determined by the researcher. The international universities were selected based on the availability of entrepreneurship-based courses within their curriculum. The length of the questionnaire survey was estimated to take 5 - 10 minutes as it is primarily made up of Linkert scales, which allows a large number of questions to be answered as quickly and as accurately as possible.

The purpose of the questionnaire was to obtain views, opinions and personal experiences of stakeholders, namely students, recent graduates and course directors; some of whom were practicing professionals within the industry, and put questions to them with regards to the entrepreneurial content of their studies. The survey is an attempt to establish whether the acquired education and training has sufficiently equipped graduates with entrepreneurial skills and proficiencies. The questionnaire assessed graduate entrepreneurial intent and evaluated the probability with which participants would be interested in setting up their own business. It has also assisted in identifying which aspects are currently not covered by the education and training programmes and which aspects may need to be improved upon.

3.2.5. Sampling Framework

Given the explorative and comparative nature of this research, the qualitative research can compare views of research participants in a "pairwise manner'. This is known as the "pairwise sampling design". This allowed the researcher to compare the experiences of the participants with regards to the extent in which their study experience has equipped the graduates with entrepreneurial competences.

For the purpose of this research, clusters of population were be taken from the Wits University real estate property development program and several international universities as was be selected by the researcher. An online Questionnaire survey containing close-ended questions and individual entrepreneurship tests was the primary means of obtaining data and was be conducted in order to understand Learning, Teaching and Assessment (LTA) practices of the real estate property development program. The questionnaire surveys was issued to current students, graduates, alumni and course directors, in order to assess the impact the real estate property development program has had on the propensity for graduates to behave entrepreneurially by starting their own businesses. The researcher chose to focus on graduates and course directors as the research is based on the unknown impact of embedding entrepreneurship education within a RE program and its impact on graduates. Though there are other stakeholders such as employers and industry role players that may be indirectly impacted by the introduction of entrepreneurship education, however, this research has not focussed on their views and opinions.

The University of the Witwatersrand was also chosen as the institution's real estate programs have introduced entrepreneurship education within the program. The author has also selected samples from other international universities which have entrepreneurship education intentionally embedded within their real estate programs. Such international universities will be selected by the researcher upon researching which institutions have embedded entrepreneurship education within their curriculums as per Objective 2, research question 1 of this study.

3.2.6. Limitations of sample selection

Samples were purposefully limited to a small group of students, graduates and course directors within the real estate field of study. Even though sampling was purposive in this research, respondents were not known personally, and thus the respondents response were less biased and, therefore, increased reliability. Given that the sample had been purposefully selected, it meets a certain set of criteria and had a specific profile. This was done in order to limit the range of responses in order to achieve data that directly relates to the study being conducted.

3.2.7. Administration of the questionnaire

The questionnaire was administered randomly online to students, recent graduates, lecturers and course directors that are stakeholders within the real estate discipline. The researcher made continuous follow-ups via emails and phone calls were made in order to monitor responses to the survey. The survey was conducted between July and December 2016. The survey targeted at least 80-120 graduates that went through the real estate program, though around 30 of them responded. 60 lecturers and course directors were invited to take part in the survey, however 17 of them responded. A separate questionnaire was administered for graduates and course directors. Both questionnaire surveys were administered online.

3.3. Analysis of the online course director and graduate questionnaire survey.

3.3.1. Overview of personal data

The first section of the questionnaire survey consisted of personal data of the respondents. In light of the fact that the survey is anonymous, respondents had not been requested to indicate their names and other details that may identify them. The personal data allowed the researcher to profile the participants with respect to gender, age, nationality; degree level of study, year of completion, level of experience and employment status. Most importantly, the year of completion of study allowed the researcher to understand which program curriculum the participant undertook. All these questions allowed the researcher to profile each participant with regards to whether the participant was a student, recent graduate, lecturer, course director or practicing professional. The questionnaire is also able to establish whether the respondent is employed or self-employed, including the level of participant's qualification, which contributes to answering the research objectives of determining the propensity of students or recent graduates to start their own businesses and whether real estate education embedded with entrepreneurship competencies, objectives and outcomes would have had an influence on that. The researcher conceded that there was a possibility of a different qualification, other than the real estate's one, having contributed toward the propensity to start a business The set of questions called for the opinions of students and graduates, attempt to establish the extent to which the

real estate property development education that they received contributed towards equipping them with the various aspects of entrepreneurial competencies that may have had an influenced on their propensity to start a business or a lack thereof. The level of the participants' qualifications also indicates to the study the likelihood for an individual to start a real estate business based on their level of qualification. The level of experience in the industry was also important in establishing whether the level of exposure and practical experience in practice is an indication of the likelihood for someone to be innovative and act entrepreneurially. This assisted in achieving the first objective of this study.

3.3.2. Overview of entrepreneurship knowledge expected to be acquired in real estate studies.

This section of the questionnaire that posed a series of questions whereby the participants needed to indicate how adequately the following topics had been covered as part of their real estate studies. It tested the participant's knowledge of how to creatively analyse the business environment, opportunity recognition, and the business idea-generation process by asking the participant to rate the extent to which they acquired the following:

- Know how to acquire necessary resources and organizational matters of new venture creation process;
- Know how to write a business plan that creates and starts a new venture.
- Know how to apply a strategy for growth and manage the implications of growth;
- Know how to use capital budgeting that includes cost of capital, leverage and dividend policy in a financial management context;
- Know how to acquire resources for growth from external sources.
- Know how to register and operate a real estate business within the required legal framework.

This section of the questionnaire was to establish the extent to which the real estate education brought about commercial awareness to students or graduates. It also assisted in providing their opinions on whether they felt that a culture of entrepreneurship was created within the program and how that may have affected their view on entrepreneurship as a career option. This section also helps in determining the level of importance given to entrepreneurship education. It determines whether significance and

attention was given to aspects dealing with entrepreneurship competencies or whether entrepreneurship education just happened to be an attached component that was not given any prominence (Egwuatu, 2013).

3.3.3. Overview of Entrepreneurial Skills and Attributes

The following questions related to entrepreneurial skills and attributes that participants were expected to acquire in their studies. The questionnaire asked the participants to indicate how adequately the following competencies have been taught as part of your real estate studies:

- The course has taught me how to mitigate risk and has helped to increase my awareness of entrepreneurship as a career option.
- The course has contributed to my self-esteem and confidence.
- The course has taught me to be versatile as an entrepreneur and provided me with skills to adapt to different business environments.
- The course has improved my professional and interpersonal skills such as financial literacy, communication, negotiation and networking.
- The course has taught me business skills such as time management, organization, goal setting, delegation, public speaking, presentation skills, relationship building, raising capital, business resource management and financial literacy.
- The course has encouraged me to be creative, have initiative and be innovative.
- The course provided me with the necessary skills to enable me to recognize opportunities and take advantage of them in order to start a business.
- The course has taught me how to market myself and my business.
- The course has taught me how to measure the performance of an entrepreneur and how to cope should the business fail.
- The course has taught me the importance of business support such as legal, accounting, bookkeeping, insurance and finance.
- The course has provided me with opportunities to obtain industry exposure through mentorship, job shadowing, and internship programs.

This portion of the chapter dealt with the extent to which the participants felt that the program had equipped them with entrepreneurial skills and attributes. The document had listed a large number of possible skills and attributes that an entrepreneur should be equipped with. The questions deliberately posed a question as to what extent entrepreneurial skills and attributes are taught within real estate property development courses. This line of questions deals with research question 3, objective 1 of this study. It may also assist in revealing learning and teaching gaps within the study of REPD courses (Research question 4).

3.3.4. Overview of Entrepreneurial Intent

The following topic relates to your self-acknowledged conviction with regards to your intention to set up a business. Please indicate the probability with which you intend to do the following:

- I intend to set up a company in the future.
- I am planning my future carefully.
- I read business newspapers.
- I never search for business start-up opportunities.
- I read financial planning books.
- I am saving money to start a business.
- I am reading books on how to set up a firm.
- I plan my finances carefully.
- I have no plans to launch my own business.
- I spend time learning about starting a firm.

According to Fini et al (2009) entrepreneurial intentions are a result of "psychological characteristics" such as ability to take on risk and self-esteem (Zhao, H., Seibert, S.E. and Hills, G.E., 2005), individuals skills, and environmental influences" (Lüthje, C. and Franke, N., 2003). Emphasis was placed on developed skills and abilities due to its influence on entrepreneurial intentions. Other factors influencing entrepreneurship intentions were an individual's personal traits, experience,

commercial markets (Bird, 1988). This section of the questionnaire looked at some factors that influenced entrepreneurial intentions as indicated by Fini et al (2009) (Egwuatu, 2013).

3.3.5 Individual Entrepreneurial Intent Test

Individual entrepreneurial intent is "a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plans to do so at some point in the future." (Thompson, 2009: 676). This business may or may not necessarily come to fruition due to extenuating circumstances beyond one's control. Given that the propensity for individuals to start up a new venture varies, the questionnaire was set up to explore the degree and intensity to which an individual's entrepreneurial intent may be expected during and after undergoing their real estate studies.

Applying existing measurements of individual entrepreneurial intent, the questionnaire explored the degree of individual entrepreneurial intent by looking at a range from a very low to a very high degree of conviction and intention to start a business. The questionnaire did this by posing a series of questions that used a continuous approach of assessment. According to Diamantopoulos and Siguaw (2006: 263-282), entrepreneurial intent was to be measured using reflective indicators, rather than formative indicators as it did not require an absolute measurement index. In an effort to mitigate measurement error, single item measurements had been found to be less reliable and valid, thus a multiple reflective-item scale of measurement was used in this research (Boyd, B.K., Gove, S. and Hitt, M.A., 2005) (Krueger, N.F., Reilly, M.D. and Carsrud, A.L., 2000).

3.3.6 Scale Design

The entrepreneurial intent scale was "applicable across nationality, age and occupation" (Thompson, 2009: 678). It required a minimal sample size and limited the consistency of providing positive or negative answers by using both positive and negatively worded questions. This allowed respondents to provide answers that are more accurate.

3.4. Limitations of the questionnaire survey

The researcher attempted to keep the questionnaire short and asked questions that were relevant to the study and what the study was attempting to achieve. The questionnaire survey was limited to stakeholders that had undergone study through Wits University and other international real estate schools that had entrepreneurship education integrated within their course curriculums. The survey also did not deal with personalities of individuals as a different tests were required for that, such as the Big Five Model test (Poropat, 2009) and the "Myers-Briggs Type Indicator" (Myers, 1962), which are both personality testing methods that use statistical analysis to indicate an individual's propensity to act entrepreneurially.

3.5. Validity and Reliability issues with regards to mixed-use methodology

The research methodology used for this problem area is a mixed methodology which combined both quantitative and qualitative methods of collecting and analysing data. The development of the questionnaire was based on research that had been conducted. Quantitative research involved a process of collecting data that was authentic and trustworthy. Secondary data was also collected in the form of journals, conference papers and research reports. This represents data which was credible and dependable as it is data that exists and documented. Primary data was in the form of surveys using Linkert scales and attitude scales. The purpose of these instruments was to manage the process of collecting data through a stable and consistent process of enquiry. The same questions were issued to current students and graduates; however it must be considered that these may also be plausible as a result of bias. To prevent this, the questionnaire had undergone pilot testing to ensure validity of questions. This was also done to ensure that there are no ambiguities in the questions. Qualitative data will be collected in the form of online surveys of students, recent graduates and course directors in order to obtain personal opinions and views through individual entrepreneurship tests, which also formed part of the online survey. Given that data was collected based on personal views and opinions, some data may be skewed. Data collected from different institutions will ensure reliability of information collected.

3.7. Ethical Considerations

The research considered if there may have been any issues that may have been sensitive in nature and needed to be approached in an ethical manner. Considering that the research involved human participants, the research considered the following ethical matters (National Commission for the Protection of Human Subjects of Biome Beha Resea and Ryan, K.J.P., 1978):

- Respect for Persons: Individuals were autonomous agents. It was thus the responsibility of the researcher to disclose all the information concerning the research study and allowed participants the opportunity to ask questions. The researcher also considered the fact that the research study involves participants with diminished autonomy such as students. Thus, special permission was sought from course co-ordinators to conduct surveys using students. Students were not to be forced to take part in the research. (Resnik, 2011)
- Beneficence: The researcher considered the best way of reducing risks and the benefits that may be obtained from the research (Resnik, 2011).
- Justice: This relates to the fair and equitable distribution and selection of participants. By selecting local and international participants, the researcher increases the reliability of the selection process (Resnik, 2011).

Ethical dilemmas that frequently occur in research are:

- "Misconduct in Research": Plagiarism, falsification of information, and fabrication of information was mitigated through the use of the online survey to control the flow of information of participants. (Lo, 2012).
- "Conflicts of Interest": In order to avoid conflict of interest, the researcher sought to remain objective by not participating as a research subject. Another consideration is that given that most of the research to be conducted was qualitative, the researcher took into consideration the fact that the participants may be bias and that this may skew some of the findings (Lo, 2012).

“hip": The researcher has made efforts to avoid misrepresentation of any sort. Other author’s ideas and thoughts have been encapsulated in quotation marks and referenced accordingly (Lo, 2012).

Confidentiality

It was the responsibility of the researcher to take the necessary precautions to protect information that may be considered confidential. The researcher recognized the extents and limits of confidentiality that is regulated by law or the rules of an institution, organisation or profession. The researcher has had discussions with research participants regarding the limits of confidentiality and the possible uses of information that the participants have provided. The participants were informed that their personal information would be kept confidential, however, absolute confidentiality cannot be guaranteed. Personal information may be disclosed if required by law. Organizations may inspect or copy the research records for quality assurance and data analysis groups such as the Research Committee and any other control council, as may be required. The researcher has made the participants aware that if the results are published, it may lead to individual or cohort identification.

Use of confidential Information (Psychological Association American, 2010: 7)

The researcher has not disclosed in the research document, “confidential” and “personally identifiable information concerning their student participants”, graduates, industry role players and course director names, unless the research participant “has consented such in writing” and only upon grounds for “legal authorization to do so” (Psychological Association American, 2010: 7-8)

The research has established the need for a relationship between entrepreneurship education and the real estate property development programme, through literature. There seems to be substantial research conducted supporting the notion that entrepreneurship can be taught within professional disciplines. (Ezepue, P.O. and Ezepue, A.A., 2008) (Egwuatu, 2013) (Heinonen, J. and Poikkijoki, S.A., 2006) The research paper has alluded to the need for a proposed new curriculum that will encompass entrepreneurial education with factors that affect graduates’ entrepreneurial intention and improve on the learning experience.

The research has shown that there is substantial literature on entrepreneurship and entrepreneurship education, most of which refers to international context. This research paper will contribute to the

body of knowledge that will assist in developing an entrepreneurship-based curriculum for Real Estate Property Development in the South African context.

The Radiant model seems to be the model that this research supports as it is an entrepreneurship program that is geared to meet requirements of the regular course and is adapted to each discipline. In this instance, the faculty of REPD would be responsible for designing the entrepreneurship course in order to align it with course objectives. The research will explore further how this model would work within the South African context (Egwuatu, 2013).

Chapter 4: Research Findings

Introduction

This section will begin with the descriptive analysis of the various sections of students and course director questionnaires. The data analysis will begin by profiling of participants. This will be followed by the documenting of the research findings and the analysis of responses by research participants in relation to research questions. The section will end with a conclusion.

Respondent profile

Two sets of questionnaires were sent out online; one for the course/program director and one for students in the graduating class and recent alumni. It must be noted that where response of course directors could not be achieved, assistant lecturers were given the option to participate. This would explain the inclusion of the age category of 18-24. Online questionnaires were sent out to course/program directors and students from numerous countries, namely: 10 institutions in the United States, 7 institutions in the Netherlands, 9 institutions in the United Kingdom, 6 institutions in Nigeria, 2 institutions in Hong Kong and in the University of the Witwatersrand in South Africa. The e-mails were followed up by direct telephonic calls by the researcher.

Course Director/ Lecturer Profile

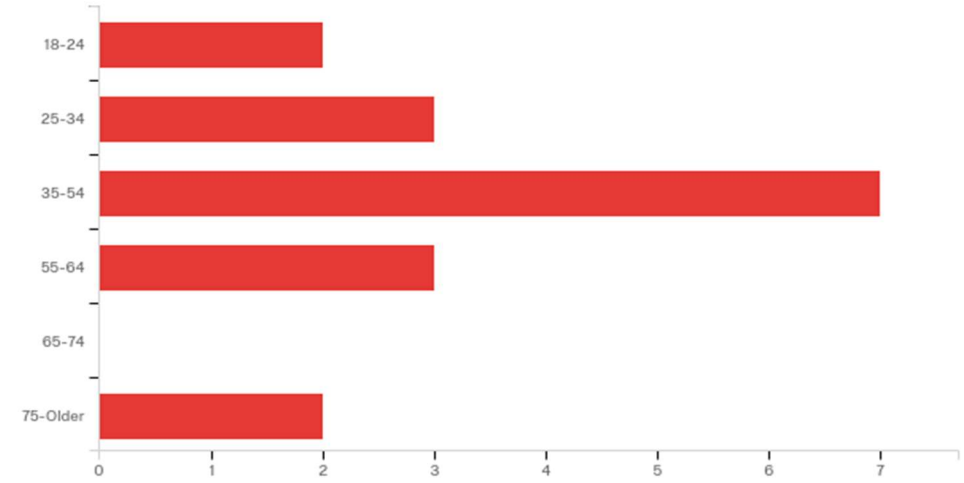

Figure 4 Course Director/Lecturer Age analysis Bar Chart

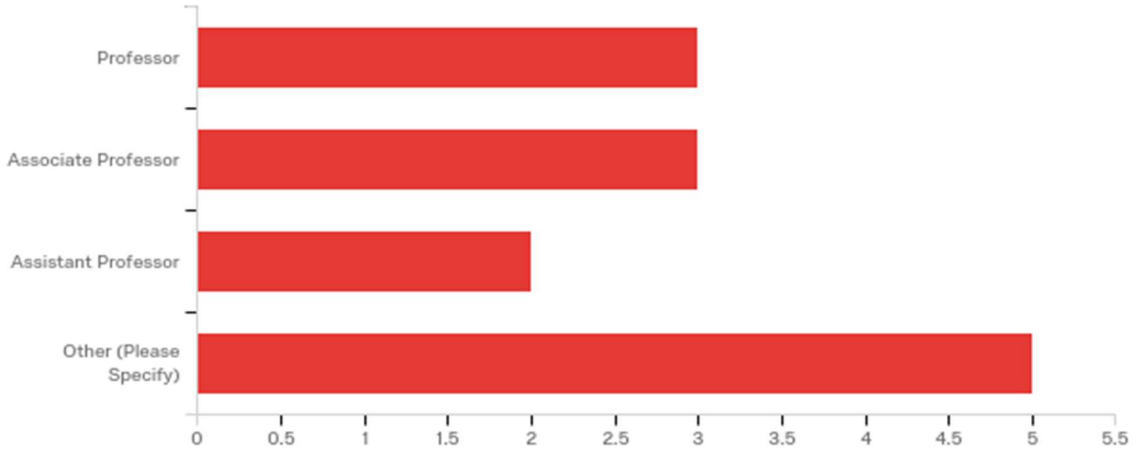

Figure 5 Course/Program Directors/Lecturers Profile

Question 1 – 6 of the course director online survey covered the personal data of the course directors. 60 course directors, lecturers and assistant lecturers were invited to take part in the online survey. The researcher made attempts to contact them via e-mail and telephonically. Of the 60, only 17 course/program directors responded to the survey. This has resulted in a low response rate of 28%. This included lecturers and assistant lecturers. The course/program directors were made up of 71% male and 29% female respondents. Of those that responded 41% majority were between the age group of 35 – 54 and the least number of respondents were between the ages of 18 – 24 years; and 75 years and older. 11 course/program directors had more than 5 years teaching experience, 5 had between 1 – 5 years of experience and only 1 had less than 1 year experience. With regards to the ranking in their higher learning institutions, 5 of the respondents were recorded to be senior lecturers, 3 were professors, 3 were associate professors and only 2 were assistant professors. The course directors were namely from University of the West of England, Bristol, UK; University of Washington; Utrecht University, Netherlands; Wits university and Oxford university.

Graduate Profile

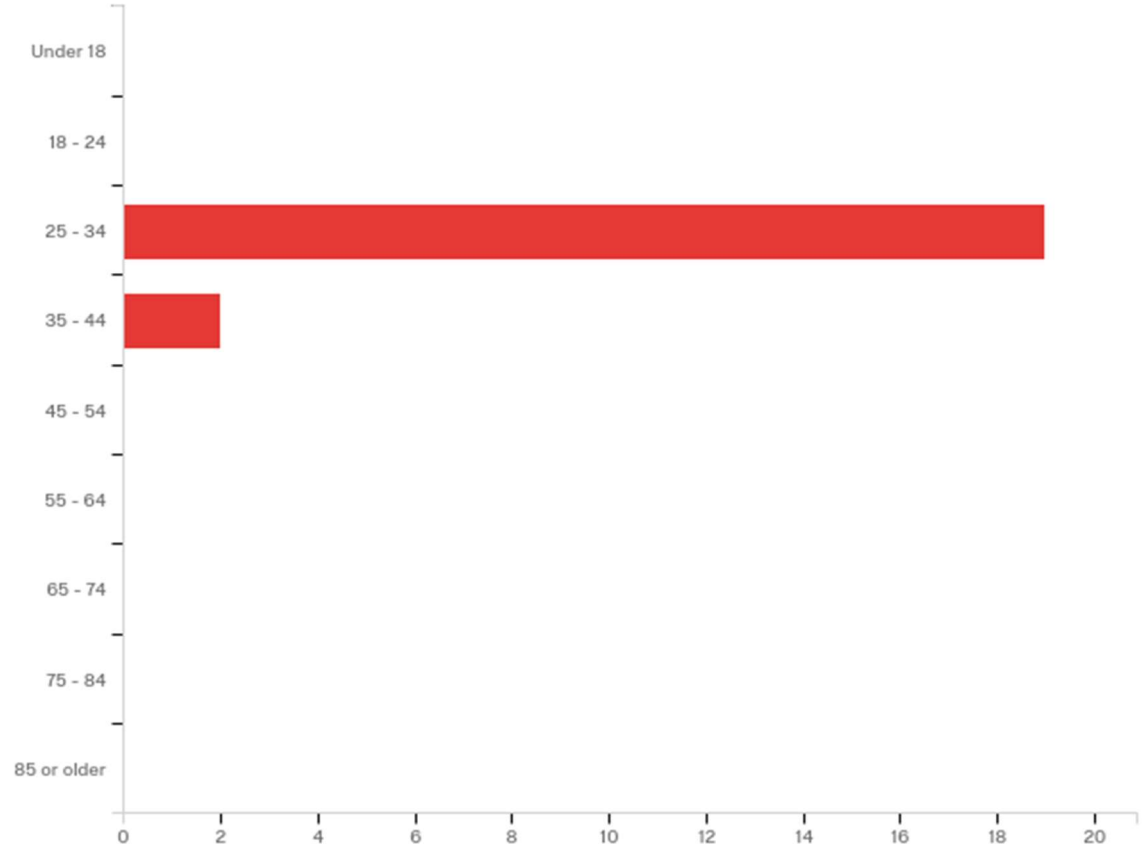

Figure 6 Graduates Age Analysis Bar chart

Question 1 – 7 of the graduate online survey covered the personal data of the graduates. The online survey link was sent out directly to about 120 local and international students/graduates. The links were also forwarded to the relevant lecturers/course directors, whereby the researcher made a request for the online survey link to be forwarded to the real estate students/graduates. The researcher estimates that out of a targeted 80 – 120 students, a combination of 21 graduates responded to the research survey. This resulted in a response rate of approximately 26%. Personal data of the graduates indicated that 65% of respondents were female and 35% were male. Graph 3 shows a bar chart indicating that 90% of the respondents were between the ages of 25 – 35 and 10% were between the ages of 35 – 44. 52% of the respondents indicated that they have a master's degree as their highest level of qualification, whilst 48% have an honours degree. They obtained their qualifications in the period between 2004 and 2016. With regards to the level of working experience, the respondents indicated that 57% had more than 5 years of work experience, 38% have 1 – 5 years of work

experience and only 5% have less than 1 year of work experience. When asked about their employment experiences, 75% responded that they are salaried employees, 10% were self-employed at the time of conducting the survey, 5% were company directors and 10% were still studying. The higher learning institutions that the respondents are associated with are Wits university, Johannesburg; Kingston university, UK; New York university, USA; Covenant university, Nigeria; Obafemi Awolowo, Nigeria; Columbia University, USA; Colombia and Technical University, Berlin.

Course Director Research Findings

This part of the research recorded the research findings obtained from the online survey. A graphic representation of the finding was used to represent research findings. Please note that the course director findings have been represented in cumulative percentages. The author has represented findings as a cumulative sum measuring how adequately or inadequately graduates have acquired entrepreneurial knowledge and skills, respectively. The results of the individual entrepreneurial intent test have also been represented cumulatively in the descriptive analysis to provide a more direct analysis of responses from the survey. However, should a more detailed breakdown be required, the reader may refer to the bar charts that indicate separate results in percentages with regards to how "extremely" or "somewhat" adequately or inadequately have graduates acquired entrepreneurial knowledge and skills, respectively.

The integration of entrepreneurship education into real estate programmes. (Research Question 2 (RQ2), Research Objective 1(RO1))

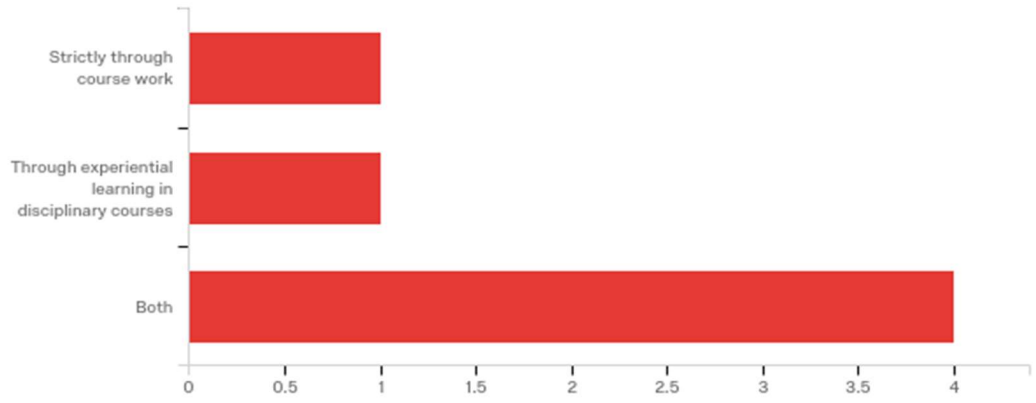

Figure 7 Bar chart indicating the extent of the integration of entrepreneurship education into real estate programmes.

Figure 7 shows that 67% of the respondents indicated that both teaching methods of using course work and applying experiential learning in disciplinary courses were used. 16.5% stated that they used strictly course work to integrate entrepreneurship education within the study program and another 16.5% responded that entrepreneurship education was embedded within the course through experiential learning in disciplinary courses.

Course directors' opinions on graduates' acquisition of entrepreneurial knowledge. (RQ1, RO1)

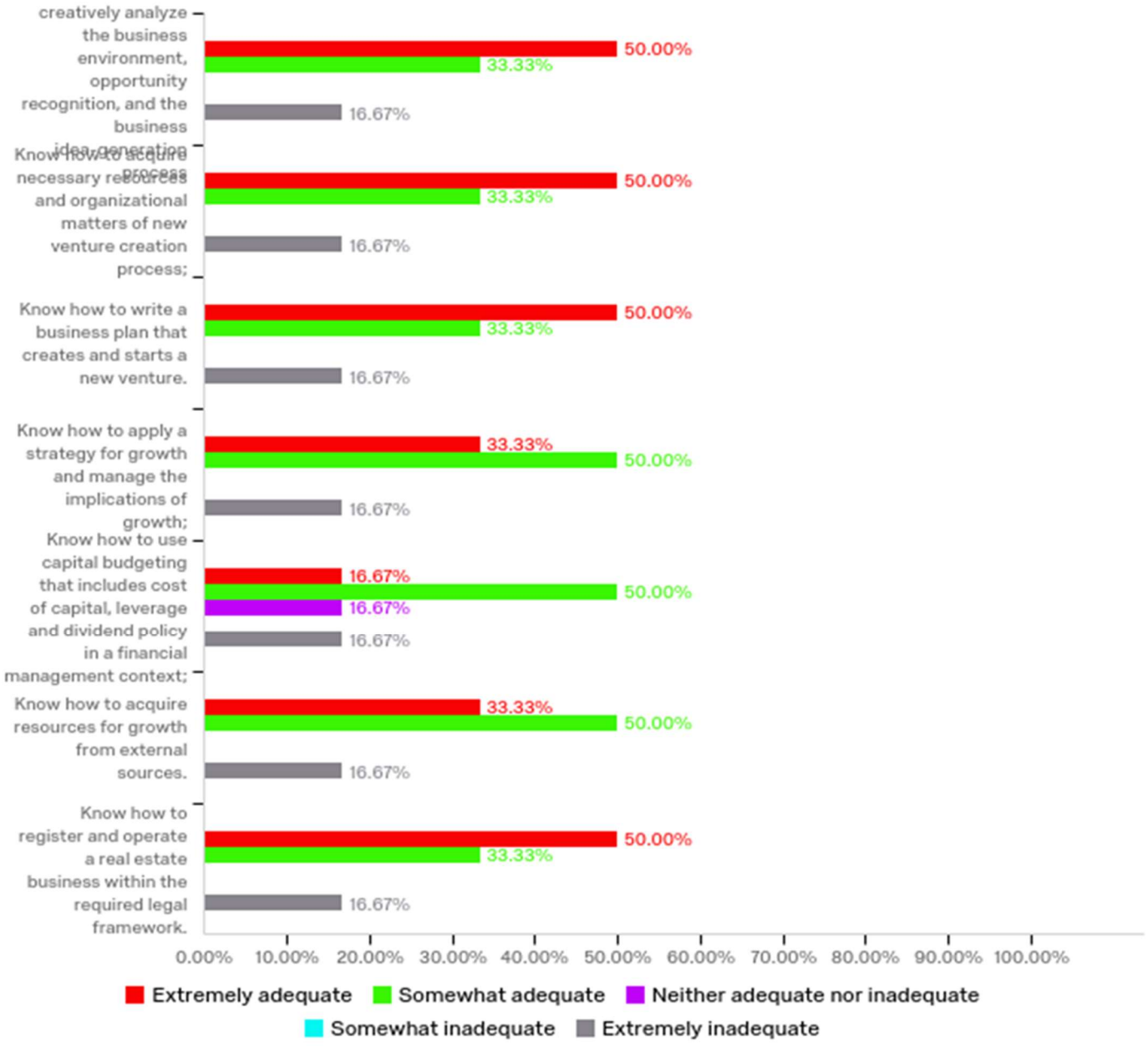

Figure 8 Bar Chart indicating extent of acquired entrepreneurial knowledge in the opinion of course

83% of course directors responded that they think their graduates adequately know how to creatively analyse the business environment, opportunity recognition and the business idea-generation process, whereas 17% found it extremely inadequate. This is congruent with Poon and Brownlow's (2014) findings where they noted that graduates were above average in "analytical, computer and computer skills". Similarly, 83% of the course directors also though that their graduates adequately know how to acquire necessary resources and organizational matters of new venture creation process and 17% thought it was inadequate. They also thought that their graduates acquired adequate knowledge of how to write a business plan that creates and starts a new venture by marking 33% extremely adequate, 50% somewhat adequate and only 17% extremely inadequate. 83% of the course directors indicated that they think that their graduates acquired adequate knowledge of how to apply a strategy for growth and manage the implications of business growth, with 17% indicating that graduates acquired extremely inadequate knowledge. In the course director's opinions, 67% thought that their graduates acquired adequate knowledge of how to use capital budgeting that includes cost of capital, leverage and dividend policy in a financial management, whereas 17% acquired inadequate knowledge and the balance remained neutral. Furthermore, 83% of course directors felt that the graduates acquired adequate knowledge of how to acquire resources for growth from external sources and only 17% found it to be inadequate. Lastly, 83% of course directors also thought that their graduates acquired adequate knowledge of how to register and operate a real estate business within the required legal framework, while only 17% thought it was inadequate.

It is the researcher's view that there are apparent similarities to the responses. This may be as a result of the low response rate to the survey, combined with the limited options of answers to being provided by the online survey. The vast majority of course directors/lecturers felt that the courses that they taught enable the students to acquire sufficient entrepreneurial knowledge in order to start a business. This alludes to their opinion that the course curriculums contained sufficient material to effectively endow their students with the necessary business knowledge. Yar Hamidi et al (2008: 304-320) are also of the view that that entrepreneurship education brings about an increase in

entrepreneurial skills development, business knowledge and builds up other attributes associated with entrepreneurial education.

Course directors' opinions on the acquisition of entrepreneurial skills. (RQ3+4, RO2)

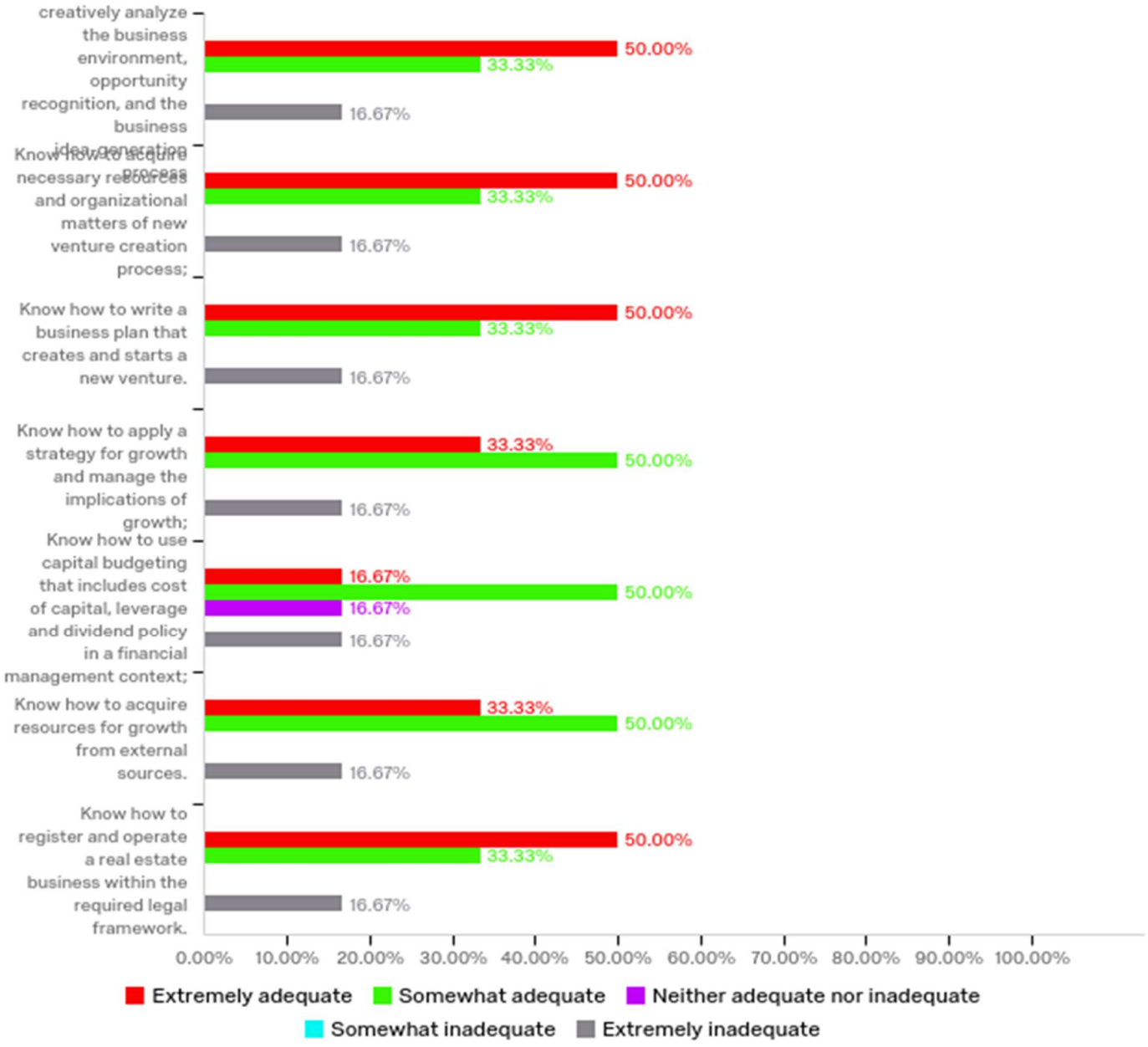

Figure 9 Bar Chart indicating extent of acquired entrepreneurial skills in the opinion of course directors

33% of course directors thought that their graduates acquired adequate risk-taking and commercial awareness skills; in comparison to 17% who did not and another 17% that remained neutral. Pine et al's (1995) view also noted that graduates lacked commercial awareness. 67% of course directors

also felt that the real estate course adequately contributed to the student's sense of self-esteem and confidence. 17% of them found that it did not contribute to the student's self-esteem and confidence, while the balance remained neutral. The majority of course directors thought that the course adequately taught versatility as an entrepreneur and provided the graduates with skills to adapt in different environments. 67% of them also indicated that the knowledge acquired was adequate, while 17% thought it was extremely inadequate and the remainder of 17% chose to be neutral. The research found that 83% of course directors thought that the course taught professional and interpersonal skills such as communication, negotiation and networking adequately and only 17% thought it was extremely inadequate. Similarly, 83% of course directors thought that the course adequately taught business skills such as time management, organization, goal setting, delegation, public speaking, presentation skills, relationship building, raising capital, business resource management and financial literacy. Only 17% thought it was extremely inadequate. 67% of the course directors found that the course adequately encourages graduates to be creative, initiative and innovative, while 17% found it to be somewhat inadequate and the balance remained neutral. The real estate course provided the necessary skills to enable the graduate entrepreneurs to recognize opportunities and take advantage of them in order to start a business, which was also found by 67% of course directors to be adequate and 17% was extremely inadequate and another 17% remained neutral. In the researcher's view, this is in contradiction to findings by Pine et al (1995), who found that the graduates lacked commercial awareness and were not ready for the world of business. The course adequately taught graduates how to market themselves and their business, as course directors marked 33% extremely adequate, 50% somewhat adequate and 17% extremely inadequate. 66% of course directors thought the course adequately taught graduates how to measure the performance of an entrepreneur and how to cope should the business fail, with 17% marking extremely inadequate and the balance remaining neutral. A vast majority of course directors thought that the course adequately taught graduates on the importance of business support such as legal, accounting, bookkeeping, insurance and finance and only 17% thought it was extremely inadequate. The remainder stayed neutral. Lastly, a vast majority of course directors indicated that the course adequately provides opportunities for graduates to obtain industry exposure through mentorship, job shadowing, and internship programs and only 17% thought

it was extremely inadequate. Similar to the first part of the survey, it is the researcher's view that the vast majority of course directors/lecturers felt that the courses that they taught enable the students to acquire entrepreneurial skills. This alludes to their opinion that the course curriculums were designed and structure with the intention of equipping their students with the necessary skills to run a business.

The findings further supports the notion that HEI's have a significant role to play in creating an environment in which graduates can be equipped with the business skills and knowledge, as alluded to by Ghulam et al (2008: 545-551). Given that HEI's have an influence on student's career decision and shapes student's views and perceptions, more can be done to encourage graduates to start businesses. Volkmann et al (2009) also agree with this notion that real estate education is based on the need to meet the requirements set by industry practitioners and corporates.

Course directors' opinions on graduates' entrepreneurial intent. (RQ1, RO3)

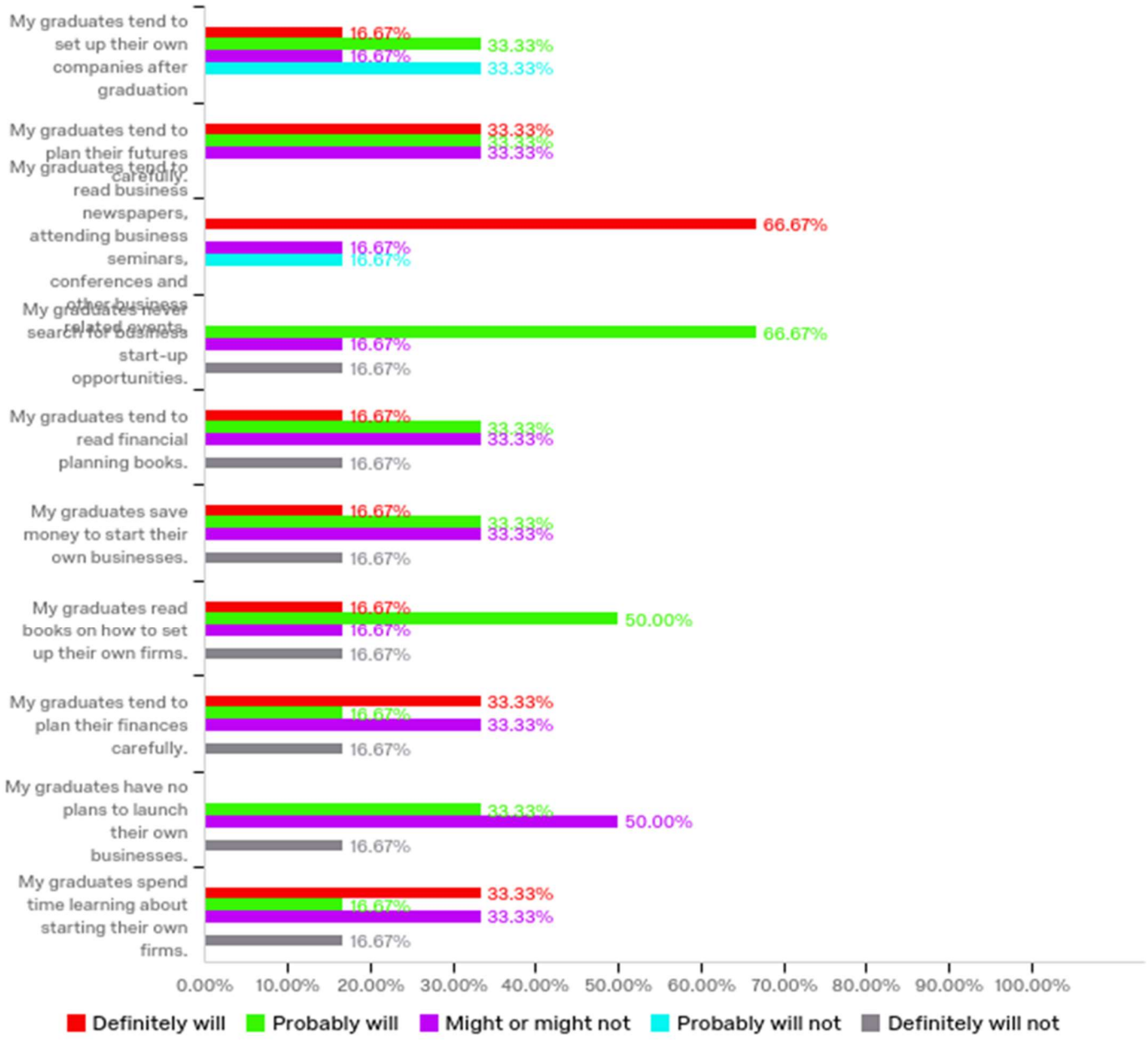

Figure 10 Bar Chart indicating extent course directors' opinions on graduate entrepreneurial intent

This part of the research tested individual entrepreneurship intent. It observed the degree of conviction that graduates may have to start a business, in the opinion of the course directors. 50% of the course directors thought that their graduates would probably set up their own companies after graduation and 33% thought that their graduates would not set up their own companies after graduation, while the balance remained neutral. A majority of course directors thought that the graduates will probably plan their futures carefully, while the balance remained neutral. Similarly, the majority of course directors stated that their graduates will definitely read business newspapers, attend business seminars,

conferences and other business related events and the rest remained neutral. The majority also though that their graduates will probably search for business start-up opportunities, while 16.5% believed that their graduates will definitely not search for business start-up opportunities. 16.5% remained neutral. A vast majority of course directors believe that their graduates will read financial planning books, in contrast to 16.5% that believe that their graduates will not read financial planning books and 33% remained neutral. In their view, 50% of course directors thought that their graduates will most likely save money to start their own businesses, while 17% thought they will definitely not save money to start their own businesses and 33% remained neutral on the matter. 67% of course directors thought that their graduates will read books on how to set up their own firms and 16.5% will definitely not do so, while 16.5% remained neutral. 50% of the course directors' opinion was that their graduates will plan their finances carefully, 16.5% disagreed and marked that their graduates will definitely not plan their finances carefully, 33.3% remained neutral. Only 33% of course directors thought their graduates will probably have no plans to launch their own business, 17% thought that they will have plans and 50% thought that they might or might not have plans to launch their own businesses. 50% were of the view that their graduates will spend time learning about starting their own firms, 16.5% thought that their graduate will definitely spend time learning about starting their own business and 33% remained neutral.

Graduates' Research Findings

This part of the research will record the graduates' research findings by referring to the questions posed by the online survey. The responses will be documented, and analysed in line with the research questions. The reader must take note that the graduates' research findings have been represented in cumulative percentages in the report. The author has represented findings as a cumulative or combined sum measuring how adequately or inadequately graduates have acquired entrepreneurial knowledge and skills, respectively. The results of the individual entrepreneurial intent test have also been represented cumulatively in the descriptive analysis to provide a more direct analysis of responses from the survey. Please refer to the graphs provided under each topic for a more detailed

analysis of results in percentages with regards to how “extremely” or “somewhat” adequately or inadequately have graduates acquired entrepreneurial knowledge and skills, respectively.

Graduates’ opinions on the acquisition of entrepreneurial knowledge. (Research Question 1(RQ1), Research Objective 1(RO1))

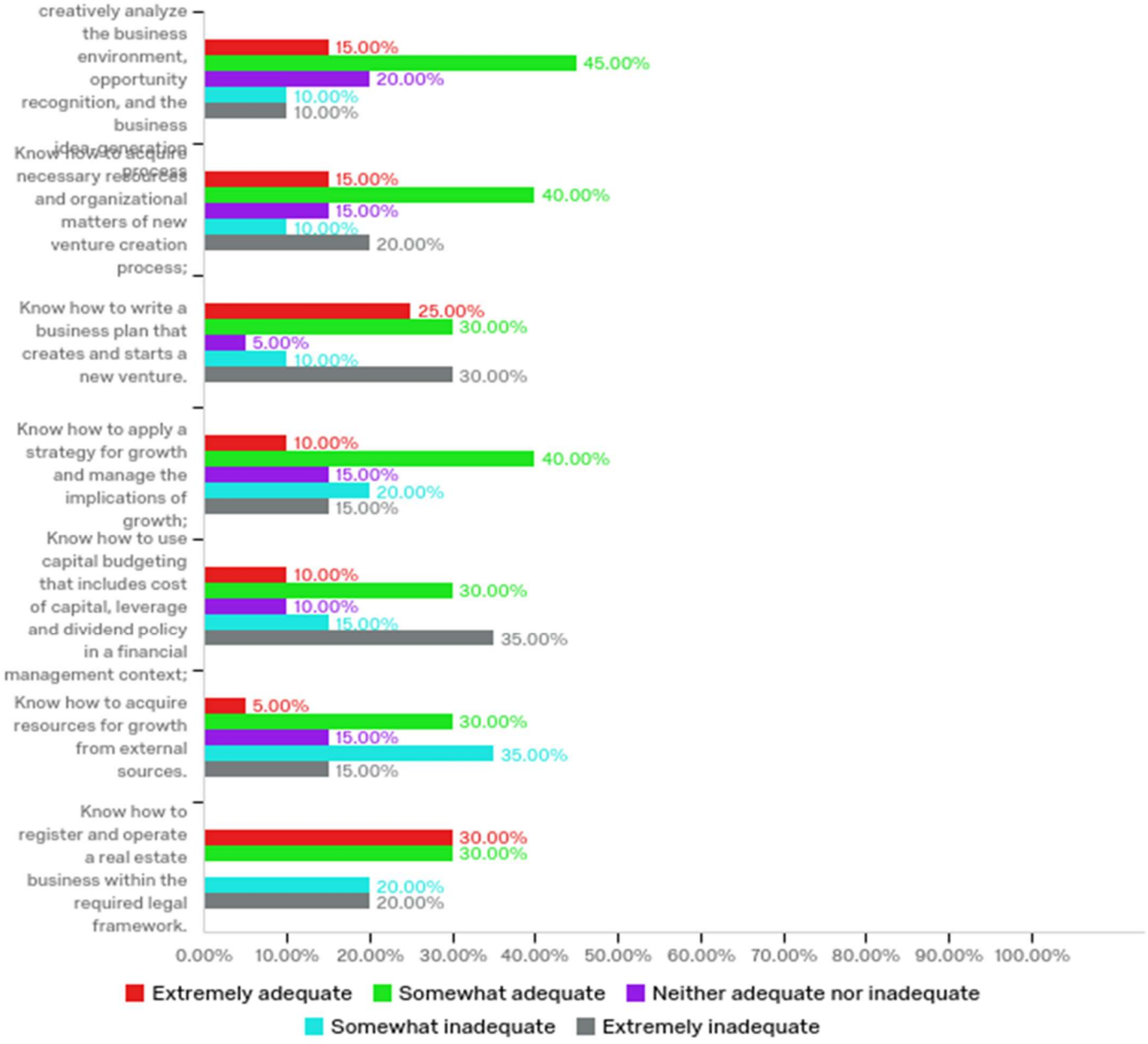

Figure 11 Bar Chart indicating extent of acquired entrepreneurial knowledge in the opinion of graduates

A majority of 60% of graduates adequately covered how to creatively analyse the business environment, opportunity recognition, and the business idea-generation process, with 20% of graduates remaining neutral and 10% found it somewhat inadequate and extremely inadequate, respectively. 55% of students generally adequately covered how to acquire necessary resources and organizational matters of new venture creation process, 30% thought it was inadequate and15% remained neutral. When it came to the knowledge of how to write a business plan that creates and starts a new venture, the results indicated that 55% of graduates felt that the content was adequately covered, 40% felt it was inadequately covered in their real estate courses and the balance of 5% remained neutral. 50% of graduates indicated that the knowledge of how to apply a strategy for growth and manage the implications of growth was adequately covered, however, 35% believed it was inadequately covered and 15% remained neutral. The majority of graduates thought that the knowledge of how to use capital budgeting that includes cost of capital, leverage and dividend policy in a financial management context was inadequately covered, with 40% indicating that it was adequately covered and 10% remained neutral. Similarly, 50 % of graduates thought that the knowledge of how to acquire resources for growth from external sources was inadequately covered, with 35% indicating that it was adequate and 15% remained neutral. Knowledge of how to register and operate a real estate business within the required legal framework was found by the vast majority of graduates have been adequately covered, with 20% finding it to have been somewhat inadequately and extremely inadequately covered, respectively. According to Chambers, Holm and Worzala (2009), it may be difficult for students to see the broad application of their knowledge due to lack of practical exposure in the field. It is the researcher's view that for the acquired knowledge to be more effective, it needs to be coupled with field experience and broad industry exposure.

Graduates' opinions on the acquisition of entrepreneurial skills. (RQ 3+4, RO2)

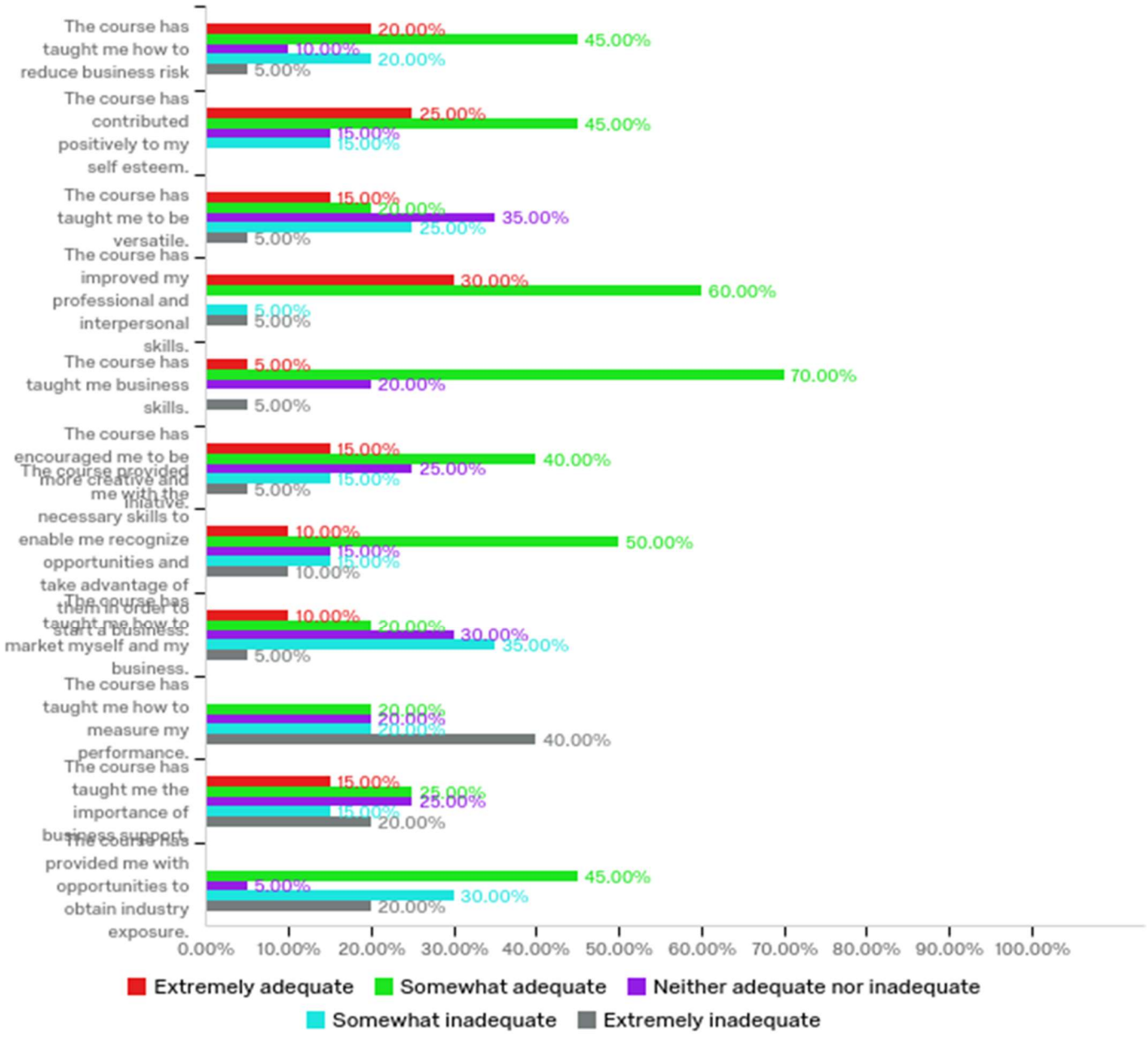

Figure 12 Bar Chart indicating extent of acquired entrepreneurial skills in the opinion of graduates

A vast majority (65%) of graduates indicated that the course has adequately taught them how to reduce business risk and has helped them to increase their awareness of entrepreneurship as a career option, with 25% indicating that it was and 10% remained neutral. A total of 70% of students felt that the course has adequately contributed to their self-esteem and confidence with only 15% marking somewhat inadequately, while 15% remained neutral. According to Isaacs et al (2007: 613-629), SA students are not self-driven in becoming employers due to a lack of entrepreneurial skills. This may be

as a result of a lack of entrepreneurship education and culture within the education system. There was a minimal difference between graduates that found that course has adequately and inadequately taught them to be versatile as entrepreneurs and provided them with skills to adapt to different business environments with a combined total of 35% finding it adequate, while 30 % found it inadequate and 35% remained neutral. The vast majority (90%) of graduates thought that the course has adequately improved their professional and interpersonal skills such as financial literacy, communication, negotiation and networking, while 10% though it was inadequate. This is congruent with Epley's (2004) findings that is also of the view that real estate education requires "basic business and management skills". 75% of graduates indicated that the course has adequately taught them business skills such as time management, organization, goal setting, delegation, public speaking, presentation skills, relationship building, raising capital, business resource management and financial literacy. Only 5% found it to be extremely inadequately and 20% remained neutral. When it came to whether the course has encouraged real estate graduates to be creative, have initiative and be innovative, a majority of 65% indicated that the course was adequate, whereas 20% found it to be inadequate and 25% remained neutral. The vast majority of graduates thought that the course adequately provided them with the necessary skills to enable them to recognize opportunities and take advantage of them in order to start a business. 25% thought it was inadequate, while 15% remained neutral. The degree to which the course has taught graduates how to market themselves and their business was found to be inadequate with 40% indicating that it was inadequate, 30% indicated it was adequate and the remainder of 30% remained neutral. 60% of graduates found that the course was inadequate in teaching them how to measure the performance of an entrepreneur and how to cope should the business fail, while only 20% somewhat adequately and the balance remained neutral. Most of the graduates indicated that the course has adequately taught them the importance of business support such as legal, accounting, bookkeeping, insurance and finance with 40% marking that it was adequate, 35% inadequate and 25% remained neutral. The majority of 50% of the graduates found that the course was inadequate in providing them with opportunities to obtain industry exposure through mentorship, job shadowing, and internship programs; 45% stated that it was somewhat adequate and only 5% remained neutral. Chambers, Holm and Worzala (2009) identified a gap between real estate

education and the industry. This is the gap that has resulted in a lack of experience and exposure of graduates within the real estate's industry. They proposed the integration of real estate's education with the industry. In the opinion of the researcher, this should not only be the premise of the professional bodies. HEI's have a more important role to play in creating the platform for the integration. Mentorship, job shadowing and internship programs are but a few possibilities in closing this gap. Closer association of the industry with education may also result in an increase of graduates that are equipped with industry-relevant entrepreneurial skills, further reducing the gap between real estate education and industry.

Graduates' opinions on entrepreneurial intent. (RQ1, RO3)

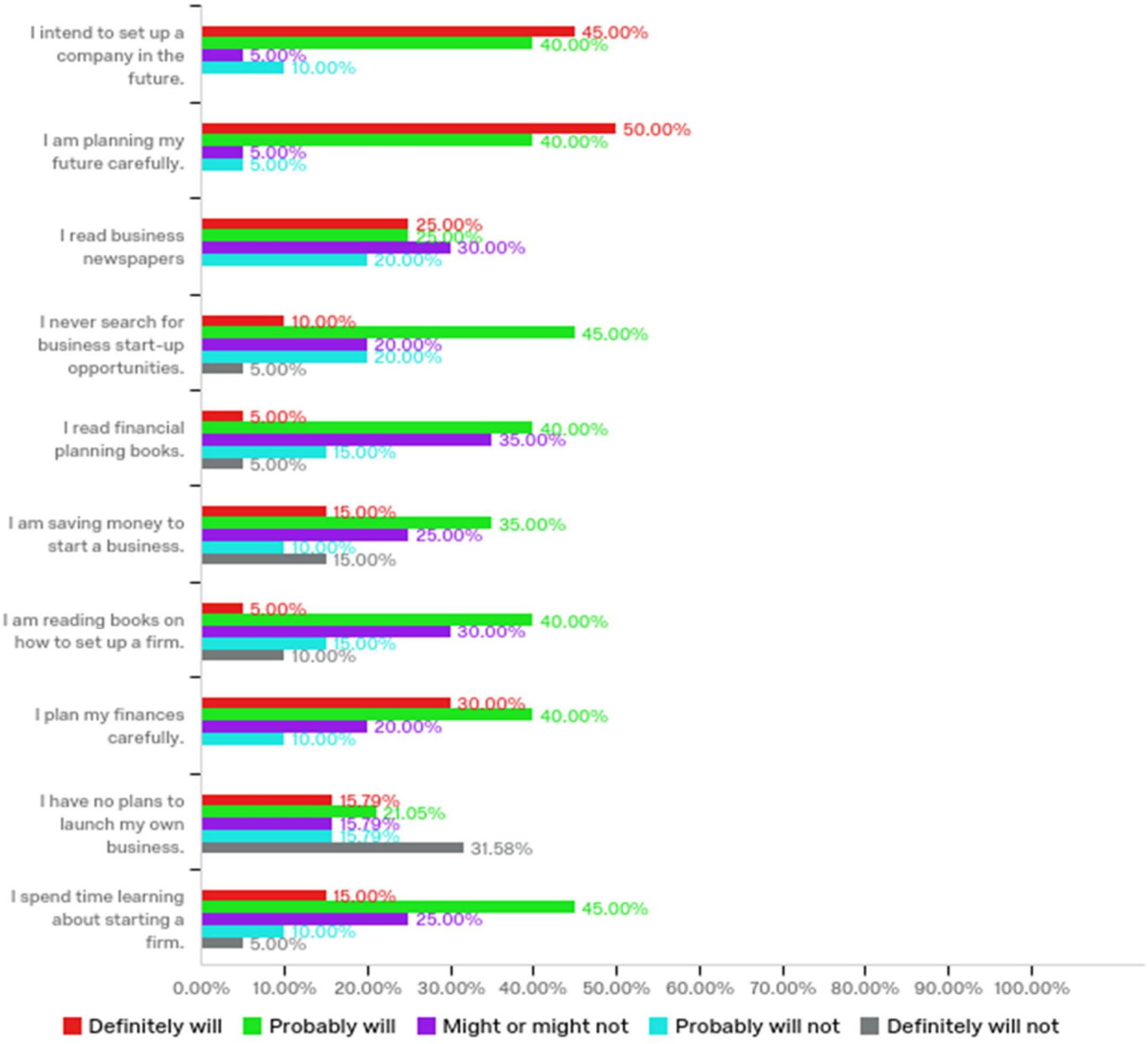

Figure 13 This part of the research documents results from the individual entrepreneurship intent tests. It observes the degree of conviction that graduates may have to start a business.

A combined total of 85% of graduates indicated that they intend to set up a real estate company in the future. 10% indicated that they will probably not set up a real estate company in future and only 5% remained neutral. A total of 90% of graduates indicated that they will plan their futures carefully. 5% stated that they will not and 5 % remained neutral. 50% indicate that they will read business

newspapers, whereas 20% will probably not and 30% remained neutral. The majority of 55% of graduates indicated that they will search for business start-up opportunities. In contrast, 25% stated that they will never search for business start-up opportunities, while 20% remained neutral. Most of the graduates indicated that they read financial planning books with a total of 45% affirming their stance, 20% indicated that they will not read financial planning books and 35% remained neutral. A majority of 50% of graduates indicated that they will be saving money to start a business, 25% indicated that they will not be saving money to start a business and 25% remained neutral. 45% of graduates marked that they will be reading books on how to set up a firm, 35% indicated that they will not and 30% remained neutral. A vast majority of graduates indicated that they will be planning their finances carefully, 10% indicated that they will probably not and 20% remained neutral. A majority of 47% of graduates indicated that they have no plans to launch their own business, whereas 37% indicated that they have plans to do so and 16 remained neutral. A vast majority of graduates will probably spend time learning about starting a firm. In contrast, only 15% indicated that they will not spend time learning about starting a firm and 25% chose to remain neutral on the matter.

Pittaway et al (2007) is of the view that in as much as entrepreneurship intentionality may increase as a result of the integration of entrepreneurship education within the real estate course, it remains unconfirmed that this will lead to the creation of new start-up businesses. It is the view of the researcher that the intervention of integrating entrepreneurship education within the discipline curriculum, may nevertheless, provide increased opportunity for a start-up, which may never have been there prior to the integration. Any successful business that exists today started as an idea. The idea, coupled with the relevant skills may advance to become an intention. Then the intention combined with opportunity may result in a business start-up.

Chapter 5: Summary and Conclusion

5.1. Introduction

In drawing to a conclusion, one may refer to the aim of this research, which is to study the impact of integrating entrepreneurship within the Real Estate degrees on the graduates' entrepreneurial intent. The document will conclude on the research findings in relation to research questions and objectives by looking at the research findings of both course directors and graduates survey.

5.2. Summary of findings

With regards to research question 2, objective 1, it would seem that according to the research findings, both strategies of course work and applying experiential learning teaching methods would be required to effectively integrated entrepreneurship education within a real estate programme in order to stimulate graduates to be entrepreneurial in the practice of real estate. The lack of exposure to the industry through mentorship, job shadowing, and internship programs indicates the lack of work experience adding to the inability of students to translate acquired knowledge into practice.

With regards to specific entrepreneurial skills and proficiencies (research questions 3 and 4, research objective 2) that are required to inform the learning and teaching of a real estate study programme that has entrepreneurship embedded in it, the results of the research survey indicate that graduates seemed to be more commercially aware and have a better understanding of how to reduce business risk. Both the course director and graduate survey indicated that there seemed to be an improvement in the self-esteem and confidence of graduates. Graduates were endowed with adequate professional, interpersonal and business skills. The survey indicates that graduates were encouraged to be more creative and innovative, thereby setting the environment for an atmosphere that encourages entrepreneurship as a career option. The research survey, however, found that the majority of real estate courses lacked in teaching graduates to be more versatile and do not provide the skill for graduates to be able to adapt to different business environments with ease. They also lacked in providing industry exposure and were inadequate in teaching graduates how to market themselves and their real estate businesses. The courses were also inadequate in providing the skill for graduates to measure their performance as entrepreneurs and do not teach graduates on how to cope with business

failure. An effective real estate course with entrepreneurship embedded in it may be informed by the integration of these skills.

The research survey indicated that most of the courses adequately covered the entrepreneurial knowledge (research question 1, research objective 1) that graduates are expected to acquire in their studies. It indicated that graduates adequately covered how to creatively analyse the business environment, recognize opportunities and business idea generation. It also indicated that courses adequately covered the knowledge on how to acquire resources and organizational matters of new venture creation processes and how to apply a business growth strategy. Furthermore, the courses adequately covered the knowledge on how to acquire resources for growth from external sources and how to operate a business within a specified legal framework. The courses were, however, found to be inadequate in providing the knowledge on how to write a compelling business plan that may lead to the start of a new venture and they lacked in the provision of knowledge of how to use capital budgeting that includes cost of capital, leverage and dividend policy in a financial management context.

According to the findings on the individual entrepreneurship test, it seems that graduates that studied real estate courses that already have entrepreneurship education embedded in them are more likely or have a higher probability to perform activities that may lead to the start of a business. The overall opinion of the course directors and graduates is that there is a higher probability that they may consider entrepreneurship as a career choice. This would come as a result of that self-acknowledged conviction or intention to start a business. The research findings indicate that the view of both course directors and graduates is that the research participants have a high probability of practicing activities that may lead to a start of a business such as planning one's future carefully, reading newspapers thereby remaining informed, looking for start-up opportunities, saving money towards a potential business, reading books on how to set up a business, planning finances carefully and spending a considerable amount of time learning about how to start a firm. The research, however, found that the graduates made no plans as to when to launch their real estate businesses. It is the view of the researcher that this may be emanating from other circumstances such as difficulties in accessing

finance and insufficient exposure to the industry. It is to be noted that this is incongruent with the finding that in the opinion of the course directors and graduates, there is a higher probability that the graduates may start a business.

5.3. Conclusions

It may be concluded that the integration of entrepreneurship training in real estate degree programs does affect a graduate's intention to become an entrepreneur after graduation, however, the research is inconclusive on whether graduates will actually start their own businesses as a result of entrepreneurship education and when they intend to do so. The researcher notes that some of the reasons that people start businesses, according to Henry et al (2005a), include that people are naturally born for it and require little to no training; prevailing circumstances forces them into it or it is in response to an opportunity. According to the research indicates that the integration of entrepreneurship education within a real estate degree seems to have the impact of motivating students to, at least, think about considering entrepreneurship as a possible career path. Integrating entrepreneurship education within a real estate course seems to create an environment in which entrepreneurship can be taught, where entrepreneurship skills can be endowed or sharped through the creation a space in which creativity and innovation can thrive. The research findings also indicate that the most effective way of teaching entrepreneurship is through a combination of both course work and through experiential learning. Future research may be conducted with regards to the quantum of course work that can be done versus the process on experiential learning within a disciplinary program. The research also indicates that there is a lack of exposure to the industry and that any successful and impactful integration of entrepreneurship education within a real estate degree program may need to include the establishment of a closer relationship between industry and higher learning institutions through mentorship, job shadowing, and internship programs. This is also motivated by the fact that the majority of research participants indicated that the real estate courses inadequately covered knowledge of how to acquire resources for growth from external sources. This further highlights the existing gap between industry and higher learning institutions.

5.4. Recommendations

It is the advice of the researcher that further research may be conducted with regards to how best to structure course content in order to have the best impact on entrepreneurial intention. It is, also, the view of the researcher that the research conducted has achieved the research objectives by exploring (objective 2) which real estate programs have incorporated entrepreneurship education training within their programs and what proportion of these have entrepreneurship skills embedded within them and investigating (objective 3) how the introduction of entrepreneurship education into real estate programs has impacted graduate's entrepreneurial intent.

5.5. Implications of this research

The research is a contribution towards further development of entrepreneurship education within the real estate property development. It seeks for strategies on how the learning, teaching and assessment of entrepreneurship education within real estate studies can be improved upon, where necessary. The research investigates the strength and the extent to which students and graduates have been equipped with entrepreneurship competencies. The questions also make suggestions on how the performance of the course in equipping students with the appropriate skills may be assessed. It provides an insight on which pedagogical models are most effective in teaching an entrepreneurship integrated curriculum within real estate studies.

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