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Entrepreneurial perceptions and knowledge: A survey of final year university students

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This paper investigated the perceptions and knowledge of final year university students towards entrepreneurship gaining insights regarding a gender, race and faculty perspectives. Students across all faculties believed that entrepreneurship education is important and less than half of the final year students showed interest in becoming entrepreneurs. More male students than female students indicated interest in starting a business. More African students indicated interest in starting a business compared to other race groups (Coloureds, Whites and Indians). There was a significant difference between the male and female students on the knowledge of entrepreneurship. The Economic and Management Science Faculty showed the best results on the knowledge of entrepreneurship. Indian and White students scored the highest in the knowledge of entrepreneurship. This study adds to the debates on the need for entrepreneurship education at tertiary institutions across the different faculties.

Key words: Entrepreneurship, perceptions, knowledge, gender, tertiary institution.

INTRODUCTION

Entrepreneurship has been an important research field among academics for a considerable length of time. The prolonged and heightened interest in the field of entrepreneurship is prompted by several factors: some being, as a means of revitalizing stagnated economies; stimulating developing economies and coping with unemployment problems by providing new job opportunities. In developing economies, such as South Africa, entrepreneurship is seen as an engine of economic progress, job creation and social adjustment (Guro and Atsan, 2006). With the South African economy being in transition, just over fifteen years into the new democracy, Small, Medium and Micro Enterprises (SMMEs) are accounting for an increasingly greater proportion of economic activity (DTI, 2005).

Entrepreneurship has been recognized as an important element in the dynamics of all economies and it is regarded as the driving force in economic growth and job creation (Sunter, 2000). The economic structure in South Africa is well served by tertiary institutions in that they generally provide a resource pool for big businesses. Student involvement in the economic development is of paramount importance. Developing students to have the spirit and drive towards entrepreneurship or business

start-ups would entail preparing them to become successful and useful in the economy. In the same manner it would make the society and economy entrepreneurial. Students today increasingly recognize that in the current economic climate most jobs are rarely "for life". The world of employment is changing. "Permanence and longevity is no longer a significant feature of career paths: traditional paths have disappeared" (Fallows and Steven, 2000). This widely held view has led to the speculation that there will be continuing growth in self-employment as a career option for individuals at different stages in their life. There is now a widespread recognition that entrepreneurship is the engine that drives the economy of most nations (Gorman et al., 1997).

Tertiary institutions play an important role in developing an entrepreneurial society. They can instill in their students at graduate and post-graduate level, a sense of understanding of risks and rewards, of business creation and its causes of failures. They can also play a role in developing entrepreneurial traits in students and provide the necessary support for entrepreneurs as well providing legitimacy to their endeavours. As tertiary institutions' culture changes, it will become more important to understand students' entrepreneurial aspirations in order

to achieve an institutional “fit” between higher education offerings and the needs of students. The totality of the experience that students gain in higher education is, and will be, influenced by many factors, including the prior experiences they have had in education; their personal aspirations for the future; their expectations concerning their life while at university; and how their experience at university supports their future aspirations (Collin et al., 2004).

A recent research study has revealed that entrepreneurial culture is not adequately boosted in tertiary institutions that churn out would-be bureaucrats rather than calculated risk takers (Brijlal, 2008). It is also quite clear that the lack of graduate employment in South Africa is driving government policy and the need to equip students with entrepreneurial skills, knowledge and abilities (Collins et al., 2004). The supply of entrepreneurs can be strongly affected by providing an environment at the early stages of development (Kourilsky, 1995), such as in schools and tertiary institutions, that encourages positive and self-enabling perceptions of potential entrepreneurs. University students form a pool that will supply future entrepreneurs. This study focuses on the final year students at a major tertiary institution, as they expect to be job seekers soon after graduation and not all will be successful. The study surveyed final year students across the various faculties on the perception and knowledge of entrepreneurship. It further investigated the perceptions and knowledge of entrepreneurship from a race and a gender perspective.

BACKGROUND AND SIGNIFICANCE OF THE STUDY

Final year students normally prepare for employment in the corporate sector after graduation. Up to 30% of university students are unable to find jobs after they graduate (Cape, 2006). A small percentage of graduates actually become entrepreneurs within a few years after graduation. Anecdotal evidence assumes that students in the commerce and medical faculties are more likely to become entrepreneurs (owners of a business) soon after graduation. However, little is known about what students in other faculties either understand or think about entrepreneurship. Comparing final year students on their perceptions and knowledge on entrepreneurship in a tertiary institution across various faculties is scarce or non-existent, especially in South Africa. Students who become entrepreneurs soon after graduation may not necessarily have done so as a result of their field of study.

Many new businesses have started across gender and racial lines. Although, the trends and projections in literature show that female will play an increasingly important role in the entrepreneurial development of an economy, little is known about what female youth either understand or think about entrepreneurship. The perceptions of female youth about entrepreneurship and the

knowledge of the economy are likely to shape the entrepreneurial revolution and our economic future.

It would be of interest to explore the perceptions and knowledge of final year students towards entrepreneurship across the different faculties from a gender and a race perspective. If perceptions and knowledge differ across faculties, then it may motivate for some sort of entrepreneurship module for final year students across all faculties. This would enable them to become employment creators, instead of being employed after graduation. This study has implications for policy makers, educators and practitioners in the field as it provides new insights for curriculum development in the final year of studies.

LITERATURE REVIEW

Historically, South Africans have been socialized and educated to enter the labour market as employees, but not as entrepreneurs (van Aardt, 1997) cited in Louw et al. (2003). The ratio of entrepreneurs to workers in South Africa is approximately 1 to 52, whilst in most developed nations it is approximately 1 to 10 (Friedrich and Visser, 2005). This disparity in the ratios has significant implications for policy makers in creating an environment that encourages entrepreneurship. The Global Entrepreneurship Monitor (GEM, 2001) reported that there is an overall lack of entrepreneurship elements in the education system in South Africa. South Africa was ranked 14th out of the 29 GEM countries on the Total Entrepreneurial Activity index (TEA). Some of the factors in the education system that contribute towards entrepreneurial culture are: perceptions towards entrepreneurship, business role models, negative mindsets in terms of confidence, initiative and creativity and negative perception towards entrepreneurship as a career choice.

Krueger and Brazeal (1994) assert that preparation is a key element for creating potential entrepreneurs because “opportunities are seized by those who are prepared to seize them”. They also stress that perceptions about entrepreneurship are extremely important and set the foundation for becoming an entrepreneur long before an individual actually makes the decision to become one. The supply of entrepreneurs can be strongly affected by creating a favourable entrepreneurial environment at an early stage that encourages positive and self-enabling perceptions of potential entrepreneurs. It is from this pool that the supply of entrepreneurs will eventually be drawn. Tertiary institutions can thus be seen as an environment that can prepare students by providing the necessary knowledge and skills to become entrepreneurs.

Education about entrepreneurship and for entrepreneurship will increase student’s interest in becoming entrepreneurs at some stage after graduation (Friedrich and Visser, 2005). According to Krueger and Brazeal’s model of entrepreneurial potential, education should improve the perceived feasibility for entrepreneurship by

increasing the knowledge of students, building confidence, and promoting self-efficacy. It should also improve the perceived desirability for entrepreneurship by showing students that this activity is highly regarded and socially accepted by the community and that it can be personally rewarding work. These perceptions are vital to develop in students who believe that they will become employed after graduation.

Another reason to introduce students to entrepreneurship through education during their university years is related to careers. Dyer (1994) discusses the different dimensions of a theory of careers and applies those ideas to entrepreneurship. He noted that a vital dimension of socialization that contributes to entrepreneurial careers is the education and training that the individual receives. In the final year of studies, the students should be introduced to entrepreneurship as a career option and should be offered alternative perspectives to their pre-conceived career orientation towards more traditional occupations (Kourilsky, 1995, cited in Walstad and Kourilsky, 1998). For faculties that are geared towards being employed, education in entrepreneurship may be beneficial, as it highlights a career option that might not otherwise be thought of or realistically considered. Veciana (1998), cited in Veciana et al. (2005), pointed out that we should look for "seed beds" rather than "job beds" and that in the knowledge society, the most promising sources of entrepreneurs are the university students. Among the growing body of literature which analyzes the relationship between gender and perceptions towards starting a business or entrepreneurial behaviours (Delmar and Davidsson, 2000; Kolvereid, 1996; Kourilsky and Walstad, 1998), several studies have found that males have a higher preference for entrepreneurship behaviour than females (Delmar and Davidsson, 2000). Also Kolvereid (1996), in his application of the Theory of Planned Behaviour to predict employment status choice, he found that males have a significantly higher preference for self-employment than females. Overall, empirical evidence suggests that perceived desirability and feasibility are increased through participation in entrepreneurship education programmes at universities (Peterman and Kennedy, 2003).

In view of the findings of the different literature, none have considered the perceptions and knowledge on entrepreneurship of final year students across the different faculties. South Africa is regarded as the 'rainbow nation' and it would therefore be beneficial to consider to what extent race and gender influences perceptions and knowledge of entrepreneurship. The study extends the research by Walstad and Kourilsky (1998) and adds to the debates in this field of entrepreneurship.

METHODOLOGY

This study collected survey data, using questionnaires, from a sample of final year university students across the various faculties

in a major tertiary institution in the Western Cape. The data were then used to investigate whether there were significant differences among race, gender and the various faculties in their perceptions and knowledge toward entrepreneurship. The reliability and validity of the questions in the survey had been established in previous studies conducted by Walstad and Kourilsky in 1996 with high school students and adults. The questionnaire was adapted to suit the South African context and was piloted with final year students and academics in the field of entrepreneurship before being administered to the sample.

This study used a stratified random sampling technique. One third of final year students (1041 of a total of 3161 students) from each of the six faculties were chosen as the sample to make comparisons between the different faculties. The six faculties were Community and Health Science; Economics and Management Sciences; Arts and Education; Dentistry and Natural Science. Data from the questionnaires were captured on a spreadsheet and analyzed using the SPSS package. Statistical techniques of univariable analyses (frequencies and percentages) and bivariable (cross tabulations) were used. Descriptive analysis was used to describe and highlight the variables, while inferential statistical tool (Chi-square) was applied in the analysis of the relationships existing between variables of interest. Perceptions toward entrepreneurship were measured using a Likert scale (ordinal), while knowledge was measured using a nominal scale. In the analysis, equal numbers of males and females and equal numbers in the different race groups were considered. The usage of the various techniques adopted was endorsed by a statistician. Taking into consideration the preceding works presented in the literature, the following six hypotheses were developed in this research concerning entrepreneurship.

H₁: Perceptions of final year students towards entrepreneurship are the same across the various faculties.

H₂: Perceptions of final year students towards entrepreneurship are the same across gender.

H₃: Perceptions of final year students towards entrepreneurship are the same across the different race groups.

H₄: Knowledge of final year students on entrepreneurship is the same across the various faculties.

H₅: Knowledge of final year students on entrepreneurship is the same across gender.

H₆: Knowledge of final year students on entrepreneurship is the same across the different race groups.

RESULTS AND DISCUSSION

The following results and discussion present the different faculties, gender, perceptions towards entrepreneurship and knowledge of entrepreneurship among final year students of a major tertiary institution in the Western Cape, South Africa.

Demographics

South Africa has four different types of race groups, from largest to smallest being, African; Coloured; White and Indian. In terms of enrolments at the tertiary institution the coloured group was the largest, followed by African, Indians and White groups respectively. It was noted that students in the coloured group were predominantly in the Arts, CHS (Community and Health Sciences) and Law faculties; Africans were predominantly in the Science

Table 1. Faculty and gender.

Gender	CHS (%)	EMS (%)	Arts (%)	Dentistry (%)	Law (%)	Science (%)
Male	30	43	34	32	45	51
Female	70	57	66	68	55	49

faculty; whereas Indians and Whites were predominantly in the Dentistry faculty. There was a significant difference ($p < 0.05$) across gender, with significantly more females in CHS, Arts, Economic and Management Sciences (EMS) and Dentistry faculties.

Of the total final year students surveyed, 37% were males and 63% were females. This has implications for female graduates on entrepreneurship, as they constitute a large pool that can be tapped for business start-ups. Table 1 shows the gender distribution across the various faculties.

The need for entrepreneurship education

The analysis revealed that from a race perspective the African students seemed to have the greatest need for entrepreneurship education, although, there was no significant difference among the various race groups. Students in the Law faculty showed the least need for entrepreneurship education while students in the Dentistry faculty showed the highest need for entrepreneurship education. The law students may be assumed to be employed after graduation. Dentistry, on the other hand, stressed the need for entrepreneurship education, as they may be more inclined to start a business practice soon after graduation. Further analysis revealed that there were no significant differences in the responses of females and males with respect to the need for entrepreneurship education. About 76% of male and female students felt the need for entrepreneurship education. This result may be motivation enough to introduce entrepreneurship education at the final year of studies.

Perceptions toward starting their own business

Forty percent of the total sample was thinking about starting a business soon after graduation. There was no significant difference in perceptions among the various faculties in wanting to start a business. It was however, interesting to note that more science students (49%) than EMS students (44%) seemed to be interested in starting a business. It is assumed that many entrepreneurs generally emerge from the EMS faculty, as business related modules are presented in this faculty. The Law and Arts students showed the least interest in starting a business. The low percentage in the Arts and Law faculties may seem to perpetuate being employed as they had the least interest in wanting to start a business.

There was a significant difference between male and female students wanting to start a business after graduation ($p < 0.05$). Female students were significantly less likely than males to give themselves a higher rating on starting a business soon after graduation, supporting the findings of other researchers like Kolvereid (1996), Delmar and Davidsson (2000). This difference is a cause for concern because it may directly affect the size of the potential pool of female entrepreneurs. The female students comprised about two thirds of the final year students. There was also a significant difference among the different races on wanting to start a business. The greatest difference was amongst Africans, followed by coloureds, Indians, and Whites. These results suggest that there is a large potential pool of African students who may decide to choose a career path in entrepreneurship.

Social responsibility

When asked how important it was for successful business owners or entrepreneurs to give something back to the community beyond providing employment, 70% of the respondents indicated that entrepreneurs should be involved in social responsibility. Between 76 to 90% of the students within the faculties believed that successful business owners should give something back to the community beyond providing jobs. The highest percentage (90%) being from the Arts faculty and the lowest percentage came from the Dentistry faculty (76%). From a gender perspective, there was no significant difference in the need for social responsibility. Seventy six percent of the male students compared with 79% of female students rated social responsibility as important. From a race perspective, there was a significant difference among the various groups ($p < 0.05$). African students had the highest response in terms of social responsibility being very important. The percentage of African students was twice that of all the other race groups in terms of social responsibility. This may support a case for government and the business sector to provide support to potential entrepreneurs, especially in the African race group.

Role models

It has been reported in many studies that role model entrepreneurs have a great influence on entrepreneurial aspirations and achievement (Green and Pryde, 1990). It is believed that if a person knows someone who is a

Table 2. Entrepreneurship knowledge across faculties.

Entrepreneurship knowledge	CHS (%)	EMS (%)	Arts (%)	Dentistry (%)	Law (%)	Science (%)
Definition	82	90	84	84	79	87
Job creation	51	57	53	62	50	49
Start up capital	16	21	28	8	20	20
Business survival	78	79	74	83	73	78
Example of franchise	75	80	79	76	65	66
Purpose of profits	57	59	53	57	50	53
Demand and price	42	58	32	51	51	43
Price determination	36	66	61	54	51	53
Mean %	55	64	58	59	55	56

successful in business, the greater the likelihood that the individual might be interested in starting a business because they have a role model to follow. Walstad and Kourilsky (1998) study found that there was a strong relationship between having a role model in the form of a parent, family member, or friend, and expecting to own a business in the future. This present study revealed that about 74% of the students knew of someone who runs a business. Of those students who indicated that they want to start a business, 85% knew someone who already owned a business. The highest percentage came from the Science faculty. There was an association between students who wanted to start a business and knowing someone who is an entrepreneur ($p < 0.05$). The analysis also reveals that 61% of male students knew of a friend who owned a business compared with 39% of the female students. This may imply that female students may not be motivated enough to start a business due to having fewer contacts in the business world, compared to male students. With regards to race and role models, there was a significant difference amongst the groups, with White and Indian groups being the highest score and African students with the lowest score, regarding knowing of a friend or family that runs a business. In the Western Cape, African business owners account for a smaller proportion of ownership compared to the other race groups. It may be beneficial for African business owners to encourage African students towards starting a business, by linking students to them during their studies.

Knowledge on entrepreneurship

Niyonkuru (2005) concluded from a 2004 European Commission report that education is an important means to create a more entrepreneurial mindset among young people. This report asserts that promoting entrepreneurial skills and perceptions provides benefits to society even beyond their application to new business ventures. It has been documented that most new jobs arise from entrepreneurial small firms. The final year students were tested on basic knowledge on entrepreneurship, similar

to the questions used in previous studies. Eight multiple choice questions were included in the survey to assess basic knowledge about entrepreneurship and business. Table 2 describes the topics covered by these questions and gives the percentage of correct responses for each item across the various faculties, gender and race. There was a significant difference among the different faculties on the total results based on the knowledge of entrepreneurship. The EMS faculty showed the best performance and Law and CHS were the worst performers. The EMS faculty normally include business related modules, hence the best performance in the survey (Table 3).

The study also investigated whether there were differences between male and female students. These results suggest an entrepreneurship knowledge gap between males and females, with males scoring 65% and females 54% on average. The fact that females were more aware of their knowledge deficiencies may make them less confident in their ability to succeed in starting a business. Thirty eight percent of female students compared to 62% of male students had the correct answer on who creates most of the jobs in our economy.

The results on an example of a franchise showed that 46% of females and 56% of males knew of McDonalds as being a franchise. Less than half of the females knew the purpose of profits and how price is determined, compared with more than half of the male students. Half of the female respondents did not know that cash flows are the most important for business survival. About two thirds of the male respondents had the correct answer regarding business survival. The relatively low scores from female students are of concern as it may limit the number of female start-up businesses soon after graduation. The low scores could also be due to lack of entrepreneurship awareness in the final year of studies (Table 4).

The study further investigated whether there were differences in the knowledge of entrepreneurship among the various race groups. The results revealed that White and Indian students scored the highest and African students scored the lowest. However, there were significant differences on the individual questions, in particular,

Table 3. Entrepreneurship knowledge across gender.

Entrepreneurship knowledge	Male (%)	Female (%)
Definition	87	82
Small business and job creation	62	38 *
Start up capital	83	79
Business survival	66	53 *
Example of franchise	56	46 *
Purpose of profits	54	46 *
Price determination	55	45 *
Demand and price	54	46 *
Mean	65	54 *

* implies significant differences ($p < 0.05$) between the results of male and female.

Table 4. Entrepreneurship knowledge across race.

	Coloured (%)	African (%)	Indian (%)	White (%)	Other (%)	Significant at 5%
Definition	87	81	84	88	77	Yes
Job creation	55	49	57	71	52	No
Start up capital	18	17	27	11	32	Yes
Business survival	84	76	86	88	69	Yes
Example of franchise	60	51	72	79	63	Yes
Purpose of profits	58	51	69	71	58	Yes
Demand and price	51	51	58	49	38	Yes
Price determination	64	59	65	66	67	No
Mean	60	54	65	65	57	

the questions based on start-up capital; business survival, example of franchise; purpose of profits and on pricing. Regarding the question on considering methods of raising capital to start a new business, among all the different race groups, the most common response was borrowing from the bank as the solution. Using personal money or borrowing from family and friends are the main sources of funding (GEM, 2001; DTI, 2005). This perception may need to change as raising finance is seen as one of the main obstacles to starting a business. Students may fear denial when applying for a loan, and should consider other sources of funding. The lowest score concerning start up capital came from the White students, who believed that banks were the main source of start-up capital instead of from family and friends. This could be due to the fact that the White group was probably seen as a low risk compared to the other groups when it came to debt capital and it is assumed that banks were more lenient towards them, compared to other race groups. The most important reasons why rates of immediate graduate entrepreneurship remain low may be due to, amongst other reasons, most often have student loans to pay, no collateral, lack of industrial experience and other personal priorities (Galloway and Brown, 2005).

Outcome of hypotheses tested

This paper investigated the perceptions, knowledge and gender differences of final year university students towards entrepreneurship. A summary of the hypotheses and the outcomes are listed below.

H₁: Perceptions of final year students toward entrepreneurship does not differ among the various faculties.

This hypothesis was supported, as there were no significant differences across the faculties

H₂: Perceptions of final year students toward entrepreneurship is the same across gender.

Although, male and females felt strongly about entrepreneurship education, there was sufficient evidence to prove that males were more inclined to start a business soon after graduation, compared to female students. This hypothesis was not supported.

H₃: Perceptions of final year students toward entrepreneurship are the same across the different race groups.

There was a significant difference across the different race groups with more Blacks wanting to start a business.

This hypothesis was not supported.

H₄: Knowledge of final year students on entrepreneurship is the same across the various faculties.

There was a significant difference among the different faculties on the total results. The EMS faculty showed the best performance and Law and CHS were the worst performers. This hypothesis was not supported.

H₅: Knowledge of final year students on entrepreneurship is the same across gender.

There was a significant difference between the males and female students on the knowledge of entrepreneurship. This hypothesis was not supported.

H₆: Knowledge of final year students on entrepreneurship is the same across the different race groups.

There were significant differences in the individual questions, with the White and Indian students scoring the highest and Black students scoring the lowest. This hypothesis was not supported.

Conclusion

The findings from this study show that students from all faculties believe that entrepreneurship education is important. Although, 40% felt that they would want to become entrepreneurs soon after graduation, the actual number becoming entrepreneurs may be significantly lower. Perceptions towards entrepreneurship did not differ significantly across the various faculties. More male students were interested in starting a business compared to female students. More African students wanted to start a business compared to other race groups. There was a significant difference between the males and female students on the knowledge of entrepreneurship. The EMS faculty showed the best results on the knowledge of entrepreneurship. There were significant differences in the individual questions, with the White and Indian students scoring the highest and Black students scoring the lowest on knowledge of entrepreneurship.

IMPLICATIONS

The key to improving perceptions within society and within higher education lies in education. Entrepreneurship education should be part of the curriculum at the final year level and emphasis should be to improve the perceptions that female students have on entrepreneurship. In addition to developing skills for business start-up and ownership, entrepreneurship education, if included in final year of studies, can have a positive influence in terms of general perceptions to entrepreneurship, and in turn promote entrepreneurship as a useful and respectable career prospect for graduates. The contribution of this study is that it demonstrates that final year students

have different perceptions and knowledge about entrepreneurship from a gender, race and faculty perspectives. In order to create and to support entrepreneurship as an option after graduation, institutions may want to consider some of the following options:

- (1) Include a credit bearing module on entrepreneurship at the final year level. The module should be focused more on raising awareness of entrepreneurship and motivating students on creativity and ideas for commercialization.
- (2) The curriculum should allow students to prepare for "risk" and "ownership".
- (3) The curriculum should re-align itself to meet the needs of present day challenges and be geared to participate in societal transformation.
- (4) Integrate entrepreneurial skills development across all faculties.
- (5) The curriculum should be designed such that it provides tools for inquiry into entrepreneurship, thereby encouraging students to analyze their strengths and weaknesses, and in so doing learn about themselves and find ways to develop and value behaviours that lead to successful business start-ups.

LIMITATIONS AND FUTURE RESEARCH

This study only analyzed one of the 22 higher education institutions in South Africa. It therefore cannot be generalized to all the tertiary institutions in South Africa. Future research should consider doing analysis on a national basis as this will influence policies. Future research should also consider to what extent sourcing financial capital in starting a business is influenced by race and gender.

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