APPLICATION OF SHAPERO'S MODEL IN EXPLAINING ENTREPRENEURIAL INTENTIONS AMONG UNIVERSITY STUDENTS IN KENYA

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ABSTRACT

Entrepreneurship is considered as an engine of economic growth. Entrepreneurial process starts from development of entrepreneurial intentions. A large number of scholars have focused on the internal and psychological aspects regarding entrepreneur. However, little is known about how external factors can influence the development of entrepreneurial intentions. Entrepreneurial intentions is influenced by three key latent variables; perceived desirability, propensity to act and perceived feasibility. The researcher planned to use an entrepreneurial intention model developed theoretically based on the Shapero's Model.

The sample size was 133 respondents. The data collection instruments were questionnaire. The questionnaires were delivered to the selected respondents by visiting them in the organization during which observation was done. Quantitative data collected was analyzed by descriptive statistics using SPSS and presented through percentages, means, standard deviations and frequencies. Content analysis was used on data that is qualitative nature or aspect of the data collected from the open ended questions.

The results of this study were compared to other similar studies of the same correspondent in other universities to enable general conclusions on the applicability of the model and the authenticity of the results. While this study was mainly focusing on university students, its conclusions was to be instrumental in answering most questions regarding the status of entrepreneurship among the youth in Kenya, especially in other tertiary institutions.

The study concludes that it was very possible to offer entrepreneurship courses since they develop the intention and the necessary abilities to be an entrepreneur and that being an entrepreneur would entail great satisfactions . The study further concludes that the respondents had complete knowledge on both readily available opportunity to start the businesses and business centres/networks. Economic opportunity and autonomy are very important in making a choice whether to become an entrepreneur and that carrying out the kind of job one really likes corresponds to entrepreneurial success.

The study recommends that learning institutions should offer entrepreneurship courses. This will enable the learners to have the knowledge about the entrepreneurial environment and realize the necessary abilities needed to be entrepreneurs. The study further recommends that the government should develop research and development projects that will help in giving more information on the field of entrepreneurship. Moreover, specialized training should be offered to upcoming entrepreneurs so as to increase the efficiency of the products/services offered to the customers.

Keywords: Entrepreneurship, Entrepreneurial Intentions, Shapero's Model, Entrepreneurial Environment

Introduction

Entrepreneurship is an important vocational option. Individual work preferences are increasingly favoring self-reliance and self-direction (Baruch, 2004; Hall, 2002). At the same time, changes in the political and socio-economical environment have resulted in fewer opportunities for continuous organizational employment. On the macro-level, econometric research shows that new and small businesses contribute significantly to job creation, innovation and economic growth (Carree&Thurik, 2003).

A number of researchers including Shapero (1975), Bird (1988), Krueger *et al.* (2000) and Kolvereid (1996), among others, have recognized the important role played by entrepreneurial intent. In their respective studies these researchers argued that, the decision to start a business can be triggered by a particular situation, but it can also be the result of cumulative events over time. All these studies have concentrated on factors influencing decision for entrepreneurial intentions but none is known to link the application of Shapero's model to these decisions. This study presents a unique opportunity to investigate the application of Shapero's model in explaining entrepreneurial intentions among students in public and private university in Kenya.

Purpose of the study

Traditionally, university graduates and graduates of other tertiary educational institutions in Kenya have in the past had a guarantee of employment either in the public sector or in multinational firms. Kenyan college graduates are trained to be employment seekers instead of employment creators. In spite of the paradox, entrepreneurship studies have paid little attention to entrepreneurial attitudes, beliefs and values of the youth In Kenya. Stimulating entrepreneurship interest among students in institutions of higher learning is one way of curbing youth unemployment in Kenya (Maina, 2006).

Studies have also tried to link entrepreneurial intentions to venture creation (Carter et al, 2003; Kolvereid, 1996; Krueger et al., 2000). This study seeks to apply the generally accepted model of entrepreneurial intentions, by Shapero in the Kenya context, focusing on the students in both the public and Private Chartered Universities in Kenya. The study will aim to elucidate on the specific circumstances in the students environment, as well as personal disposition which may have significant influence on their choice to create new ventures. There is hardly any study that has an actual Shaperos Model in explaining significance of entrepreneurial behavior amongst the university students in Kenya. Thus this study intends to fill the existing knowledge gap by investigating the application of Shapero's model in explaining the determinants of entrepreneurial intentions among university students in Kenya. This study answers a number of research questions that is; 1) How does the perceived desirability influences entrepreneurial intention amongst university students in Kenya? 2) Does the propensity to act influence entrepreneurial intention amongst university students in

Kenya? 3) How does the perceived feasibility influence entrepreneurial intention amongst university students in Kenya?

Background of the Study

Models based on Ajzen theoretical framework continue to dominate social psychological research into intentions. Intentions represent the degree of commitment toward some future target behavior. Intentions robustly predict and explain that behavior. In turn, attitudes toward a behavior will affect intentions. Exogenous factors influence intentions and behavior through these attitudes. In their theory of reasoned action, attitudes toward a behavior consist of two components: an attitude based on expectancies and an attitude based on social norms (Ajzen, 1987). Ajzen's theory of planned behavior takes these attitudes representing the attractiveness of a behavior and adds another attitude, perceived behavioral control. This represents perceptions that the behavior is within the decision maker's control, a necessary precondition for the behavior to be personally feasible (Ajzen, 1987). "Intentions" here refers to the specific target behavior of starting a business. This goal behavior is, by definition, planned. Usually, though, the plan or vision of how to achieve the goal and the specific details of the goal are formulated after identifying the intended goal, since starting a business constitutes a complex, distal behavior, intentions (end) and the plan (means) will likely coevolve.

Entrepreneurial Intent

Entrepreneurial intent refers to the intention of an individual to start a new business. A number of researchers including Shapero and Sokol (1982), Bird (1988), Krueger et al. (2000), and Kolvereid (1996), among others, have recognized the important role played by entrepreneurial intent. In examining the entrepreneurial event, researchers have also suggested that: the existence of an entrepreneurial opportunity; its identification by the entrepreneur; and the conscious decision of the entrepreneur to exploit that opportunity, are among the requisite steps necessary in the entrepreneurial process (Shane, 2003). However, Krueger et al. (2000, p. 411) argue that an entrepreneurial process tends to be thoughtful on the part of the individual, and that opportunity identification is based upon individual intention

Krueger et al. (2000) summarized the importance of the relationship between cognitive theory and entrepreneurial behavior. He sees the more rigorous and theory-based research into entrepreneurial intentions as a major step forward in research today, and suggests "The potential for continued progress lies not just in cognitive theory, but cognitive research offers more than its fair share of potential for exciting, and productive research in entrepreneurship.

The Shapiro Model

Shapero's model of new-venture initiation posits that the decision to initiate a new venture requires two things. First, founders should perceive that starting a new venture is "credible" (i.e., they have intentions toward entrepreneurship). Starting a new venture must be a believable opportunity. Second, new-venture initiation requires some kind of precipitating (or "displacing") event. In turn, credibility requires at least a threshold level of perceptions of feasibility and desirability plus some propensity to act upon the opportunity. Figure 3.1 graphically depicts Shapero's model as applied to intentions. Each arrow represents a testable hypothesis.

Shapero suggests that the process of forming intentions may prove complex. Propensity to act is likely to also have indirect influences on relationships in the model, thus we should test for moderating effects by propensity to act. Shapero also suggests that intentions may depend on only a threshold level of feasibility and desirability perceptions, thus we may also want to attempt identification of threshold effects.

Shapero's Model of Entrepreneurial Intentions

Shapero (1982) has developed a model on what influences entrepreneurial intentions. He claims that desirability, feasibility and a propensity to act are the most crucial factors influencing an individual's intention to start a venture. Moreover, specific desirability and perceived self-efficacy are described as important foundations for the perceptions of desirability respectively feasibility.

Shapero identified three classes of important variables in this relationship; (a) One dependant variable, entrepreneurial intentions (EI), this represents the expected entrepreneurial behavior of the university students who are the respondents in this study. (b) Three Independent variables which represent personal attitude of the respondent; university students. These variables include; perceived desirability; perceived feasibility and propensity to act.

Perceived Desirability

ENTREPRENEURIAL INTENTIONS

Perceived Propensity

Perceived Feasibility

Figure 3. 1: Shapero's Model of Entrepreneurial Intentions

Source: Van Auken, Fry and Stephens (2006).

Measurement Issues

Perhaps the most important consideration is that this class of parsimonious models exhibits a remarkable robustness in practice. These models are particularly valuable for planned, purposive behaviors (e.g., starting a business), even more so if the model uses measures of comparable specificity, preferably of moderate specificity (Krueger et al. (2000). In practice, these models capture the motives underlying intentional behavior far better than models using more retrospective methods (which are subject to contaminants such as hindsight bias). Intentional processes such as entrepreneurship are best understood by tracing subjects through the process regardless of their

attitudes, intentions, or behavior. In the case of entrepreneurial career choice, this suggests identifying samples of subjects currently facing actual major career decisions.

Entrepreneurship in Kenya

In Kenyan, the informal sector has rapidly expanded and now provides numerous opportunities for self-employment. In 1997-2002 for example, the formal sector grew by only 1.8% compared to 3.5% growth for the informal sector. Unfortunately, the sector continues to be unattractive to the more educated youth creating a skills gap that curtails its growth, CBK Annual Economic Review, (2002).

Methodology

The aim of the study was to explore Shapero's model in explaining entrepreneurial intentions among university students in Kenya. The entrepreneurial process focuses on an individual as the central object of study. Shapero's model was applied in explaining these intentions by investigating the effect of perceived desirability; feasibility and propensity to act among individual students. The population was limited to all public universities and private chattered universities in Kenya. The identified respondents were those at their critical decision making points in their careers, these included only those students in the final and second last year of their course, this helped to ensure that entrepreneurial intentions or lack of any were genuinely expressed. The method used to carry out the research is as described in the section that follows.

Research Design and Sample Size

The study used a descriptive survey design. Kothari (2000) refers to diagnostic and descriptive design as concerned with providing characteristics of a particular phenomenon while determining the frequency of level of association with something else. Therefore descriptive statistics was used to inspect the data and identify any existing trends.

The type of university was used as a parameter for stratification to select the university to be included in each stratum. With ideal stratification, each stratum is homogeneous internally and heterogeneous with other strata. According to Cooper and Schindler (2003), stratified proportionate random sampling technique produce estimates of overall population parameters with greater precision and ensures a more representative sample is derived from a relatively homogeneous population.

The population of the study comprised of university students taking Entrepreneurship education in both public and Private Chartered Universities. Krueger *et al.* (2000) argue the importance of studying entrepreneurial phenomena before they occur, and in order to be able to differentiate between groups, to include non-entrepreneurial intending subjects, target population of the study included both post graduate and undergraduate students undertaking specialization in entrepreneurship in both public and private chattered universities in Kenya. The researcher considered students in their final year and second last years in their courses in all public and private universities in Kenya, therefore the sample consisted of 133 students which were 30% of the total population. Stratified random sampling technique was used to select the sample. According to Cooper and Schindler (2003) the technique produce estimates of overall population parameters with greater precision and ensures a more representative sample is derived from a relatively homogeneous population.

Table 4. 1: Sampling Frame

University	Population	Sample Size	Sample Ratio
Public	330	99	30%
Private Chartered	113	34	30%
Total	443	133	30%

Source: Author 2011

Data Analysis

The analysis involved different phases, phase one was frequency analysis of the background data to determine the sample characteristics and profiles of the students interviewed. In phase two, the focus was on correlation and descriptive analysis of the independent variables. This assisted in making conclusions on the identified hypotheses. The analysis sought to answer all research questions that have been identified in the study.

A structured questionnaire was used as the main data collection tool in the current study. The first section on the questionnaire measured demographic characteristics of students such as gender, age, faculty, race, employment status and income. The second section of the questionnaire measured the main study variables that constructed the models tested here.

Analysis of variance (ANOVA) was used to investigate the degree of relationship between the variables in the study; indicated the strength and direction of association between the variables.

Results and Discussions

The study targeted 133 respondents in collecting data with regard to the determinants of entrepreneurial intentions among university students in Kenya. According to the findings, 77% of the respondents were male while 23% of the respondents were female.

Table 5. 1: Reasons to choose the Masters/PhD in entrepreneurship

	Not at all important	Slightly important	Neutral	Important	Very important	Mean	Stdev
Vocation	7	13	23	30	27	2.4	0.62
Career opportunities	13	7	10	30	40	2.2	0.66
Advice from family or friends	3	7	23	30	37	2.1	0.68

The study sought to find the reasons why the respondents choose the Masters/PhD in entrepreneurship. According to the findings, the respondents indicated that they choose the masters degree since it was very important to them in terms of vocation as indicated by a mean of 2.4, the respondents also indicated that the degree was important to them in terms of career opportunities as indicated by a mean of 2.2, the respondents indicated that they choose the degree as a result of advice from family and friends.

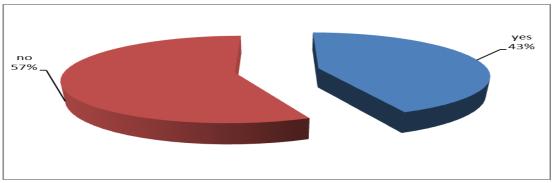


Figure 5. 1: Self-employed or the owner of a Small or Medium-sized Enterprise

The study sought to find out whether the respondents were self-employed or owned a Small or Medium-sized Enterprise. According to the findings, 57% of the respondents indicated that they were self-employed while 43% of the respondents indicated that they were not self-employed.

5.1 Perceived Desirability

Table 5. 2: Offering entrepreneurship courses which develop entrepreneurial aspects

	impossible	slightly possible	neutral	possible	very possible	mean	stdev
Knowledge about the entrepreneurial environment	17	10	20	23	30	2.6	0.60
Greater recognition of the entrepreneur's figure	10	20	16	27	27	2.6	0.60
The preference to be an entrepreneur	20	13	13	17	37	2.6	0.60
The necessary abilities to be an entrepreneur	10	17	23	30	20	2.7	0.59
The intention to be an entrepreneur	23	30	20	20	7	3.4	0.60

The study sought to find out the possibility of offering entrepreneurship courses which develop the stated entrepreneurial aspects. According to the findings, the respondents indicated that it was very possible to offer entrepreneurship courses since they develop the intention to be an entrepreneur as indicated by a mean of 3.4, the respondents indicated that it was very possible to offer entrepreneurship courses since they develop the necessary abilities to be an entrepreneur as

indicated by a mean of 2.7, the respondents indicated that it was possible to offer entrepreneurship courses since they develop the preference to be an entrepreneur, greater recognition of the entrepreneur's figure and knowledge about the entrepreneurial environment as indicated by a mean of 2.6. This is in line with studies done by Shaver and Scott in 1991 on how an individual's personal capacity is sufficient to handle potential challenges. These results are also supported in the literature where Krueger et. Al, (2000) says that specific desirability is connected to personal values and career choice; a person who highly values independence will be more likely to choose to be an entrepreneur if that person perceives entrepreneurship to be a career choice associated with an independent lifestyle.

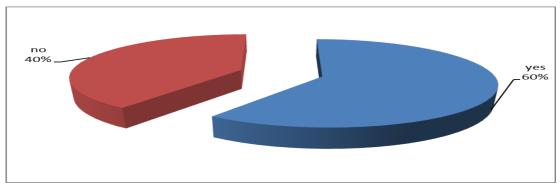


Figure 5. 2: Course or module that could be considered as entrepreneurship education

The study sought to find out whether the respondents had taken any course or module that could be considered as entrepreneurship education. According to the findings, 60% of the respondents indicated that they had taken a course or module that could be considered as entrepreneurship education while 40% of the respondents indicated that they had not taken any course or module that could be considered as entrepreneurship education. The study therefore agreed with studies by Rushing conducted in 1990. It was found out that entrepreneurship education was important as it can enhance and develop traits that are associated with entrepreneurial success and provide skills that entrepreneurs will need later. This is in line with Rushing's studies which indicate that entrepreneurship education should be integrated and continued throughout all formal education.

Table 5. 3: Extent that has helped develop any of the aspects

	Very great extent	Great extent	Moderate extent	Little extent	No extent	Mean	Stdev
Knowledge about the entrepreneurial environment	10	13	20	40	17	2.6	0.60
Greater recognition of the entrepreneur's figure	27	17	13	10	33	2.9	0.58
The preference to be an entrepreneur	40	23	10	17	10	3.7	0.64
The necessary abilities to be an entrepreneur	17	23	10	10	40	2.7	0.59
The intention to be an entrepreneur	13	17	27	20	23	2.8	0.59

The study sought to find out the extent to which the course had helped the respondents develop any of the named aspects. According to the findings, the respondents indicated that the course had helped them develop the preference to be an entrepreneur to a very great extent as indicated by a mean of 3.7, the respondents also indicated that the course had helped them develop greater recognition of the entrepreneur's figure as indicated by a mean of 2.9, the respondents indicated that the course had helped them develop the intention to be an entrepreneur to a very great extent as indicated by a mean of 2.8, the respondents further indicated that the course had helped them develop the necessary abilities to be an entrepreneur and develop Knowledge about the entrepreneurial environment to a great extent as indicated by a mean of 2.7 and 2.6 respectively.

Table 5. 4: Level of agreement with the given sentences

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Stdev
Being an entrepreneur implies more advantages than disadvantages to me	10	17	27	10	37	2.5	0.61
A career as entrepreneur is attractive to me	13	17	23	10	37	2.6	0.60
If I had the opportunity and resources, I'd like to start a firm	17	10	40	13	20	2.9	0.58
Being an entrepreneur would entail great satisfactions for me	40	23	10	17	10	3.7	0.64
Among various options, I'd rather be an entrepreneur	10	37	17	17	20	3.0	0.58

The study sought to find out the level of agreement of the respondents on the statements relating to perceived desirability. According to the findings, the respondents strongly agreed that being an entrepreneur would entail great satisfactions for them as indicated by a mean of 3.7, the respondents strongly agreed that among various options, they'd rather be an entrepreneur as indicated by a mean of 3.0, the respondents agreed that If they had the opportunity and resources, they'd like to start a firm as indicated by a mean of 2.9, the respondents strongly agreed that a career as entrepreneur is attractive to them and that being an entrepreneur implies more advantages than disadvantages to them as indicated by a mean of 2.6 and 2.5 respectively.

5.2 Perceived Feasibility

Table 5. 5: Level of detailed knowledge on measures to support firm creation

	Absolute ignorance	Little ignorant	Neutral	Knowledgeable	Complete knowledge	Mean	Stdev
Specific training for young entrepreneurs	13	23	20	27	17	2.9	0.58
Loans in specially favourable terms	20	10	13	20	37	2.6	0.60
Technical aid to start the business	13	13	27	27	20	2.7	0.59
Business centres/networks	13	30	23	23	10	3.1	0.58
Consulting services in favourable terms	13	17	33	20	17	2.9	0.58
Market accessibility in favourable terms	10	17	17	33	23	2.6	0.60
Favourable policies to start businesses	23	17	17	13	30	2.9	0.58
Readily available opportunity to start the businesses	33	23	13	13	17	3.4	0.60

The study sought to find out the level of detailed knowledge of the respondents on measures to support firm creation. According to the findings, the respondents indicated that they had complete knowledge on both readily available opportunity to start the businesses and business centres/networks as indicated by a mean of 3.4 and 3.1 respectively. The respondents indicated that they were knowledgeable on specific training for young entrepreneurs, consulting services in favourable terms and favourable policies to start businesses as indicated by a mean of 2.9, the respondents indicated that they were knowledgeable on technical aid to start the business as indicated by a mean of 2.7, the respondents indicated that they were knowledgeable on loans in specially favourable terms and market accessibility in favourable terms as indicated by a mean of 2.6.

Table 5. 6: Level of agreement of the respondents on the given statements

	strongly agree	agree	neutral	disagree	strongly diasgree	Mean	Stdev
Entrepreneurial activity clashes with the culture in my religion	10	23	10	20	37	2.5	0.61
The entrepreneur's role in the economy is not sufficiently recognized	20	13	17	20	30	2.7	0.59
Many people consider hardly acceptable to be an entrepreneur	7	17	17	20	40	2.3	0.64
Entrepreneurial activity is considered too risky to be worth while	3	17	20	17	43	2.2	0.66
It is commonly thought that entrepreneurs take advantage of others	17	10	37	17	20	2.9	0.58

The study sought to find out the level of agreement of the respondents on the statements relating to perceived feasibility. According to the findings, the respondents strongly agreed that it is commonly thought that entrepreneurs take advantage of others as indicated by a mean of 2.9, the respondents strongly agreed that the entrepreneur's role in the economy is not sufficiently recognized as indicated by a mean of 2.7, the respondents agreed that entrepreneurial activity clashes with the culture in my religion and that many people consider hardly acceptable to be an entrepreneur as indicated by a mean of 2.5 and 2.3 respectively. The respondents agreed that entrepreneurial activity is considered too risky to be worthwhile as indicated by a mean of 2.2.

Table 5.7: Importance of the factors in making a choice whether to become an entrepreneur

	not at all important	slightly important	neutral	important	very important	Mean	Stdev
Economic opportunity(Wealth)	33	20	13	17	17	3.4	0.60
Autonomy	20	20	10	17	33	2.8	0.59
Authority	13	13	27	23	23	2.7	0.59
Challenge	10	17	23	13	37	2.5	0.61
Self-realization and participation in the whole process	13	17	20	17	33	2.6	0.60

The study sought to find out the importance of the factors in making a choice whether to become an entrepreneur. According to the findings, the respondents indicated that economic opportunity is very important in making a choice whether to become an entrepreneur as indicated by a mean of 3.4, the respondents indicated that autonomy is very important in making a choice whether to become an entrepreneur as indicated by a mean of 2.8, the respondents indicated that authority is important in making a choice whether to become an entrepreneur as indicated by a mean of 2.7, the respondents indicated that self-realization and participation in the whole process is important in making a choice whether to become an entrepreneur as indicated by a mean of 2.6 and that challenge is very important in making a choice whether to become an entrepreneur as indicated by a mean of 2.5.

Table 5. 8: Extent to which factors named correspond to entrepreneurial success

	very great extent	great extent	moderate extent	little extent	no extent	mean	stdev
Competing hard in world markets	20	7	43	17	13	3.0	0.58
Reaching a high level of income	23	17	13	20	27	2.9	0.58
Carrying out the kind of job you really like	37	20	13	17	13	3.5	0.61
Achieving great social recognition	17	3	23	27	30	2.5	0.61
Helping to solve the problems of my community	13	3	20	27	37	2.3	0.64
Keeping the business alive	23	10	20	37	10	3.0	0.58
Keeping a path of positive growth	17	17	20	23	23	2.8	0.58

The study sought to find out the extent to which the results were corresponding to entrepreneurial success. According to the findings, the respondents indicated that carrying out the kind of job you really like corresponds to entrepreneurial success to a very great extent as indicated by a mean of 3.5, competing hard in world markets and keeping the business alive corresponds to entrepreneurial success to a very great extent as indicated by a mean of 3.0, the respondents also indicated that reaching a high level of income and keeping a path of positive growth corresponds to entrepreneurial success as indicated by a mean of 2.9 and 2.8 respectively. Achieving great social recognition and helping to solve the problems of my community corresponds to entrepreneurial success to a moderate extent as indicated by a mean of 2.5 and 2.3 respectively. According to Gist (1987) credibility, trustworthiness and expertise of the individual granting the feedback are important in while valuing feedback. In this study, expertise of the individual was enhanced through performing jobs that they really liked and ones that correspond to entrepreneurial success.

5.3 Propensity to Act

Table 5. 9: Behaviours to develop your enterprise

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	Very great extent	Great extent	moderate extent	little extent	no extent	Mean	Stdev		
Exporting a significant share of production	-	13	47	23	17	2.6	0.60		
Introducing regularly new products/services for your costumers	17	33	30	10	10	3.4	0.60		
Introducing regularly new processes or systems of production	33	20	27	10	10	3.6	0.62		
Developing Research and development projects	13	3	27	33	23	2.5	0.61		
Planning the different areas of the firm with detail	13	3	27	33	23	2.5	0.61		
Reaching cooperation agreements or partnerships with other firms	3	3	27	27	40	2.0	0.70		
Offer specialized training for employees	17	20	27	33	3	3.1	0.58		
Enlarging your firm (personnel, premises, etc.)	17	10	23	23	27	2.7	0.59		

The study sought to find out the extent to which the respondents would perform the stated behaviours to develop their enterprise. According to the findings, the respondents indicated that introducing regularly new processes or systems of production developed their enterprise to a very great extent as indicated by a mean of 3.6, the respondents indicated that introducing regularly new products/services for the costumers developed the enterprise to a very great extent as indicated by a mean of 3.4, the respondents indicated that introducing an offer specialized training for employees developed the enterprise to a very great extent as indicated by a mean of 3.1 ,the respondents indicated that enlarging the firm developed the enterprise to a great extent as indicated by a mean of 2.7 ,the respondents indicated that exporting a significant share of production developed the enterprise to a great extent by a mean of 2.6, the respondents indicated that developing research and development projects and planning the different areas of the firm with detail developed their enterprise to a great extent as indicated by a mean of 2.5 and reaching cooperation agreements or partnerships with other firms developed the enterprise to a little extent by 2.0. This was in line with studies done by Krueger in 1993. The study found out that when propensity to act was low, entrepreneurial intentions were unlikely to develop, and perceptions of desirability become sole predictors of intentions.

5.4 Regression Analysis

The researcher conducted a multiple regression analysis. This was done to test relationship among variables (independent) on the entrepreneurial intentions among university students in Kenya. The statistical package for social sciences (SPSS) was applied to code, enter and compute the measurements of the multiple regressions for the study.

Table 5. 10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.796(a)	0.633	0.591	0.92945

Source: Research, 2011

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Entrepreneurial Intentions) that is explained by all the three independent variables (Perceived Desirability, propensity to Act, Perceived Feasibility).

The three independent variables that were studied, explain only 63.3% of the factors affecting entrepreneurial intentions among university students in Kenya as represented by the R². This therefore means that other factors not studied in this research contribute 36.7% of the entrepreneurial intentions among university students in Kenya. Therefore, further research should be conducted to investigate the other factors (17.5%) that affect entrepreneurial intentions among university students in Kenya.

Table 5. 11: ANOVA (b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.739	3	12.913	14.948	0.000(a)
	Residual	22.461	26	0.864		
	Total	61.200	29			

a Predictors: (Constant), perceived desirability, propensity to act, perceived feasibility

b Dependent Variable: entrepreneurial

The significance value is 0.000 which is less that 0.05 thus the model is statistically significance in predicting how perceived desirability, propensity to act, perceived feasibility affect the entrepreneurial intentions among university students in Kenya. The F critical at 5% level of significance was 1.32. Since F calculated is greater than the F critical (value = 14.948), this shows that the overall model was significant.

Table 5. 12: Coefficients (a)

Model		Unstanda Coeffic		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	0.223	0.769		0.290	0.004
	Perceived desirability	0.867	0.148	0.757	5.869	0.000
	Propensity to act	0.115	0.123	0.115	0.935	0.008
	Perceived feasibility	0.095	0.138	0.092	0.688	0.007

a) Dependent Variable: Knowledge about the entrepreneurial environment

Source: Researcher, 2011.

The researcher conducted a multiple regression analysis so as to explaining entrepreneurial intentions among university students in Kenya. And the three variables. As per the SPSS generated table 4.11, the equation $(Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon)$ becomes:

 $Y = 0.867X_1 + 0.115X_2 + 0.095X_3 + 0.223$

Where Y is the dependent variable (entrepreneurial intentions), X_1 is the perceived desirability variable, X_2 is propensity to act and X3 is perceived feasibility.

According to the regression equation established, taking all factors into account (perceived desirability, propensity to act, perceived feasibility) constant at zero, entrepreneurial intentions will be 0.223. The data findings analyzed also showed that taking all other independent variables at zero, a unit increase in perceived desirability will lead to a 0.867 increase in entrepreneurial intentions; a unit increase in propensity to act will lead to a 0.115 increase in entrepreneurial intentions, a unit increase in perceived feasibility will lead to a 0.095 increase in entrepreneurial intentions. This infers that perceived desirability contribute more to entrepreneurial intentions among university students in Kenya followed by the propensity to act strategies.

At 5% level of significance and 95% level of confidence, perceived desirability had a 0.000 level of significance, propensity to act showed a 0.008 level of significant, perceived feasibility showed a 0.007 level of significant hence the most significant factor is perceived desirability.

5.5 Hypotheses Testing

Hypothesis 1: perception of the desirability

Null: Individual perception of the desirability of a venture does not affect the entrepreneurial intentions of university students in Kenya.

Alternate: Individual perception of the desirability of a venture affects the entrepreneurial intentions of university students in Kenya

The null hypotheses imply that the variable- perception of the desirability of a venture and entrepreneurial intentions are independent of each other. The researcher wanted to find out whether

there was any notable relationship between desirability of a venture and entrepreneurial intentions of university students in Kenya. The frequency table below shows how the responses on the relationship between Individual perception of the desirability of a venture and the entrepreneurial intentions of university students in Kenya.

Table 5. 13: Individual perception of the desirability of a venture and the entrepreneurial intentions (n=133)

	Frequency	Percentage
very great extent	33	25.0
great extent	63	47.2
moderate extent	22	16.7
little extent	5	11.1

The contingency table above show that 33 out of 133 respondents indicated that Individual perception of the desirability of a venture affect the entrepreneurial intentions to a great extent, 63 said to a very great extent, 22said to a moderate extent while 5 said to a little extent.

Table 5. 14: Chi-Square Tests

	Value	DF (degree of freedom)	P-Value
Chi-square	2.734	133	0.023

The calculated Pearson Chi-Square value is 2.73. The associated P-Value (Asymptotic significance) is 0.023. This value is less than 0.05 (5% level of significance) indicating that there is evidence against the null hypotheses and therefore we reject it. A conclusion can be drawn from the study that 'Individual perception of the desirability of a venture affects the entrepreneurial intentions of university students in Kenya"

Hypothesis 2: Product innovations

Null hypothesis: The propensity to act has no greater influence on the entrepreneurial intentions of university students in Kenya

Alternative hypothesis: The propensity to act has a great influence on the entrepreneurial intentions of university students in Kenya

The null hypothesis indicates that both variables – propensity to act and entrepreneurial intentions of university students in Kenya are independent of each other.

The contingency table below shows that 48 out of 133 respondents reported that propensity to act affect the entrepreneurial intentions of university students in Kenya to a great extent, 52 said to a very great extent, 26 said to a moderate extent while 7 said to a little extent. These results were tabulated in the contingency table below.

Table 5.15: Cross Tabulation on propensity and the entrepreneurial intentions of university students in Kenya (n=133)

	Frequency	Percentage
Very great extent	48	36.1
Great extent	52	38.9
Moderate extent	26	19.4
Little extent	7	5.6

Table 5. 16: Chi-Square Tests propensity and the entrepreneurial intentions of university students in Kenya

	Value	Df	p-Value
Chi-Square	6.536	133	0.0373

The Pearson Chi-square Value was 6.5 and the associated P- value (Asymptote Significant Value) was 0.0373. This value is less than 0.05 indicating that there is evidence against the null hypotheses and therefore we reject it. A conclusion can therefore be drawn that the propensity to act has a great influence on the entrepreneurial intentions of university students in Kenya.

Hypothesis 3: Market innovations

Null hypothesis: Individual perception of the feasibility of a given venture does not influence the entrepreneurial intentions of university students in Kenya

Alternative hypothesis: Individual perception of the feasibility of a given venture influences the entrepreneurial intentions of university students in Kenya

The null hypotheses indicate that both variables – Individual perception of the feasibility of a given venture and the entrepreneurial intentions of university students in Kenya are independent of each other.

The frequency table below shows that out of 133 respondents, 70 said perception of the feasibility affect the entrepreneurial intentions to a very great extent, 44 said to a great extent, those who said to a moderate extent were represented by 18. These results were tabulated in the contingency table below.

Table 5. 17: Cross Tabulation individual perception of the feasibility and venture and the entrepreneurial intentions (n=133)

	Frequency	Percentage
Very great extent	70	52.8
Great extent	44	33.3
Moderate extent	18	13.9

Table 5. 18: Chi-Square Tests for individual perception of the feasibility of a given venture and the entrepreneurial intentions

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.845(a)	133	.044

The Pearson Chi-square Value was 7.8 and the associated P- value (Asymptote Significant Value) was 0.044. This value is less than 0.05 indicating that there is evidence against the null hypotheses and therefore we reject it. A conclusion can therefore be drawn that Individual perception of the feasibility of a given venture influences the entrepreneurial intentions of university students in Kenya.

Conclusion

The study concludes that it was very possible to offer entrepreneurship courses since they develop the intention and the necessary abilities to be an entrepreneur and that being an entrepreneur would entail great satisfactions. Introducing regularly new processes or systems of production and new products/services for ones costumers developed their enterprise. Finally the study concludes that the respondents had complete knowledge on both readily available opportunity to start the businesses and business centres/networks. Economic opportunity and autonomy are very important in making a choice whether to become an entrepreneur and that carrying out the kind of job one really likes corresponds to entrepreneurial success.

Recommendations

The study recommends that learning institutions should offer entrepreneurship courses. This will enable the learners to have the knowledge about the entrepreneurial environment and realize the necessary abilities needed to be entrepreneurs.

The study further recommends that the government should provide funds as capital for those who want to venture in entrepreneurship. In addition, the study recommends that the government should develop research and development projects that will help in giving more information on the field of entrepreneurship. Moreover, specialized training should be offered to upcoming entrepreneurs so as to increase the efficiency of the products/services offered to the customers.

Finally the study recommends that entrepreneurship based organizations should hold trade fairs and seminars as this will ensure that the entrepreneur's role in the economy is sufficiently recognized.

Recommendations for further studies

This study has assessed the determinants of entrepreneurial intentions among university students in Kenya applying Shapero's model. To this end therefore, a further research may be useful to specifically examine which entrepreneurial experiences build self efficacy in a university set up. The prevalence of entrepreneurial intentions among university graduates and the relationship between private middle level institutions and entrepreneurship is very significant for education policy and practice in Kenya. Further study should be carried out to assess the determinants of entrepreneurial intentions among university students in Kenya applying other models since the study focused on the Shapero's model.

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APPENDIX: Entrepreneurial Intentions Questionnaire (EIQ)

A) PERSONAL DATA						
1. Age:						
2. Gender:						
3. Marital status: married; Yes No (if yes, go to quest						
4. What is your average GPA/Grade so far?		(Optio	nal)		
EDUCATION BACKGROUND AND EMPLOYMENT EXPERIENCE						
5 What level are you studying?						
PhD Master Degree Diploma						
6. What is your area of specialization? Marketing 🗌 Acco	unting	3 🗌	Entre	epren	eurshi	ip[
Economics Others:						
7. Indicate the importance of the following reasons to choose	e this	degre	e/dip	loma,	from	: 1 -
Not at all important, 2 – Slightly important, 3 – Neutral, 4 important,	5– Ve	ry imp	ortan	t		
	1	2	3	4	5	
- Vocation		11 [11 [1 [11 [1
- Career opportunities	╅╤	- -	- -		- -	-
	┵	┧┼┝	┥┼┝	┤├	┦┞	-
- Advise from family or friends		┚╽┖	┚╽┖	┚╽┖	┚╽┖	J
B) Perceived Desirability 9. To what extent do you think is the possibility of offering develop the following entrepreneurial aspects? Indicate from: 1 – im						
Neutral, 4 possible, 5– Very possible.	possir	ле, 2 -	– Siigi	itiy pt	אוטופטנ	e, 5 –
very possible.	1	2	3	4	5	
- Knowledge about the entrepreneurial environment						
- Greater recognition of the entrepreneur's figure						
- The preference to be an entrepreneur						
- The necessary abilities to be an entrepreneur						
- The intention to be an entrepreneur						

O. Have you taken any course or module that could be ducation?	conside	ered	as er	ntrepr	ene	ursh
Yes No						
If yes:						
. Indicate which one(s):		dicat				
. To what extent has it helped you develop any of the following asp L – Very great extent, 2 – great extent, 3 – moderate extent, 4-little						
very great extent, 2 great extent, 3 moderate extent, 4 mate	1	2	3	4	5	
- Knowledge about the entrepreneurial environment						
- Greater recognition of the entrepreneur's figure						
- The preference to be an entrepreneur					E	
- The necessary abilities to be an entrepreneur						
- The intention to be an entrepreneur						
 Indicate your level of agreement with the following sente isagree, 3- neutral, 4-agree, 5-strongly agree 	nces fro	m; <i>1</i> -	stron	gly di	isag	ree,
		1	2	3 4	4	5
- Being an entrepreneur implies more advantages than disadvant me	tages to					
- A career as entrepreneur is attractive to me						
- If I had the opportunity and resources, I'd like to start a firm						
- Being an entrepreneur would entail great satisfactions for me						
- Among various options, I'd rather be an entrepreneur						
		1	I		l	

Perceived Feasibility

nowledge on: 1 (absolute ignorance) to 5 (complete knowledge).	1	2	3	4	5
- Specific training for young entrepreneurs					
- Loans in specially favourable terms					
- Technical aid to start the business					
- Business centres/networks					
- Consulting services in favourable terms					
-Market accessibility in favourable terms					
- Favourable policies to start businesses					
	$\overline{}$	$\overline{}$		П	П
-Readily available opportunity to start the businesses 3. Indicate your level of agreement with the following sentences is garge, 3. pour fall 4-garge, 5-strongly garge.	from	; 1- st	rongly	/ disag	gree, 2
	from 1	; 1- st	rongly	/ disag	gree, 2
3. Indicate your level of agreement with the following sentences	1				
3. Indicate your level of agreement with the following sentences isagree, 3- neutral, 4-agree, 5-strongly agree	1				
3. Indicate your level of agreement with the following sentences isagree, 3- neutral, 4-agree, 5-strongly agree - Entrepreneurial activity clashes with the culture in my religion - The entrepreneur's role in the economy is not sufficiently	1				
3. Indicate your level of agreement with the following sentences isagree, 3- neutral, 4-agree, 5-strongly agree - Entrepreneurial activity clashes with the culture in my religion - The entrepreneur's role in the economy is not sufficiently recognized	1				

		,	Silgn	ciy iii	ipoi	tant,) be 3 –	Neu	tral,
important, 5– Very important									
Economic opportunity(Wealth)			1	2		3	4	5	
Autonomy] []				
Authority				1]				
Challenge] [
Self-realization and participation in the whole process									
15. To what extent do you consider the following results a success? Indicate from; 1 – Very great extent, 2 – great ext No extent		-	_			-			nt, 5
1	2	3	4		5	6		7	
- Competing hard in world markets									
- Reaching a high level of income									
- Carrying out the kind of job you really like									
- Achieving great social recognition									
- Helping to solve the problems of my community									
- Keeping the business alive									
- Keeping a path of positive growth									
							J		
Propensity to Act 16. To what extent would you perform the following beha from: 1 – Very great extent, 2 – great extent, 3 – moder						-			
16. To what extent would you perform the following beha	ate ex					-	No e		
16. To what extent would you perform the following beha from: 1 – Very great extent, 2 – great extent, 3 – moder	ate ex	tent,	, 4-litt	le ex	tent	, 5–1	No e	xter	t
 16. To what extent would you perform the following beha from: 1 – Very great extent, 2 – great extent, 3 – moder - Exporting a significant share of production - Introducing regularly new products/services for year 	ate ex	tent,	, 4-litt	le ex	tent	, 5–1	No e	xter	t
16. To what extent would you perform the following beha from: 1 – Very great extent, 2 – great extent, 3 – moder - Exporting a significant share of production - Introducing regularly new products/services for your costumers - Introducing regularly new processes or systems	our	tent,	, 4-litt	le ex	tent	, 5–1	No e	xter	t
 16. To what extent would you perform the following behalfrom: 1 – Very great extent, 2 – great extent, 3 – moder - Exporting a significant share of production - Introducing regularly new products/services for year costumers 	our	tent,	, 4-litt	le ex	tent	, 5–1	No e	xter	t
16. To what extent would you perform the following beharder. 1 – Very great extent, 2 – great extent, 3 – moder. - Exporting a significant share of production. - Introducing regularly new products/services for years. - Introducing regularly new processes or systems production. - Developing Research and development projects.	our	tent,	, 4-litt	le ex	tent	, 5–1	No e	xter	t
16. To what extent would you perform the following beha from: 1 – Very great extent, 2 – great extent, 3 – moder - Exporting a significant share of production - Introducing regularly new products/services for your costumers - Introducing regularly new processes or systems production - Developing Research and development projects - Planning the different areas of the firm with detail - Reaching cooperation agreements or partnerships we	our of	tent,	, 4-litt	le ex	tent	, 5–1	No e	xter	t
16. To what extent would you perform the following beha from: 1 – Very great extent, 2 – great extent, 3 – moder - Exporting a significant share of production - Introducing regularly new products/services for your costumers - Introducing regularly new processes or systems production - Developing Research and development projects - Planning the different areas of the firm with detail	our of	tent,	, 4-litt	le ex	tent	, 5–1	No e	xter	t