

## Exploring Potential Women Entrepreneurs among International Women Students: The Effects of the Theory of Planned Behavior on Their Intention

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**Abstract:** This study explored the effects of an intention model, the theory of planned behavior to study the entrepreneurial intentions of international post-graduate women students in business related programs studying at a Malaysian university. The objective of the study was to evaluate the extent to which these international women students might wish to create their own companies upon graduation and returning to their own homes. The research was conducted on 101 entrepreneurs through random sampling technique. All hypotheses were tested using regression analysis and Pearson correlations, controlling for demographic variables of gender, age and education and years of experience. While the results of this study provide strong support for this theoretical model, subjective norms were found to be non-significant. Implications and a number of recommendations are discussed.

**Key words:** Women entrepreneurship • The Theory of planned behavior • Entrepreneurial intention  
• International students • Subjective norm • Desirability, Behavioral control

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### INTRODUCTION

There is no denial to the fact that the economic development of a nation (both developed and developing) largely depends on the emergence of a dynamic and innovative entrepreneurs and new enterprise creation may be fueled by the emergence of more and more women entrepreneurs in both developed and developing nations. Therefore, exploring the potential women entrepreneurs is of paramount interest to academia, researchers and the government in all countries of the world. In this paper, we define a potential women entrepreneur as one who has the intention of willing to take the risks of establishing and managing the business for the principal purposes of profit and growth [1].

A widely held belief is that education plays a tremendous role in influencing young people's attitudes and aspirations to become potential entrepreneurs [2]. In line with this belief we contend that one needs to understand the explanatory variables that affect entrepreneurial intention among international women students, a group neglected in current entrepreneurship

research. Therefore, we attempt to explore the effects of the theory of planned behavior (herein referred to as TPB) on the entrepreneurial intention of international women students currently enrolled in their second year Master's program in business related fields.

Though previous research [3] focused on the aspirations of university students' career, few empirical studies exist in regard to the intention of university students as a source of future entrepreneurs [4]. Little is known about the factors that influence international women students' intention to become entrepreneurs and it has remained untapped by academic researchers and development planners. This paper, therefore, attempts to see whether the final year international women students in business program at a Malaysian university have the intention to become entrepreneurs upon graduation and returning to their own home land.

Today, in this global recession, employment and underemployment looms large for educated women, as a result these educated women largely remain unemployed upon graduation. Since it is not possible to find employment for all educated working force,

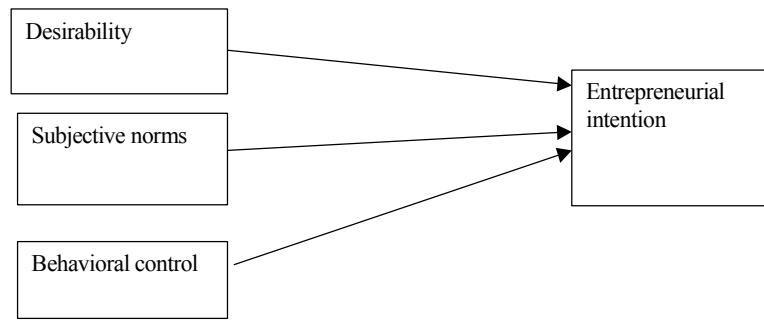


Fig. 1: Theory of Planned Behavior

one of the best solutions to unemployment problem is to become an entrepreneur. Therefore, today more and more women students are becoming more and more inclined toward setting up their own enterprises as a positive rather than residual career option [5]. It is widely held belief that starting an enterprise can be financially rewarding and occupationally satisfying. Though few empirical studies exist on the entrepreneurial willingness of university students for venturing into business [4], it is not known whether international women students in business programs are inclined to be willing to venturing into business upon graduation. There is still a significant gap in our knowledge of the factors that affect the willingness of university- educated international women to become entrepreneurs.

It is with this in mind, this research paper attempts to gain an understanding of precisely the factors that affect entrepreneurial willingness of international women students at a Malaysian university for venturing into their own business upon graduation. This research is an exploratory study to test TPB model (Figure 1) from the perspectives of international women students' entrepreneurial intention at a Malaysian university.

Figure 1: Exploring the effects of TPB on entrepreneurial intention.

The underlying theoretical assumption is that three types of beliefs in Aizen's theory of planned behavior (TPB) affect three perceptual constructs: behavioral beliefs that affect attitudes, normative beliefs that affect subjective norms and control beliefs that influence perceived behavioral control [6-8]. These three perceptual constructs, in turn, determine behavioral intentions and actual behavior. The purpose of the study is, however, to investigate an individual's perceived desirability, behavioral control and subjective norms on one's intention to venture creation only. Ajzen's theory posits that attitude toward the behavior, subjective norms and perceived behavioral control affect the willingness to

venture creation [8]. The study, accordingly, addresses the following questions:

- To what extent does the relationship exist between international women students' attitudes and their willingness to set up a new business?
- To what extent does the relationship between international women students' subjective norms and their entrepreneurial intent to start a new business exist?
- To what extent does the relationship exist between international women students' behavioral control and their entrepreneurial willingness to venturing into a new business?

**Literature Review:** Many studies in the past focused on traits and demographic variables (as opposed to psychological traits) to explain the difference between entrepreneurs and non-entrepreneurs [9] However, most of these studies do have little or no influence on person's inclination to become entrepreneurs, nor can these studies be used as an explanation for such a career or lifestyle choice [10]. Other studies focused on several psychological characteristics such as the need for achievement [11], self-confidence and locus of control [12], creativity and initiative [13], and the desire for independence and autonomy [14]. Though these studies have been useful in explaining the factors that affect entrepreneurial intention [1, 15], the predictive nature of those variables are very partial [16]. Intentions are beliefs and attitudes that are derived through the perceptions of feasibility and desirability to act upon opportunities.

The single best predictor of a given behavior is intention [17]. Several factors such as wants, needs, values, habits and beliefs may also affect the intention of any individual of carrying out a given behavior [18]. Behavioral intention is an indication of an individual's readiness to perform a given behavior. Ajzen's theory

posits that intention is a function of attitude toward the behavior, subjective norms and perceived behavioral control [8].

An individual's positive or negative feelings about performing a behavior is his or attitude toward the behavior. Following Aizen's theory of planned behavior (TPB) we define attitude toward the behavior as the overall evaluation of the desirability of a personal attachment to an intention. It is a person's will power, the most powerful force of human behavior [19] that guides a person's intent to perform an act and therefore has a positive impact on entrepreneurial intention.

Subjective norms refer to an individual's perception of social normative pressures to engage or not to engage in performing a behavior. Other significant factors such as parents, friends, role model etc also influence subjective norms. [20] posits that the beliefs that the society holds influence attitudes which, in turn, predict an individual's intention. In other words, subjective norms refer to people's willingness to perform or not to perform an act.

[7] defines behavioral control as one's perception of ease or difficulty of performing a particular behavior. Perceived behavioral control is the same as self-efficacy [21]. This is an individual's beliefs about his or capacity that may facilitate or impede performance of the behavior [22]. It is simply a belief in oneself to perform an activity with back-up resources to make it work [23]. The back-up resources include tangible resources like finance and human capital and intangible resources like social networks, all of which are essential to intention toward entrepreneurship.

**Research Hypotheses:** All of the investigations mentioned above suggest that intentions are the single best predictor of any planned behavior, including entrepreneurship. This gives place to the development of research hypotheses of this study. The model of theory of planned behavior (TPB) as depicted in figure 1 is the basis for hypothesis stated below. It posits that intention to perform is a function of perceived desirability, subjective norms and behavioral control. Accordingly, we propose the following hypotheses:

**H1:** There is a significant relationship between the desirability to an individual student to perform a behavior and her intention to start a new business

**H2:** There is a significant relationship between subjective norms of an individual student and her intention to start a new business

**H3:** There is a positive relationship between the perceived feasibility (behavioral control) to an individual student to perform a behavior and her intention to create a new business.

## MATERIALS AND METHODS

This section presents the research methodology used in the present study. Variables and their measurements are defined, samples selected are described.

**The Sample:** The study population consisted of all final year international women students in business related fields studying at University Utara Malaysia (popularly known as UUM). These international students are from different countries of Asia and Africa. 70 percent of them are from Asian countries and the rest from African countries and the range of age was 24 to 40 years old, with an average working experience of 1.5 years. Asian and African countries, needless to mention, are devoting much attention to encourage more and more women to venture into business mainly to tackle the problem of unemployment and generate wealth in the country. Country wise classification is not possible since they do not make a fairly representative sample when considered from the context of a single country.

Besides, these students have been selected due to their enrollment into business related programs providing indication that their career interest is skewed toward business related fields [24]. Moreover, these students have already demonstrated their entrepreneurial spirit by going abroad to pursue their business related academic degrees. Therefore, we contend that they would likely be willing to venturing into new business.

The sample was selected from students of the following careers: Master in Technology Management, Master in Computer Science and Master in Marketing, Master in Management, Master in Tourism, Master in Marketing, Master in Economics, Master in Banking and Finance, Master in operations Management, Master in Islamic Banking and Finance and finally sample population enrolled in business related Ph.D. programs.

**Measures:** Dependent variable: entrepreneurial intention.

The entrepreneurial intention variable was measured using four questions, derived from Kolvereid's [ 25] choice intention measure using 5-point Likert scale ranging from "very unlikely" =1 to "very likely" =5. One typical item was: How likely is it that you one day will establish and run your own business? Responses to the

four questions were added together and the total score divided by four. Cronbach's alpha for the variable is 0.89. A high score on this variable indicates strong entrepreneurial intention.

Independent variables (desirability, subjective norms and perceived behavioral control).

The attitude variable was measured using five questions, four taken from Gundry and Welch's [26]. The variable refers to the individuals' degree of commitment to owning and running a business. A typical item was: "I would rather own my own business than earn a higher salary employed by someone else", The fifth one was taken from Kolvereid and Isaksen [27]: the item was "I am willing to work more on the same salary in my own business than if I was employed in an organization". Respondents were asked to rate disagreement/agreement relating to the five statements using a 5-point Likert scale (1=completely disagree, to 5=completely agree). Responses to the five statements were added together and the total score divided by four. A high score on the attitude variable indicates favorable attitude toward owing and running a business. The Cronbach's alpha value for the attitude variable is 0.85.

The operation of subjective norm was based on Oruoch and Muchiri [28]. This variable is a 4-item instrument using 5-point Likert scale ranging from "completely agree" =5 to "completely disagree" =1 One typical item is: Owning a business gives me social status in my community. The subjective norm scale was calculated by adding four scores and dividing the total score by four. Higher score on this variable indicates more favorable subjective norm for establishing business. The Cronbach's alpha value for subjective norm variable was 0.86.

The construction of the perceived behavioral control variable is based on Kolvereid [25]. Three items using 5-point Likert scale ranging from "completely disagree" =1 to "completely agree" = 5 were used to measure this variable. One item was: "If I wanted to, I could easily pursue a career as self-employed", Responses to the three statements were added together and then the total score was divided by three. Higher scores on the variable

indicate greater perceived behavioral control for self-employment. The Cronbach's alpha value of 0.78 indicates satisfactory internal consistency among the statements. The final section comprises questions eliciting demographic characteristics.

Data were collected via paper and pencil surveys administered to students in several business classes. This study, for data collection, used survey based methodology. A survey questionnaire was used to collect data from postgraduate students in business related fields. 181 questionnaires were distributed to all targeted population and 101 (56%) responses were obtained.

**Data Analysis:** The major focus of the study was to describe the relation between independent variables (perceived desirability, subjective norms and behavioral control) and dependent variable (entrepreneurial intention). In order to describe the relation between independent variables (attitude, subjective norms, behavioral control ) and dependent variable (intention), the Pearson's correlation as a measure was chosen. Pearson r is the most widely used bivariate correlation technique [29]. The hypotheses were tested using regression analysis.

## RESULTS

Table 1 depicts correlation and inter-correlation coefficients among all the variables assessed in this study. Perceived desirability and behavioral control are highly correlated with entrepreneurial intention of the international students. This indicates hypotheses I and III are supported.

Then we regressed dependent variable "entrepreneurial intention" on "desirability", "subjective norms" and "behavioral control." and to test the model (TPB). The results (Table 2 and Figure 2) show significant and partial support for the theory of planned behavior (TPB) in the context of entrepreneurial intention. Multiple regression model reveals that all three variables contributed significantly to predicting entrepreneurial intention of these international student

Table 1: Inter-correlation Matrix

	Intention	Desirability	Subjective norms	Behavioral control	Mean	Standard Deviation
Intention	1	.575**	.195	.752**	18.97	5.99
Desirability	.575**	1	.369**	.517**	12.54	4.29
Subjective norms	.195	.369**	1	.261**	8.27	3.46
Behavioral control	.752**	.517**	.261**	1	20.47	5.37

\*\* Correlation is significant at 0.01 level (2-tailed)

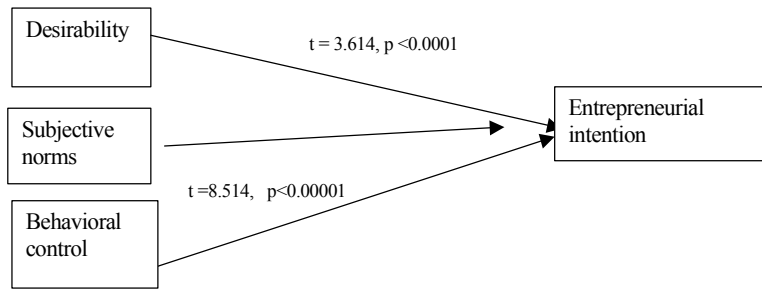


Fig. 2: Results of the theory of planned behavior

Table 2: Coefficients of determination between independent variables and dependent variable in the Linear Regression

Variable	B	T value	Sig.
(constant)	.-----	.503	.616
Desirability	.277	3.614	.000
Subjective norms	-.071	-1.042	.300
Behavioral control	.627	8.514	.000

Model summary: Adjusted R-square. 605;  
F = 52.09; Significance. 000

Dependent variable: Entrepreneurial intention

(adjusted R-square 0.605). In all 60.5% of the variance was explained by perceived desirability, subjective norms, and behavioral control. The analysis thus confirms that the theory of planned behavior can be applied to study entrepreneurial intention in the context of this study.

Figure 2 shows significant, though not complete, support for the theory of planned behavior in the context of entrepreneurial intention of the international women students in this study.

## DISCUSSIONS

This research suggests that these international students will have positive intention to venture creation once the perceptions of desirability and behavioral control are formed, as is evidenced from Table 1 (desirability  $r = .575$  and feasibility  $r = .752$ ). Numerous previous studies [8, 30-32] confirm these results.

The research, however, fails to identify the relationship between perceived subjective norms and students' intention to venture creation. Research [33-34] found that a high internal locus of control reduced the impact of social norms. A non-significant relationship between social norms and entrepreneurial intention when applying theory of planned behavior was also reported in the literature [32]. Moreover, these are all international students and come for higher education abroad with the expectation that upon graduating and returning to their

home countries they will find a decent job. It can, therefore, be argued correctly that social influence was not so important for these respondents who demonstrated a great entrepreneurial intention. Furthermore, these respondents, because of their higher educational background, are capable of making their own decision without any social influence. This is in line with the assumptions of the theory of planned behavior and, therefore, provides strong support for the survey findings.

The findings have some practical implications for researchers, educators and government policy makers. The government has a role to foster entrepreneurship education to stimulate the entrepreneurial spirit among the students in higher education. Given the proper education, training and incentives, the government of a country can attract entrepreneurial wealth and knowledge, which is evidenced in Malaysia [35], thereby leaving an inducement for these foreign women students not to shy away from entrepreneurial spirit. As mentioned earlier in this paper, the students already have demonstrated entrepreneurial spirit by coming to a foreign country for higher education. This entrepreneurial spirit can be viewed as an ultimate end as well as a means to achieve other development goals for their countries [36]. The educators and researchers have a responsibility to nurture the valuable spirit among these students and may create more entrepreneurs for the countries where these students come from. All these students are human capital, one of the most important assets in most business and increasingly so in business society [37]. Interactions among the all the components of TPB develop a sense of capability and emotional tendency which drives these foreign women students to step into new venture creation [38]. This study has demonstrated that behavioral control is a strong predictor of entrepreneurial intention as opposed to perceived desirability. In this circumstance the university educators can enhance the perceived feasibility and desirability of the students on campus for

entrepreneurial intention by incorporating the syllabus across business curriculum demonstrating the examples of successful women entrepreneurs in this world.

#### **Limitations and Recommendations for Further Research:**

One of the limitations of this study is a small size of 101 students from different countries, mostly from Asian countries and even a smaller number of students from entrepreneurship classes. Secondly, the study relied on self-reported data. Self-reported data is alleged to inflate relationships among variables. Despite these limitations, the study provides insights into the usefulness of theory of planned behavior (TPB) in explaining entrepreneurial intention. Analyzing the full sample, the model explains 60.5% of the variance in entrepreneurial intention with the composite dependent measure. The findings of this study contributes to existing literature in that it is one of the few studies that looked at the entrepreneurial interest among international students in Malaysia.

Future research might include attempts to replicate this study in other specific national context instead of generalizing as Asians and Africans and also to test this theory of planned behavior to a wider sample size comprising business.

#### **CONCLUSION**

The results of this study provided a strong support for this theoretical model by providing insights into the usefulness of theory of planned behavior (TPB) in explaining entrepreneurial intention. The study concluded that international women students studying at a foreign university would have positive intention to venture creation once the perceptions of desirability and behavioral control were formed.

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