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## Malay Secondary School Students' Entrepreneurial Attitude Orientation and Entrepreneurial Self-efficacy: A Descriptive Study

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**Abstract:** As the influential factors affecting intention to become an entrepreneur, entrepreneurial attitude orientation and self-efficacy of students have been one of the main focuses of entrepreneurship research. However, there is not enough information on secondary school students' attitude toward and efficacy of entrepreneurship particularly, in Malaysia. Through a descriptive approach, this study aimed to determine entrepreneurial attitude and entrepreneurial self-efficacy in order to evaluate the entrepreneurship inclination and potential among Malaysian secondary school students. A sample of 2,574 students was randomly selected from three states around Malaysia as the participants of this study. A set of questionnaire was developed based on previous researches to measure students' entrepreneurial attitude and self-efficacy. The findings indicate that Malay students have a moderately high attitude toward entrepreneurship. More specifically, the students scored high in self-esteem cognition and achievement cognition but low in self-esteem behavior and self-esteem affect. Moreover, the students perceived themselves as moderately capable of establishing new ventures. The implication of the findings and areas for future researches are discussed.

**Key words:** Entrepreneurial attitude orientation, entrepreneurial self-efficacy, entrepreneurship education, students

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### INTRODUCTION

In accordance with global trends to entrepreneurship as an influential means to fostering socio-economic development of the countries, Malaysia has focused on entrepreneurship development to change the nation to a developed leading country during the next few decades (Jaafar and Aziz, 2008). Moreover, Malaysia has been struggling with some of the social and economic crises specifically, the growing number of graduate unemployment (Ramayah and Harun, 2005). Accordingly, Malaysian government developed various policies and strategies to enhance the quality of human capital by equipping them with entrepreneurial capabilities and developing qualified Malay (Bumiputera, son of the soil) entrepreneurs. To do so, developing effective entrepreneurship education and training programs became one of the top priorities of Malaysian national development plan (Ninth Malaysia Plan, 2006-2010).

As a result, entrepreneurship education spread all over the country during the last two decades (Fauziah *et al.*, 2004). However, little attention has been directed to measuring entrepreneurial attitude and self-efficacy among Malaysian students (Sharrif and Saud, 2009). Moreover, entrepreneurship scholars questioned

the effectiveness of the programs in enhancing students' entrepreneurial attitude and self-efficacy due to the lack of students' intention and capability to step into entrepreneurship (Ramayah and Harun, 2005; Clarence, 2005). The main purpose of this descriptive study was to narrow the gap in literature and empirical studies through measuring students' attitudes toward entrepreneurship and their self-efficacy of new venture creation.

Entrepreneurial attitude has been defined as personal perceptions toward the value, benefit and favourability of entrepreneurship which highly affects their intention to step into new venture creation (Ajzen, 2002). In effect, scholars have approached entrepreneurial attitudes in two ways. First, entrepreneurial attitude is individuals' feelings, thoughts and conations toward entrepreneurship (Schultz and Oskamp, 1996; Ajzen, 1991). In this approach, entrepreneurial attitude is considered as a function of the value, belief and favourability of entrepreneurship which is mostly a uni-dimensional construct. The second approach defines entrepreneurial attitude as a multi-dimensional concept that encompasses four key personality factors including "need for achievement", "personal control over behaviour", "innovation" and "self-esteem" (Robinson *et al.*, 1991). In entrepreneurship

context, “need for achievement” refers to the perceived results and outcomes of establishing a new venture which significantly influence one’s propensity to take the challenges and responsibilities of establishing a new business (Hansemark, 1998; McClelland, 1961). Entrepreneurial “innovation” is the tendency and ability to think of a new business idea and develop the idea so that it works in practice. Finally, entrepreneurial “self-esteem” reflects the perceived self-confidence in one’s entrepreneurial skills and competencies. Importantly, each of the entrepreneurial attitude components has three dimensions including affection (feeling and emotion), cognition (thought and belief) and conation (action and behaviour). Therefore, entrepreneurial behaviour is a function of “need for achievement”, “personal control over behaviour”, “innovation” and “self-esteem” in terms of affection, cognition and conation (Robinson *et al.*, 1991).

Many entrepreneurship researchers attempted to measure Entrepreneurial Attitude Orientation (EAO). Scholars also developed a scale to measure the four subcomponents and the three dimensions of EAO through 75 items (Robinson *et al.*, 1991). To validate the scale, the authors utilized two groups of undergraduate students including 54 entrepreneurs and 57 non-entrepreneurs. The findings indicated that EAO scale was able to differentiate entrepreneurs from non-entrepreneurs with an accuracy of 77 percent of cases. Several researchers employed the scale to measure entrepreneurial attitude orientation of students and the association between their EAO and different demographic and environmental factors. Particularly in Malaysia, researchers provided empirical evidence for significant difference between students of a Malaysian higher learning institution minored in entrepreneurship and non-minored entrepreneurship in terms of their self-esteem and personal control (Sharrif and Saud, 2009). However, the authors failed to find a significant difference between the students regarding their achievement motivation and innovation. Researchers also focused on the association between students’ EAO and demographic variables including age, gender, race, experience and parents’ education (Jumaat *et al.*, 2004). The results of the research indicated that there is no significant difference between Malay and non-Malay students on their EAO. Moreover, the findings showed no significant relationship between the students’ EAO and demographic variables. The authors further argued that despite the prevailing view that Malay students have higher positive attitudes toward entrepreneurship, there was no difference between Malay and non-Malay students in their EAO.

The strength of individuals’ perceptions toward their ability to successfully perform a specific task has been

defined as self-efficacy. Self-efficacy is basically grounded in social cognitive theory (Bandura, 1997). The theory defines human action as a function of interplay among personal, behavioral and environmental factors. Scholars applied this definition in entrepreneurship domain and defined entrepreneurial self-efficacy as the strength of one’s perceived capabilities to successfully performing the roles and tasks of an entrepreneur (Chen *et al.*, 1998). The authors further conclude that entrepreneurial self-efficacy is a distinctive characteristic that can distinguish entrepreneurship students from management and organizational psychology disciplines.

Moreover, entrepreneurial self-efficacy has been considered as one of the main personal characteristics which have influential impacts on entrepreneurial intention and behavior (Barbosa *et al.*, 2007; De Pillis and Reardon, 2007; Segal *et al.*, 2005; De Noble *et al.*, 1999; Chen *et al.*, 1998). It is argued that entrepreneurial self-efficacy enables entrepreneurs to cope with uncertainties and challenges of the whole entrepreneurship process (Kumar, 2007; Wilson *et al.*, 2007; Shane *et al.*, 2003). Therefore, individuals with high entrepreneurial self-efficacy have the motivation and ability to get involved in entrepreneurial activities. They perceive more opportunities where others consider the situation as a threat or risk, set more challenging goals, exert more effort and perseverance to achieve their vision and cope with challenges and crises associated with entrepreneurship (Erikson, 2003; Zhao *et al.*, 2005). While, those who perceive themselves as lacking entrepreneurial skills and abilities avoid all entrepreneurial activities (Chen *et al.*, 1998). Furthermore, researchers emphasized the critical importance of entrepreneurial self-efficacy for students at the age of adolescents (middle/high school) because students with higher entrepreneurial self-efficacy more likely intend to step into entrepreneurship (Wilson *et al.*, 2007). Moreover, secondary and high school students are at the ideal age for fostering their attitude toward entrepreneurship and enhancing their entrepreneurial knowledge and abilities (Fillion, 1994).

Entrepreneurial self-efficacy can be improved through engaging students in experiential and social learning activities (Rae and Carswell, 2000). Moreover, entrepreneurial self-efficacy can be developed through involving students in three major learning opportunities including mastery experience, vicarious experience and social experience (Erikson, 2003).

Given the influential impacts of entrepreneurial attitude and self-efficacy, many entrepreneurship scholars and educators attempted to develop various entrepreneurship education programs and trainings that improve students’ attitude toward and efficacy in entrepreneurship (Baum and Locke, 2004; Luthje and

Franke, 2003). Through involving students in a business plan development and running a small simulated or real business, they experience mastery of entrepreneurial tasks. Conducting case studies and working with an entrepreneur on course projects improve students' self-efficacy by considering the entrepreneurs as their role models. Instructors and educators describe the values and merits of entrepreneurship and socially encourage and support students to step into entrepreneurship. Finally, studying life style or work style of successful entrepreneurs or inviting successful entrepreneurs to give lectures changes students' perceptions of their psychological states in executing entrepreneurial behaviors. All these activities shape students' perceptions about their entrepreneurial capabilities and enhance their motivation to get involved in entrepreneurial behaviors (Wilson *et al.*, 2007; Fayolle *et al.*, 2006; Zhao *et al.*, 2005; Erikson, 2003; Bandura, 1997).

Based on the literature on entrepreneurial attitude, entrepreneurial self-efficacy and entrepreneurship education, this study aimed to measure secondary school students' attitude toward entrepreneurship and self-efficacy in starting-up a new business in order to determine entrepreneurial inclination and potential among Malay students. In particular, this study sought to answer the following questions:

**RQ1:** What is Malay secondary school students' attitude toward entrepreneurship?

**RQ2:** What is Malay secondary school students' self-efficacy in entrepreneurship?

**RQ3:** Is there a significant correlation between different dimensions of entrepreneurial self-efficacy construct based on Malay secondary school students' perceptions?

## MATERIALS AND METHODS

This descriptive study utilized a survey method to investigate entrepreneurial attitude and self-efficacy among Malay secondary school students. A sample of 2,574 secondary school students was randomly selected to participate in this study. The students were selected from three states around Malaysia namely Perak, Pahang, Negari Sembilan. The students were selected from Commerce, Technical and vocational education programs based on the assumption that the students have acquired technical knowledge and skills to launch their own businesses. Moreover, these programs offer the students entrepreneurship elements which may enhance their entrepreneurial attitude and self-efficacy. Permission to

**Table 1: Mean score measurement**

Mean score	Description
<3.39	Low
3.40-3.79	Moderate
>3.80	High

conduct the research was granted from the Ministry of Education and the directors of the selected state education departments. Data was collected by the researchers via personally distributing questionnaires among the students of selected secondary schools. Data was gathered during October to November 2008.

**Instruments:** The instrument developed for this study consists of three sections. The first section includes items on students' background such as age and gender. The second section measures students' Entrepreneurial Attitude Orientation (EAO). This section is a modified questionnaire of EAO (Robinson *et al.*, 1991) which measures students' EAO in terms of achievement, personal control, innovation and self-esteem in three dimensions including affection, cognition and behavior. A reliability test was conducted for this section and a 0.94 Cronbach  $\alpha$  was obtained indicating that this section is highly reliable to measure students' entrepreneurial attitudes. The third section of the instrument is a modified questionnaire developed by previous researchers to measure entrepreneurial self-efficacy (De Noble *et al.*, 1999). The students were required to respond to the items using a five point Likert type scale (1=strongly disagree to 5=strongly agree). The reliability test showed that this section is also highly reliable to measure students' self-efficacy (Cronbach  $\alpha$  = 0.89). All the data were analyzed using SPSS15. Mean scores above 3.80 considered as high, 3.40-3.79 considered as moderate and below 3.39 considered as low perceptions (Table 1).

## RESULTS

The analysis of the data as illustrated in Table 2 indicate that Malay secondary school students majoring in vocational and technical subjects have positive attitudes toward entrepreneurship specifically, on achievement affect, achievement cognition, self-esteem cognition and innovation affect. This shows that Malaysian government policies were effective in enhancing Malay's attitudes toward entrepreneurship through emphasizing on the critical role that entrepreneurship and entrepreneurs play in socioeconomic development of the nation. This confirms previous research findings in that students' attitude toward entrepreneurship can be affected by entrepreneurship education and training (Harris and Gibson, 2008). Furthermore, undertaking commerce and

Table 2: Malay technical and vocational secondary school students' EAO

EAO aspects	Mean	SD
Achievement affect	4.03	0.48
Achievement behaviour	3.81	0.49
Achievement cognition	4.11	0.47
Personal control affect	3.50	0.63
Personal control behaviour	3.83	0.45
Personal control cognition	3.79	0.57
Self-esteem affect	3.50	0.62
Self-esteem behaviour	3.25	0.58
Self-esteem cognition	4.13	0.54
Innovation affect	4.04	0.48
Innovation behaviour	3.82	0.43
Innovation cognition	3.82	0.48

Table 3: Entrepreneurial self-efficacy of Malay technical and vocational secondary school students

ESE dimensions	Mean	SD
Coping with unexpected challenges	3.57	0.62
Developing new product and market opportunities	3.77	0.53
Building an innovative environment	3.72	0.58
Imitating investor relationship	3.78	0.66
Defining core purposes	3.73	0.63
Developing critical human resources	3.68	0.63

entrepreneurship courses might help the Malay students in changing their attitudes toward entrepreneurship which was not common among Malay community previously. Therefore, Malay students have benefited from entrepreneurial education which was given serious attention in the Ninth Malaysia Plan (2006-2010).

The findings support the research results indicating that there is no significant difference between Malay and non-Malay students on their EAO even though, Malay students have higher EAOs (Jumaat *et al.*, 2004). This study concurs with the findings of the study showing that in general entrepreneurial attitude was positive among secondary school students. The research findings contribute to a new understanding of entrepreneurial attitude among Malay younger generation.

Table 3 illustrates the Malay students' scores on entrepreneurial self-efficacy, the students have moderately high perceptions regarding developing new product and market opportunities as well as initiating investor relationship but, they scored moderately low in coping with unexpected challenges. Moreover, the students perceived their entrepreneurial capabilities as moderate in other aspects of entrepreneurial self-efficacy. This may indicate that the students do not perceive themselves as capable of dealing with challenges and crises of launching a new business. This necessitates providing opportunities for students to experience challenges and risks associated with real life of entrepreneurs and thereby improve their perceptions toward their ability to face the problems and challenges.

Table 4 reports the analysis of correlation among dimensions of the students' entrepreneurial self-efficacy. As this table shows, there is a high significant

Table 4: Correlation between developing new products and market opportunities with all other dimensions of ESE

ESE dimensions	Developing new product and market opportunities
Coping with unexpected challenges	0.53*
Building an innovative environment	0.65*
Imitating investor relationship	0.63*
Defining core purposes	0.71*
Developing critical human resources	0.69*

\*sig. at <0.01

correlations between “developing new product and market opportunities” and “coping with unexpected challenges” ( $r=.53$ ), “developing critical human resources” ( $r=.69$ ), “defining core purposes” ( $r=.71$ ), “initiating investor relationship” ( $r=.63$ ) and “building an innovative environment”. This high correlation between different aspects of entrepreneurial self-efficacy indicates that enhancement in one aspect may improve other aspects. Specifically, high correlation between defining core purposes and developing new products and market opportunities necessitates providing opportunities for students to develop their future career path purposes.

## DISCUSSION

The findings of this descriptive research indicated the overall Malay secondary school students have positive attitude toward entrepreneurship. Moreover, they scored high in some dimensions of entrepreneurial attitude including achievement affect, achievement cognition, innovative affect and self-esteem cognition. This may indicate the effectiveness of Malaysian government and educational system policies and strategies in improving Malay students' attitude toward entrepreneurship.

Entrepreneurial self-efficacy is a construct measuring students' belief in their own competencies to successfully perform the tasks and roles of an entrepreneur. Findings of this study show that Malay vocational and technical secondary school students have moderate perceptions on all dimensions of entrepreneurial self-efficacy. Analysis of the data showed moderate overall mean score of students' self-efficacy ( $M = 3.68$ ,  $SD = 0.62$ ). This finding concurs with the study finding indicating that non-entrepreneurial students scored 3.87 on the overall entrepreneurial self-efficacy (ESE) components (De Noble *et al.*, 1999). The students under this investigation comprised of those who did not under take specific entrepreneurship courses as part of their study program. With the moderate self-efficacy, the students may not have strong perceptions toward their capabilities to start-up their own businesses. Moreover, they may not have enough self-confidence in their competencies and motivation to step into

entrepreneurship and facing the challenges and problems involved in entrepreneurial activities since, only those with strong perceptions toward their entrepreneurial capabilities burden the responsibility to launch a new business (Chen *et al.*, 1998). However, the students have the requisite technical knowledge and skills to launch a business. This moderate entrepreneurial self-efficacy among secondary school students does not support research findings showed that high school students have high entrepreneurial self-efficacy (Wilson *et al.*, 2007).

Analysis of the correlation conducted for different ESE dimensions showed that “coping with unexpected challenges” had a significant positive correlation with “developing new product and market opportunities”. It can be argued that stronger perception toward capabilities of coping with unexpected challenges leads to higher perception of skills and competencies in business opportunity recognition. It is argued that opportunity recognition ability is one of the most important capabilities which enable individuals to choose entrepreneurship as their career path. Moreover, building an innovative environment had a significant positive correlation with “developing new product and market opportunities”. This indicates that the better is the perceptions of Malay secondary school students toward their ability to build an innovative environment’ the higher is their perceptions of developing new business opportunities.

#### **CONCLUSION AND IMPLICATIONS OF THE FINDINGS**

This descriptive study attempted to portray a clearer picture of Malay secondary school students’ entrepreneurial perspectives and potential through measuring their entrepreneurial attitude and self-efficacy (Wilson *et al.*, 2007). The high entrepreneurial attitude among secondary school students stress on necessity of providing students with entrepreneurship education and training to exploit the high potential on entrepreneurship among Malay younger generation (Fuchs *et al.*, 2008). All of the Malay students under this investigation scored high in dimensions of entrepreneurial attitude orientation including self-esteem cognition and achievement cognition. However, they recorded low scores in self-esteem behavior in business so as to improve their self-confidence and perceived competencies in entrepreneurial activities. However, these high positive attitudes toward entrepreneurship need to be developed through experiential learning and social interactions (Rae and Carswell, 2000).

The findings have some distinctive implications for Malaysian government, policy makers and educators

through determining the attitudes towards entrepreneurship among Malay secondary school students. Moderately high entrepreneurial attitudes of the students necessitates a long-term planning and policy making to facilitate new venture creation for younger generation through providing the funds and infrastructures as well as removing the impediments on the path to become an entrepreneur. Moreover, this moderately high entrepreneurial attitude among Malay secondary school students demands more practical entrepreneurship education and training. More specifically, entrepreneurship education should focus more on improving students’ self-esteem behavior and self-esteem affect through provision of more appropriate entrepreneurship teaching and learning methods.

In addition, the findings of this study indicated Malay vocational and technical students have moderate entrepreneurial self-efficacy. Therefore, opportunities should be provided in the environment to motivate and enable the students to start-up their own businesses. Entrepreneurship education can play a critical role in providing an encouraging and supportive environment in which students can develop their entrepreneurial self-efficacy with less risks (Fayolle and Gailly, 2008; Fuchs *et al.*, 2008; Pittaway and Cope, 2007). To do so, students can be engaged in various learning opportunities including developing a business plan, running simulated or real businesses, getting involved in “real” business design, role modeling, case studies and many more (Wilson *et al.*, 2007; Fayolle *et al.*, 2006; Chen *et al.*, 1998). Engagement in these activities enhances students’ motivation and ability to get involved in entrepreneurial activities. Therefore, entrepreneurship education should not only focus on theoretical and technical aspects of venture creations, but it also should strengthen students’ self-confidence to become entrepreneurs through offering them variety of learning opportunities (Zhao *et al.*, 2005). The findings of this study may be useful for policy makers at Malaysian Ministry of Education to support and promote the establishment of formal courses in entrepreneurship in all vocational and technical education programs for Malay students in order to provide a better entrepreneurial environment to facilitate new business creation.

The findings of this research contribute to the growing body of literature on students’ entrepreneurial attitude and entrepreneurial self-efficacy. However, further research need to be undertaken to determine students’ entrepreneurial attitude and self-efficacy among other ethnic groups (Chinese, Indians and others) in Malaysia. Moreover, the relationship between students’ entrepreneurial attitude and self-efficacy and their intention to become entrepreneurs can be a subject of

further investigations. Longitudinal studies can also be done to examine if high entrepreneurial attitude and self-efficacy lead to real venture creation.

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