

## **Demographic Characteristics Differences of Risk Taking Propensity among Micro and Small Business Owners in Malaysia**

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### **Abstract**

*The purpose of this study is to investigate the differences between demographic characteristics and level of risk taking propensity of Malaysian MSEs owners. The study was conducted in the East Coast on business owners of small and medium business enterprises. A stratified sample totalling 260 names and addresses was taken from **Small and Medium Industries Development Corporation (SME Corp)**. The Risk Attitudes Inventory (RAI) designed by Gene Calvert (1993) used in the survey to measure entrepreneurial risk taking propensity included a cover letter explaining the purpose of the study. The study concludes that there are no differences between risk taking propensity and business owners' demographic characteristics such as gender, business owners' age, education level and their business experience.*

**Keywords:** risk taking propensity, demographic characteristics, micro and small business owner.

### **1. Introduction**

This study examines the risk-taking propensity among the micro and small business owners in Malaysia. It is in the interest of the researcher to shed some insights on the behaviour of these micro entrepreneurs in terms of their awareness and perception about risk, their propensity to risk taking as well as their overall understanding on risk management or mitigation. Propensity to risk taking is generally defined as the tendency of the individual entrepreneur to assume a certain level of risk associated with their business operations particularly when making business decisions. The assumption is that different individuals might have different risk taking propensities; some may be high risk takers while some may be risk averse. It is envisaged that the research will be able to enhance the body of knowledge in terms of understanding on the micro and small business owners' risk-taking propensity especially within the context of different cultures of Malaysia.

In Malaysia, Micro, Small Medium Enterprises (MSMEs) accounted for 99.2% of about 518,996 businesses that were registered in 2005 where almost 80% are categorised as micro-enterprises (Baseline Census of Establishments and Enterprises, 2005). The statistics showed that not many MSMEs in the country graduated into becoming large corporations despite the increasing number of MSMEs established each year. What could be the reasons? This phenomenon is probably due to the low risk taking propensity among MSME owners whereby they are afraid of expanding their business due to the risks and uncertainties they might face if they become a larger corporation. Through MSEs have increased in number from year to year, their contribution to the national economy in terms of output, added value and new net jobs are presumed to be stagnant if not diminishing. The purpose of this study is to investigate the differences between demographic characteristics and level of risk taking propensity of Malaysian MSEs owners. The study would enhance the understanding of whether, and if so, how demographic characteristics can affect MSEs' risk taking propensity.

### **2. Background to the study**

For the purpose of this study, risk is defined as follows:

“The perceived probability of receiving the rewards associated with success of a proposed situation, which is required by an individual before he will subject himself to consequence associated with failure, the alternative situation providing less reward as well as less severe consequences than the proposed situation.” (Brockhaus, 1980, p. 513)

Risk propensity and risk perception influence risk taking. Risky decisions will be made when the situations of high risk propensity and low risk perception.

Therefore, risk-taking initiatives should be more necessary in order to achieve good results in hostile markets. Or, in other words, business owners or managers who dare to take more risks take actions that are more suitable and perform better. Abby and Slater (1989) noted that organization which has an international vision, favorable perceptions and attitudes towards international business and is willing to take risks and has the capacity to engage positively in international business activities is likely to lead a company to business success. In line to minimize risks, entrepreneurs are required to identify which variables influence their business performance. If they have a higher risk-taking propensity, they positively affect the business performance. Begley, (1995) defined risk-taking propensity as the willingness to take moderate risks. This means that when entrepreneurs face different situation, they will probably show different risk propensities. At the same time, different entrepreneurs who faced much better the same situation may present different risk propensities. Entrepreneurs are willing to accept the unknown. They are distinctively able to start and orchestrate events that have risk consequences (Mitton. 1989). Generally, in many entrepreneurship studies found that successful entrepreneurs are moderate risk-takers (e.g. Bridge, O'Neil, Cromie, 1998). Douglas and Shepherd (2002) found that those with a greater risk acceptance had stronger levels of entrepreneurial intention.

Past study by Shivani, Mukherjee and Sharan (2006) used Risk Attitudes Inventory designed by Gene Calvert (1993) to measure risk taking propensity. The maximum score was 15 which showed that the higher the total score, the higher will be the risk taking propensity. The scores ranges from 0-5 were categorized as having low risk taking propensity, scores from 6-10 as having moderate risk taking propensity, and the scores from 11-15 as having high risk taking propensity. The study found that a substantial proportion of respondents had low level of risk taking propensity. However, the study found no differences in the risk-taking propensity between male and female respondents. Walker, Geddes and Webster (2006), carried out a study on the risk taking propensities of women business owners and the age affects of such activities. The questionnaires were distributed to 1600 small business owners in regional and metropolitan Western Australian and the response rate was 30% (486 questionnaires were returned). The study found that there were some gender differences with women being more emotionally risk averse than their male counterparts. With regards to age, younger people, irrespective of gender were more emotionally and financially risk averse compared to older people. There were also differences between genders and age cohorts with regards to initial business start-up motivation. The study concluded that self-employment might be a viable alternative to mainstream employment for women in general; it may not be the best alternative for all younger women, given that many of them still have to balance between work and family.

Tamizharasi and Panchanatham (2010) studied the demographic factors of the small and medium enterprise attitudes in Cuddalore district of Tamilnadu, India. They stated that entrepreneurial attitudes can make the entrepreneurs strong and be more successful in their business. They also found that age and ownership were related significantly to risk taking. The study concluded that entrepreneurial attitudes increased as the increase of the age, income, change in marital status and type of ownership. The personal attributes included in this study are gender, age, educational level and business experience. These characteristics serve as the demographic profile of the respondents functioning as independent variables to be examined in order to find their possible relationships with risk taking propensity. Comparisons among some demographic factors such as gender, age, education level, business experience, and risk taking propensity will be carried out, for example, "Is there any differences between the risk taking propensity of male and female of MSMEs entrepreneurs?" The risk taking propensity will be measured using the Risk Attitudes Inventory designed by Gene Calvert (1993).

### **3. Research design and methodology**

The study was conducted in the East Coast on business owners of small and medium business enterprises from two states of east coast of Malaysia. A stratified sample totalling 260 names and addresses was taken from **Small and Medium Industries Development Corporation (SME Corp)**. The Risk Attitudes Inventory (RAI) designed by Gene Calvert (1993) used in the survey to measure entrepreneurial risk taking propensity included a cover letter explaining the purpose of the study. Demographic data were collected on gender, age, education and experience. Two hundred and thirty seven usable questionnaires were returned and it represents 91 percent. In the instrument of RAI, respondents were presented with 15 hypothetical situations. The questions are to stimulate reflection and thought about one's risk taking style and beliefs. The scale used consisted of three levels, low, moderate and high. The maximum score of 15 which showed the higher the total score indicating the more is the risk taking propensity. The scored from 0-5 were categorized as having low risk taking propensity, the scores between 6-10 as having moderate risk taking ability and 11-15 as high risk taking propensity.

#### 4. Findings

##### Analysis of Demographic Profiles of Respondents

The sample of Micro and Small Enterprises (MSEs) consisted of more males (67.9%) compared to females (32.1%). The majority (75 percent) of the respondents were matured who aged between 31 to 50 years old. More than 70 percents of the respondents had secondary education. 51 percent of these respondents have a business experience ranges from 11 years, 11 to 15 years (25%), 16 to 20 years and the remainder (7 percent) experienced more than 21 years. The demographic profiles of the respondents are provided in Table 1.

##### Analysis of the Risk Taking Propensity

Table 2 indicates the mean scores of the statements on the risk taking propensity scale. The variables are in descending order of importance of risk taking propensity factors of the MSEs. The scale was scored from 1 to 15. The maximum score is 15 which showed the higher the total score indicates the more is the risk taking propensity. The scores from 0-5 were categorized as having low risk taking propensity, scores from 6-10 as having moderate risk taking ability and 11-15 as high risk taking propensity. Therefore, the higher scores represent higher risk taking propensity among the MSEs owners. Referring to Table 2, each statement on the perception on risk taking propensity has a mean ranging from 11.61 to 6.61 except for one statement where the mean value is below 5. The highest mean value is for the statement "I have confidence on my ability to recover from my mistakes no matter how big" (11.61). This implied that most of respondents found that factor was very important. With running their business, they were influenced by the ability to recover from their mistakes. The second highest statement is "I would choose a three thousand RM annual raise demand in products over a ten thousand RM profit, when I had about a one-in-three chance of having the profit" (11.38).

Thus it shows that the respondents prefer to have annual raise in product demands than having a profit but only once in order to succeed. "When facing a decision with uncertain consequences, my potential losses are my greatest concern" which had a lowest mean score of 4.35 showed that losses are not the subject that respondents' concern in making their decision. The analysis was also done to measure the level of Risk Taking Propensity among MSEs and is presented in the Table 3. Overall the table showed that a large proportion of respondents (92%) have moderate level of Risk Taking Propensity. This finding are in line with the position of the means score of risk taking propensity (Table 2). Out of 15 statements, 10 statements have the means value 6 to 9 showing the moderate level of risk taking propensity.

##### Risk Taking Propensity and demographic characteristics

Various analyses in the form of ANOVA and t-tests were carried out to determine whether demographic characteristics had a significant influence on the risk taking propensity of MSEs. This part is to answer the hypotheses of the study. The hypotheses of the study stated that there is a difference in the risk taking propensity of MSMEs owners' demographic factors. Specifically; (H1) - gender, (H2) - education, (H3) - age group and (H4) - experience is significantly different relating to risk taking propensity of the MSEs. The finding in Table 4 shows the mean, standard deviation and t value corresponding to the differences in the level of SMEs risk taking propensity based on their gender. It is detected from the table that gender which is correlated with risk taking propensity has no difference in risk taking propensity. However, the finding should be interpreted with caution because of small sample size of females (n=76 or 32.1%). The smaller number of female may suggest that the business is still a male dominated field. Since the results of t-test in comparing gender with risk taking propensity found no significant difference in risk taking propensity between male and female MSEs. The findings indicated that female could have the same level of risk taking propensity as well as men, which imply that entrepreneurs in this two country do take moderate levels of risks for their business.

This concurs with the previous studies by MacCrimmon and Wehrung (1990), Schwer and Yucelt, (1984); and Walker, Geddes and Webster (2006) but contradicts with a study by Carland, Carland and Carland (1995), and Masters and Meier (1988). The study also observed that 75 percent of the respondents were at the matured age between 31 to 50 years. In examining the age factor, the result in **Table 5** showed that the result of the mean differences (ANOVA) was no significant as  $F = 0.21, p > 0.05$ . The result also indicated that there was no difference between age groups with regard to risk taking propensity. This indicates that all categories of age of the MSEs have a moderate risk taking propensity in running their business. As the finding indicated that is no significant difference between age and risk taking propensity, thus the hypothesis 2 was rejected. Past studies also generally have found no difference between age and risk taking propensity as found in studies of Schwer and Yucelt (1984); and MacCrimmon and Wehrung (1990). However a few studies by Carland, J.W., III, Carland, J.W., Carland, J.A & Pearce, J.W. (1995); and Walker, Geddes and Webster (2006) have found the difference between age and risk taking propensity In terms of education level of the MSEs, t-test showed there is no significant difference among the secondary education group and higher level group that  $t(237) = -0.25, p > 0.05$ .

**Table 6** showed the finding indicated that MSEs with high and lower education level have the same level of risk taking propensity. Hypothesis 3 also rejected. This finding was supported by earlier findings, for example Schwer and Yucelt (1984) study. Generally, experience is a very strong predictor of risk taking propensity and it predicts the levels of risk taking propensity in the business. The understanding suggests that the more experienced a MSE posse, the higher risk taking propensity he/she takes. This is presumably because experience increases skill level in their business, and consequently with more skills, they have a strong tendency towards creativity and propensity for calculated risk and their risk taking propensity will be higher (Nieuwenhuizen and Groenewald,(2006),. The results of the mean differences (ANOVA) in **Table 7** showed that there was no significant difference between those respondents of any levels of experience with the result of as  $F = 0.63, p > 0.05$ . The more experienced MSEs were found to have the same moderate risk taking propensity with the less experience MSEs. The assumption that experience predicts higher level of risk taking propensity was not supported.

### **5. Conclusion and final remarks**

Generally, the findings of the present study show that the MSEs posses moderate levels of risk taking propensity. The main goal of our investigation was to find out the difference between several demographic (gender, age, education and experience) and MSEs' risk-taking propensity. The result also indicates that demographic characteristics of MSEs in 2 states of east coast Malaysia do not differ in risk taking propensity. None of the demographic characteristics has an impact on MSEs risk taking propensity. This research is a follow-up of previous studies, which investigate if risk taking propensity depends upon individual factors. In conclusion it may be said, that findings reported in this study extended the previous research on relationships between individual differences in demographic characteristics and risk-taking propensity. The results of this investigation are partly consistent and contradicts with the findings of MacCrimmon et al,1990; Carland, et al, 1995; Koironen, et al , 1997; Shivani, et al, 2006; Walker, et al, 2006;), who argued that there are gender differences in the risk taking propensity among entrepreneurs. Therefore, findings of this investigation allow us to draw the conclusions that demographic characteristics were not important for risk-taking propensity in the investigated sample which suggests that further research may be conducted on other demographic characteristics associated with MSEs.

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Notes:

**Table 1:** Demographic Profiles of the Respondents

Respondent's Characteristics	Frequency (n=237)	Percentage (%)
<b>Gender</b>		
Male	161	67.9
Female	76	32.1
<b>Age group</b>		
Below 20	3	1.3
21 - 30	33	13.9
31 - 40	88	37.1
41 - 50	91	38.4
Above 51	22	9.3
<b>Education Level</b>		
Secondary school and below	169	71.3
Diploma/degree and above	68	32.1
<b>Business Experience</b>		
Less than 5 year	36	15.2
4 - 10 years	87	36.7
11 - 15 years	59	24.9
16 - 20 years	38	16.0
More than 21years	17	7.2

**Table 2:** Mean Score of MSEs on Risk Taking Propensity

Statements	Mean
I have confidence on my ability to recover from my mistakes no matter how big	11.61
I would choose a three thousand RM annual raise demand in products over a ten thousand RM profit, when I had about a one-in-three chance of having the profit.	11.38
It is better to ask for permission than to ask for forgiveness	10.65
I tolerate ambiguity and unpredictability well	10.24
I would promote someone with unlimited potential but limited experience to a key position over someone with limited potential but more experience.	9.42
Anything worth doing is worth doing less than perfectly	9.30
If forced to choose between them, I would take safety over achievement.	8.59
Success in business is as much a matter of luck as ability	8.82
Failure is the long road to business success	8.40
Taking business risks makes good sense only in the absence of acceptable alternatives	8.33
I can handle big losses and disappointments with little difficulty	7.78
I would rather feel intense disappointment than intense regret.	7.30
I generally prefer stimulation to security	7.15
I believe that opportunity generally knocks only once	6.61
When facing a decision with uncertain consequences, my potential losses are my greatest concern.	4.35

**Table 3:** Risk Taking Propensity

Risk Taking Propensity	Frequency (N=237)	Percentage (%)
Low	11	4.6
Moderate	217	91.6
High	9	3.8
Total	237	100

**Table 4:** Risk Taking Propensity and gender differences

Gender	N	Mean	SD	t value	Level of Significant
Male	161	2.00	0.25	0.570	NS
Female	76	1.98	0.36		

**Table 5:** Risk Taking Propensity and age differences

Age Group	N	Mean	SD	F	Level of Significant
Below 20	4	2.00	0.00	0.205	NS
21 - 30	33	2.03	0.30		
31 - 40	87	1.98	0.21		
41 - 50	91	1.99	0.32		
Above 51	22	2.00	0.44		

**Table 6:** Risk Taking Propensity and education level differences

Education Level	N	Mean	SD	t value	Level of Significant
Secondary school and below	169	1.98	0.27	-0.254	NS
Diploma/degree and above	68	2.00	0.36		

**Table 7:** Risk Taking Propensity and business experience differences

Business Experience	N	Mean	SD	F	Level of Significant
Less than 5 year	36	2.05	0.23	0.626	NS
5 - 10 years	87	1.98	0.21		
11 - 15 years	59	1.98	0.35		
16 - 20 years	38	2.00	0.33		
More than 21years	17	1.94	0.43		