

Relationship between entrepreneur's traits and cloud computing adoption among malay-owned SMEs in Malaysia

Relación entre los rasgos del empresario y la adopción de la computación en la nube entre las PYMEs de Malasia con propietarios malayos

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Recibido el 17 de diciembre de 2014, aceptado el 20 de febrero de 2016

Publicado online el 31 de octubre de 2017

Nº de clasificación JEL: M3

DOI: 10.5295/cdg.140515ss

Abstract:

Purpose of the research: This research aims to empirically examine the relationship between entrepreneurs' personality traits and cloud computing adoption among Malay-owned SMEs in Malaysia. The research was done under theoretical framework that was developed based on the previous literature.

Methodology: This study adopts non-probability sampling which is convenient sampling for data collection. Data collection was done in all major towns in West Malaysia. Hypotheses related to personality factors (determination, opportunity, independent, innovativeness, locus of control, creativity, risk taking ability and achievement) and cloud computing adoption among Malay entrepreneurial society were tested by using multiple regression analysis on survey data from a sample of 383 entrepreneurs from major towns in Malaysia.

Major conclusion: The result of this study indicates that cloud computing adoption depend on the entrepreneur's trait. This study confirms that personality traits have significant influence on cloud computing adoption.

Research limitation: Like other empirical studies, this study is not without its limitations. The sample size itself is small. The study can be strengthened by increasing the sample size and including participants in other geographical areas.

Originality and value: The findings of this paper serve as a reminder for the Malay-owned SMEs that they have to consider cloud computing for their business operation, particularly for managing and maintaining all their virtual resources at their own end.

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Keywords:

Malaysia, cloud computing, malay-owned SMEs.

Resumen:

Objetivo de la investigación: Esta investigación tiene como objetivo examinar empíricamente la relación entre los rasgos de personalidad de los empresarios y la adopción de la computación en la nube entre las PYME Malayas. La investigación se realizó bajo un marco teórico desarrollado sobre la base de la literatura previa.

Metodología: Este estudio adopta un muestreo no probabilístico para la recolección de datos. La recopilación de información se realizó en todas las ciudades importantes de Malasia occidental. Las hipótesis relacionadas con factores de personalidad (determinación, oportunidad, independencia, innovación, locus de control, creatividad, capacidad de asumir riesgos y orientación al logro) y la adopción de la computación en la nube entre el colectivo emprendedor malayo se analizaron usando un análisis de regresión múltiple de datos de una muestra de 383 empresarios de las principales ciudades de Malasia.

Conclusión principal: Este estudio confirma que los rasgos de personalidad del empresario tienen una influencia significativa en la adopción de la computación en la nube.

Limitación de la investigación: Al igual que otros estudios empíricos, este estudio no está exento de limitaciones. El tamaño de la muestra en sí es pequeño. El estudio se puede fortalecer con futuras investigaciones que aumenten el tamaño de la muestra e incluyendo a los participantes en otras áreas geográficas.

Originalidad y valor: Las conclusiones de este documento sirven como recordatorio para las PYME de propiedad malaya que tienen que considerar la computación en nube para su operación comercial, en particular para administrar y mantener todos sus recursos virtuales para la consecución de sus objetivos.

Palabras clave:

Malasia, computación en la nube, PYME.

1. INTRODUCTION

Until today Malaysian business sectors are controlled by Chinese entrepreneurs (Suyderhoud 1999) because Chinese entrepreneurs generally run the business far better than other ethnic-groups such as Malays and Indians due to their family heritage, and their traditional predominant involvement in commercial sectors of the country (Popenoe 1970; Charlesworth 1974; Aziz 1980; Abdullah et al. 1999). In this relation, Malay entrepreneurs are less capable to survive and grow as they tend to be inexperienced, late in joining business world, less business exposure, less innovative and creativity as compared to the Chinese entrepreneurs (Charlesworth 1974). Malaysian government had put a strong initiative in promoting Malay or Bumiputra entrepreneurship in order to produce competent, capable and strong business leadership among Malays. The New Economic Policy (NEP) are also in-line with the government agenda, where the policy are largely focuses on the development of Malay entrepreneurship (Abdullah 2001). The main intention of the NEP is aimed at uprooting the colonial legacy of inequality among ethnic group in Malaysia.

After independence in 1957, Malaysia has been facing the challenges of redressing economic inequalities between Malays and Chinese. In 1995, the government established a special ministry called the Ministry of Entrepreneur Development, to lead the development of Bumiputra entrepreneurs and to coordinate entrepreneurship activities in general. Majority of SME investments are focused on encouraging Bumiputra entrepreneurship without neglecting the non-Bumiputra entrepreneurs. As a result, the number of new firms owned by Bumiputra doubled between 1995 and 1999. Eventually, the government created a Bumiputra Commercial and Industrial Community (BCIC) to foster Bumiputra entrepreneurs and professionals, and to create a Bumiputra middle class. This has become the backbone of Malaysia's strategy for strengthening national entrepreneurship and it is very explicit in its programs (Economic and Planning Unit, 2001).

According to Ong and Lin (2013) cloud computing system is considered as a virtualized computer system that covers all software and applications required by the organizations. There are distinct types of cloud computing including: SaaS (Software as a Service), PaaS (Platform as a Service), IaaS (Infrastructure as a Service) and BaaS (Business as a Service). As such, BaaS is used in a broader business (e.g. call center module, as a part of the customer service process), or in other way it can help total business process itself (e.g. cloud-based fully supply chain management) with physical and human resources support.

In the IT era, cloud computing is one of the novel concepts accepted by researchers and practitioners. Cloud computing enhances the scalability, virtualization, speed, and cost flexibility in the field of IT. Referring to scalability in cloud computing, it can expand IT services capability when needed and also contracting its features in unnecessary time. Smyth (2009) opined that cloud computing is a unique element of cloud computing that differentiates it from other traditional technologies such as desktop applications. More than 85 percent of the cost can be reduced for backup and recovery purposes while using cloud computing (Wood et al. 2013). According to Berl et al. (2009) virtualization technique of cloud computing are uses for energy efficient computing as it reduces hardware requirements.

Recently to support the 3rd parties some organizations such as Amazon, Google, Microsoft and Salesforce.com have invested many millions of dollars. These vendor organizations can see clear and bigger future for cloud computing.

Malaysian government has been trying to promote this to SMEs by providing some facilities and more recently encouraging the adoption of cloud computing. The program by Multimedia Super Corridor (MSC) has SME Cloud Computing Adoption Programme is a programme under Digital Malaysia (DM), Shared Cloud Enterprise Services (SCES) project. The main intention of the project is to accelerate the adoption of cloud computing solutions among local Small and Medium Enterprises (SMEs) and to elevate the competitiveness and efficiency of local SMEs in doing business.

This paper provides a review on the history of Malay entrepreneurs, both before and after independence. It also provides conceptualisation of Malays entrepreneurship in the context of their traits as an element of cloud computing adoption. The characteristics of the Malay's culture are covered with special reference to the value systems inherent within Malaysian and Malay management practices.

Against this backdrop, this study believes that, there is strong relationship between an entrepreneur's traits and cloud computing adoption. In this study, the construction of the theoretical model was based on the review of the relevant literature on personal traits of the entrepreneurs. This paper concentrates on the Malay entrepreneurs characteristics influence on cloud computing adoption in their businesses. The focus on Entrepreneurship will be basically looked at the macro and micro perspectives of the topic.

Despite of having better opportunities and encouragement in terms of technological, business and organizational resources as well as the government eReadiness towards its implementation, empirical research on cloud computing adoption among Malay entrepreneurs has been very limited. Furthermore, due to the competitive and dynamic environment of businesses, there is a need to conduct a study on cloud computing adoption among Malay entrepreneurs. Therefore, this research tried to fill the gaps on cloud computing adoption research by attempting to identify the characteristics of entrepreneurs which predict the rate of adoption of cloud computing among Malay-owned businesses enterprises.

2. CONCEPTUAL FRAMEWORK

In this paper, cloud computing adoption is conceptualized as a construct consisting of seven entrepreneurial traits component. The justification for this study comes from the fact that a research program designed to identify and measure the personal characteristics of entrepreneurs might have effect on cloud computing adoption into their business. There are a reasonable number of conceptual and theoretical studies conducted on technology adoption. Most of the studies in technology adoption are based on some common models. Molla and Licker (2005); and Tan et al. (2007) pointed out the following common frameworks:

- 1) The Diffusion of Innovation (DOI) (Rogers 1995; Zhu and Kraemer 2005)
- 2) Technology Acceptance Model (TAM) (Davis 1989)
- 3) The Technology-Organisation-Environment Model (TOE) (Tornatzky and Fleischer 1990; Kuan and Chau 2001; Zhu and Kraemer 2005)

- 4) Institutional Theory (Scott 1995; Chatterjee et al. 2002) and
- 5) Resource-based Theory (Barney 1991; Zhu and Kraemer 2005).

However, the influences of entrepreneurs' characteristics on technology adoption have not been widely studied so far. Therefore, the present study is an initial step towards this direction. The present models were tested for technology adoptions, thus there are differences in term of their focus, where it was designed to examine the different aspects of business technology adoption. Hemple and Kwong (2001), Kshetri and Dholakia (2002) and Gibbs et al. (2003), for example, only examine the external environment of the firms, while Claycomb et al. (2005) focused on the technological aspects.

Rogers (1995) Innovation of Diffusion Theory and Davis (1989) Technology Acceptance Model (TAM) have been widely used in the previous studies (Alam et al. 2007; Alam et al. 2010). But none of these models tested entrepreneur's characteristics, entrepreneurs do not adopt technology due to their negative attitude towards technology. Therefore, by assessing entrepreneur's characteristics, the results of this study will provide empirical evidence on how entrepreneur's traits significantly effect on cloud computing adoption in their business.

Fichman and Kemerer (1997), Grover et al. (1997) and Alam (2009) studies of technology adoption among SMEs, have emphasized on the characteristics, behaviors and attitudes of the owners/managers of SMEs. These individuals usually directly and/or indirectly involved in all decision making in their organization. This is parallel with Lakhpanal (1994) who states that individual characteristics i.e., innovators, leaders and other individual attributes in key positions have significant impacts on explaining differences in the degree of innovation adoption. Therefore, these factors are important to be used to explain the adoption patterns of cloud computing by Malay entrepreneurs in Malaysia.

Personality is made up from characteristic patterns of thoughts, feelings, and behavior that make a person unique. Personality arises from within the individual and remains fairly consistent throughout life. Personality is a study of the "person", their adaptability to various situations, traits, characteristics, and similarities and differences as compared with other people. From the psychological point of view the subject of personality can be considered from various perspectives, depending on their philosophical standpoints or world views. Throughout the development of the discipline, the concept and understanding of personality were seen from various standpoints such as of internal conflict, psychosocial conflict, life-long development processes, environmental influence or just "being" in a given milieu (Hall and Lindzey 1985).

Personality profile, then, would dictate the "being" of a person, a composite of all traits, cognition, emotion and various characteristics of a particular individual. Any profile of psychological nature can be expanded beyond the individual context, to a group of individuals who share some similar characteristics such as race, family, religion, occupation or other possible variables.

There is quite a large number of research done in the realm of personality profile in relation to many variables, which among others, looks into the relation with occupation (Olson 1969; Lawlis 1971), sex (Marzolf 1971), college performance (Rasheed 1969), psychological pathology (Meyer 1967), individual preference (Clayton 1970), religious inclination (Grande et al. 1965), sports (Straub 1971), and achievement (Givens et.al. 1967).

Previous literature suggested that there are some characteristics which are desirable to entrepreneurs in order for an individual to be successful in the entrepreneurship field. Ac-

ording to Sexton and Van Auken (1982), Kitch (1985), Henley (1987) and Bloom (1987) most desirable traits found such as extrovert-type personality (outgoing), risk-taking, responsibility, creativity, forward-looking and experimenting are required of entrepreneurs in almost all successful entrepreneurs. Dynamism and creativity are other important traits that are vital to individuals in the business world; among other traits such as responsibility to oneself, subordinates, company goals, etc. (Kuhn 1985; Cohen 1986; Nichouse 1986). Seiichiro (1984) in his research paper on "Entrepreneurship and Innovative Behaviour of Kawasaki Steel" suggested several other necessary traits such as assertiveness, insistence, forward-looking, critical thinking, creativity, innovation, continuity, preparedness, responsibility, open-mindedness and many others should be in each entrepreneur in order to stay competitive in the business.

According to Schumpeter (1947) there is a distinction between an adaptive and creative response to new technologies. He argued that creative response as a process, whereby the industry did something that was outside the range of existing practice. He also mentioned that the creative responses were influenced by the quality of brains available and the decisions and behaviour of social actors. The model proposed in this study considered the adoption of cloud computing as a creative response of the entrepreneur as cloud computing is outside the range of existing practice for the sample firms. This will depend upon the knowledge of the entrepreneurs, as well as their characteristics that would likely to influence the cloud computing adoption. It can be argued that entrepreneurs have been reported in personality and psychological research to exhibit unique characteristics that distinguish them from other technology users (Ndubisi and Kahraman 2005). These characteristics may have significant implications for their cloud computing adoption and usage determinations. The characteristics that have been suggested by past literature are, need for achievement (McClelland 1965; Decarlo and Lyons 1979), locus of control (Sexton and Smilor 1986; Mueller and Thomas 2000), risk taking (Palmer 1971; Bowen and Hisrich 1988), values (Sexton and Smilor 1986;), ability to identify business opportunities (Caired 1988), autonomy (DeCarlo and Lyons 1979; Sexton and Bowman 1983), creativity/innovativeness (Sexton and Bowman 1983), self-confidence (Gnyawali and Fogel 1994; Byrgrave 1997), capability to process information (McGaffey and Christy 1975), low interpersonal effect, social adroitness, low harm avoidance and low succorance (Sexton and Bowman 1984).

Based on the previous literature it can be suggested that all the characteristics are not very important factor that could have influence on cloud computing adoption in general. This study attempts to look into some important personality profile of entrepreneurs involved in SMEs in West Malaysia influencing cloud computing adoption into their business. The statistical model is explained in the next section of this study.

3. STATISTICAL MODEL AND HYPOTHESES OF THE STUDY

To test the hypotheses, the current study represents the research model in the following regression equation:

$$Y = B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5 + B_6 X_6 + B_7 X_7 + R$$

Where:

Y = cloud computing adoption; X_1 = achievement; X_2 = opportunity; X_3 = determination; X_4 = creativity; X_5 = independent; X_6 = risk taking ability; X_7 = locus-of-control.

In the regression equation, cloud computing adoption (Y) considered as the dependent variable and achievement (X_1), opportunity (X_2), determination (X_3), creativity (X_4), independent (X_5), risk taking ability (X_6), and locus-of-control (X_7) as the independent variables.

Multiple regressions are one of the most widely used techniques in the analysis of data in the social sciences (Bryman and Cramer 2001). This technique can be used to analyze the relationship between a single dependent variable and several independent variables (Tabachnick and Fidell 2001). The objective of this analysis is to predict the changes in the dependent variable in response to changes in the independent variables, whereby each independent variable is weighted by the regression analysis procedure to ensure maximal prediction from the set of independent variables (Hair et al. 1998).

3.1 Hypotheses

A series of testable hypotheses were developed from the proposed research model, are listed as follows:

Hypothesis 1: There is a significant relationship between entrepreneur's achievement and cloud computing adoption

Hypothesis 2: There is a significant relationship between entrepreneur's opportunity and cloud computing adoption

Hypothesis 3: There is a significant relationship between entrepreneur's determination and cloud computing adoption

Hypothesis 4: There is a significant relationship between entrepreneur's creativity and cloud computing adoption

Hypothesis 5: There is a significant relationship between entrepreneur's independent and cloud computing adoption

Hypothesis 6: There is a significant relationship between entrepreneur's risk taking ability and cloud computing adoption

Hypothesis 7: There is a significant relationship between entrepreneur's locus-of-control and cloud computing adoption

4. METHOD

4.1 Data collection instrument

The data for the study were gathered through a structured questionnaire. All 30 items to measure 7 variables of personality traits were adopted and adapted from Alam (2011). A six-point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree) were utilized the all 30 items. Seven items from E-commerce scale (Alam et al. 2007) were modified and used to measure the Malay entrepreneurs' cloud computing adoption. This items employs a six-point scale in Likert format, ranging from 0 (no plan) to 5 (current users). The first part of the questionnaire ask questions about Internet usage habits such as preference of Internet usage, whether they have Internet access at their firms or not, and their feelings about the Internet security. The second part consisted of questions measuring

all the important variables including two questions which are used to measure the Internet banking. The third part consisted of questions regarding the demographic characteristics of the respondents firms.

To substantiate the appropriateness of the items used in the study context, three experienced researchers and practitioners were invited to assess the content validity of each item with respect to the definition and study context. Slight changes were made following comments and suggestions, but none that substantially altered the questionnaire. The revised questionnaire was then administered to respondents with a cover letter explaining the academic purpose of the study.

All items intended to measure the variables in this study were either adopted or adapted from previously validated instruments. Regression analysis was used to analyze the data and tested the hypothesis. An exploratory factor analysis was performed with varimax rotation to assess the reliability and validity of the measurement model before the regression analysis was performed.

4.2 Sample

The target population for this study involves Malay SMEs owner in West Malaysia who are the owner/entrepreneurs of the SMEs of each organization. A packet of 600 survey instruments together with a return envelope were randomly send to selected Malay entrepreneurs from the list of Small and Medium Enterprise Corporation Malaysia (SME Corp).

To maximize the response rate, three subsequent reminders were done either through phone or mail after the initial surveys were sent. Telephone inquiries were conducted after three weeks to those entrepreneurs who do not response. The response rate for the survey was 69.33 per cent (416 responses), however 19 samples were discarded due to missing values for at least two sections. Finally 383 completed questionnaires were usable for further analysis using SPSS.

Among the samples collected, the majority of respondents were in the service organisations (96.7 percent) and most of the SMEs are local. In terms of position held by the respondents, most of them were at the middle level manager and their age was below 40 years (56.8 percent). In terms of experience in business, 23.2 percent of the respondents have been in business for 3-4 years; and 3.7 percent of respondents have 6-7 years of business experience.

4.3 Reliability and Multicollinearity

In preparation for multiple regression procedure, a factor analysis was first conducted on the seven variables to verify whether they could be treated as a single measure. The test was conducted using principal component analysis and varimax rotation with Kaiser Normalization. Results of factor analysis show that each of the seven variables ended up with just one factor, and thus suggesting that all the variables could be combined and treated as a single measure. To test the reliability of the items, Cronbach's coefficient alpha values for the seven variables computed are presented in Table 1. Reliability from our sample showed a reasonable level of reliability ($\alpha > 0.70$) except risk taking behavior. This factor was discarded from all further analysis.

Table 1

Reliability Analysis

Variables	Coefficient Alpha
Achievement	0.772
Opportunity	0.789
Determination	0.844
Locus-of-control	0.796
Risk taking behavior	0.614
Independence	0.725
Creativity	0.768

Source: Own elaboration.

The impact of multicollinearity is a concern for interpreting the regression variate (Hair et al. 1998). Highly collinear variables can distort the results substantially and thus not generalizable. According to Bryman and Cramer (2001), the Pearson’s r between each pair of independent variables should not exceed 0.80, otherwise the independent variables that show a relationship at or in excess of 0.80 may be suspected of exhibiting multicollinearity. The output in Table 3 showed that none of the correlations between all independent variables exceed 0.80, which indicate that multicollinearity is not a problem in this study. Another two common measures for assessing the multicollinearity are the tolerance and variance inflation factor (VIF) values. A common cut-off threshold is a tolerance value of 0.10, which corresponds to a VIF value above 10 (Hair et al., 1998). In the current study, the tolerance values of all variables are above 0.10. Likewise the VIF value is less than 10, thus further confirming that multicollinearity problem is not a concern. The acceptable Durbin – Watson range is between 1.5 and 2.5. The results reveal the value of 1.909, indicating an acceptable range of value. Hence, the results indicate no auto correlation problems in the data used in this research. Thus, the measures selected for assessing independent variables in this study do not reach levels indicate of multicollinearity.

Table 2

Correlation Matrix between Independent Variables

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆
X ₁	1.00					
X ₂	.596(**)	1.00				
X ₃	.558(**)	.600(**)	1.00			
X ₄	.388(**)	.436(**)	.451(**)	1.00		

X ₅	.413(**)	.497(**)	.369(**)	.306(**)	1.00	
X ₆	.517(**)	.499(**)	.603(**)	.462(**)	.586(**)	1.00

Source: Own elaboration.

Table 3

Test of Collinearity

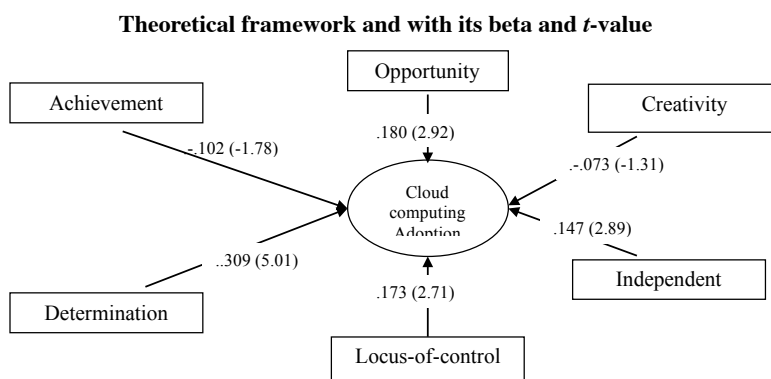
Variable	Tolerance	VIF
Achievement	.552	1.810
Opportunity	.481	2.079
Determination	.480	2.083
Locus-of-control	.451	2.218
Independence	.711	1.406
Creativity	.590	1.695

Source: Own elaboration.

5. HYPOTHESES TESTING

Figure 1 shows the regression model with beta value and t-values. Four out of six hypotheses were supported. First hypothesis was not supported ($\beta = -.102, p = 0.0863$), it is found that there is no statistical significant relationship between achievement and cloud computing adoption. The result shows that when the entrepreneur feels that they have achieved their business target, the dependency towards cloud computing is found to be less important. As expected, our second hypothesis was supported, and has strong ($\beta = .180, p = 0.001$) significant relationships between entrepreneurs opportunity traits and cloud computing adoption.

Figure 1



Source: Own elaboration.

In order to succeed, Malay entrepreneurs should be confidence in their job. They need to focus and consistent in their decision. It is observed that Internet services may help the entrepreneurs to complete their project more effectively and efficiently. In this situation, the determination towards internet-based services was tested to see whether there is any effect towards the cloud computing adoption. The multiple regression analysis shows that the association between determination and cloud computing adoption is significant with $\beta=.309$ ($p=0.001$) and has strong beta value. This result clearly support hypothesis 3.

In hypothesis 4 this study predicts the significant relationship between creativity and cloud computing adoption of Malay entrepreneurs. The study support the relationship but not significant ($\beta= -.073$, $p=0.243$). Hypothesis 5 was supported, as independent nature of the Malay entrepreneurs significantly related with cloud computing adoption in their business ($\beta= -.073$, $p=0.001$).

Hypothesis 6 was not tested, because it was discarded from the regression analysis due to its low alpha value. The alpha value for risk taking behavior was .64 as it was below than the appropriate level. Finally hypothesis 7 was supported and had positive relationship between locus of control and cloud computing adoption ($\beta= -.173$, $p=0.001$).

The explanatory power of the model for the acceptance of cloud computing adoption was examined by using R^2 (squared multiple correlations). Together, all six constructs explain 42% of the variance observed in the acceptance of cloud computing adoption. This result provides confidence that the model is appropriate.

To summarize, this study found relatively strong empirical evidence for the hypotheses stated, except for our hypotheses 1 and 6, which were rejected thus warrants further research. Overall, the findings suggest that is of great importance in cloud computing adoption, being consistent with the general notion that determination is a key to success. However, the results also suggest that achievement and innovativeness are not very important traits that could have influence Malay entrepreneurs to adopt cloud computing.

6. DISCUSSION

Research on entrepreneurship is acknowledged as important in this present complex business arena, where there are growing numbers of academician and dedicated journals which served for the excellence of entrepreneurships (Matlay 2008). To support this important area of research many journals, periodicals, monograph, text book and official reports are published annually (Matlay 2005). At this present entrepreneurship environment our research makes a number of academic and managerial contributions. First this study is the first attempts to explain the entrepreneurial traits related to cloud computing adoption in particular among the Malay societies. The results indicate that determination, opportunity, independent and locus of control are important traits of cloud computing adoption. Achievement and creativity are the unimportant predictors. These results indicate that these two traits will not likely to influence the overall decision to adopt the cloud computing in business. One of the reasons why achievement did not influence the cloud computing adoption is mainly due to the reason that Malay entrepreneurs success rate is very low (Charlesworth 1974). However, this result is only referred to the context of cloud computing adoption and therefore could be generalized in the sense that Malay entrepre-

neurs are not achieving any target. The consequence of this is the analysis between risk taking behavior and cloud computing adoption where it was found that the association to be non-significant.

Malay entrepreneurs are always been the issues for their low performance in Malaysia in many cases. Several authors and media projected multiple speculations have brought many viewpoints on how this happened and what the sources are. Berita Harian (1989a, 1988b) cited in Mohamed study, reported that Malay (bumiputra) entrepreneurs are viewed as lacking in ideas, not innovative, has no perseverance and is unwilling to takes risks. Due to the fact that Malay entrepreneurs are now facing stiff competition with their counterparts and the competition will get stiffer in future. To overcome this problem Berita Harian (1989) suggested that bumiputra (Malay) entrepreneurs, from their own perspectives should be more aggressive, innovative, and creative, be willingly to take calculated risks, learn from experience, and adopt new approaches in management and making of goals.

7. LIMITATIONS AND FUTURE RESEARCH

There are some limitations that suggest caution in assessing the findings. First, this study was conducted only among Malay entrepreneurs and may not reflect the views of other non-Malay entrepreneurs doing business in Malaysia. Thus, in order to reveal cultural differences, it would be interesting to repeat this study in different culture such as Chinese and Indian entrepreneurs. Secondly, this study is the first Malay entrepreneur's studies and only covers West Malaysian Malay entrepreneur's traits affecting cloud computing adoption. The results might not reflect the whole scenario in Malaysia. Thus, it will be interesting for future research to extend this study to other countries such as India, Indonesia and Middle East to test the external validity of the research. Furthermore, to the author's knowledge, there are no studies investigating the effect of personality traits focusing on the Malay entrepreneur towards the cloud computing adoption, thus, there are no proven examples that can be followed or referred. This limitation also contributes to the difficulty in collecting extra information that can give support to the current studies. Therefore, in order to suggest a framework for the current study, the researchers need to integrate various literatures, which were more focused on personality traits of an entrepreneur, the general perception and discussion on the cloud computing adoption.

8. CONCLUSIONS

The purpose of this study is to investigate between entrepreneurs personality traits and cloud computing adoption among Malay-owned SMEs in Malaysia. This study also contributes to and extends our understanding of the cloud computing as a medium for commercial use, identifying the rationales for adopting or rejecting the cloud computing by the SMEs. From a managerial viewpoint, the findings provide critical support for SMEs to facilitate the development of Internet services as one of the strategies of SME business.

The research was done under theoretical framework that was developed based on the previous literature. The multiple regression analysis shows that determination, opportunity,

independent and locus of control are significant elements of cloud computing adoption. The model explains 57 percent of the variance in SMEs intention to adopt cloud computing.

Overall, our study indicates that government and other relevant organization should pay extra attention to the achievement and risk taking nature of the Malay entrepreneurs in terms of adopting technology at their businesses. Finally, given the additional importance of innovativeness characteristics of Malay entrepreneurs, it is so surprise that most of the Malay entrepreneurs are less innovative and creative into their business activity which left them behind their counterparts. It seems that it is difficult for the Malay entrepreneurs to create some new idea or product unless they have adopted cloud computing in their businesses activity. Thus, Malay entrepreneurs should consider adopting cloud computing as an avenue to uplift their business and gain competitive advantage over the competitor in Malaysia as well as in the global market.

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