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AN EMPIRICAL STUDY OF IT INNOVATION ADOPTION AMONG SMALL AND MEDIUM SIZED ENTERPRISES IN KLANG VALLEY, MALAYSIA

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Abstract

Purpose—*The purpose of this research is to use and validate the Entrepreneurial Event model as a base model to investigate SME owners' perception toward IT innovation adoption and use. This paper also attempts to investigate the key determinants of the adoption of IT innovation among small and medium sized enterprises in Kuala Lumpur, Malaysia. This study revised and validated the Entrepreneurial Event Model in a new context and tried to examine the effect of perceived desirability, propensity to act and performance expectancy on behavior intention to adopt and use IT innovation in SMEs companies.*

Design/ methodology/ approach—*Based on the research model the questionnaire was developed using previous work in the areas of entrepreneurship (Entrepreneurial Event Model) and technology acceptance (UTAUT). The data used to test the hypothesis is collected from various spectrums of Malaysian industries in Kuala Lumpur. A total of 1,000 businesses*

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were identified and 412 completed questionnaires were available in this study. The research model was applied using the structural equation modelling technique.

Finding—The results of this study indicated that perceived desirability, propensity to act and performance expectancy have a significant positive influence on behavioral intention, and explained a significant amount of the variance in predicting a SMEs owners intention to adopt IT innovation. Propensity to act is the strongest determinant of intention to use IT innovations among Malaysian SME owners follow by perceived desirability and performance expectancy. The results suggest that attractiveness of IT innovation is an important determinant towards the intention to adopt IT innovation. The result revealed that SME owners are more willing to use IT innovation, which is more attractive. Perceived usefulness (performance expectancy) of IT innovation is the third most important factor that SME owners consider when they want to adopt and use new technology in their jobs. The results also revealed that experience moderated the relationship between determinants and behavior intention.

Research Limitations/implications—The number of male and female SMEs owners is not equal and our respondents were mostly men compared to women. This study measure intention to use IT innovation, and did not measure use behavior.

Practical implications—This study extends to knowledge on IS adoption behavior research by using entrepreneurial event models in the context of technology acceptance. Furthermore, from the SME owners' points of view, this study has shed some light on the adoption and use behavior and clarified the situation for SME owners when they want to adopt and use IT innovation to be successful in their job and market.

Originality/value—This study is one of the first to utilize the Entrepreneurial Event Model (EPM) to the technology acceptance domain. It also provides a broader view of the IT innovation adoption decision and sheds some additional light on individual technology usage behavior.

Keywords: Entrepreneurship, Innovation Adoption, Malaysia, Small and Medium Size Enterprise.

Research Type—Research paper.

1. Introduction

Small and Medium Enterprise (SME) is considered the backbone of industrial development around the world, playing a vital role in economic growth (Alam, 2007). Over the years, SMEs are becoming more prominent in contributing to economy growth, more so in developing countries. In many researches, it is found that SMEs can expand their businesses by taking proper advantage of IT innovation. IT innovation has a positive effect on a business organization's performance for profitability, market share and value as well as productivity. According to Swanson (1994), IT innovations can be

categorized in three set models: Type 1 involves change in system development process, restricted to the functional IS core (new development tools or programming teams). It influences other parts of business indirectly (e.g., IS administrative task). Type 2 involves the outcomes of development processes (services) which involve supporting the administrative core of the organization by using IT, such as financial accounting system and lastly, Type 3 which includes IT based innovations, changing available computing capabilities, integrating IS products and services with core business technology and influencing business administration. It consists of those innovations where the use of IT affects either business functions or core business process of the organization. IT based innovations consist of new software and hardware architectures services, and new telecommunication capability. It influences the whole business, is more strategic and offers competitive advantage through product or service differentiation or low cost production to early adopters (Porter, 1985). The three sets of innovations are mutually dependent in a way that an innovation in one type may spawn innovation in others (Lyytinen and Rose, 2003; Swanson, 1994).

Proper usage of IT innovation by SMEs facilitates efficiency and position improvement in the marketplace competition. Despite many advantage of using IT innovation researches around the globe have shown that IT adoption by SMEs is still low and have not reached expectations (Pavic et al, 2007; Yu and Tao, 2009). Review of literature shows that Malaysian SMEs are relatively slow in IT innovation adoption and only 5% of Malaysian SMEs have fully automated IT and communication operations, and only 30% have any form of enterprise level ICT solutions (Malaysia international report 2010). The very low rate of adoption/usage of new technology may be a problem. In assessing the determinants of IT adoption in SMEs, a number of studies have considered the technological, environmental, organizational and individual aspects of the business organization (Rashid, 2001).

According to Rogers (1983), adoption of the decision to make full use of an innovation is the best course of action. The decision of whether an individual or organization will adopt a particular innovation has motivated a great deal of research across multiple disciplines. The decision to or not to adopt an innovation can be a one-time event, but the adoption process is not a single event and the route that leads to one's decision does not take place in a vacuum (Straub, 2009). If new technologies are available, further questions would be (1) What organizational processes facilitates the adoption of innovation and why are some organizations able to adopt more innovations compared to others, and (2) How to motivate more individual to adopt/use the new technology in their work. Review of research shows that despite many studies, these questions have not been clearly answered, and more research is recommended in this area (Damanpour and Wischnevsky, 2006; Tidd et al, 2001).

The main purpose of this paper is to understand which factors determine an SME owner intention towards innovation adoption and use behaviour. An understanding of how to encourage SME owners to adopt/use innovation will be achieved by using the Entrepreneurial Event Model as a theoretical base in order to investigate the key determinants that influence SME owners to adopt/use innovation in their work.

In the context of entrepreneurship, Krueger (1993) developed entrepreneurial Event Model that measures the entrepreneurial intention toward venture creation or perform behavior. This is an intentional model that measures the individual's dimension toward taking action. Using this model to test individual's perception towards technology acceptance and validating the model in new context is the objective of this paper. We added performance expectancy as a new variable in the model since in technology acceptance context, usefulness of new technology is considered an important characteristic that encourages people to adopt and use new technology in their job.

Most of the studies which used Entrepreneurial Event Model used a sample of different groups of university students to investigate entrepreneur behaviors (Krueger and Brazeal, 1994; Krueger et al, 2000; Shook and Bratianu, 2008; Coduras et al, 2008; Veciana et al, 2005; Meeks, 2004; Guerrero et al, 2008) and a few studies have analyzed other groups of people to study entrepreneurship (Guerrero et al, 2008). Some researchers investigated the inadequacy of using students as samples for entrepreneurship study (Meeks, 2004) because stable career anchors emerge only with work experience (Meeks, 2004). In the current study we used SMEs owners to validate Entrepreneurial Event Model and investigate technology adoption.

2. Innovation Adoption

Innovation adoption refers to an individual or organization's decision and the choice they make to accept or reject an existing innovation, and passes through a sequence of stages before the acceptance of a new product. Based on Roger's (1995, cited in Knol and Stroken, 2001) definition, innovation adoption is "the process through which an individual or another decision-making unit passes from knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation, of the new idea, and to confirmation of this decision" (Roger, 1995; Knol and Stroken, 2001). The adoption decision takes place at the micro-economic level and the potential adopter of the innovation often is an enterprise, a vision, or an individual.

The adoption process includes two main sub-processes: initiation and implementation. Actual adoption decisions occur between the initiation and implementation stage. The initiation process includes all activities related to recognizing a need, becoming, awareness of innovation and evaluating its appropriateness which leads to adoption of the innovation. Therefore organizations become aware of the innovation and an attitude forms toward it, and evaluation of new technology or idea affects their intention (Kamal, 2006). The adoption is considered as problem solving, in which an existing idea is adapted to deal with recognized needs and identified problems within an organization (Damanpour and Wischnevsky, 2006).

3. Theoretical Background

3.1. The Entrepreneurial Event Model (EEM)

One of the first intention- based and comprehensive academic models that Shapero theorized in 1982 is the Entrepreneurial Event Model. Shapero's model posited that "inertia guides human behavior until something interrupts or displaces that inertia." Shapero posits that displacement can be negative (job loss, job dissatisfaction), or positive (getting an inheritance, support from a customer or partner) where individuals are attracted to an innovation and initiates action. Studies have shown that perceived desirability, perceived feasibility, and propensity to act explains half of the variance in intention towards taking action, and perceived feasibility explaines the most variance (Krueger, 1993). Shapero explained how perception is critical in this process and that new circumstances can change the perceptions of an individual. The premise is that the decision to perform an entrepreneurial activity requires a pre-existing attitude toward the activity as desirable and feasible as as well as the propensity to act on an opportunity (Shapero, 1982; Krueger and Brazeal, 1994; Krueger, 2000, 1994, 1993; Mhango et al, 2005).

In SEE, Shapero added a volitional element to intention, to account for these phenomena (Kruger, 1993; Krueger et al, 2000). It means that without perceiving a likelihood of taking action, an individual is unlikely to have a serious intention toward a behavior. On the other hand, intention must be reasonably well formed to predict behavior, and it is not possible without a significant propensity to act. Shapero also posited that propensity to act is likely to have some indirect influence on relationship on the model, and suggested to test these effects in other researches. Propensity to act influences intention through experience and attitude toward intention. With a low propensity to act, attitude is less predictive on intention and action. However, when the propensity to act is high, taking action is more likely to be seen as feasible and desirable, and experiences have a greater effect on attitudes (Krueger, 1993). According to this theory, we can consider business creations as an event that can be clarified with the interaction between initiatives, abilities, management, relative autonomy and risk (Guerrero et al, 2008).

Shapero defined perceived desirability as "a degree to which an individual finds the prospect of starting a business to be attractive." Perceived desirability (attitude and social norms) is similar to social norms, and it is related to what significant others (friends, peer groups, family) think of the behavior. For example, social pressure that places a high value on use IT innovation will encourage a person to form favorable perceptions of desirability and social pressures opposed to it will create unfavorable perception of desirability. Perceived feasibility refers to the extent to which "an individual feels personally capable of starting a business or performing the task." Perceived feasibility is similar to perception of behavioral control in Theory of Planned Behavior and much like Bandura's self efficacy theory (Krueger, 1993). Propensity to act is defined as the

"personal disposition to act on one's decisions." Therefore, it shows volitional aspect of intentions (I will do it).

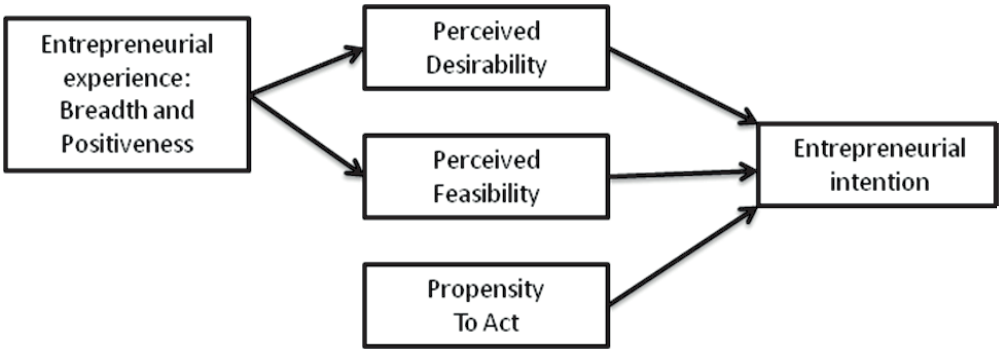

Figure 1. : Shapero's Entrepreneurial Event Model (SEE) (source Krueger (1993)

4. The Research Model and Hypothesis Development

This paper used the Entrepreneurial Event model (Krueger, 1993) as a base model to investigate SMEs owner intention toward IT innovation adoption and use of IT innovation in their companies. We considered perceived desirability, propensity to act and performance expectancy as determinants toward behavior intention to adopt and use IT innovation. We did not consider perceived feasibility in the model because people do not have skill and ability with new technology in the market and maybe they have skill with the basic information technology. Literature shows that previous experience with the information technology makes it easier for people to accept and they consider it as the key to success of the information technology. Venkatesh et al, (2003) considered it as a moderating variable that affects the relationship between the determinant and behavior intention. Therefore we consider experience as moderating factors that influences the relationship between determinants and behavior intention to adopt and use IT innovation. Figure 2 shows the research model.

Perceived desirability is defined as the degree of attraction that SME owners have toward IT innovation adoption, and their attitude toward new technology. Krueger and Brazeal (1994), argued that intentions are driven by the perception of what the individual may find desirable, and that depends on the outcome of performing said behavior, which then can be seen to the individual as personally and socially desirable. It captures the perceived attractiveness of adopting IT related innovations. Prior studies using Entrepreneurial Event Model find perceived desirability to be the strongest determinant of behavioral intention (Krueger and Brazeal, 1994; Krugeer, 1993, Krueger et al, 2000).

If SME owner have a positive attitude toward IT innovation, they will adopt and use it in their companies, and if they have a negative experience with new technology, they would not be interested to adopt and use it in their job. With this view, we hypothesize:

H1: SMEs owners' perceived desirability will have a positive effect on their intention to adopt IT innovation in their job.

H1a: The effect of perceived desirability on behavior intention to use IT innovation will be moderated by experience.

The propensity to act in this research is defined as the SME owners' decision to act. It shows that they decide to adopt and use IT innovation in their job. It was conceptualized as a stable personality trait and is closely related to locus of control (Krueger, 2000). Krueger (1993) investigate entrepreneurial intention toward new venture creation and consider propensity to act as direct determinants of entrepreneurial intention and find significant and positive relationship between propensity to act and entrepreneurial intention. Higher level of propensity to act will increase SME owner's intention to adopt and use IT innovation. Thus:

H2: SMEs owners' propensity to act will have a positive effect on their intention to adopt IT innovation in their job.

H2a: the effect of propensity to act on behavioral intention will be moderated by experience.

Performance expectancy is considered an important factor for SME owners when they decide to use IT innovation. Venkatesh et al (2003) defines performance expectancy as "the degree to which an individual believes that using the system will help him or her to attain gains in job performance." Most literature also supports the effect of performance expectancy on intention behavior and find that performance expectancy has a significant positive influence on the intention to use IT innovation. Prior studies in the UTAUT model have found performance expectancy to have the strongest effect on intention (Venkatesh et al, 2010; Dijk et al, 2008). In addition most studies on IS adoption behaviour have found evidences on the salient importance of performance expectancy on behavior intention. Consistence with these rational SMEs owners would not intend to adopt IT innovation if they do not expect it to improve their job performance.

H3: SME owners' feeling of performance expectancy will have a positive effect on their intention to adopt IT innovation in their job.

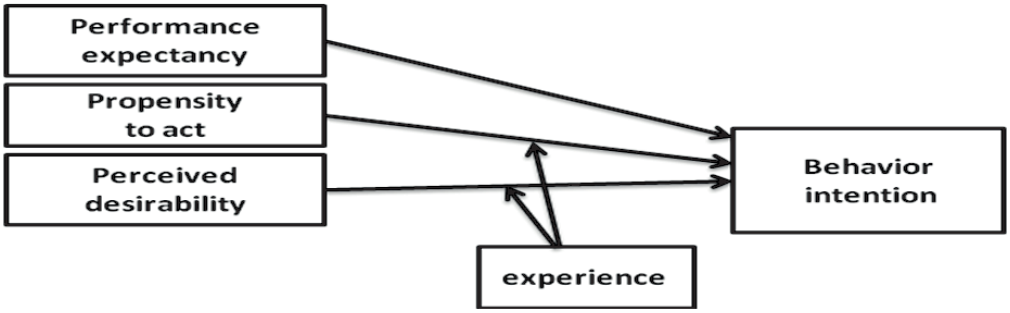

Figure 2. Research framework

5. Methodology

The present study develops a research framework to predict intention to adopt and use IT innovation by SME owners in their business. Questionnaires were designed to gather information about the constructs in the research model at the level of single SMEs in Kuala Lumpur Malaysia. We chose managers or owners of the company because most influential people affecting innovation and change in organizations are top managers (Damanpour and Schneider, 2006). The questions that measure perceived desirability and the propensity to act was adopted from Krueger (1993), and Krueger, et al (2000). Some words were modified to suit to the context of the study. Items that measure performance expectancy were adapted from Venkatesh et al (2003). A Likert scale is appropriate when the research needs to measure the respondents´ attitude toward constructs. Thus, the 7 point Likert type scale (1=strongly disagree to 7=strongly agree) was built to gather the information. The questionnaires were distributed based on probability sampling to the SME owners who are involved in providing professional services in the areas of manufacturing, telecommunication, education, banking and finance, service, and agriculture. A total of 1000 questionnaires were sent to SME owners, and 412 complete questionnaires were collected with a respondent rate of 41%.

5.1. Respondent's Profile

A total of 412 respondents completed the survey, of which 306 (74.3%) were males and 106 (25.7%) were females. With regard to education, 19 (4.6%) had primary/ secondary qualifications, 107 (26%) had Diplomas, and 191(46.4%) were degree holders, and Masters and PhD holders together were 95 (23.1%). In terms of type of industry, most respondents worked in the service sector 134 (32.5%). Regarding educational background, we can observe that 153 (37.1%) of the total samples were IT educated and 259 (62.9%) were not IT educated.

Table 1. Characteristics of the Respondents

Characteristics	Number	Percentage (%)
Gender		
Male	306	74.3%
Female	106	25.7%
Age		
≤20	44	10.7%
20-29	83	20.1%
30-39	169	41.0%
40-49	80	19.4%
≥50	36	8.7%
Education		
Primary/secondary	19	4.6%
Diplomas	107	26%
Degree holder	191	46.4%
Master's and PhD	95	23.1%
Educational Background		
IT educated	153	37.1%
Non-IT educated	259	62.9%
Industry type		
Manufacturing	65	15.8%
Service	134	32.5%
Education	43	10.4%
Telecommunication	46	11.2%
banking and finance	28	6.8%
agriculture	9	2.2%
others	87	21.2%

5.2. Data Analysis and Results

In this study, exploring factor analysis in SPSS using principle component methods with varimax rotation was performed to identify component factors having eigenvalues greater than one, and verifying whether the questionnaire items properly mapped the corresponding construct. Results are shown in Table 1. All reliability estimations having Cronbach alphas coefficient of a scale should be above 0.7. The Cronbach's alpha coefficient for all dimensions exceed 0.75, indicating high content consistency between the questions relating to each of the constructs (see Table 1). Additionally, two types of tests were used in this evaluation: Bartlett's sphericity test, which has a significance level of .000 as an indicator that the underlying structure of the data is acceptable. In addition, the Kaiser-Meyer-Olkin (KMO), which is recommended to exceed 0.6, is used with the result statistic of .932; therefore factor analysis is appropriate.

Table 2. Factor Loading and Cronbach's Alpha Value

Variables	Factor loading	Cronbach Alpha α
Perceived desirability		
Using IT innovation in my business is much more desirable for me.	.820	.927
I would enjoy the personal satisfaction of using IT innovation in my business.	.818	.923
Using IT innovation would increase quality of work in my business.	.788	.922
Using IT innovation in my business is an attractive idea.	.757	.922
Using IT innovation in my business is an attractive idea.	.740	.924
Propensity to act		
I will learn to operate IT innovation in my business.	.799	.934
I will use IT innovation to achieve more opportunity in my business.	.790	.921
I will use IT innovation because I cherish the feeling of a useful service.	.755	.937
I will use IT innovations that enable me to run my business successfully.	.749	.942
Performance expectancy		
I find IT innovation to be useful in my business.	.807	.916
Using IT innovations enables me to accomplish tasks more quickly.	.889	.895
Using IT innovation increase my productivity.	.809	.888
Using IT innovation, increase my chances of getting more benefit in my business.	.886	.904

Confirmatory factor analysis was conducted through AMOS to test the measurement model to explain how measured variables logically and systematically represent constructs involved in a theoretical model. All the constructs, independent and dependent variable run together. The final fit for the first model in the calibration sample shows a fairly good fit with the data collected, with GFI= 0.923, AGFI=0.893, TLI=0.960, CFI=0.967, RMSEA=0.068, and CMIN/DF=2.913.

Reliability: For the model with independent variables, dependent variable the CR on all constructs were greater than 0.70 (from 0.85 to 0.89). The output of VE for the model with independent variables, dependent variable, were higher than 0.5 (ranging from 0.69 to 0.75), Thus, this result proved to support the reliability of this study. The estimated parameters were all statistically significant between the latent and measured variables. Thus, the results proved convergent validity in this study.

5.3. Structural Model and Testing Hypothesis

The Structural Equation Modeling (SEM) technique was used to test a set of relationship between independents and a dependent variable. Once an acceptable measurement model is available, the structural model evaluation should be able to start. A similar set of model fit indices was used to test the structural model. The results of

the structural model show that the model achieved a good level of fit, $\chi^2 = 282.583$, χ^2 / df = 2.913, GFI = 0.923, AGFI=0.893, TLI = 0.960, CFI = 0.967, RMSEA = 0.068. The results also reported that 79.7% of the variance associated with behaviour intention was accounted for by its three predictors: performance expectancy, perceived desirability, and propensity to act.

5.4. Testing the Hypotheses on Behaviour Intention

Testing the relationship between the determinants and the behavior intention, regarding to the perceived desirability on the behavior intention, Hypothesis 1 was supported. It means that if SMEs owners have a positive attitude toward using IT innovation in their companies, they would be interested to adopt and use IT innovation in their job. In Hypothesis 2, results show that propensity to act is positively significant on the behaviour intention because β is equal to 0.370 (p = 0.000). It means that if SME owners decide to adopt and use IT innovation in their job and they persist in their decision, the probability to use IT innovation is higher. As for Hypothesis 3 the results supported the hypothesis and shows that if SME owners perceived that using new technology would increase their job performance they will adopt and use it in their job.

Table 3. Hypothesis Testing on Behavior Intention

Hypotheses				β	S.E.	C.R.	P	Support
H1	PD	→	BI	0.359	0.058	5.955	0.000*	Yes
H2	PTC	→	BI	0.370	0.062	4.855	0.000*	Yes
H3	PE	→	BI	0.220	0.050	3.597	0.000*	Yes

β: Standardized Regression Weight; S.E.: Standardized Error; C.R.: Critical Ratio; *: p< 0.05

PE: performance expectancy; BI: Behavior Intention; PD: perceived desirability; PTC: propensity to Act

5.5. Testing the Hypotheses on Moderating Effect

To test the hypothesized moderation model in the SEM, two group models can be used in the core model. Therefore, the sample was split into two groups for testing moderating the effect of experience. The first group has previous experience to use information technology and the second group do not have any experience with information technology.

This result supported that experience has a moderating effect on the perceived desirability and propensity to act toward behaviour intention. Hypothesis H1a was supported as regression weight (β) is significant. Results show that SME owners who do not have any previous experience to use information technology, its effect will not be significant and they would not really be interested to adopt and use IT innovation in their company. The propensity to act toward behaviour intention's result shows that experience influen-

ces the relationship between propensity to act and behaviour intention and this supports the moderating effect of experience on the model. Hypothesis H2a was supported, as regression weight (β) is significant.

Table 4. Hypotheses Testing on Moderating Effects

	Hypotheses	β	C.R.	P	Support
	Experience/no experience				
PD→BI	**H1a**				Yes
Experience (n=339)		0.365	5.602	0.000*	
No experience (n=73)		0.227	1.221	0.222*	
PTC→BI	**H2a**				Yes
Experience (n=339)		0.342	4.326	0.000*	
No experience (n=73)		0.675	2.323	0.020*	

β: Standardized Regression Weights; C.R.: Critical Ratio *: $P \leq 0.05$

6. Conclusion and Implementation

The current study revised and validated the Entrepreneurial Event model in a new culture and context. The results show that the model is a robust model, to measure individual intention toward technology adoption. Adding performance expectancy made the model more powerful to test different perspectives of technology acceptance. Based on the results of the current study, propensity to act, perceived desirability, and performance expectancy all positively influenced the behavior intention. Propensity to act was strongest factor to influence behavior intention, followed by Perceived desirability and performance expectancy. The finding of this study suggested that the effect of perceived desirability toward behavior intention is positive and significant. The SME owners are more willing to use attractive IT innovation. Further, the results indicated that perceived usefulness of IT innovation is an important factor that SME owners consider when they want to adopt and use new technology in their jobs. If SME owners have a positive feeling toward new technology, they would adopt and use it in their companies. At the same time, if they decide to use IT innovation and they persist on their decision, the probability to adopt and use IT innovation would be higher. In the first stage, SME owners consider IT innovation as an opportunity to gain competitive advantage and were interested to use it, and after that they will consider attractiveness of IT innovation and if using new technology helps them gain profit in job performance and increase profitability. This result supported the capability of the Entrepreneurial Event Model in the IT innovation field. It performed very well in the new context.

The result of two independent variables, perceived desirability and propensity to act is consistent with the previous studies in the entrepreneurship area (Krueger & brazeal, 1994; Krueger et al., 2000; Coduras et al., 2008; Veciana et al., 2005; Shook & Bratianu, 2008; Meeks, 2004; Guerrero et al., 2008), and shows that if perceived desirability and propensity to act is high, the probability to take action is high. The result of performance expectancy is consistent with the theories in technology acceptance context (Venkatesh et al., 2003). It confirms the idea that if the new technology or idea that is introduced to the company improves the work condition and enhances profitability, SME owners would be more interested to use it. Therefore, the usefulness of IT innovation is an important factor that SME owners consider when they are deciding to use it in their job. The results of this study demonstrated the importance of these factors in influencing SME owner's intention to adopt and use IT innovation. Overall, the findings of this work significantly enhance our understanding of SME owner's technology adoption and serve to further highlight the important role of context in our theorizing.

This work contributes to research on technology acceptance, examines and validates the EPM model, increases our understanding of IT innovation adoption and highlight the role of context. We build on EEM (Krueger, 1993) and use its three core individual beliefs to predict entrepreneur intention to use IT innovation. Further work can apply this model to study user adoption of other technologies in voluntary settings.

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IT INOVACIJŲ TAIKYMO SMULKAUS IR VIDUTINIO VERSLO ĮMONĖSE MALAIZIJOS KLANGO SLĖNYJE EMPIRINIS TYRIMAS

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Santrauka. *Straipsnyje pristatomu tyrimu buvo siekiama patvirtinti verslo įvykių modelį ir ištirti smulkaus ir vidutinio verslo (toliau – SVV) įmonių savininkų polinkį diegti ir taikyti IT inovacijas Malaizijos Klango slėnyje. Tyrimu nustatyti svarbiausi veiksniai, turintys įtakos Malaizijos SVV įmonėse diegiant IT naujoves. Šis tyrimas yra vienas iš pirmųjų, panaudojusių verslo įvykių modelio (VĮM) technologiją. Ši technologija suteikia platesnį požiūrį į IT naujoves priimant sprendimą ir išskiriant papildomus technologijų panaudojimo atvejus.*

Mokslinio tyrimo modelis apima atskirų SVV bendrovių numanomą pageidavimą, polinkį veikti ir veikimo trukmę veiksmuose, susijusiuose su IT panaudojimu SVV inovacijose. Atlikimo trukmė įtraukta į modelį dėl stabilumo. Tyrimo klausimynas sukurtas remiantis ankstesne darbo verslumo srityse (VĮM) ir technologijų priėmimo (UTAUT) patirtimi. Duomenys hipotezei patikrinti rinkti įvairiais spektrais Malaizijos Kvala Lumpūro pramonės įmonėse. Iš tinkamų tyrimui 1 000 įmonių užpildyti klausimynai gauti iš 412. Šių klausimynų duomenys buvo apdorojami tyrimo rezultatams gauti. Mokslinio tyrimo modelis taikytas naudojant struktūrinių lygčių modeliavimo metodiką. Šio tyrimo rezultatai parodė, kad SVV savininkai Malaizijoje suvokia inovacijų būtinumą, polinkis veikti ir veikimo trukmė turi didelę teigiamą įtaką ketinimams ir paaiškina didelę dispersiją prognozuoti SVV

savininkų ketinimą priimti IT inovacijas. Polinkis veikti yra stipriausias veiksnys, lemiantis Malaizijos SVV savininkų ketinimą naudoti IT inovacijas. Rezultatai rodo, kad, SVV savininkų nuomone, IT naujovės patrauklumas yra svarbus veiksnys priimant sprendimą diegti IT inovacijos. IT naujovių suvokiamas naudingumas (veiklos trukmė) yra trečias svarbus veiksnys priimant sprendimą dėl naujų technologijų naudojimo savo darbo vietoje.

Autoriai nustatė būtinumo suvokimo, polinkio veikti ir veikimo trukmės, SVV savininkams priimant sprendimą, ar naudoti IT inovacijas, įtaką. Nustatytas patirties ir ketinimo ryšys – SVV savininkai, neturintys informacinių technologijų naudojimo patirties, nesuinteresuoti diegti ir naudoti IT inovacijas savo įmonėse. Šis tyrimas prisideda prie technologijų diegimo tyrimų, padidina IT inovacijų naudos suvokimą SVV įmonėse Malaizijos Klango slėnyje.

Raktažodžiai: *verslumas, inovacijų diegimas, Malaizija, maža ir vidutinio dydžio įmonė.*