Understanding Factors Influencing the Adoption of Digital Marketing Among Small Businesses: The Application of Decomposed Model of the Theory of Planned Behaviour (TPB)

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ARTICLE INFO	ABSTRACT
  	Digital marketing has seen rapid growth. Millions have been spent on the digital marketing tools. The increase in the investment in digital marketing is due its effect in increasing sales, improving brand image, increasing customer image, and reducing the overall marketing cost. to companies. Despite these advancements in marketing and its effects, these phenomena are not really observed in small and medium enterprises in developing and less developed country. This has motivated this study to analyse factors that influence the adoption of digital marketing among a group of entrepreneurs from low-income category that is under the assistantship of a state government agency in Malaysia. The sample comprises of 60 entrepreneurs from the group that have just attended digital marketing training have responded to the survey. The study employs a quantitative technique that utilizes the Decomposed Theory of Planned Behaviour (TPB) model that combines the TPB and the Theory of Acceptance Model (TAM). The result indicates that the dependent variable (Digital Marketing Adoption) can be significantly explained by the independent variables (Except Subjective Norm). The result also provides an important finding on the importance of the participants internal factors- Perceived Ease of Use (PEU) , Perceived Usefulness (PU) and Perceived Behaviour Control (PBC) in improving the rate of digital marketing adoption. This provides an important insight into the future development of e-marketing among the entrepreneurs from the lower income group in Malaysia. This indicates the importance of the role of effective training in e- marketing.

1. Introduction

Parallel to the advancement of information technology, world has witnessed a massive increase in digital marketing. It has been characterized by the use of digital channels and digital platforms such as Facebook, YouTube, Twitter, Instagram, Snapchat, Pinterest, and LinkedIn. Realizing the benefits of the digital marketing, a massive amount of money has been spent on the social network

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advertisement. For example, in 2017, it is estimated that 51.3 billion being spent on the social global network advertising. This is a 55.4 per cent increase from 2016 [1]. The statistic is expected to increase year by year. This phenomenon indicates the effectiveness of the digital marketing in attaining various marketing objectives such as in increasing sales, creating brand awareness, reducing acquisition time, increasing customer engagement, and improving marketing costs [2-4]. Despite the obvious benefits and arising phenomenon of digital marketing adoption cases reported in many countries (particularly in advanced countries), the same is not observed in the small and medium enterprises in developing countries.

A report by SME Corporation Malaysia [5] indicates poor adoption of social media by Malaysian SMEs with the rate at only 19.7%. A lot more studies need to be done in this country to understand the factors affecting the adoption of social media and digital marketing. Many researchers such as such as Ahmad *et al.,* [6], Chatterjee & Kar [7], Qalati *et al.,* [8], and Salo [9], stress that the study on social media adoption is at an infancy stage. Hence it is imperative to expand the body of knowledge in this area. In the case of Malaysia, the low rate of adoption is paradoxical in comparison with the magnitude of investment by the government to spear up the e-commerce adoption by businesses in Malaysia. The government has initiated the Digital Free Trade Zone (DFTZ) in 2017 to put the country as a regional e- commerce fulfilment hub and to expedite the export of Malaysian small and medium enterprises (SMEs) through e-commerce [10]. It has also established the National E-Commerce Strategic Roadmap (NESR) to catalyse the e-commerce growth rate in Malaysia.

This study goes deeper to investigate factors that influencing the adoption of digital marketing among a group of entrepreneurs from low-income category that is under the assistantship of a state government agency in Malaysia. This study is imperative in providing inputs to the government or the government agencies in enhancing the policies and implementations related to e-marketing or e-commerce incentive schemes including training that can uplift the livelihood of people of the category. In doing so, it will apply the TPB Decomposed model that combines the Theory of Planned Behaviour (TPB) and Theory of Acceptance Model (TAM). Abbas and Mehmood [11] also combine the theories in their study on understanding digital marketing adoption in India. This study, however, is different in the sense that the two components of TAM- 'Perceived Usefulness' and 'Perceive Ease of Use' act as antecedents to the attitude towards digital marketing (a component of TPB). Abbas and Mehmood's theoretical framework [11] position the TPB and TAM as two separate independent variables that impact the decision to adopt the digital marketing. Our contention is that as attitude is defined in TPB as the degree to which an individual evaluates a behaviour as positive or negative, the TAM's Perceived Usefulness' and Perceived Ease of Use' will provide the basis for the evaluation [11].

The paper begins with the introduction to the digital marketing adoption, it then moves to the literature review section, reviewing the past literature on digital marketing focusing on the context of Malaysia to establish the research gaps. In addition, it will also review both theories to establish the theoretical framework and hypotheses. The paper then explains the methodology used for this study, the findings, and the discussions. The paper concludes the discussions with the future research directions.

2. Literature Review
2.1 Overview of Digital Marketing

American Market Association (AMA) [12] defined marketing as "an activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large". This definition provides a generic concept of

marketing. To achieve the objectives marketing the process can be physical or online or in any kind of medium. Digital marketing sets the marketing activities and process on the digital medium. Chaffey and Smith [13] define the digital marketing as "the promotion of goods and services using digital technologies, mainly on the Internet, but also including mobile phones, display advertising, and any other digital medium". Compared to the conventional marketing, the digital marketing is a more effective medium to reach customers in term of wide coverage, faster, and more accurate.

Data-driven marketing uses the abundance of data to determine the right approach and strategy, to drive customers to online marketing. Digital marketing facilitates many-to-many communications because of the high level of connectivity and is usually used to promote products or services in a timely, relevant, more personal, and cost-effective manner Baines *et al.,* [14]. The digital marketing through internet allows potential consumers to search and obtain unlimited product information. They can do that at any place and any time. There is no geographical or time restrictions. Digital marketing is accelerated through various channels. The common channels are, for example, the websites, search engine optimization (SEO), search engine marketing (SEM), email marketing, digital advertising, mobile marketing, viral marketing, affiliate marketing, online public relations (Online PR), digital media, and web analytics [15,16].

2.2 Digital Marketing for Small Businesses and Start-Ups: Global and Malaysia Scenario

The evolution and adoption of digital marketing happen at a fast rate. The early digital marketing is a one-way channel through websites and other online medium to promote and introduce their products and services. However, in the early 2000 the "Web 2.0" is introduced that symbolise the two- way communication channel that allow businesses and internet users to communicate with each other (Kaplan & Haenlein).

However, in Malaysia the rate of digital marketing in adoption is still low. A SME annual report [17] indicates that only 32% of Malaysian SMEs are utilizing digital medium in business, and only 29% of companies have a website [18]. The low rate of adoption is surprising in comparison with the magnitude of investment by the government to spear up the e-commerce adoption by businesses in Malaysia. The government has initiated the Digital Free Trade Zone (DFTZ) in 2017 to put the country as a regional e commerce fulfilment hub and to expedite the export of Malaysian small and medium enterprises (SMEs) through e-commerce [10]. It has also established the National E-Commerce Strategic Roadmap (NESR) to catalyse the e-commerce growth rate in Malaysia. However, the above phenomenon does not mean that the digital businesses are not significant to Malaysia. The World Bank [18] report indicates that, despite the low level of adoption, in 2018 the e-commerce contributes 24% of Malaysia's total business This indicates the potential of e-commerce in general and digital marketing in specific have the potential to leverage the performance of entrepreneurs and SMEs in Malaysia. A study at a more micro level is imperative to understand factors that impact the decision to adopt digital marketing [18].

2.3 Conceptual Model and Hypotheses Development

TAM, TPB, Unified Theory of Acceptance and Use of Technology (UTAUT), Diffusion of Innovation, Theory and Technology-Organization- Environment (TOE) framework are the most used theories in technology adoption study [19]. DOI theory and TOE framework, however, are employed at the firm level. At individual level the more suitable studies are the TAM, TPB and UTAUT. Since this study is at the individual level, it uses TPB and TAM to analyse the adoption factors. The TPB developed by Ajzen [20] asserts that behaviour adoption is influenced by three determinants- 'Attitude', 'Subjective

Norm' and 'Perceived Behavioural Control'. Many studies have adopted the TPB in studies related to entrepreneurship and technology adoption. The TAM has four constructs namely 'Perceived Usefulness', 'Perceived Ease of Use', 'intentions', and 'actual technology adoption' [21]. Each of them will be discussed in the next sub-sections.

2.3.1 Perceived ease of use (PEU)

Davis (1989) defines Perceived Ease of Use as "the degree to which a person believes that using a particular system would be free of effort". Various studies on e- marketing adoption by [21-24] affirm that PEU has direct and positive influence on Perceived Usefulness of e-marketing technologies. Therefore, the following hypothesis is proposed:

H1: The PEU affects PU.
H2: The PEU impacts Attitude towards Digital Marketing (Attitude).

2.3.2 Perceived usefulness (PU)

Venkatesh and Davis [21] define PU as "the extent to which a person believes that using the system will enhance his or her job performance". Abbas & Mehmood [11] in reviewing previous studies related to internet marketing and e- marketing such as by [22,24-26] find the effect of Perceived Usefulness on e- marketing adoption. This leads to the following hypothesis:

H3: The PU impacts the attitude towards digital marketing.
H4: The PU impacts the intention towards the adoption of digital marketing

2.3.3 Attitude towards digital marketing

Ajzen [27] defines attitude as "the degree to which an individual evaluates the behaviour as positive or negative and attitude can be based on instrumental beliefs and experiential or affective beliefs of performing the behaviour". In this study attitude has been operationally defined as the entrepreneurs' evaluation, either positive or negative, towards the application of digital marketing. Attitude, other than skills and motivations, is the factor affecting decision to adopt digital marketing [28]. Therefore, the following hypothesis is proposed:

H5: The attitude towards digital marketing impacts intention to use digital marketing.

2.3.4 Subjective norms

According to Fishbein and Ajzen [29] subjective norms are "an individual's perception that other individuals who are important to him or her consider if he or she could perform behaviour. In the context of this study subjective norms are the surrounding people's influence that will foster or inhibit the entrepreneur's decision to adopt the digital marketing. Many previous studies related to TPB indicate the influence of subjective norms on intention. Therefore, following hypothesis is proposed:

H6: The Subjective Norms impacts intention to use digital marketing.

2.3.5 Perceived behaviour control (PBC)

Ajzen [30] defines PBC as "an individual's perception of the ease or difficulty of performing the particular behaviour". This study follows findings by Yang and Zhou [31] on perceived behaviour control influences on the intention to use mobile viral marketing and Khan and Allil finding on the impact of PCB on social media intentions of SMEs. With these findings and many other findings on the effect of PCB on intention, the hypothesis is proposed as:

H7: The perceived behaviour impacts intention to use digital marketing.
H8: The perceived behaviour impacts the digital marketing adoption.

2.3.6 Digital marketing intentions and adoption

Fishbein & Ajzen [29] defines behavioural intent as "the strength of one's intention to perform a specified behaviour". Nysveen, Pedersen, and Thorbjørnsen [32] and many other studies identifies the relationship of intention to adoption of mobile services and e-commerce related studies. On this basis following hypothesis is suggested:

H9: Intentions to use digital marketing has positive impact on digital marketing adoption.

2.4 Theoretical Framework

The theoretical framework below summarizes the whole discussion on the various relationships of the variables. The two underlying theories that govern the relationships are the TAM and the TPB. This model is adapted from Taylor & Todd [44]. This model has the advantage over the conventional TAM model or TPB model because it incorporates both the technological experience aspects (TAM) and social influence and perceived ability aspects (TPB). This should provide a more complete understanding of usage.
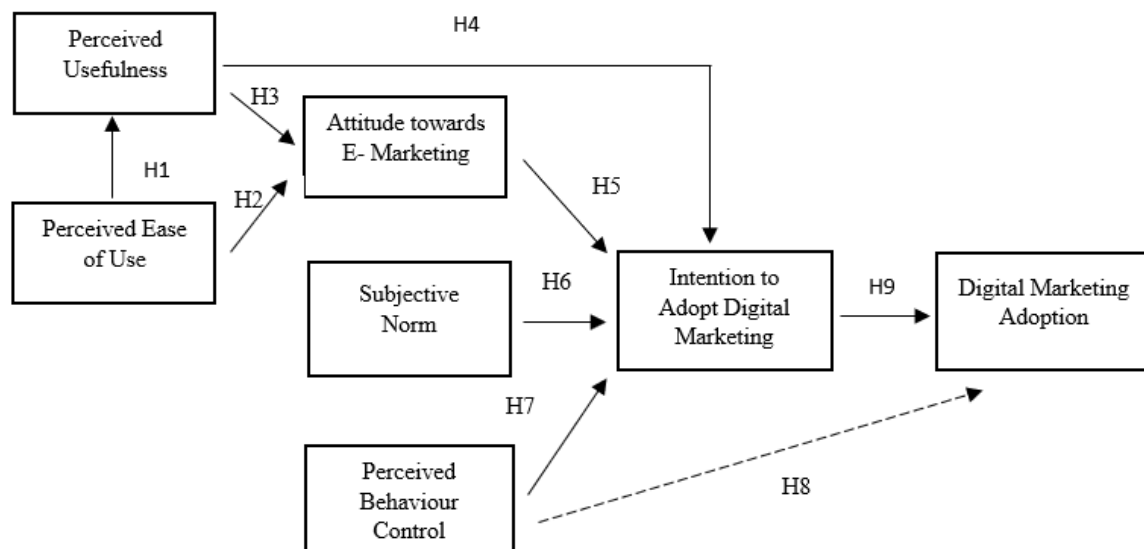

Fig. 1. The Decomposed Model of TPB

3. Methodology
3.1 The Study

This study employs a quantitative cross- sectional study in collecting, analysing, and explaining the phenomena of this study (e.g., descriptive, correlation, and inferential statistics) [33]. Purposive sampling technique is used since it fits the purpose of this study to determine factors that influencing the adoption of digital marketing among a specific group of entrepreneurs from low-income category that is under the assistantship of a state government agency in Malaysia. There are 51 respondents involved in this study (n=51). The data analysis process has been done using SMART-PLS 3.0 software and interpreted with descriptive and correlative statistics.

3.2 Questionnaire and Measure of the Constructs

Since the framework is developed from two theories- TAM and TPB, the questions are adopted from sources related to the two theories. PU, PEOU, Intention (TAM components) are adapted from Ritz, Wolf, & McQuitty [34]. Meanwhile, for TPB related questions, the questions are adopted from Bojei and Abu [35]. The TPB constructs are Attitude towards Digital Marketing, Subjective Norms, Perceived Behavioural control, and Behavioural Adoption. All the questions are assessed using a seven-point Likert-type scale ranging from 1= completely disagree to 7= totally agree.

4. Data Analysis, Findings and Discussion

This section deals with the analysis of the measurement and the structural model. The measurement model involves the indicators and their relationship with the latent variables [36]. The discussion then proceeds with the findings of the structural model assessment. The structural model assessment examines the relationship of the inner model or, in other words, the relationship of the exogenous variables and the endogenous variables.

4.1 Data Screening

In the regression model, it is important to check the problem of multicollinearity in which the independent variable should remain independent for the interpretation of results [40]. The criteria are that, the threshold value for variance inflation factor (VIF) should be within 3.33 [40]. The values of Perceived Usefulness, Perceived Ease of Use, attitude, subjective norms, perceived behaviour control and digital marketing adoption are all below the threshold level of multicollinearity and hence there is no issue of multicollinearity in this study.

4.2 Demographic Information

The demographic information about respondents is presented in Table 1. Most of the respondents are mostly females 52 (86.7%) and 8 are males (13.3%), and it shows that majority of respondents are small business owners 56 (93.3%) whereas 4 (6.7%) are working as employees. The business size shows that 58 (97.7%) of the businesses are having 1 to 5 employees. Furthermore, the age information of respondents shows that 5 respondents (8.3%) were having age between 18-30 years, 17 (28.3%) between 31-40 years and 30 (51%) respondents are having age between 41-50 years, and 6 (10%) respondents are between 51-60 years and lastly, 2 (3.3%) respondents are having age above 61 years. The educational background of respondents shows that 40 (67.7%) respondents

are having secondary school educational background, and 16 (26.7%) are diploma holders, and 2 (3.3%) respondents are college degree holders and 2 (3.2%) are college certificate holders. Furthermore, the average monthly income of businesses show that 28 (46%) business are having 0 – RM 1000 income, and 28 (46%) are having RM1001 – RM 5000, and 2 (2%) are having income of RM5001-RM10000, and 2 (2%) are having the income of RM10001-RM25000. From the income brackets most of them are at and below the poverty line. Finally, 56 (93.3%) respondents have experience of online digital marketing.

Table 1
Demographic Information

Demographic	Frequency (N = 60)	Percentage
Gender		
Male	8	13.3%
Female	52	86.7%
Position in Business		
Owner	56	93.3%
Employee	4	6.7%
Business Size (Employees)		
1 - 5	58	97.7%
6 - 10	1	1.70%
11 - 20	1	1.70%
Age (Years)		
18-30	5	8.3%
31-40	17	28.3%
41-50	30	50%
51-60	6	10.0%
61-Above	2	3.3%
Education		
Secondary school	40	67.7%
Diploma	16	26.7%
Degree holder	2	3.3%
College certificate	2	3.3%
Average Monthly Income		
0-RM1000	28	46.0%
RM1001-RM5000	28	46.0%
RM5001-RM10000	2	2.0%
RM10001-RM25000	2	2.0%
Online Marketing Course Attended		
Yes	56	93.3%
No	4	6.7%

In cross sectional research when data is collected from a single source the importance of checking variance in the data cannot be overlooked [37,38]. This is to avoid the Common Method Bias (CMB). It happens when the variations in the response are largely due to the instrument rather than the actual inclination of the respondents. To overcome this, Herman's one factor test has been applied and the results (see Table 2) show that single factor is 47.50% which indicates that there is no issue with data set. The Herman test threshold is at 50%. Any value of the single factor that is less than 50% is considered as acceptable. Moreover, since the correlation is lower than .90 then it can be concluded that there is no issue with common method bias [39]. Table 2 shows that all values are within the threshold level and there is no common method bias variance method issue in this study.

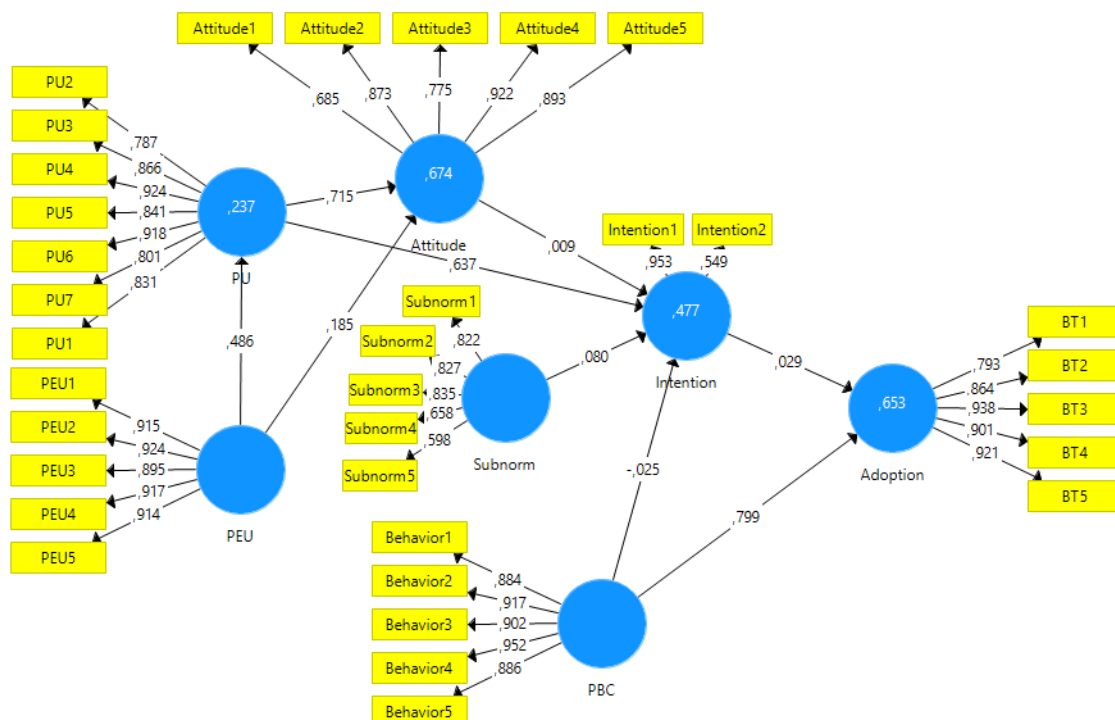**Table 2**
The Common Method Variance Outcome

	Extracted Sums of Squared Loadings	
Total	% Of Variance	Cumulative %
15.20	47.50	47.50

4.3 Results of Quantitative Analysis

This section deals with the analysis of measurement model and structural model. The measurement model deals with the indicators and their relationship with the latent variables. At this stage, the quality criteria of the measurement model will be assessed. The discussion then proceeds with the findings of the structural model assessment. The structural model assessment examines the relationship of the inner model or in other words the relationship of the exogenous variables and the endogenous variable.

4.3.1 Measurement model

The assessment of measurement model involves the estimation of the composite reliability (CR), reliability of indicators, average variance extracted (AVE), convergent validity and discriminant validity [41]. The items loading for the measurement model should be .70 or higher. If items loading is lower than it the threshold value, it should be deleted to improve the value of average variance extracted (AVE). In the current study the items loading, composite reliability (CR) and average variance extracted values are within acceptable range (see Figure 2 and Table 3).

Fig. 2. Measurement Model

Table 3
Construct validity and Reliability

Constructs	Item	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
Perceived Usefulness	PU1	.835	.938	.949	.729
	PU2	.782			
	PU3	.860			
	PU4	.927			
	PU5	.845			
	PU6	.921			
	PU7	.796			
Perceived Ease of Use	PEU1	.915	.950	.962	.834
	PEU2	.925			
	PEU3	.894			
	PEU4	.917			
	PEU5	.915			
Attitude	Attitude1	.715	.887	.919	.696
	Attitude2	.865			
	Attitude3	.755			
	Attitude4	.913			
	Attitude5	.899			
Subjective Norm	Subnorm1	.695	.815	.866	.569
	Subnorm2	.824			
	Subnorm3	.797			
	Subnorm4	.754			
	Subnorm5	.707			
Perceived Behaviour Control	BT1	.793	.930	.947	.783
	BT2	.864			
	BT3	.938			
	BT4	.901			
	BT5	.921			
Digital Marketing Adoption	Behavior1	.883	.947	.959	.825
	Behavior2	.920			
	Behavior3	.904			
	Behavior4	.951			
	Behavior5	.884			
Intention	Intention1	.426	.741	.841	.605
	Intention2				

4.3.2 The structural model

The structural model is based on the relationship of the latent variables in the form of exogeneous and endogenous variables. The structural model is also called the inner model. The relationships form the concepts that need be tested. This study follows the six- step approach in analysing the structural model as suggested by Hair *et al.,* [41]. They are the collinearity assessment, the structural path coefficients, coefficient of determination (R^2), effect size (f^2), and blindfolding and predictive relevance (Q^2).

4.3.2.1 Discriminant validity

Discriminant validity theoretically means constructs should not be highly related to each other and cannot be found to be highly correlated to each other. In this study the discriminant validity of the constructs is measured with Fornell-Larcker Criterion (Fornell & Larcker [42]). The criteria for the discriminant validity are, the square root of average variance extracted (AVE) values should be

greater than from all correlation values of other constructs. Table 4 indicates that all the diagonal values are greater than correlation values of other constructs. Hence, this indicates that there is no discriminant validity issue.

Table 4
Discriminant Validity of constructs

	1	2	3	4	5	6	7
PU	.885						
PEU	.511	.834					
Attitude	.271	.569	.778				
Subnorm	.808	.410	.303	.909			
PBC	.647	.532	.326	.408	.913		
Adoption	.470	.805	.689	.436	.486	.854	
Intention	.607	.724	.513	.584	.495	.692	.754

4.3.2.2 Structural model

In SmartPLS structural model helps to measure relationships among variables using the bootstrapping procedures and path analyses. Moreover, it is recommended to report the beta values and size effects (Hair *et al.,* [41]). Hence, based on the results in the next sections path analyses values, size effects, R^2 values and t-values have been discussed.

4.3.2.3 Hypotheses testing

In current study nine hypotheses have been developed and bootstrapping technique has been applied using SmartPLS. The results are as in Table 5 below. From the table it can be seen that the relationships that involved the components from TAM model are all supported. They are as in H1, H2, H3, and H4. However, for the TPB components, all of the hypotheses- H5, H6, H7, are all not being supported. All the components of TPB- Attitude, Subjective Norm, and Perceived Behaviour Control (PBC) show insignificant relationship with Intention. Hypothesis H8- the relationship of PBC and Digital Marketing Adoption is significant. Intention as in H9, also has insignificant relationship with Digital Marketing Adoption (Adoption).

Table 5
Results of Hypotheses Testing

Relationships	β	STEDV	t-value	*p*-Value	Hypothesis	Decision
PEU-> PU	.486	.113	4.291	<0.001	H1	Supported
PEU-> Attitude	.185	.082	2.242	<0.025	H2	Supported
PU->Attitude	.715	.080	8.903	<0.001	H3	Supported
PU -> Intention	.637	.091	2.334	<0.020	H4	Supported
Attitude -> Intention	.009	.275	0.032	<0.974	H5	Not supported
Subnorm -> Intention	.080	.183	0.436	<0.663	H6	Not supported
PBC -> Intention	-.025	.116	0.213	<0.832	H7	Not supported
PBC -> Adoption	.799	.039	20.521	<0.001	H8	Supported
Intention -> Adoption	.029	.081	0.361	<0.718	H9	Not supported

4.3.2.4 Explanatory power (R^2)

In structural model R^2 value is defined by sum of variance and it demonstrates the explanation of independent variable in the dependent variable performance. High R^2 value increase the predictive

performance of the structural model. In Table 6, R^2 value of adoption is .653 which shows that latent variables PEU, PU, Subjective norms, Attitude and PBC could explain about 81% of digital marketing adoption in this study and it shows the substantial size effect. Furthermore, R^2 of Attitude is .674 which could be explained by latent variables Perceived Ease of Use and Perceived Usefulness. The R2 of PU is weak at 24% which indicate the PEU could not really explain the PU. Finally, the Intention also shows moderately weak R^2 of 47% which indicates all of the independent variables could explain slightly less than 50% of the Intention Variable.

Table 6
Explanatory power of the structural model (R^2)

Endogenous Latent Variable	R^2	Adj R^2	Effect Size Rating
Adoption	.653	.639	Substantial
Attitude	.674	.660	Substantial
PU	.237	.221	Weak
Intention	.474	.432	Weak Moderate

5. Conclusion

The general aim of this research is to analyse the factors that affects the adoption of digital marketing among a group of entrepreneurs from a lower income category in Malaysia This study is a quantitative study that employs structural equation modelling (SEM) to analyse the results. Based on the results of the analysis, a few conclusions can be drawn. First, the result indicates that Intention does not predict the actual behaviour of the e-marketing adoption. In this study Intention, in general, does not mediate the relationship between the independent variables, which are the TPB components, and the dependent variable which is the adoption of the e-marketing. This could be because e-marketing is something new being introduced to them. Taylor and Todd [44] stressed that "Intention is more predictive of behaviour when individuals have had prior experience with the behaviour." However, when Intention is omitted from the framework, two variables- Attitude and Perceived Behaviour Control (PBC) show significant relationship with E- Marketing Adoption. Furthermore, R^2 for the Adoption of E- marketing indicates that the independent variables substantially explain the dependent variable which is the Adoption Behaviour. When the Intention variable is omitted, most of the variables show significant relationship with the Adoption. Since the respondents are participants of e- marketing training, they have started to apply the e-marketing tools and techniques and have adopted the e-marketing and hence, does not indicate the attention to adopt.

Second, another important finding is the importance of internal participant factors as determinant of e- marketing adoption. The results show that Perceived Ease of Use (PEU) and Perceived Usefulness (PU) have significant relationship with Attitude which in turn have significant relationship with E- Marketing Adoption (Adoption). In addition, Perceived Behaviour Control (PBC) has a significant relationship with E- Marketing adoption as shown in Table 6. The three- PEU, PU, and PBC are internal participants factors. PEU is the perceived capability and skills required by e-marketing. Meanwhile, PU refers to how well the respondents perceive e-marketing is useful for their business. The PBC refers to the respondents' perceptions of their ability in terms of skills and available resources to perform the specific behaviour. This provides an important insight into the future development of e- marketing among the entrepreneurs from the lower income group in Malaysia. The rate of adoption of e- marketing will be higher if the entrepreneurs perceive the e- marketing are easy and within their capability, useful to them and they have the skills to apply the tools and techniques. Hence, the role of effective training in e- marketing is imperative.

Several constraints need to be addressed and to be considered in this study. Although the quantitative approach has achieved its objectives, the result cannot be generalized. It is suggested for future research to include larger sample size and to perform random sampling. In addition, the qualitative approach will help to understand deeper about the reason for digital marketing adoption.

Acknowledgement

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