An Experiential Pathway to FinTech: An Extended UTAUT2 Analysis of Technology Adoption among Indigenous Malaysian MSMEs

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ABSTRACT

This study investigates potential FinTech product adoption for Indigenous (Bumiputera) Micro, Small, and Medium Enterprises (MSMEs). Technology adoption research often overlooks differences within entrepreneurial communities and this study fills that gap with Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) model application. Results shown the Bumiputera MSMEs' desire to adopt this potential FinTech is shaped by UTAUT2 (Hedonic Motivation, Performance Expectancy and Facilitating Conditions) factors. Other UTAUT2 (Effort Expectancy and Price Value) factors were significant but weaker results. Social Influence was not a predictor factor. These findings challenge a uniform approach to FinTech development and offer guidance for stakeholders and Fintech service providers to create inclusive financial tools and help close the MSME financing gap.

Keywords: *Fintech, UTAUT2, Bumiputera, Indigenous, Malaysia*

INTRODUCTION

Malaysia's national strategy aims for a high-income, technology-driven economy and MSMEs are central to this vision (Kementerian Ekonomi, 2025). MSMEs are the economy's foundation and represent 97.4% of all businesses and add 39.1% to the national GDP (NESDC, 2024; DOSM, 2024) but persistent funding gap limits their potential (World Bank Group, 2022; Rehman et al., 2023). Malaysian officials use financial technology (FinTech) as a policy tool to create a more inclusive financial system. Malaysia Central Bank or Bank Negara Malaysia (BNM) gave out five digital banking licenses in 2022, and some Digital Banks called Challenger Banks created to support MSMEs in an unserved and underserved market (Bank Negara Malaysia, 2020, 2022).

A lasting financing gap in Malaysia's financial sector hinders MSME growth, even though MSMEs are an economic core, because conventional finance does not serve them well (NESDC, 2024; Rehman et al., 2023). Malaysia's socioeconomic history and national policy that has led to separate entrepreneurial ecosystems for Bumiputera and Non-Bumiputera MSMEs (Ramli & Williams, 2024). These groups have different support systems with unique business cultures and capital access, which create productivity gaps (DOSM, 2024; Ramli & Williams, 2024). This deep variation means a single financial solution will not work and could potentially lead to adoption failure and endanger the success of the national financial plan (Baba et al., 2025).

RESEARCH QUESTION

To understand the research problem, one research question has been constructed:

What are the UTAUT2 predictors that influence the adoption intention for FinTech among Bumiputera MSME group?

RESEARCH OBJECTIVE

To understand the research question, one main objective was set:

To identify UTAUT2 predictors that influence the adoption intention for FinTech among Bumiputera MSME group.

LITERATURE REVIEW

UTAUT2 from Venkatesh et al. (2012) become key framework to explain consumer technology adoption. This theory is extended UTAUT model by Venkatesh et. al. in 2003. UTAUT2 was made for technology adoption studies and became a foundation for this research because UTAUT2 view adoption choice from of an individual user or small business owner perspective as a consumer.

UTAUT2 suggests several elements that shape potential users' intentions. Performance Expectancy (PE) is the idea that utilizing technology helps with job performance, and Effort Expectancy (EE) is about the ease of using a system (Venkatesh et al., 2003; Venkatesh et al., 2012). Social Influence (SI) related to what important people think about using technology and Facilitating Conditions (FC) about the thoughts to get the support to utilise technology (Venkates et al., 2003; Venkatesh et al., 2012). Hedonic Motivation (HM) related to the pleasure or fun from technology usage and Price Value (PV) is a between user thought on the benefits and price matters when using technology (Venkatesh et al., 2012).

Hypothesis Development

This part explains the hypotheses for the study about new FinTech adoption among Bumiputera MSMEs.

Effort Expectancy (EE) refers to the technology easiness and straightforward (Venkatesh et al., 2003, 2012). MSME owners need a simple platform due to time constraints. Systems that are easy to understand and simplify financial tasks are ready to adopted (Lai et al., 2024; Migliore et al., 2022).

H1: Effort Expectancy (EE) positively affect the intention to adopt new Fintech.

Facilitating Conditions (FC) relates to an individual's belief to get support when using the technology (Venkatesh et al., 2003). For example, good infrastructure and helpful customer service are related to FC. Bumiputera MSMEs may strongly adopt technology if they have the resources and assistance to utilise platform effectively (Azman & Zabri, 2022; Yeoh & Chin, 2022).

H2: Facilitating Conditions (FC) positively affect the intention to adopt new Fintech.

Hedonic Motivation (HM) is the enjoyment that represents the fun experience a person gets from using technology (Venkatesh et al., 2012). A person's choice to adopt a platform if it is engaging and creates positive feelings (Salimon et al., 2017; Siyal et al., 2021). Prior studies show users are motivated by enjoyment and expect pleasure from a technology that led on using intention (Rahayu et al., 2025; Sharma et al., 2025).

H3: Hedonic Motivation (HM) positively affect the intention to adopt new Fintech.

Performance Expectancy (PE) is based on the belief that a person using a technology will assist in job performance (Venkatesh et al., 2003). The main reason for adoption is based on the belief that a technology offers benefits (Tang & Tsai, 2024). In Malaysia, PE has become a key predictor for many technologies' usage intentions (Malarvizhi et al., 2024; Moorthy et al., 2017).

H4: Performance Expectancy (PE) positively affect the intention to adopt new Fintech.

Price Value (PV) is about benefits and its cost (Venkatesh et al., 2012). The PV factor is important and positive among MSMEs because entrepreneurs deal with good rates, clear fees and considering benefits than cost. PV view will positively shape the adoption choice (Sharma et al., 2025).

H5: Price Value (PV) positively affect the intention to adopt new Fintech.

Social Influence (SI) is about how a person feels when important people might think about new technology (Venkatesh et al., 2012). The views of business networks and respected peers are important

for MSMEs. Malaysian society through its collective culture will give weight to community opinions about business choices (Idrees & Ullah, 2024; Tehseen & Anderson, 2020).

H6: Social Influence (SI) positively affect the intention to adopt new Fintech.

METHODOLOGY

Research Design, Population and Sampling Strategy

The study gathered data from Bumiputera-owned MSMEs in Malaysia through a quantitative cross-sectional survey. A sample of 200 Bumiputera MSME owners was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4 software (Hair et al., 2022).

A practical solution was necessary because there was no single public sample frame for Bumiputera MSMEs. A list of potential respondents was created by collecting public contact information from credible national and regional sources, including Perbadanan Usahawan Nasional Berhad (PUNB), the National Entrepreneurship Institute (INSKEN), and various regional MSME associations. For inclusion, each Bumiputera MSME needed to be formally registered and have an active business license. This multi-source list was then cleaned to remove duplicates and provide a feasible method to create a representative sampling frame. The survey was sent by email to the MSMEs by using the database.

The sample size was determined using G*Power 3.1. priori power analysis. A minimum sample of 146 was calculated based on a medium effect size ($f^2 = 0.15$), an alpha of 0.05, 6 predictors, and a desired statistical power of 0.95. A larger target of 200 valid responses was achieved for statistical robustness.

RESULTS

Respondent Profile

The respondent businesses were small and sole proprietorships accounting for 70% of respondents with 60.5% involved in the services sector.

Measurement Model Validation

The measurement model analysed to confirm the reliability and validity of the constructs. Table 1 shows all constructs showing strong internal consistency and convergent validity. Cronbach's Alpha and Composite Reliability scores exceeded the 0.70 threshold. The Average Variance Extracted for each construct surpassed the 0.50 standard. The survey items correctly measured and validated the data (Hair et al., 2022).

Table 1. Measurement Model Assessment (Bumiputera Group)

V	Items	OL	VIF (OM)	CA	rho_a	rho_c	AVE
BI	**BI1**	0.807	1.796	0.840	0.844	0.893	0.676
	BI2	0.848	2.003				
	BI3	0.852	2.054				
	BI4	0.779	1.612				
EE	**EE1**	0.889	3.127	0.867	0.880	0.909	0.714
	EE2	0.840	1.987				
	EE3	0.804	2.107				
	EE4	0.845	1.916				
FC	**FC1**	0.850	2.086	0.869	0.871	0.911	0.718
	FC2	0.836	2.075				
	FC3	0.849	2.061				
	FC4	0.854	2.126				

V	Items	OL	VIF (OM)	CA	rho_a	rho_c	AVE
HM	**HM1**	0.843	1.944	0.864	0.869	0.908	0.711
	HM2	0.859	2.218				
	HM3	0.818	1.908				
	HM4	0.850	2.236				
PE	**PE1**	0.889	2.764	0.859	0.860	0.905	0.704
	PE2	0.831	2.004				
	PE3	0.801	1.786				
	PE4	0.834	1.932				
PV	**PV1**	0.885	3.319	0.899	0.905	0.925	0.712
	PV2	0.810	2.109				
	PV3	0.822	1.996				
	PV4	0.850	2.302				
	PV5	0.851	2.474				
SI	**SI1**	0.863	2.300	0.880	0.885	0.917	0.735
	SI2	0.841	2.203				
	SI3	0.855	2.058				
	SI4	0.869	2.346				

Note: V=Variables; OL= Outer Loadings; VIF (OM) = VIF (Outer Model); CA = Cronbach's alpha; rho_a = Composite reliability (rho_a); rho_c = Composite reliability (rho_c); AVE = Average variance extracted (AVE)
Source: Author's own work.

Discriminant validity was confirmed with the Heterotrait-Monotrait Ratio (HTMT) shown in Table 2. All HTMT scores were under the 0.85 limit and that shows each construct is separate and measures a unique idea (Henseler et al., 2015). This strong validation gives a solid base for the structural model analysis.

Table 2. Discriminant Validity - Heterotrait-Monotrait Ratio (HTMT) (Bumiputera Group)

	BI	EE	FC	HM	PE	PV	SI
BI							
EE	0.567						
FC	0.738	0.536					
HM	0.715	0.46	0.575				
PE	0.61	0.532	0.473	0.398			
PV	0.57	0.472	0.535	0.409	0.604		
SI	0.561	0.567	0.605	0.441	0.602	0.511	

Source: Author's own work.

Structural Model Result and Hypothesis Testing

The structural model checked to test the hypotheses on Bumiputera MSMEs. The model explained 59.1% of the variance in Behavioural Intention (R2=0.591). The hypothesis test results in Table 3 show adoption path of Bumiputera MSMEs group.

Table 3. Direct Path Structural Model Assessment (Bumiputera MSMEs)

H	PC (β)	R²	AR²	Q²	STDEV	T-V	BCI LL	BCI UL	f²	PV	HR
H1	0.092				0.053	1.738	0.006	0.180	0.013	0.041	S
H2	0.295				0.055	5.377	0.203	0.382	0.118	0.000	S
H3	0.319	0.585	0.573	0.554	0.053	5.980	0.230	0.409	0.171	0.000	S
H4	0.183				0.062	2.971	0.083	0.285	0.048	0.001	S
H5	0.096				0.052	1.841	0.013	0.185	0.014	0.033	S
H6	0.026				0.061	0.419	-0.074	0.130	0.001	0.338	NS

Note: PC (β) = Pearson Correlation; STDEV= Standard Deviation; BCI LL = Bias-Corrected and Accelerated (BCa) Confidence Interval Lower Limit; BCI UL = Bias-Corrected and Accelerated (BCa) Confidence Interval Upper Limit; T-V= T-Value; AR2 = Adjusted R2; PV= P-Value; HR = Hypothesis Result; S = Supported; NS=Not Supported
Source: Author's own work.

The analysis supported five of the six hypotheses. The top predictor of adoption intention was Hedonic Motivation (β=0.319,p<0.001). Facilitating Conditions (β=0.295,p<0.001) and Performance Expectancy (β=0.183,p<0.01) were next. Price Value (β=0.096,p<0.05) and Effort Expectancy (β=0.092,p<0.05) were also significant but weaker predictors. Social Influence was not a significant factor in the adoption choice of Bumiputera MSMEs. The figure of Hypothesized PLS Path Model shown in Figure 1.
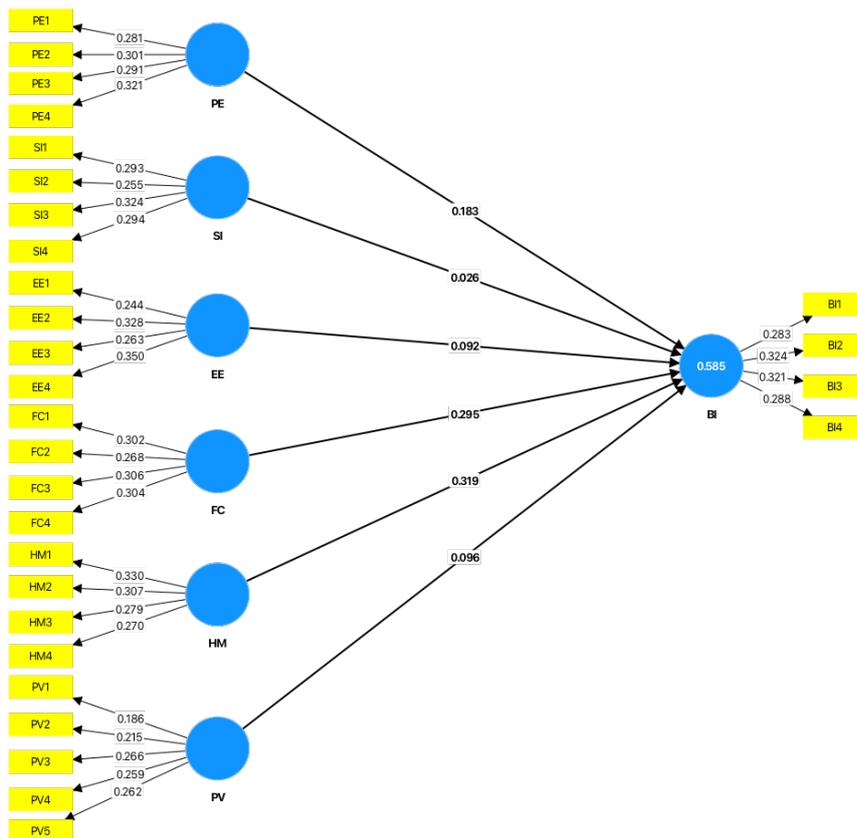
Figure 1. Hypothesized PLS Path Model

DISCUSSION

HM shows that adopting new potential Fintech is about enjoyment and satisfaction (Rahayu et al., 2025), and this matches cultural values that put relationships and experiences with business goals (Tehseen & Anderson, 2020). The next strongest predictors are FC and PE that highlight basic practical

needs because entrepreneurs need a supportive ecosystem (Azman & Zabri, 2022). This finding also connects to the national digital divide and the need for good digital infrastructure (Fang et al., 2022). In addition, PE matters because MSMEs adopt tools that provide real benefits like faster funding and efficiency improvement (Tang & Tsai, 2024).

PV and EE are also important, but MSME entrepreneurs show that cost, ease of use, user-friendly platforms, and good value are more likely to be adopted (Sharma et al., 2025). SI is not significant, and this is against the idea of Malaysia's collective culture which makes peer advice a primary driver (Tehseen & Anderson, 2020). Bumiputera seem to trust their own evaluation of a platform's user experience, support, and benefits more than social pressure in major business decisions like securing funding.

CONCLUSION

Theoretical and Practical Implications

This research adds to theory and practice. Theory contribution is in technology acceptance studies by confirming a specific adoption model for a new FinTech technology in an emerging economy (Mall et al., 2024). Besides, theory shows a model where both experiential factors like Hedonic Motivation and practical factors like Facilitating Conditions and Performance Expectancy are important drivers. It also points out the lack of Social Influence in a business setting within a collective culture.

The practical findings offer a guide for stakeholders like policymakers and Fintech Service providers. For policymakers, the findings support national efforts to build a strong digital ecosystem and highlight the need for Bumiputera community in FinTech solutions to be useful, culturally appropriate, and enjoyable. FinTech developers and Challenger Banks can design products for Bumiputera by focusing on a smooth, pleasant, and supportive user experience while also providing clear benefits. Simply advertising features or using endorsements will not achieve widespread adoption in this market (Kaur et al., 2020).

Limitations And Future Research

This study has limits because it is only conducted in a cross-sectional design to measure intention. The pre-adoption setting will show user behaviour might change after the platform is available (Venkatesh et al., 2012). Future research should use longitudinal studies to investigate the change of intention into actual and after usage. Qualitative research like in-depth interviews could be useful to explore the cultural reasons for the importance of Hedonic Motivation for Bumiputera entrepreneurs (Tehseen & Anderson, 2020). Besides that, the study should use the full structure of the UTAUT2 model, which includes the moderators (age, gender, and experience).

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