The Influence of Performance and Effort Expectancies on the Decision to Use Financial Technology in Malaysia

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ABSTRACT

Fintech is a platform that provides valuable benefits to financial operators, especially in reducing operating costs. In the Malaysian market, the fintech industry is evolving rapidly among the population. This paper will focus on investigating the key factors influencing the decision of consumers to adopt fintech services, particularly among Malaysians. However, the objective of this research is to investigate the influence of performance expectancy on the decision to use financial technology and to examine the influence of effort expectancy on the decision to use financial technology. The data were collected from Malaysians and one hundred and forty-two respondents participated in the survey. The research findings suggested that performance expectancy and effort expectancy have positive effects on the decision to use financial technology.

Keywords: *Technology, FinTech, behaviour*

INTRODUCTION

Financial technology, sometimes known as Fintech, is a rapidly evolving industry. According to Knewtson and Rosenbaum (2020), Fintech is a medium that enables financial institutions with technology to provide financial services and products to users. Fintech is a platform that offers significant benefits to financial operations. According to Wang et al. (2017), Fintech is a profitable sector in the Internet commerce application. Financial institutions invest heavily in building and enhancing online banking systems to lower operational expenses (Xue et al., 2011). Fintech is the application of technology to enhance and revolutionize financial services. It encompasses a wide range of financial activities, such as banking, insurance, investment, and payments, and seeks to streamline and improve these services using cutting-edge technology.

Fintech companies use various digital platforms, software applications, data analytics, artificial intelligence, and other innovative technologies to provide financial services more efficiently, cost-effectively, and securely. These companies aim to make financial services more accessible, convenient, and personalized for customers, and to compete with traditional financial institutions that may be less agile and innovative. Examples of fintech services and products include online banking platforms, mobile payment solutions, peer-to-peer lending platforms, robot advisors, and insurance comparison websites. These services can offer many benefits, such as faster and more convenient access to financial services, more personalized solutions, and often lower costs. The term "FinTech" refers to financial technology, a vital and expanding segment of the emerging financial services industry of the twenty-first century. A business could be categorised as a FinTech startup if it introduces a financial technology solution to the market. The phrase describes start-ups and small businesses that offer financial technology infrastructure. As an alternative, a business entity like Apple that offers these products but is not a FinTech business can do so. The technology and media company Apple created now advertises the solution known as ApplePay.

Ferguson (2018), in his paper, associated technology with the finance industry. He concluded that the fintech innovations had been advancing finance services since their pioneer. The introduction of Fintech in the market at large offers beneficial advantages in terms of cost reduction

and a variety of services (Knewtson & Rosenbaum, 2020). Statistically, Fintech has been adopted in 48% of financial institutions globally (PwC, 2020). This showed that the acceptance of the worldwide market to the fintech services is overwhelming. Nonetheless, a survey on fintech services in Malaysia in 2016 revealed that most owners saw Fintech as a threat to their firm. Up to 22% of the financial institutions in Malaysia responded that they lost revenue to the other non-FI fintech providers. Hence, to understand the adoption of Fintech in Malaysia, this paper aims to investigate the influences of performance expectancy and effort expectancy on the decision to use financial technology.

LITERATURE REVIEW

The theory of Acceptance and Use of Technology (UTAUT) was a blend of infamous theories such as Social Cognitive Theory, Theory of Reasoned Action, Motivational Model, Technology Acceptance Model, Theory of Planned Behaviour, Innovation Diffusion Theory, Combined TAM – TPR Model, and Model of PC Utilization (Venkatesh et al., 2003). Performance expectancy, effort expectancy, social influence, and facilitating conditions are the critical factors of the UTAUT framework. UTAUT has been deployed in numerous studies related to technology adoption, such as e-commerce adoption (Shaw & Sergueeva, 2019), e-invoices adoption (Lian, 2015), and many others. This research adopted the UTAUT framework focusing on the performance expectancy and effort expectancy factors to understand the decision of the user to adapt fintech services. Nevertheless, to meet the mentioned objectives of this paper, the researchers modified the framework by changing the behavioural intention with the behavioural decision.

The main idea in UTAUT has determined performance expectations, effort expectations, and social influence as determining factors to the behavioural intention of technology adoption and use. This behavioural intention could lead to the actual use of this technology when it was implemented later (Raman et al., 2014; Zuiderwijk et al., 2015; Segura & Thiesse, 2015; Tangaraja et al., 2015). Whereas a study by Holt et al. (2007) stated that the willingness to change factor was a mediating factor that connected individual factors with changes to behavioural intentions, whether to do or not to do something new. The study of Anjani and

Dhanapal (2012) supported the study of Holt et al. (2007) with the effectiveness of preparedness to change as a determinant of change behaviour intention to use the new system on employees in the banking industry in Pakistan. A study by Kurniawan et al. (2017) confirmed the existence of willingness to change as a mediating factor between school corporate culture and teachers' entrepreneurial orientation. The presence of a willingness to change gave a positive relationship strength as a mediator to entrepreneurial orientation.

According to the World Bank Group (2023), Personal debts were a common issue that many individuals faced, regardless of their country of residence. In some cases, excessive debts could lead to default payments and personal bankruptcy filings, which could have negative impacts on both individuals and the economy as a whole. For instance, the number of personal bankruptcy cases in the United States increased by half from 200,000 in 1970 to 450,000 in 1980 (White, 2007). Similarly, data from AKPK reported that from 2005 to 2012, there were 124,708 personal bankruptcy filings in Malaysia. These growing trends in personal bankruptcy filings have led to an erosion in the credit evaluation process, with banks becoming more cautious and tightening their lending processes for loan approvals due to the high default debts from previous clients. In addition, non-performing loans could also decline Gross Domestic Product (GDP) and limit investment opportunities, which could ultimately lead to unemployment. To solve these problems, the Malaysian government formed the Agensi Kauseling dan Pengurusan Kredit (AKPK) in April 2006. AKPK has assisted people who were having financial troubles by offering financial education and facilitating debt repayment programmes.

This was done to increase clients' financial literacy and ability to manage their day-to-day financial affairs. Individuals could expand their level of financial numeracy and become better prepared to handle their financial problems on their own without consulting AKPK by gaining financial experience and knowledge. Research revealed that financial numeracy, which comprised financial literacy and financial capability, was closely associated with personal bankruptcy filings, according to Huhmann and McQuitty (2009). Financially illiterate people might struggle to comprehend the costs and advantages of various financial products, which could result in their making unwise financial decisions. Such individuals might also struggle to solve their financial matters, leading to financial

difficulties. Conversely, Remund (2010) expressed that individuals with high levels of financial numeracy were more likely to manage their money well and exhibit positive financial behaviours. They were also more likely to achieve better financial outcomes, such as higher saving rates and lower borrowing rates, compared to those with lower levels of financial numeracy.

Individual monetary experiences and self-familiarity with financial information, according to Huhmann and McQuitty (2009), could significantly boost financial numeracy. People who have used financial instruments before were more likely to comprehend financial products and know how to utilise them effectively for their financial situation. A study by Johnson and Russo (1981) revealed that people who were familiar with financial items were more likely to be enthusiastically motivated to discover new information about them, which lent credence to this conclusion. They were better able to make wise selections and raise their level of financial literacy as they learned more about financial goods. Huhmann and McQuitty's (2009) research indicated that individuals with a high level of financial management were more likely to achieve positive financial outcomes, such as high savings and low borrowing. On the other side of the coin, individuals with a low level of financial management were more likely to end up with negative or poor financial outcomes, such as high borrowing and low savings.

Individuals with low financial numeracy are often unfamiliar with financial knowledge and may make poor financial decisions. They may not fully understand the costs and benefits associated with different financial products and services as well as may end up making choices that are not in their best interest. On top of that, individuals with low financial management skills may struggle with budgeting and managing their expenses, leading to overspending and high levels of debt. This can make it difficult for them to save money or invest in their financial future. In contrast, individuals with a high level of financial management are likely to be more informed about financial products and services as well as are better equipped to make informed decisions about their finances. They may also have better money management skills, such as budgeting and saving, which enable them to effectively manage their expenses and avoid overspending.

Having personal financial experience can also help individuals develop better financial skills, such as budgeting and saving, and elevate their overall financial capacity. By understanding how to use financial instruments effectively, individuals can manage their finances more efficiently and make better financial decisions. Bankruptcy filings are often attributed to an increased portion of an individual's debts with their income. This was a commonly used measurement by many researchers, as noted by Warren (1998). Notwithstanding, Zywicki (2005) argued that the debt-to-income ratio might not be the most accurate measurement since mortgages and loan instalments were long-term debts, while income was a short-term measurement. Despite this critique, Brown and Taylor (2008) found evidence to support the use of the debt-to-income ratio in predicting bankruptcy filings. Specifically, their research showed that households with high debt ratios were more likely to have a negative net worth and eventually end up filing for bankruptcy within a short period.

This proposes that while the debt-to-income ratio may not be a perfect measurement of financial health, it can still provide valuable insight into an individual or household's financial situation. Apart from that, it highlights the importance of managing debt levels and ensuring that debts are manageable concerning income and overall financial health. By doing so, individuals can avoid the negative consequences of bankruptcy filings and maintain a more stable financial future. The Sun Daily (2023) reported that 5,695 cases of bankruptcy were documented in Malaysia in 2022. The Insolvency Act was amended on September 20, 2020, which was why this number was lower than the 6,554 instances reported the year before. The modification increased the bankruptcy exemption from RM50,000 to RM100,000. Bankruptcies have steadily reduced over the previous four years, from 16,000 instances in 2018 to 6,000 cases in 2019. The Insolvency Department reported that a total of 49,133 bankruptcy cases were administered between 2018 and December 2022. On average, 16 petitions were filed and 16 cases were registered daily in 2022. The age groups most affected were those aged 35 to 44 years old, which accounted for nearly 40% of cases, and those aged 45 to 54 years old, which were responsible for 29% of cases. Almost half of the registered cases were due to personal loans, while 22% were due to business loans. Statistics also revealed that 3,881 bankruptcy cases, or approximately 70% of all bankruptcies, had a debt ceiling between RM100,000 and RM499,000. In comparison to the 1,572 instances reported the year prior, this number had dramatically grown. In

conclusion, while Malaysia's bankruptcy cases have dropped in recent years, the high number of cases due to personal loans and business loans remains a cause for concern. The government's intervention and financial programmes may have contributed to the improvement in the overall bankruptcy rate, but more measures may be needed to address the root causes of bankruptcy in the country.

The study on understanding financial technology using the UTAUT framework has varied since the construct's introduction. Abu Shanad & Pearson (2007) studied the critical determinants of Internet banking adoption among Jordanians. Research participants were among the Jordanian depositors in which the data were analyzed using multiple regressions. It was found that the UTAUT framework could positively explain the intent to use Internet banking. Another study was conducted using the data collected from Korean and American users in technology acceptance (Im et al., 2011). Researchers examined how the UTAUT explained the technology adaption between the two cultures and concluded that the construct positively affects Internet banking adaption. Tarhini et al. (2016) also supported the previous results in which they proved that the UTAUT framework could significantly explain Internet banking adoption positively.

METHODOLOGY

A structured set of questionnaires is used to collect data from respondents. The questionnaire was divided into two parts: a list of statements regarding Financial Technology (FINTECH) and the demographic details of the respondents. The Financial Technology (FINTECH) statement was broken into ten sections. The scaling technique required respondents to indicate their level of coinciding and concur with the statement. The minimum sample for this study was at least 100 respondents from various demographic backgrounds through the online platform Google Forms. A total of 142 respondents filled out the questionnaire to be further analyzed. The data entry was keyed in by Statistical Package for Social Science (SPSS) and was used to examine the data to assess the hypothesis.

This study investigated whether Performance Expectancy (PE) and Effort Expectancy (EE) positively influenced the decision to use Financial Technology (FINTECH). The research aimed to study the relationship between two main variables: Performance Expectancy (PE) and Effort Expectancy (EE), and the decision to use FINTECH as dependent variables. A structured set of questionnaires was created to indicate the respondent's level of coinciding and concur towards the statement to evaluate the variables using a 7- Likert scale (1 – strongly disagree, seven strongly agree). This study focused on the target people based on demography all over Malaysia. Data were collected in 2022. The data collection for the study was done by distributing questionnaires through an online platform, Google Forms, among working adults around 18 and above from various demographic backgrounds all over Malaysia. The questionnaire was distributed through various online platforms such as WhatsApp, Instagram story, and Facebook to reach out to the respondents to fill in the questionnaire in the Google form.

RESULTS AND FINDINGS

The demographic characteristics of the respondents are crucial as the demographics can make it easier to identify the essential characteristics, demands, and preferences of the target audience. Using demographic information, the researcher may divide your audience based on their unique traits and demands as well as explain who makes up the audience. The respondents' profiles and demographic backgrounds are shown in Table 1. The table displayed the characteristics of the 142 respondents who met the study's inclusion criteria and participated in the survey voluntarily.

Most of the respondents were aged 26-33 years old (i.e., 42.30%, 60 persons), while the group with the lowest number was 49 years old and above which was 2.80% (only 2 respondents). The other age range was 18-25 years old, amounting to 31.70% (45 respondents), 34-41 years old was 18.30% (26 respondents), and 42-49 years old only 4.90% (4 respondents). In fact, the group aged 26-33 years old was the target audience. This was because most of them were employed, and they commonly used new technology in their work, including financial technology. For the gender

characteristic, 29.6% (42 respondents) of the respondents were male while there were 100 (70.4%) female respondents.

Table 1
Profile of Respondents

Financial Literacy Level	**Frequency**	**Percent**
Low	73	51.4
Moderate	69	48.6
Total	142	100.0
Age	**Frequency**	**Percent**
18-25	45	31.7
26-33	60	42.3
34-41	26	18.3
42-49	7	4.9
>49	4	2.8
Total	142	100.0
Gender	**Frequency**	**Percent**
Male	42	29.6
Female	100	70.4
Total	142	100.0
Ethnicity	**Frequency**	**Percent**
Sabahan Natives	104	73.2
Malay	26	18.3
Chinese	10	7.0
Others	2	1.4
Total	142	100.0
Religion	**Frequency**	**Percent**
Muslim	86	60.6
Buddhist	7	4.9
Christian	48	33.8
Others	1	7
Total	142	100.0
Education	**Frequency**	**Percent**
SPM	7	4.9
STPM/A-Level/Diploma	38	26.8
Degree	93	65.5
Masters	4	2.8

Besides that, in terms of ethnicity, the majority of the respondents were Sabah natives (i.e., 73.20%, 104 respondents), followed by the Malays

who contributed 18.30% (26 respondents), Chinese 7.0% (10 respondents), and another ethic group 1.40% (2 respondents). Additionally, educational background was also another characteristic. Based on the data above, most of the respondents had a university degree (i.e., 65.50%, 93 respondents). While for respondents who had qualification education of STPM/A-Level/Diploma stood at 26.80% (38 respondents), SPM only 4.90% (7 respondents), and lastly only four respondents had Master's degree.

Table 2 exhibited the reflective measurement model assessment, which demonstrated the construct of reliability (CR), and concurrent validity testing. 35 Convergent validity and discriminant validity were both used in this study. The factor loading, composite reliability, and average variance extracted (AVE) have been used to assess the convergent validity. The results revealed that all construct variables had high-loading composite reliability, and no item was deleted. This was because the Composite Reliability was more than 0.708. On top of that, the result of the average variance extracted (AVE) that ranged from 0.798 to 0.829 manifested a sufficient value that met the minimum requirement of greater than 0.5. Thus, this conveyed sufficient internal consistency and fulfilled the requirement to corroborate the convergent validity.

Table 2
Reflective Measurement Model Assessment

Construct	Item	Loadings	CA	CR	AVE
DFIN	DFIN1	0.913	0.872	0.922	0.798
	DFIN2	0.799			
	DFIN3	0.960			
EE	EE1	0.892	0.948	0.960	0.828
	EE2	0.904			
	EE3	0.934			
	EE4	0.915			
	EE5	0.906			
PE	PE2	0.891	0.931	0.951	0.829
	PE3	0.903			
	PE4	0.922			
	PE1	0.926			

*No item was deleted as loading Composite Reliability >.708 (Hair et al., 2017)

Table 3 affirmed the HTMT Criterion to assess the discriminant validity. The results declared that the discriminant validity was well

established at HTMT0.85 (Kline, 2011). The discriminant validity had been established between two reflective constructs, which were lower than 0.85 and 0.90. Ergo, it was relevant to proceed with a structural model assessment to examine the hypothesis.

Table 3
HTMT Criterion

	DFIN	EE	PE
DFIN			
EE	0.732		
PE	0.754	0.888	

Criteria: Discriminant validity is established at HTMT 0.85 (Kline, 2011)

Table 4 conveyed the path coefficients and model quality assessment which was represented by Beta values for each relationship. From the table below, we saw that both performance expectancy (PE) and Effort Expectancy (EE) affected the decision to use Financial Technology (DFIN) because both carried a higher t-value which was 3.357 for PE and 3.118 for EE, which was greater than 1.96. Besides that, the table also illustrated the quality of the model. The hypothesis (Performance Expectancy and Effort Expectancy) carried minor effects on f2, which were 0.102 and 0. 069 towards the decision to use Financial Technology. Moreover, the coefficient of determination represented by R2, which explained whether the performance expectancy could explain the decision to use Financial Technology, revealed a higher effect of 0.510. The predictive relevance values of all the variables presented by Q2 using the blindfolding procedure were more significant than 0, which was 0.394, more than 0.35, stated it as reliable predictive power.

The Performance Expectancy had a positive effect on the decision to use financial technology (Table 4). It had a T-value of 3.357 and a Beta of 0.408. This indicated that most respondents saw eye to eye that FINTECH would increase performance. Consequently, it would improve productivity and positively affect their decision to use FINTECH due to its applicability in daily life in Malaysia. Other than that, the study carried out by Filipe Augusto Barros Ramos in his research in 2016 manifested that performance expectancy contributed the highest impact on behavioural intention to use

Fintech (Ramos, 2016). Currently, we live in a pandemic where people rely on the digital market and digital technology to purchase things and do transactions, as going out is only applicable when needed. So, most of the time, people are just staying at home, working from home, and even online shopping from home. As a result, a survey carried out by the United Nations on Trade and Development in 2020 that examined the effects of COVID-19 on consumer behaviour to adopt digital technologies and e-commerce in countries such as China, Turkey, Brazil, Italy, and Switzerland showed the most significant shift to online shopping since Covid-19 spread all over the world. This survey also stated that many consumers were expected to carry on using digital platforms continuously during this outbreak. This escalated the performance in terms of daily life routine to purchase items through the online platform (United Nations on Trade and Development (UNCTAD) & NetComm Suisse eCommerce Association, 2020). This conveyed that the performance expectancy to use Financial Technology has grown and become imperative during the pandemic era.

Table 4
Path Coefficients and Model Quality Assessment

Direct Effect	Beta	S.E.	t-value	p-value	Decision	f^2	R^2	VIF	Q^2
H1: PE -> DFIN	0.408	0.122	3.357	0.000	Supported	0.102	0.510	3.124	0.394
H2: EE -> DFIN	0.336	0.108	3.118	0.001	Supported	0.069		3.124	

Note: *p<0.05, **p<0.01, Bias Corrected, LL=Lower Limit, UL=Upper Limitp-value of 0.01, 0.05 (Hair et al., 2021)

f^2 ≥ 0.35 is considered Substantial (Cohen, 1988)

R^2 ≥ 0.26 is considered Substantial (Cohen, 1989)

The results in Table 4 recommended that effort expectancy had a positive influence on the decision to use financial technology. Effort expectancy had T-value=3.118, beta= 0.336. This showed that effort expectancy also positively impacted the decision to use financial technology, but performance expectancy had the highest impact. Effort expectancy is connected with the financial knowledge acquired by people who intentionally want to use financial technology. The applicability of financial technology to an individual is important for them to decide to use financial technology based on the financial knowledge that they have and clear understanding to use the system and the easiness of the system. Less financial knowledge can affect their intention and decision to use financial technology.

CONCLUSION

Financial technology (Fintech) is an advancing sector in current days. FINTECH can be defined as the medium that provides financial institutions with the technology to deliver financial services and products to users. In Financial Technology, this variable shows the easiness for consumers to operate the financial technology. A study by Koenig-Lewis et al. (2010) stated that the adaption rate of technology could be measured by how easy it is to use the technology itself. Besides that, the intention and adoption to use Fintech in daily life are also due to several factors such as making the life of an individual simpler, easy to use, user-friendly, and less human dependency interaction which results in changing perception to use Fintech and thus will increase the intention and adoptions to use Fintech (Lin & Hsieh, 2011).

The study supports this statement carried out by Kishore and Sequira (2016). These authors strongly believe that one of the most important variables influencing Internet banking usage in Karnataka is effort expectancy. Hence, we can conclude here that effort expectancy positively affects the decision to use financial technology. Moreover, further study is also recommended to investigate further the social influence and intention to use FINTECH in rural and urban areas by comparing this factor to their decision to use FINTECH. Both of the areas may give different results as the geographical factor of an individual may influence their

decision on FINTECH due to a lot of reasons and connections to the technology.

CONTRIBUTION OF AUTHORS

The authors confirm the equal contribution in each part of this work. All authors reviewed and approved the final version of this work.

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CONFLICT OF INTEREST

All authors declare that they have no conflicts of interest.

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