# Adoption Factors of FinTech Products & Services in Islamic Banking Industry in Malaysia: A Literiture Review

Mohd Fodli Hamzah <sup>1</sup>, Tengku Maaidah Tengku A Razak <sup>2\*</sup>, Cik Ku Haroswati Che Ku Yahaya <sup>3</sup>, Zelhuda Shamsuddin <sup>4</sup>, Syaidatun Nazirah Abu Zahrin <sup>5</sup>

Operation Director, Mandiri International Remittance Sdn. Bhd. Indonesia.
 \*Lecturer, Foundation Center, Academy of Contemporary Islamic Studies (ACIS),
 Universiti Teknologi Mara (UITM), Selangor branch, Dengkil Campus, Malaysia.

 3Lecturer, Foundation Center, Faculty of Electrical Engineering,
 Universiti Teknologi Mara (UITM), Selangor branch, Dengkil Campus, Malaysia.

 \*Lecturer, Faculty of Business and Management, Universiti Sultan Zainal Abidin, Malaysia.

 5 Pusat Pengajian Citra Universiti UKM, Bangi Selangor, Malaysia.

 Email: <sup>1</sup> fodli.bmi@gmail.com, <sup>2</sup>\*tengkumaaidah@uitm.edu.my,

 <sup>3</sup> zelhudasham@unisza.edu.my, <sup>4</sup> haroswati@uitm.edu.my, <sup>5</sup> syaidatun@ukm.edu.my

#### **Abstract**

FinTech is an innovation of technology to perform financial transactions for banking industry. Many studies have been conducted to explore and examine the factors that influence the adoption factors of FinTech among the users especially in financial industry. This study was conducted to explore the common factors that give an impact to the adoption factors of FinTech based on the secondary data obtained from the previous research. It can be concluded that most important factors that reflect the adoption of Fintech are perceive ease of use and perceive of usefulness. The study also revealed that users' trust in FinTech services has a very significant influence on users' attitudes for adoption. Therefore, the provider of FinTech especially the financial industry should emphasize to improve the efficiency of the potential users and how the services can lead to cost-saving to the user as compared with the conventional channel of doing transactions. Besides that, it is also important to ensure the understanding of the users and improve the user's experience of using the FinTech products and services. The study also revealed that the users need to give an assurance that the data is fully secured and protected and has highly reliable cybersecurity features. This study contributes to the literature of the adoption of FinTech services by providing a more comprehensive view of the determinants of users' adoptions toward FinTech by combining trust of Fintech services as well as attitude with the theory of Technology Acceptance Model or TAM.

**Index Terms:** Fintech, adoption factors, TAM, financial industry, user's trust

### I. INTRODUCTION

Nowadays the emerging of advanced technology has developed a new era of financing ecosystem. The financial institution regardless of conventional or Islamic financial institution should move forward and accept the changes of the technology and the world of digitalization in providing financial solution the

customers. The advancement of technology<sup>1</sup> facilities can ease the customers with the provision of fast and efficient financial service facilities as well as to help financial institutions to grow their business. The financial technology of FinTech is a process to link via an online

Acknowledge: This article writer wishes to express her appreciation to Universiti Teknologi MARA that funds the publication of this research project 600-RMC/GIP 5/3 (064/2021).

connection between the customers either individual or enterprise through an internet connection or mobile technology<sup>2</sup>. solutions provided by the FinTech not only the e-payment and e-wallet but also other FinTech solutions that can be benefitted to ease the transactions of the users. There are various types of financial technology or FinTech such as big data, artificial intelligence, robotics, blockchain, cryptocurrency, and phones<sup>3</sup>. In the financial industry, acceptance and usage of FinTech among the users is still not up to the expectation level. There are a lot of studies were conducted to examine and explore the adoption and acceptance factor of FinTech among the users of the financial industry. Therefore, this research is secondary whereby the approach is to study the solution given from the past research regarding the acceptance level of FinTech products and services among the customers of the Bank. The result of the study is very useful to all the stakeholders to focus on constructing the module and the program to enhance the adoption of FinTech in tandem with the extensive development in information technology. This research is to be part of the existing literature and to accomplish the gap as well as to fulfil the previous research gaps and to create the understanding as well as consciousness towards the adoption factors of FinTech among the users, particularly in the Islamic financial industry.

### **BACKGROUND**

The acceptance level and development of financial technology or FinTech is still quite slow. The industries, as well as the regulator, are still in the process of understanding to match the applicability of financial technology and the adoptions factors as well as the features of the Fintech to the users. This is happened

especially among the users of Fintech among the Islamic Banking customers. As a result, it will give some negative implications to the Islamic finance industry specially to compete with conventional banking to access financial services through digital means. The adoption of digitalization is neutral in Shariah provided it is complying with Shariah compliance not only to the FinTech provider but also by the end-users. According to FinTech Malaysia report, the usage of FinTech is dominated by the epayments and e-wallet in which e-payment usage has increased from 18% to 19% and ewallet also has increased from 12% to 17%. The rest of the FinTech solutions are still reported as a single digit. The report also stated that the usage of e-money especially from mobile and internet banking contribute about 29% of the total volume of payment transactions. Internet banking is still the biggest of transaction. However. transactions of internet banking from the individual only contribute 12% and the rest of the contribution is from the corporate transactions<sup>4</sup> The BNM reports stated that out of 24 Million adult populations, almost half of them were not using the online banking solution, and while about 2 million remain unbanked.5 Further study is important to investigate the awareness and acceptance level of the society especially towards the Islamic FinTech solution as their choice of financing solution.

Small and medium enterprises (SMEs) are making up more than 35% of Malaysia's gross domestic product. The industry has great potential to grow to new heights with the availability of FinTech. The adoption of new technology will provide advantages in various aspects to the SME. Some of the benefits such

<sup>&</sup>lt;sup>[2]</sup> Lau, s. Y., 2019. Building Malaysian Economy Based On Digital Competency. Retrieve from https://www.thestar.com.my/business/business-news/2019/04/18/

<sup>[3]</sup> Qatar Financial Centre, 2018, FinTech, A Global Boost For Islamic Finance? Retrieved from https://www.reuters.com/sponsored/article/FinTecha-global-boostfor-islamic-finance

<sup>[4]</sup> Vincent Fong., 2018. FinTech Malaysia Report 2018 – The State Of Play For FinTech. Retrieved from Malaysia:

https://FinTechnews.my/17922/editors-pick/FinTech-malaysia-report2018/

<sup>[5]</sup> Bank Negara Malaysia, 2018, Governor's Keynote Address At The Malaysian E-Payments Excellence Awards

as FinTech will provide a platform for the SME to raise their working capital. For instance, with the adoption of blockchain technology, SMEs can provide Islamic crowdfunding platforms to potential investors to invest in their company. The concept of Mudharabah, Murabahah, and Musyarakat can be implemented under the crowdfunding platform which is in tandem with the Islamic concept of financing (The Edge, 2019). Therefore, the adoption of FinTech not only focus on e-wallet and e-payment but also to other FinTech such as digital currency, crowdfunding, and digital insurance. According to World Bank in the year 2017, Malaysia has projected a strong growth of 12.5% in the FinTech industry until 2023. While Malaysian banks are aiming to transform their approach to be more digital-focused by 2020. Islamic FinTech is still in its infancy and needs much afford to explore the awareness and adoption factors that influence the acceptance of FinTech among the customers of Islamic baking in Malaysia. Since Malaysia had already been recognized as a world leader in Islamic finance, then it is in a strong position to harness Islamic FinTech opportunities. Therefore, the research is on the right time to explore and investigate the awareness and the adoption factors that influence the acceptance of FinTech among the customers of Islamic banking in Malaysia.

### **MOTIVATION**

### Overview of Financial technology (FinTech)

Financial technology or FinTech is a mixture of an revolutionary enterprise and technological know-how solutions in facilitating day to day financial activities. FinTech has brought exquisite development in the digital economic system and reflect the modifications in the monetary ecosystem. The common products of financial technology such as e-wallet, cryptocurrency, Peer-to-Peer (P2P) lending, crowdfunding, and InsureTech have become the principal economic alternatives for the people and the organizations in managing their

financial activities<sup>6</sup>. In a year of pandemic, FinTech is the best choice of transactions method specially to meet the requirement to maintain a social distancing. The usage of FinTech is expected to be a substitute to the conventional way of making transactions especially in financial services.<sup>7</sup> The utilization of mobile applications, portable and mobile banking are among the types of advancements in financial services to cater to the wide coverage of the population.8 However, the level of awareness and acceptance toward the adoption of FinTech is quite low. 9 Therefore, it is very crucial to investigate the awareness and acceptance of FinTech and factors that influence the awareness towards the usage of FinTech, especially in the era digitalize revolution.

## The Malaysian Fintech Ecosystem

According to the speech by Malaysia's excenter bank Governor, Dato Muhammad Bin Ibrahim stated in the Global Islamic Finance Forum 5.0 (GIFF 5.0) "FinTech is challenging the status quo of the financial industry. New business models will emerge. Delivery channels will challenge existing norms. Transaction costs will be reduced. Rather than looking at the FinTech revolution as unwelcoming, financial institutions ought to embrace it as opportunity." The central Bank is expected FinTech revolution will give an impact up to 40% of the income to the financial industry by the year 2025 (Fong, V.,2016). The brief history of FinTech innovation in Malaysia by BNM is tabled below<sup>10</sup>

<sup>&</sup>lt;sup>[6]</sup> Chua, C., Lim, C., & Aye, A., 2018. Factors Affecting The Consumer Acceptance Towards FinTech Products And Services In Malaysia. International Journal Of Asian Social Science, 59-65 <sup>[7]</sup> Alber, N., & Dabour, M. (2020). The Dynamic Relationship between FinTech and Social Distancing under COVID-19 Pandemic: Digital Payments Evidence. *International Journal of Economics and Finance*, *12*(11), 109. https://doi.org/10.5539/ijef.v12n11p109 <sup>[8]</sup> Alber, N., & Dabour, M. (2020). <sup>[9]</sup> Bank Negara Malaysia, 2018 <sup>[10]</sup> Paul, H, 2021. The history of the financial technology (fintech) industry in Malaysia. Retrieved

**Table 1:** The brief history of FinTech innovation in Malaysia by BNM

Year	Initiatives	Explanation		
2001	MyKad	The national		
	Implementation	Identity card that		
		embedded with		
		ATM card, e-wallet		
		and a transit card all		
		in one		
2015	FinTech	To help FinTech		
	Regulatory	company to have		
	Framework was	proper framework		
	introduced	to provide FinTech		
		service while		
		maintaining the		
		stability of the		
		financial services as		
		well as data		
		security.Malaysia is		
		the first country that		
		produce such		
		regulatory		
		framework in		
2016	Tionno mo	Southeast Asia		
2016	License was issued by	The companies are: Alix Global, Ata		
	issued by Security	Plus,		
	commission to 6	Crowdonomic,		
	equity crowd	Eureeca, pitchIN		
	funding	and Propellar		
	platforms	Crowd+.		
	operators			
2019	BNM created a	Regulatory		
	financial	sandboxes have		
	technology	been in use in the		
	sandbox	UK, Singapore, and		
	framework	Australia. They		
		help in creating a		
		controlled live		
		environment for a		
		limited period of		
		time to trial fintech		
		solutions for a		
		company.		

from http://www.paulhypepage.my/the-fintech-industry-of-malaysia

2020	BNM issued	The licensing
	License	Framework seeks
	framework for	innovative business
	digital Bank	models to support
		Malaysia's
		underserved and
		unserved market
		segments.

### Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) (Davis, 1989) has widely used in many researches to the awareness of financial Technology in various industries. TAM has been used to devote the understanding and prediction the users' awareness and acceptance of information systems or technology. 11 The factors that derived from TAM such as usefulness of FinTech, ease of use, competitive advantage, perceived risk, and perceived cost are the measuring factors that influence the awareness of FinTech among users.<sup>12</sup> Thus, TAM is a theoretical model that is suitable to study the factors that influence the adoption of technology among the users. Some of the researcher used other theoretical model such as Planned Behavioral (TPB) and AIDA model framework to study the awareness factors related to information technology. Of all the theories, the TAM considered the applicable theory that related to the information technology due to TAM is a simple and very straight forward to investigate and explore and investigate the determination factors that influence the awareness and acceptance level of the technology systems by Muslim SME.<sup>13</sup> Thus, TAM is much visible to be used in this

111

[11] Venkatesh, V., M.G. Morris, G.B. Davis and F.D. Davis, 2003. User Acceptance Of Information Technology: Toward A Unified View. MIS Quarterly, 27(3): 425-478. Available at: https://doi.org/10.2307/30036540.
[12] Chua, C., Lim, C., & Aye, A., 2018. Factors Affecting The Consumer Acceptance Towards FinTech Products And Services In Malaysia
[13] Lee, Y., Kozar, K. A., & Larsen, K. R. T. (2003). The Technology Acceptance Model: Past, Present, and Future. *Communications of the Association for Information Systems*, 12(December). https://doi.org/10.17705/1cais.01250

study other than other theoretical model.14 TAM has determined the adoption of technology is regulated by perceived usefulness perceived ease.<sup>15</sup> However, the previous study has proven that some other important factors need to be included under the TAM framework. Under the extended TAM, 4 extra factors that were included as a factor that can influence the awareness and acceptance level of information technology. The factors are usefulness, ease of relative advantage, perceived risk, perceived cost and perceived interactivity.<sup>16</sup> The previous study has proven that relative advantage has a significant relationship with the adoption of information technology. Relative advantage is related to adoption of innovation in information technology.<sup>17</sup> Perceived risk is the consumer's perceptions of the uncertainty and unfavorable consequences of purchasing a product. Perceived risk is an adoption decision when the situation cause the feelings of uncertainty and anxiety.<sup>18</sup> The perceived cost has significantly and negatively influenced on attitude.19 Meanwhile the perceived interactivity had an important impact on the attitude.20

F1.4

[14] Ajzen, I., 1991. The Theory Of Planned Behavior, Organizational Behavior and Human Decision Processes, 50(2): 179-211 [15] Davis, F.D., 1989. Perceived Usefulness, Perceived Ease Of Use, And User Acceptance Of Information Technology. MIS Quarterly, 13(3): 319-340. Available at: https://doi.org/10.2307/249008\. [16] Chua, C., Lim, C., & Aye, A., 2018. Factors Affecting The Consumer Acceptance Towards FinTech Products And Services In Malaysia [17] Tornatzky, L.G. and K.J. Klein, 1982. Innovation characteristics and innovation adoptionimplementation: A meta-analysis of findings. IEEE Transactions on Engineering Management, 1: 28-45. Available at: https://doi.org/10.1109/tem.1982.6447463. [18] Dowling, G.R. and R. Staelin, 1994. A model of perceived risk and intended risk-handling activity. Journal of Consumer Research, 21(1): 119-134. DOI: doi.org/10.1086/209386 [19] Kuo, Y.-F. and S.-N. Yen, 2009. Towards an understanding of the behavioral intention to use 3G mobile value-added services. Computers in Human Behavior, 25(1): 103-110. Available at: https://doi.org/10.1016/j.chb.2008.07.007. [20] Wu, G., 1999. Perceived interactivity and attitude toward web sites. In Proceedings of the Conference-

# Past Researches on FinTech Adoption Factors.

Several studies have been conducted to evaluate the awareness and adoption factors of FinTech in various industries. The followings are the summary of the past research conducted to examine and investigate the awareness and adoption factors toward the acceptance of FinTech.

American Academy of Advertising. American Academy of Advertising. pp: 254-262.

CITED	TITLE	IV	DV	RESULT
C. C. Jin,	Factors Affecting the	i.Perceived	Intention to use	The findings revealed that
et al.,	Consumer	usefulness	mobile banking	usefulness, perceived cost,
2019	Acceptance towards	ii.Perceived ease	<u>Mediation</u>	perceived interactivity, perceived
	FinTech Products and	of use	Attitude of	risk, relative advantage and
	Services in Malaysia	iii.Relative	adopting mobile	easefulness have significantly
		advantage	banking	influenced the consumer intention
		iv.Perceived risk		and attitude towards using the
		v.Perceived cost		mobile banking
		vi.Perceived		
Z. Hu, et	Adoption Intention of	interactivity i.Users' trust in	Bank users'	The results reveal that users' trust
al., 2019	FinTech Services for	FinTech	attitudes for	in FinTech services has a very
ui., 2019	Bank Users: An	ii.Perceived ease	adoption FinTech	significant influence on users'
	Empirical	of use	r	attitudes for adoption. In addition,
	Examination with an	iii.Perceived risk		perceived ease of use and
	Extended Technology			perceived risk does not affect
	Acceptance Model			users' attitudes toward the
				adoption regarding FinTech
				services.
I. M.	Acceptance of	i.Consumer	Islamic FinTech	Findings of the study reveal that
Shaikh et	Islamic financial	innovativeness	Acceptance	Islamic FinTech's services
al., 2020	technology (FinTech) banking services by	ii.Self-efficacy iii.Perceived ease		acceptance is determined by perceived ease of use, perceived
	Malaysian users: an	of use		usefulness and consumer
	extension of	iv.Perceived		innovativeness (CI). Self-efficacy
	technology	usefulness		and subjective norms are found
	acceptance model	v.Subjective		not to be influential in
		norms		determining Islamic FinTech's
				acceptance by Islamic banking
				users.
M.	The Influence of	i.Perceived risk	i. Attitude	The results indicate users trusts
Meyliana	Perceived Risk and	ii.Trust	toward use	influences perceived usefulness in
et al.,	Trust in Adoption of	iii.Perceived ease	ii. Perceived	the adoption to use FinTech
2019	FinTech Services in	of use	usefulness	services. Risk factor does not
	Indonesia	iv.Attitude toward	iii. Intention to	affect the use of FinTech services,
		use	use	which further does not influence
		v.Perceived		the users' attitude.
		usefulness		
F. R.	Exploring Risk and	i. Perceive Risk	FinTech Adoption	Security risk has the biggest
Haqqi et	Benefit Factors	, I III JI V I II JK	Mediation	negative effect and convenience
al., 2020	Affecting User	ii. Perceive	Trust	has the biggest positive effect on
	Adoption Intention of	benefit		FinTech adoption intention
	FinTech in Indonesia			-
H.	Data security and	i. Customer	Adoption of	The results confirm that
Stewart	consumer trust in	trust	FinTech	customer trust, data security and
et al.,	FinTech innovation in	ii. Data security		the user design interface affect
2017	Germany	iii. Value added		the adoption of FinTech
		iv. User design		
		interface		
		v. FinTech		
		promotion		

The adoption of FinTech is related to perceive usefulness and perceive ease of use. Study conduct by Jin (2019), found that among the factors that affect the acceptance of consumer toward the use of FinTech were perceive usefulness, and perceive easefulness. The quantitative study was conducted among the users of mobile banking and was analyzed using the TAM.<sup>21</sup> The perceived usefulness is a

determination of people acceptance towards the level a particular system to increase the job productivity. It will straight forward reflect the deed of an individual. Meanwhile for perceived ease of use is the determination factors that an individual believes the embracement of the technology is at zero cost incurred. It will not straight forward reflect the deed of individual

59–65.

https://doi.org/10.18488/journal.1.2019.91.59.65

<sup>&</sup>lt;sup>[21]</sup> Jin, C. C., Seong, L. C., & Khin, A. A. (2019). Factors Affecting the Consumer Acceptance towards Fintech Products and Services in Malaysia. *International Journal of Asian Social Science*, *9*(1),

through perceived usefulness.<sup>22</sup> Therefore, it can be seen that the ease of use is very crucial however the usefulness is much more crucial. This is what has been stated under the TAM primary theoretical framework.<sup>23</sup> The theory has been extended by adding additional factors such as perceived cost, perceived interactivity, perceived risk and relative advantage.<sup>24</sup>

Shaikh et al., (2020) examine the adoption intention of FinTech services among the Islamic bank customers in Klang Valley. The research revealed that the element of trust is the most important factors to determine the adoption factors of FinTech. In this regards the provider of fintect services should able to convince the users especially in terms of mitigating the risk to adopt the FinTech services. Users' trust in FinTech services is a very important factors to influence the respondents towards the adoption of FinTech services. In addition, the study found that perceived ease of use and perceived risk does not have any influential effects toward the adoption of FinTech services provided by the Islamic bank. However according to research conducted by Hu et al., (2019), perceived ease of use and perceived risk does not affect users' attitudes toward the adoption of FinTech services.

Further, Stewart & Jürjens, (2018) was conducted a quantitative study to examine the significant effect of data security and trust towards the intention to adopt the FinTech among the users in German. The study revealed the important aspect of trust and data security to influence their adoption of using the FinTech regardless of promotion and FinTech features created by the developer. Haqqi & Suzianti, (2020) also conduct a study to investigate the

effect of trust as a mediation factors to the perceive risk and adoption of FinTech among the Indonesian FinTech users. The study found that trust has significant effect toward the adoption of FinTech among the Indonesian users beside perceive risks and perceive benefit. The important of the study is to determine the adoption as well resistant actors among the FinTech users by looking into several sub factors under perceive risk and perceive benefit. As a result, the study revealed that security risk the biggest resistance factors while convenience of using the FinTech or perceive of easefulness is the most acceptance factors of using the FinTech among the users.

Darmansyah, Fianto, B.A, Hendratami, A., & Aziz, P.F., (2020) examine the impact of planned behavior towards the intention of using the FinTech services. Planned behavior is one of the variables under the theory of planned behavior (TPB). Under the TPB, behavioral intentions have significant relationship with attitude and subjective norm as well as perceive control.<sup>25</sup> TPB proposes that the probability of individuals performing certain behaviors increases if they believe that the behavior will produce the desired results. The result from the study revealed that beside perceive ease of use and perceive risk, planned behavior is also played an important role in determining the acceptance level of FinTech services.<sup>26</sup>

Ahmed et al., (2020) conduct a quantitative survey among the users of digital wallet in Bahrain. The result of the survey revealed that the ease of use is the most significant factors to determine the acceptance of digital wallet among the users as compared to perceive of risk. The users adopted the usage of digital

<sup>[22]</sup> Davis, F.D., 1989. Perceived Usefulness, Perceived Ease Of Use, And User Acceptance Of Information Technology. MIS Quarterly, 13(3): 319-340. Available at: https://doi.org/10.2307/249008\.

<sup>&</sup>lt;sup>[23]</sup> Davis, F.D., 1989. Perceived Usefulness, Perceived Ease Of Use, And User Acceptance Of Information Technology

<sup>[24]</sup> Jin, C. C., Seong, L. C., & Khin, A. A. (2019). Factors Affecting the Consumer Acceptance towards Fintech Products and Services in Malaysia.

<sup>[25]</sup> Ajzen, I., 1991. The Theory Of PlannedBehavior. Organizational Behavior and HumanDecision Processes

<sup>&</sup>lt;sup>[26]</sup> Darmansyah, Fianto, B. A., Hendratmi, A., & Aziz, P. F. (2020). Factors determining behavioral intentions to use Islamic financial technology Three competing models. *Journal of Islamic Marketing*, *12*(4), 794–812. https://doi.org/10.1108/JIMA-12-2019-0252

wallet due to the convenience and easiness to excess to the financial transactions.<sup>27</sup>

### **II. STATEMENT OF CONTRIBUTION**

From the above discussion the following hypothesis and theoretical framework can be concluded:

### Hyphothesis

H1 There is a positive relationship between trust and adoption of Islamic FinTech.

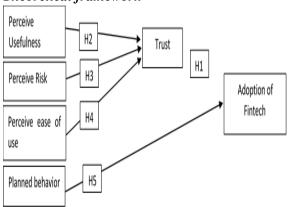
H2 There is a positive relationship between perceive usefulness and element of trust towards the adoption of Islamic FinTech.

H3 There is no significant effect on the Perceive risk and trust towards the adoption factor of Islamic FinTech

H4 There is significant effect on the Perceive ease of use and trust towards the adoption factor of Islamic FinTech

H5 There is positive relationship between the planned behavior toward the adoption of FinTech

### Theoretical framework



### **III. DISCUSSION AND CONCLUSION**

In this study, the user awareness and acceptance factors toward FinTech have been determined based on the data obtained from the previous research. The study revealed the development of conceptual also managed to develop a conceptual structure that comprises of the experimental factors such as perceive usefulness, perceive ease of use, perceived risk,

planned behavior, and mediating effect of trust of the users with the dependent variable of the consumer adoption towards FinTech products and services. Perceived usefulness has a significant effect on trust and adoption of FinTech. The result gives an impact that the user needs to be convinced of the usefulness of using FinTech to perform any transaction with financial activities. The user is looking for the convenience and benefit of FinTech products and services. The FinTech product should be able to give a superior outcome as compared to the traditional ways of performing the transaction.

The element of trust is very important to influence the users to use the services provided by the FinTech. As mention by the data provided by BNM, the users prefer to use especially concerning FinTech financial transactions. Therefore, the FinTech provider should be able to warrant the users to ensure a high level of data security and the safety of transactions performed through FinTech products and services. The user is very particular about their data security especially once they are performing any financial transactions. Perceive risk has no significant effect on the trust to adopt the FinTech products and services. Perceive risk is how the user believes the negative effect of adopting FinTech. It will give a negative impact on the trust to adopt FinTech. Normally trust and perceive risk is not interdependent. It means whenever they perceive risk increase, the trust of the users to adopt the FinTech products and services will decrease. Having a trusted user will reduce the perceived risk and influence the adoption of FinTech. Perceive risk can be in form of financial risk, legal risk, security risk, and privacy risk. These elements of risk will give a negative impact on the trust of users to adopt FinTech. FinTech service providers should be able to tackle the issues of perceived risk to gain the trust of the user to use FinTech products and services.

Several researchers have confirmed the perceived ease of use is significantly affects the adoption of FinTech among the users. The

<sup>&</sup>lt;sup>[27]</sup> Darmansyah, Fianto, B. A., Hendratmi, A., & Aziz, P. F. (2020). Factors determining behavioral intentions to use Islamic financial technology Three competing models.

easier it is to use, the higher the trust of the consumers, thus making it easier for the users to use the products. In this study, perceived use has a positive relationship with trust and adoption of FinTech. It means the higher easefulness of the FinTech products and services, the higher the trust of the user to use the FinTech products and services. The ease of use includes the easiness to control of the FinTech products and able to use it at any convenient time without any hassle or difficulties. In addition, the FinTech products are secure to use particularly involving a financial transaction.

The above study revealed the positive relationship between planned behavior and adoption of FinTech products and services. Planned behavior is derived from the theory of Planned behavior (Ajzen, 1985, Ajzen, 1987). Planned behavior has a significant effect on the adoption of FinTech products and services. The acceptance level of the user to use the FinTech product will increase if they believe the products will produce the desired results as they expect. In this regard, the FinTech provider needs to produce the FinTech products in line with the needs of the users.

### IV. CONCLUSION

The objective of the study is to explore the adoption factor among the user toward the FinTech products and services. Under the era of the technology revolution, the usage of FinTech is very important, especially in the financial industry. The study was conducted by using secondary data obtaining from the previous research. It can be concluded that the provider of FinTech products and services should emphasize the importance of gaining trust from the users. Trust is a mediator between the ease of use and usefulness and the adoption of FinTech. It means if the features of the FinTech are easy to be used and provide benefits to the user but lack of trust from the users, it will not warrant the users to adopt the FinTech products and services. The element of trust has a negative relationship between perceived risk and FinTech adoption by the users. As far as the users are concerned, once the risk of FinTech is

higher, the trust toward the usage of FinTech will be low. Therefore, is the FinTech provider needs to give assurance to the users the security of their data and transactions? The study had also revealed the importance of planned behavior factors to determine the adoption factors of the users toward the usage of FinTech products and services.

Planned behavior is related to the attitude of the users. In this regards the FinTech provider should emphasize the need of the users in developing the FinTech products and services. In other words, the FinTech products and services should be able to meet the objective of the users especially in terms of the benefit and easefulness of the products. Lastly, the study highlights 3 important points to the FinTech providers to gain the trust of the users to adopt the FinTech products and services. The first is to improve the efficiency of the potential users and how the services can lead to cost-saving to the user as compared with the conventional channel of doing transactions. The second is to ensure the understanding of the users and improve the user's experience of using the FinTech products and services. Thirdly is to ensure the user's data is fully secured and protected and has highly reliable cybersecurity features.

### **REFERENCES**

- 1. Ahmed, A. S., Kumar, M., & Moh'd Ali, M. A. (2020). Adoption of FinTech and Future Perspective: An Empirical Evidence from Bahrain on Digital Wallets, 2020 International Conference Decision Aid Sciences and Application, DASA 2020, 751-755. https://doi.org/10.1109/DASA51403.20 20.9317298J. U. Duncombe, "Infrared navigation-Part I: An assessment of feasibility," IEEE Trans. Electron Devices, vol. ED-11, pp. 34-39, Jan. 1959.
- Ahmed, A. S., Kumar, M., & Moh'd Ali, M. A. (2020). Adoption of FinTech and Future Perspective: An Empirical Evidence from Bahrain on Digital

- Wallets. 2020 International Conference on Decision Aid Sciences and Application, DASA 2020, 751–755. https://doi.org/10.1109/DASA51403.20 20.9317298
- 3. Alber, N., & Dabour, M. (2020). The Dynamic Relationship between FinTech and Social Distancing under COVID-19 Pandemic: Digital Payments Evidence. International Journal of Economics and Finance, 12(11), 109. https://doi.org/10.5539/ijef.v12n11p109
- 4. Ajzen, I., 1991. The Theory Of Planned Behavior. Organizational Behavior and Human Decision Processes, 50(2): 179-211
- Bank Negara Malaysia, 2018, Governor's Keynote Address At The Malaysian E-Payments Excellence Awards
- Chua, C., Lim, C., & Aye, A., 2018. Factors Affecting The Consumer Acceptance Towards FinTech Products And Services In Malaysia. International Journal Of Asian Social Science, 59-65
- Darmansyah, Fianto, B. A., Hendratmi, A., & Aziz, P. F. (2020). Factors determining behavioral intentions to use Islamic financial technology Three competing models. Journal of Islamic Marketing, 12(4), 794–812. https://doi.org/10.1108/JIMA-12-2019-0252
- 8. Dowling, G.R. and R. Staelin, 1994. A model of perceived risk and intended risk-handling activity. Journal of Consumer Research, 21(1): 119-134. DOI: doi.org/10.1086/209386.
- 9. Dr Rais Hussin, (2020), Malaysia Digital Economy Corporation (MDEC) The Star Friday, 25 September 2020.
- 10. Davis, F.D., 1989. Perceived Usefulness, Perceived Ease Of Use, And User Acceptance Of Information Technology. MIS Quarterly, 13(3): 319-340. Available at: https://doi.org/10.2307/249008\.

- 11. Fong, V., 2016. The Emergence of Fintech: Where does Malaysia stand?. Fintech Singapore. Retrieved from http://fintechnews.sg/5370/malaysia/the -emergence-of-fintech-where-does-malaysia-stand/
- 12. Hu, Z., Ding, S., Li, S., Chen, L., & Yang, S. (2019). Adoption intention of fintech services for bank users: An empirical examination with an extended technology acceptance model. Symmetry, 11(3). https://doi.org/10.3390/sym11030340
- Jin, C. C., Seong, L. C., & Khin, A. A. (2019). Factors Affecting the Consumer Acceptance towards Fintech Products and Services in Malaysia. International Journal of Asian Social Science, 9(1), 59–65. https://doi.org/10.18488/journal.1.2019. 91.59.65
- 14. Kuo, Y.-F. and S.-N. Yen, 2009. Towards an understanding of the behavioral intention to use 3G mobile value-added services. Computers in Human Behavior, 25(1): 103-110. Available at: https://doi.org/10.1016/j.chb.2008.07.0 07.
- Lee, Y., Kozar, K. A., & Larsen, K. R. T. (2003). The Technology Acceptance Model: Past, Present, and Future. Communications of the Association for Information Systems, 12(December). https://doi.org/10.17705/1cais.01250
- 16. Lau, s. Y., 2019. Building Malaysian Economy Based On Digital Competency. Retrieve from https://www.thestar.com.my/business/business-news/2019/04/18/
- 17. Lee, Younghwa; Kozar, Kenneth A., Kai R.T. (2003), The Technology Acceptance Model: Past, Present, and Future, Communications of the Association for Information Systems, Vol. 12 , Article 50.DOI: 10.17705/1CAIS.01250 Available at:

- https://aisel.aisnet.org/cais/vol12/iss1/5
- 18. Paul, H, 2021. The history of the financial technology (fintech) industry in Malaysia. Retrieved from http://www.paulhypepage.my/the-fintech-industry-of-malaysia
- 19. Qatar Financial Centre, 2018, FinTech, A Global Boost For Islamic Finance? Retrieved from https://www.reuters.com/sponsored/article/FinTech-a-global-boostfor-islamic-finance
- Shaikh, I. M., Qureshi, M. A., Noordin, K., Shaikh, J. M., Khan, A., & Shahbaz, M. S. (2020). Acceptance of Islamic financial technology (FinTech) banking services by Malaysian users: an extension of technology acceptance model. Foresight, 22(3), 367–383. https://doi.org/10.1108/FS-12-2019-0105
- 21. Rogers, E.M., 2002. Diffusion of preventive innovations. Addictive Behaviors, 27(6): 989-993. Available at: https://doi.org/10.1016/s0306-4603(02)00300-3
- Stewart, H., & Jürjens, J. (2018). Data security and consumer trust in FinTech innovation in Germany. Information and Computer Security, 26(1), 109–128. https://doi.org/10.1108/ICS-06-2017-0039
- 23. Tornatzky, L.G. and K.J. Klein, 1982. Innovation characteristics and innovation adoption-implementation: A meta-analysis of findings. IEEE Transactions on Engineering Management, 1: 28-45. Available at: https://doi.org/10.1109/tem.1982.64474 63.
- 24. The Edge Malaysia Weekly, 2019, MySay: FinTech as a booster for Malaysian SMEs, December 16, 2019 December 22, 2019.
- 25. Vincent Fong, 2017, FinTech Malaysia Report 2017. Retrieved from:

- https://FinTechnews.my/12808/editorspick/FinTech-malaysia-report/ [14]
- 26. Vincent Fong., 2018. FinTech Malaysia Report 2018 – The State Of Play For FinTech. Retrieved from Malaysia: https://FinTechnews.my/17922/editorspick/FinTech-malaysia-report2018/
- 27. Venkatesh, V. and F.D. Davis, 2000. A Theoretical Extension Of The Technology Acceptance Model: Four Longitudinal Field Studies. Management Science, 46(2): 186-204. Available at: https://doi.org/10.1287/mnsc.46.2.186.1 1926.
- 28. Venkatesh, V., M.G. Morris, G.B. Davis and F.D. Davis, 2003. User Acceptance Of Information Technology: Toward A Unified View. MIS Quarterly, 27(3): 425-478. Available at: https://doi.org/10.2307/30036540.
- 29. Wu, G., 1999. Perceived interactivity and attitude toward web sites. In Proceedings of the Conference-American Academy of Advertising. American Academy of Advertising. pp: 254-262.