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Research paper

Adoption of financial technology (Fintech) in mutual fund/ unit trust investment among Malaysians: unified theory of acceptance and use of technology (UTAUT).

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Abstract

Disruptive innovation is related to financial technology and known as FinTech. It includes design, delivery, and provider of financial investment services such as payments, real estate, investment, insurance/ takaful, deposits, financing, banking, saving and capital market. This study is about Adoption of Financial Technology (FinTech) in mutual fund/ unit trust investment among Malaysians: Unified Theory of Acceptance and Use of Technology (UTAUT). The study aims to identify the level of financial technology consumption in mutual fund/ unit trust among investors in Malaysia. The objectives of this research are: 1) to determine the level of awareness on FinTech application in mutual fund/ unit trust investment; 2) to examine the adoption of FinTech in mutual fund/ unit trust investment. The objectives will explore on how FinTech changes the customers in terms of to what extent Malaysians have adopted FinTech so far. The research methodology in an adoption of FinTech service in mutual fund/ unit trust was conducted through questionnaires survey. This study assists participants in financial service management to take advantage of the opportunities offered by FinTech services. Developing the effective and systematic framework is a must for FinTech service especially in mutual fund/ unit trust investment. Implementation of FinTech will provide service improvement and transformation for investment management services in future.

Keywords: *Financial Technology (FinTech); mutual fund, unit trust; Unified Theory of Acceptance and Use Technology (UTAUT)*

1. Introduction

Fintech is a term originated from the words 'Finance' and 'Technology'; thus, its combination is used globally and it is rapidly growing in Malaysia. The financial services adopt technological innovations or also known as disruptive innovations as an alternative means to replace traditional financial service management. Disruptive innovations related to financial technology or better known as FinTech are rapid technology changes that include the design, delivery and supplier of financial services in terms of requirements to meet some of the features in financial services such as payment, market allocation, investment, insurance/ takaful, deposits, financing, banking, saving and capital raising. FinTech integrates financial and technology in ways that has been blamed for causing disruptions (threats) to the traditional financial operations and businesses by providing conveniently digitized services to businesses and consumers.

On a positive note, the innovations emerging from the FinTech sector carry enormous transformative innovation for the financial investment industry. FinTech emphasises the investment management services in financial institutions for improvement by providing added value to all consumers. Meanwhile, the investment management services in financial institutions are easier to attract consumers to invest across borders at the suitable time and place. Investment competition from FinTech will provide value and improvements in a global, easy, fast, efficient and inexpensive future. Directly, traditional investment has been a competition in the existing financial management services and as an improvement and alternative investment network with various financial investment products in the financial market including mutual fund/ unit trust investments. Financial institutions can choose a variety of approaches to facilitate the growth and enhancement of FinTech networks as an alternative. It is also complementary to existing networks, which may act as a new route to increase value added for investment management services, especially in mutual fund/ unit trust investment.

Alternatively, FinTech can act as a catalyst for financial management services that is implemented in traditional investment services to solve problems and decide on setting a potential investment management service system for utilizing every aspect of FinTech. Implementing FinTech to a new track provides value to the improvement of investment management services, where financial institutions need to work together to identify areas of priority in the investment management services for transformation in order to solve every complex condition and regulation especially in mutual fund/ unit trust investment. FinTech is a new venture that has the potential to transform and innovate for business models in investment management services in mutual fund/ unit trust investment. Traditionally, mutual funds investment management services have been simplified specifically by leveraging in-depth expertise to identify and support for new opportunities. This is because access to mutual fund/ unit trust investments is limited to consumers choosing the types of investment especially for the rate of return and the net worth in investments. However, consumer awareness of FinTech in investment management services in Malaysia is less than other developed countries. According to (1),

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consumers in USA have more positive attitude towards using internet banking compared to Malaysia.

The role of financial institutions and FinTech innovations is important in enhancing financial inclusion and consumer awareness on FinTech issues related to mutual fund/ unit trust investments. This alternative platform can reinforce key of capital positions in mutual fund/ unit trust investment and increase intermediary mediums for financial investment management services. Additionally, it will increase user access to new mutual fund/ unit trust investment services and are easily explored especially in high-risk investments. This alternative platform can also implement plans to focus on consumers to invest in mutual fund/ unit trust that are geared towards investment returns at low, medium or high risk. FinTech can help provide mutual fund/ unit trust investment channels such as low return opportunities that will not qualify for investment but can still provide non-financial returns to consumers.

FinTech can also provide channels for larger financial investment institutions to raise capital directly or indirectly based on customer database in mutual fund/ unit trust investment, which potentially reduces the cost of managing investment services and enabling diversified planning in seeking mutual fund/ unit trust investment opportunities in the future. In conclusion, this study indicates the level of awareness on FinTech application and the adoption of FinTech in mutual fund/ unit trust investment among Malaysians financial to help and give the information to financial investment institutions.

2. Literature Review

The rapid growth of FinTech movement in investment management services shows no signs of slowing down and it is now a basic and standard requirement of the rapid change in consumer needs. The FinTech focus on strong digital interaction and communication initiated as well as because of the opportunity that comes with it to work better, cheaper and more efficient, convenient and provides better services. In the study by (2), most of the respondents were willing to use Islamic banking if it work properly and offer better services for customers' experience and also suggest that Islamic banking institutions need to frame efficient communication to increase awareness among customers about operations of Islamic banking. As FinTech continues to expand, investment management services have come to accept the disruptive role of FinTech startups and need to work together for better services for investment management services. Studies have identified that Internet banking system can fulfil the convenient and efficient time management that can be accessed anytime and anywhere, (1).

In recent years, the relation between investment management services and FinTech startups have evolved in mutual fund/ unit trust investments to closely knit collaboration, cooperation and integration. The most dominant technology acceptance theories are Theory of Planned Behavior (TPB), Technology Acceptance Theory (TAM), Innovation Diffusion Theory (IDT), The FITT (fit between individual, task and technology) framework and Unified Theory of Acceptance and Use of Technology (UTAUT), (3). The outcome has been beneficial to both parties as well as consumers, who now have access to more efficient, easy, transparent and flexible financial management services. This finding highlights, (4), technology acceptance when consumers consider to create the technology value. Using mobile applications and web services are easy with FinTech startups as it simplify many of the investments management services that financial management institutions offer. Most recently, FinTech has been the hottest and popular topic of discussion in articles, conferences, among academicians, regulators, and consumers. In addition, they all tend to ask the same question: "Will technology-enabled FinTech start-ups redefine the way that financial management services operate, and upend the competitive landscape of the financial management industry?" World Forum Economic (2017), The Future of Financial Services," the document considers the evolution of FinTech firms on financial management services to date and presents a series of contrasting outlooks for the future of the industry, World Forum Economic (2015). In addition, according to (5), there has been an increasing amount of research on unified theory of acceptance and use of technology (UTAUT) article by (6). Even though there is a large number of citations, the number of articles published in comparable academic writing in UTAUT compared to others model, actually still remains relatively low.

The financial management services landscape continues to be disrupted, as consumers expect greater use of new digital technologies and the contextual experiences possible with the combination of big database, advanced analytics and mobile devices application. These expectations have fueled the growth of FinTech start-ups, from a niche investment competitor to a subset of the investment institution where one-third of digitally active consumers now use more FinTech services. While there are definitely hurdles in the path of FinTech industry hoping to gain market recognition, it is clear that the solutions in FinTech provided by many of the new financial management services start-ups are meeting the needs of an increasingly digital consumer. The study by (1) examined on UTAUT, the points towards variable of performance expectancy has a direct influence on internet banking adoption in Malaysia. The focus on FinTech disruption of financial management investment institutions has largely been about services itself for better consumer experiences and challenges to the infrastructure of investment management services. As a result of FinTech disruption, financial management services as we know it will more rapidly change in the coming years than they have for decades.

Furthermore, FinTech in financial institution planners may even be the gateway for new millennials to extended forms of financial management planning tools such as banking, insurance/ takaful, asset management, forex exchange and mutual fund/ unit trust. A unified model called UTAUT was formulated with determinants of intention and usage, and four moderators of key relationship namely performance expectancy, effort expectancy, social influence and facilitating condition as figure 1 and comparison of the TAM and UTAUT models as figure II. UTAUT suggests four direct determinants of behavioral intention and these constructs are related to gender, age, experience and voluntariness of use, (6). UTAUT model was used by (5) to perform a research on a systematic review of articles that have used the unified theory and use of technology (UTAUT): a literature review.

Previous studies have reported older customers have more intentions to use internet banking with variables of performance expectancy, which contradicts with UTAUT in research findings, (7). In a different study, by(8), results indicated that behavior intention to use the internet banking system was found to be significantly affected by performance expectancy, social influence, perceived credibility and task technology fit, while effort expectancy did not play the role in influencing behavior intention to use the internet banking system. Moreover, several studies in the literature review reported the cumulative predictive power of each individual independent variable, which was not consistent or at the level expected. Only two variables met the benchmark, which is performance expectancy and behavioral intention, (5).

According to an investigation by (9) in technology acceptance model (TAM), the variable of perceived usefulness is an important factor indicated by Estonian bank consumer when using the internet banking system. A study by (4) strongly suggests that explanations and predictions are based on rational, intuitive models of consumer behaviour. Additionally, it may be an insufficient basis for determining a major in financial investment. This study is to investigate and focus on the theory of UTAUT and mutual fund/ unit trust investment among Malaysians. Mutual funds or unit trusts are similar investment products except the former is actively managed while the latter is passive. A mutual fund is established as a limited liability company where investors are like shareholders in a company. A unit trust operates under a trust system where investors' assets are entrusted to trustees.

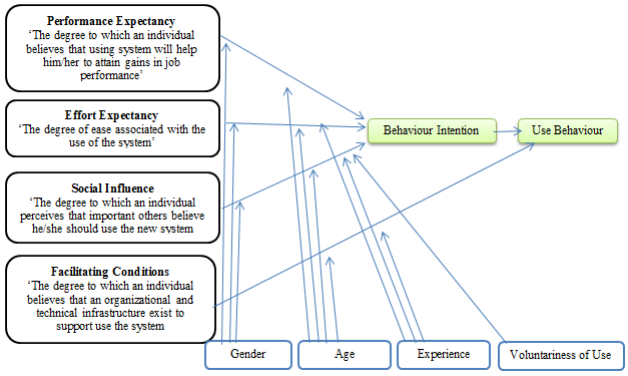


Fig. 1: Unified theory of acceptance and use of technology
Source: (6)

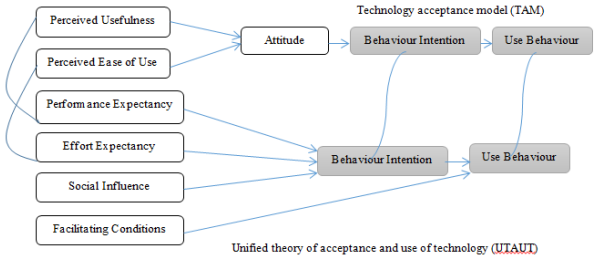


Fig. 2: Comparison of the TAM and UTAUT models
Source: (10)

3. Methodology

The questionnaires in this research consist of three sections, the first section consist of basic information about FinTech in mutual fund/ unit trust investments. In the first section, questionnaires are dichotomous questions and scaling questions. This type of questions within questionnaire provides two options to the respondent, yes or no, to choose from and it is the easiest form of questionnaires for the respondent in terms of obtaining their response. It is also referred to as ranking questions; an option is presented for respondents to rank the available answers to the questions on the scale of given range of values (for example from 1 to 6).

Second, seven items were used to measure the variables usage in this research from unified theory of acceptance and use of technology (UTAUT) and technology acceptance model TAM, (1). The variables used for each construct and the sources are provided in figure I and II. A five-point Likert scale ranging from 1, strongly disagree to 5, strongly agree were used to measure the items that represent each questions for the proposed research model. The third section of the items are demographic information about the respondents such as gender, age, race, education, profession, income were measured using a nominal scale.

This survey employed random sampling due to the purest form of probability sampling. Each sample or respondents of the population have an equal chance of being selected across Malaysia. Respondents were asked to answer the questionnaires which was sent via email, Telegram group, WhatsApp group, Facebook, etc. The advantages of using online computer questionnaires in this study are due to its inexpensive cost, better time management, and less pressured, therefore respondents can answer when they have time and provide more accurate and honest answers. However, the main shortcoming of the online computer questionnaires is that sometimes respondents do not answer and they can just ignore the questionnaires.

Besides that, questionnaires were also distributed through in house survey. The advantage of in house survey is that respondents are able to ask if they do not understand the terms found in the in questionnaires. However, in house surveys also have a range of disadvantages, which include it being time consuming, more expensive and respondents may not wish to have the researcher in their workplace for various reasons.

4. Results and findings

The respondents profile based on gender, age, race, education, profession and income is summarized in table I. Basic information of FinTech in mutual fund/ unit trust investment is summarized in Table II. The table illustrates, 95.6% of respondents know about FinTech and 4.4% does not know. The number of respondents that employ the Fintech service for mutual fund/ unit trust investment is only 11.8 % compared to banking, insurances/ takaful, asset management, foreign exchange and other services.

Table 1: Respondents demographic profile

Sample distribution by	Charateritistics	Frequency	Percent (%)
Gender	Male	92	45.3
	Female	111	54.7
	Total	**203**	**100.0**
Age	18 - 25	20	9.9
	26 - 35	95	46.8
	36 - 45	82	40.4
	46 - 55	6	3.0
	Total	**203**	**100.0**
Race	Malay	130	64.0
	Chinese	41	20.2
	Indian	29	14.3
	Others	3	1.5
	Total	**203**	**100.0**
Education	Diploma / Advanced Diploma	22	10.8
	Bachelor Degree / Professional Qualification	135	66.5
	Postgraduate / PhD	46	22.7
	Total	**203**	**100.0**
Profession	Student	12	5.9
	Government	87	42.9
	Private	89	43.8
	Self-employed	15	7.4
	Total	**203**	**100.0**
Income	No income	12	5.9
	Below RM2,000	3	1.5
	RM 2,000 – RM 4,000	48	23.6
	RM 4,001 – RM 6,000	74	36.5

	RM 6,001 – RM 8,000	36	17.7
	RM 8,001 – RM 10,000	14	6.9
	RM 10,001 – RM15,000	14	6.9
	RM15,001 and above	2	1.0
	Total	**203**	**100.0**

Table 2: Basic information in mutual fund/ unit trust investment

Statement		**Frequency**	**Percent**
Do you currently know about FinTech (financial technology)	Yes	194	95.6
	No	9	4.4
	Total	**203**	**100.0**
Is FinTech service available on your smartphone or laptop or PC?	Yes	148	72.9
	No	55	27.1
	Total	**203**	**100.0**
If yes, have you ever used FinTech service on your smartphone or laptop or PC?	Yes	138	68.0
	No	45	22.2
	I don't know how to use it	20	9.9
	Total	**203**	**100.0**
Do you own another device equipped with FinTech service?	Yes	74	36.5
	No	129	63.5
	Total	**203**	**100.0**
If yes, please specify what kind of device?	Computer, Laptop, Ipad, Tab		
Which FinTech services, do you use? (you can choose more than one answer)	Banking	192	94.6
	Insurances/ Takaful	47	23.2
	Mutual fund/ Unit Trust	24	11.8
	Asset Management (e.g.: mudah.com.my, iproperty.com.my, propertyguru.com.my)	52	25.6
	Foreign Exchange (money changer, e.g.: travelex.com.my, mymoneymaster.com.my)	13	6.4
	Other	5	2.5
	Total	**203**	**100.0**
How frequent are you using FinTech service in a month?	1 to 3 times	84	41.4
	4 to 10 times	83	40.9
	11 to 20 times	17	8.4
	21 times and above	19	9.4
	Total	**203**	**100.0**
How familiar are you with FinTech service in mutual fund/ unit trust?	Very familiar	26	12.8
	Somewhat familiar	39	19.2
	Somewhat unfamiliar	47	23.2
	Not at all familiar	91	44.8
	Total	**203**	**100.0**
Which investment products do you currently have? (You can choose more than one answer)	Mutual fund (e.g.: RHB Emerging Markets Bond Fund, Affin Hwang Select Asia (Ex Japan) Quantum Fund, Kenanga Growth Fund, Public Mutual, Reits, ETF)	89	43.8
	Unit Trust (e.g.: ASB, AS 1Malaysia, ASB 2, ASD, ASW 2020, ASM)	125	61.6
	Stocks	23	11.3
	Bonds/ sukuk	4	2.0
	Other	5	2.5
	Total	**203**	**100.0**
Do you have any Islamic investment in mutual fund/ unit trust?	Yes	60	29.6
	No	143	70.4
	Total	**203**	**100.0**
If yes, please specify what kind of Islamic Investment?	CWA	2	1.0
	Equity	2	1.0
	Islamic Unit Trust Fund	1	.5
	Kenanga	2	1.0
	Mara Investment Berhad	2	1.0
	Pisef	2	1.0
	Public Mutual Islamic	10	5.0
	RHB Investment	1	.5
	Tabung Haji	1	.5
	Other	37	18.0
	Total	**23**	**11.5**

Which sector do you think will be most affected by FinTech service? (Please rank your answer)		**Frequency**	**Percent**
Banking	First	163	80.3
	Second	10	4.9
	Fourth	4	2.0
	Fifth	4	2.0
	Sixth	22	10.8
	Total	**203**	**100.0**
Insurances/Takaful	First	2	1.0
	Second	72	35.5

	Third	48	23.6
	Fourth	45	22.2
	Fifth	32	15.8
	Sixth	4	2.0
	Total	**203**	**100.0**
Mutual fund/Unit Trust	First	2	1.0
	Second	25	12.3
	Third	83	40.9
	Fourth	67	33.0
	Fifth	22	10.8
	Sixth	4	2.0
	Total	**203**	**100.0**
Asset Management (e.g.: mudah.com.my, iproperty.com.my, propertyguru.com.my)	First	6	3.0
	Second	56	27.6
	Third	50	24.6
	Fourth	53	26.1
	Fifth	34	16.7
	Sixth	4	2.0
	Total	**203**	**100.0**
Foreign Exchange (money changer, e.g.: travelex.com.my, mymoneymaster.com.my)	First	6	3.0
	Second	36	17.7
	Third	22	10.8
	Fourth	28	13.8
	Fifth	103	50.7
	Sixth	8	3.9
	Total	**203**	**100.0**
Other	First	24	11.8
	Second	4	2.0
	Fourth	6	3.0
	Fifth	8	3.9
	Sixth	161	79.3
	Total	**203**	**100.0**

What do you consider to be the biggest risk that could be introduced from FinTech in mutual fund/unit trust? (please rank your answer)		**Frequency**	**Percent**
Mis-selling of financial advice	First	44	21.7
	Second	88	43.3
	Third	61	30.0
	Fourth	10	4.9
	Total	**203**	**100.0**
Privacy and data protection concerns	First	108	53.2
	Second	36	17.7
	Third	45	22.2
	Fourth	14	6.9
	Total	**203**	**100.0**
Mis-understood the risk and return advertised in website	First	27	13.3
	Second	79	38.9
	Third	97	47.8
	Fourth	0	0
	Total	**203**	**100.0**
Other	First	24	11.8
	Second	0	0
	Third	0	0
	Fourth	179	88.2
	Total	**203**	**100.0**

How will you be affected by FinTech service in mutual fund/ unit trust? I will choose based on (please rank your answer)		**Frequency**	**Percent**
Fund management company's historical performance	First	84	41.4
	Second	60	29.6
	Third	30	14.8
	Fourth	13	6.4
	Fifth	16	7.9
	Total	**203**	**100.0**
High net worth of individual product	First	43	21.2
	Second	65	32.0
	Third	51	25.1
	Fourth	36	17.7
	Fifth	8	3.9
	Total	**203**	**100.0**
Mass affluent (i.e.: web promotion, TV advertisement)	First	12	5.9
	Second	38	18.7
	Third	88	43.3
	Fourth	64	31.5
	Fifth	1	.5
	Total	**203**	**100.0**

Types of mutual fund/ unit trust (e.g.: balanced, portfolio, fixed income, equity, index, and specialty)	First	44	21.7
	Second	40	19.7
	Third	31	15.3
	Fourth	88	43.3
	Total	**203**	**100.0**
Other	First	20	9.9
	Third	3	1.5
	Fourth	2	1.0
	Fifth	178	87.7
	Total	**203**	**100.0**

4.1 Reliability and Normality Test

Results of the Cronbach alpha realibility of mutual fund/ unit trust investment variables among the respondents are presented in table III. The table shows the range of mutual fund/ unit trust investment reliability in the variable of social influence, performance expectancy, effort expectancy, behavioral intention, attitude, perceived credibility, anxiety, facilitating conditions and behavior use are between 0.808 to 0.953. Thus, the alpha Cronbach table demonstrates that all changes in mutual fund/ unit trust investment have high reliability. Normality test results for mutual fund/ unit trust investments variables are shown in table IV. The findings in the table shows that all the mutual fund/ unit trust investment variables in Skewness and Kurtosis are between ± 2 standard deviations that are normally distributed.

Table 3: Result of realibility test

Variables	Alfa Cronbach	No. Item
Social influence	0.890	5
Performance expectancy	0.934	7
Effort expectancy	0.923	4
Behavioral intention	0.953	3
Attitude fund	0.940	3
Perceived credibility	0.896	3
Anxiety	0.808	2
Facilitating conditions	0.897	3
Behavior use	0.919	4

Table 4: Result of normality test

Variables	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Social influence	-.592	.171	.613	.340
Performance expectancy	-.557	.171	.153	.340
Effort expectancy	-.360	.171	.078	.340
Behavioral intention	-.816	.171	1.610	.340
Attitude	-.339	.171	-.293	.340
Perceived credibility	-.221	.171	-.361	.340
Anxiety	-.325	.171	-.181	.340
Facilitating conditions	-.876	.171	1.208	.340
Behavior use	-.293	.171	.379	.340

Table 5: Min and standard deviation varibales in mutual fund/ unit trust investment

Variables	Min	Standard Deviation	Level
Social influence	3.45	.772	Medium
Performance expectancy	3.81	.707	High
Effort expectancy	3.85	.716	High
Behavioral intention	3.87	.744	High
Attitude	3.96	.727	High
Perceived credibility	3.67	.776	High
Anxiety	3.71	.861	High
Facilitating conditions	3.55	.844	Medium
Behavior use	3.77	.760	High

(Level: Low = 1.00 – 2.33, Medium = 2.34 – 3.66, High = 3.67 – 5.00)

Table 10: Multiple regression analysis between performance expectancy, effort expectancy and social influence on behavioral intention.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.636	.208		3.064	.002**
	Performance expectancy	.039	.079	.037	.492	.623
	Effort expectancy	.687	.078	.661	8.788	.000**
	Social influence	.128	.051	.133	2.521	.012*

R^2 = 0.763; F(3, 199) = 92.330, sig. F = 0.000
**p<0.01; *p<0.05

4.2 Level of score for Social Influence, Performance Expectancy, Effort Expectancy, Behavioural Intention, Attitude, Perceived Credibility, Anxiety, Facilitating Conditions and Behaviour Use

For the result of descriptive analysis is as indicated in table V. The table shows that performance expectancy (min =3.81, SP =0.707), effort expectancy (min =3.85, SP =0.716), behavioral intention (min =3.96, SP =0.727), perceived credibility (min =3.67, SP =0.776), anxiety (min =3.71, SP =0.861), and behavior use (min =3.77, SP =0.760) among respondents are at high level. While level of social influence (min =3.45, SP =0.772), and facilitating conditions (min =3.55, SP =0.844) among respondents are at medium level.

4.3 Pearson Correlation Analysis

Table 6: Pearson correlation index value

Index value	Correlation
Lebih 0.90	Very high
0.70 hingga 0.89	High
0.40 hingga 0.69	Medium
0.20 hingga 0.39	Weak
Kurang 0.19	Very weak
0.00	No relationship

Source: Cohen 1988

Table 7: Correlation relationships between mutual fund/ unit trust investment variables for performance expectancy, effort expectancy and social influence on behavioral intention

Variables	Behavioral intention
Performance expectancy	.617**
Effort expectancy	.753**
Social influence	.462**

**significance at level p< 0.01

Table 8: Correlation relationships between mutual fund/unit trust investment variables for behavioral intention and facilitating conditions on behavior use

	Behavior use
Behavioral intention	.780**
Facilitating conditions	.601**

**significance at level p< 0.01

Table 9: Correlation relationships between age and gender on Mutual Fund/ unit trust investment variables for performance expectancy, effort expectancy, social influence and facilitating conditions

Variables	Age	Gender	Education	Profession
Performanceexpectancy	.024	-.126	.016	-.059
Effort expectancy	-.048	-.081	-.072	-.254**
Social influence	.025	-.031	-.134	-.206**
Facilitating conditions	-.059	-.016	-.043	-.060

*significance at level p< 0.05

4.4 Relationship analysis between mutual fund/ unit trust investment variables for performance expectancy, effort expectancy and social influence on behavioral intention

The result of pearson correlation analysis is to identify the relationship between mutual fund/ unit trust investment variables for performance expectancy, effort expectancy and social influence on behavioral intention among respondents are shown in table VII. The Pearson correlation analysis presented in the table also displays the correlation between medium to high levels of correlation between behavioral intention with performance expectancy, effort expectancy and social influence. The medium level of correlation relationship is behavioral intention with performance expectancy, [r = 0.617, p <0.01], and social influence, [r = 0.462, p <0.01]. While correlation is high level for behavioral intention with effort expectancy [r = 0.753, p <0.01].

4.5 Relationship analysis between mutual fund/ unit trust investment variables for behavioral intention and facilitating conditions on behavior use

The results of Pearson correlation analysis is to identify the relationship between mutual fund/ unit trust investment variables for behavioral intention and facilitating conditions to behavior use among respondents are shown in the table VIII. The Pearson correlation analysis shown in the table also suggests the correlation between moderate to high levels of correlation between behavior use with behavioral intention and facilitating conditions. The medium level of correlation relationship is behavior use with facilitating conditions, [r = 0.601, p <0.01]. While correlation is high for behavioral use with behavioral intention fund [r = 0.780, p <0.01].

4.6 Relationship analysis between age, gender, education and profession on mutual fund/ unit trust investment variables for performance expectancy, effort expectancy, social influence and facilitating conditions

Pearson correlation analysis is to identify the relationship between age, gender, profession and education in mutual fund/ unit trust variables for performance expectancy, effort expectancy, social influence and facilitating conditions among respondents are illustrated in table IX. The Pearson correlation analysis shown in the table demonstrates that there is no significant relationship between age and performance expectancy [r = 0.024, p> 0.05], effort expectancy [r = 0.048, p> 0.05], social influence [r = 0.025, p> 0.05], and facilitating conditions [r = 0.059, p> 0.05. Similarly, there is no significant relationship between gender with performance expectancy [r = 0.126, p> 0.05], effort expectancy [r = 0.081, p> 0.05], social influence [r = 0.031, p> 0.05], and Facilitating conditions [r = 0.016, p> 0.05].

4.7 Variables in mutual fund/ unit trust investment.

The results of this study are to identify performance expectancy, effort expectancy and social influence in influencing behavioral intention among respondents.

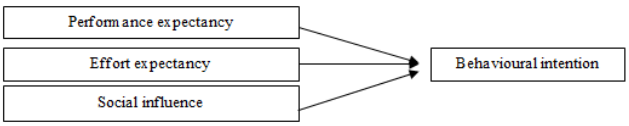


Fig. 3: Influence of performance expectancy, effort expectancy and social influence on behavioral intention

The results of multiple regression analysis are to identify performance expectancy, effort expectancy and social influence in influencing behavioral intention among respondents, which are shown in table X. Results in the table shows performance expectancy, effort expectancy and social influence predict significantly on behavioral intention, R^2 = 0.763; F (3, 199) = 92.330, p <0.05. All predictors contribute 76.3% variance on behavioral intention. Further analysis identified that the effort expectancy and social influence have significantly influenced behavioral intention. However, performance expectancy does not significantly affect the behavioral intention. The main contributor to behavioral intention is effort expectancy, ß = 0.661, t (199) = 8.788, p <0.01, followed by social influence, ß = 0.133, t (199) = 2.521, p <0.05 and for performance expectancy, ß = 0.037, t (199) = 0.492, p> 0.05. Therefore, it is possible to establish that effort expectancy and social influence have a significant influence on behavioral intention among respondents.

Results of this study are to identify behavioral intention and facilitate conditions in influencing the behavior use among respondents.

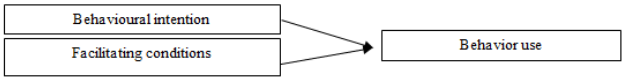


Fig 4 : Influence of behavioral intention and facilitating conditions on behavior use

Table 11: Multiple regression analysis between behavioral intention and facilitating conditions on behavior use

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.112	.167		.667	.505
	Behavioral intention	.658	.042	.644	15.552	.000**
	Facilitating conditions	.312	.037	.347	8.376	.000**

R^2 = 0.843; F(2, 200) = 245.567, sig. F = 0.000
**p<0.01

The multiple regression analysis results are to identify behavioral intention and facilitating conditions in influencing the behavior use among respondents, which are shown in table XI.Results in the table indicates behavioral intention and facilitating conditions predict significantly on behavior use, (R^2 = 0.843; F (2, 200) = 245.567, p <0.05). All predictors contribute for 84.3% variance towards behavior use. Further analysis found that behavioral intention and facilitating conditions significantly influenced on behavior use. The main contributor for behavioral use is behavioral intention, ß = 0.644, t (200) = 15.552, p <0.01, followed by facilitating conditions, ß = 0.347, t (200) = 8.376, p <0.01. Hence, behavioral intention and facilitating conditions have a significant influence on behavior use among respondents.

4.8 The influence of age and gender on performance expectancy in mutual fund/ unit trust investment

The results of this study are to identify age and gender in affecting performance expectancy among respondents.



Fig 5 : Influence of age and gender on performance expectancy

Table 12: Multiple regression analysis between age and gender on performance expectancy

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.035	.298		13.528	.000**
	Age	.015	.071	.015	.209	.835
	Gender	-.177	.100	-.125	-1.777	.077

R^2 = 0.016; F(2, 200) = 1.640, sig. F = 0.197
**p<0.01

Results of multiple regression analysis are to identify age and gender on influence performance expectancy among respondents, which are shown in Table XII. Results in the table indicate that age and gender do not predict significantly to performance expectancy (R^2 = 0.016; F (2, 200) = 1.640, p> 0.05). Further analysis found that age, ß = -0.015, t (200) = 0.209, p> 0.05; and gender, ß = -0.125, t (200) = -1.777, p> 0.05 did not significantly affect on performance expectancy. Therefore, it can be said that age and gender does not have a significant effect on performance expectancy among respondents.
Results of this study are to identify gender, age and profession in influencing on effort expectation among respondents.

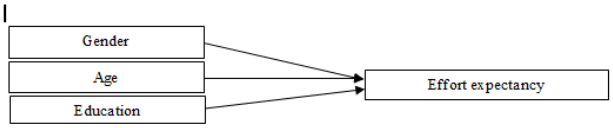


Fig. 6: Influence of gender, age and education on effort expectancy

Table 13: Multiple regression analysis between gender, education and age on effort expectancy in mutual fund/ unit trust investment

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.923	.503		9.794	.000**
	Gender	-.161	.099	-.112	-1.624	.106
	Education	-.014	.091	-.011	-.151	.880
	Age	-.217	.059	-.264	-3.687	.000**

R^2 = 0.077; F(3, 199) = 5.527, sig. F = 0.001
**p<0.01

Results of multiple regression analysis are to identify gender, profession and education in affecting the effort expectancy among respondents, which are presented in table XIII. The results in the table indicate that gender, education and age predicts significantly to the effort expectancy, (R^2 = 0.077; F (3, 199) = 5.527, p <0.05). All predictors contribute for a 7.7% variance on effort expectancy. Further analysis found that profession ß = -0.264, t (199) = -3.687, p <0.01 had a significant effect on effort expectancy. While gender, ß = -0.112, t (199) = -1.624, p> 0.05; and education, ß = -0.011, t (199) = -0.151, p> 0.05 did not significantly affect effort expectancy. Thus, age has a significant influence on effort expectancy among respondents.

Results of this study are to identify age, gender, education and profession in influencing the social influence among respondents.

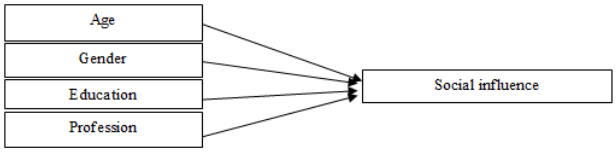


Fig. 7: Influence of age, gender, education and profession on social influence

Table 14: Multiple regression analysis between age, gender, education, profession on social influence in mutual fund/ unit trust investments.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.684	.550		8.515	.000**
	Gender	-.101	.108	-.066	-.941	.348
	Age	.146	.083	.132	1.748	.082
	Education	-.177	.104	-.130	-1.705	.090
	Profession	-.190	.065	-.214	-2.906	.004**

R^2 = 0.067; F(4, 198) = 3.554, sig. F = 0.008
**p<0.01

Results of multiple regression analysis are to identify age, gender, education and profession in influencing social influence among respondents, which are shown in table XIV. Results in the table indicate that age, gender, education and profession are predictably significant on social influence (R^2 = 0.067; F (4, 198) = 3.554, p <0.05). All predictors contribute for 6.7% of the variance on social influence. Further analysis found that profession ß = -0.214, t (198) = -2.906, p <0.01 had a significant effect on social influence. While gender, ß = -0.066, t (198) = -0.941, p> 0.05; age, ß = 0.132, t (198) = 1.748, p> 0.05; and education, ß = -0.130, t (198) = -1.705, p> 0.05 did not significantly affect social influence. Therefore, profession has a significant influence on social influence among respondents
Results of this study are to identify age and gender in affecting on facilitating conditions among respondents.

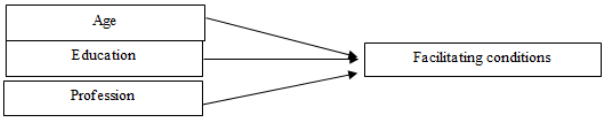


Fig 8 : Influence of age, education and profession on performance expectancy

Table 15: Multiple regression analysis between age, education, profession on facilitating conditions in mutual fund/ unit trust investment

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.976	.552		7.198	.000**
	Age	-.049	.094	-.040	-.517	.606
	Education	-.022	.116	-.015	-.194	.847
	Profession	-.043	.074	-.044	-.578	.564

R^2 = 0.006; F(3, 199) =0.378, sig. F = 0.769
**p<0.01

The results of multiple regression analysis are to identify age, education and profession in affecting on facilitating among respondents are shown in table XV. Results in the table XV indicates age, education and profession do not predict significantly on facilitating conditions (R^2 = 0.006; F (3, 199) = 0.378, p> 0.05). Further analysis found that age, ß = -0.040, t (199) = -0.517, p> 0.05; education, ß = -0.015, t (199) = -0.194, p> 0.05; and profession, ß = -0.044, t (199) = -0.578, p> 0.05 did not significantly affect facilitating conditions. As a result, education and profession have no significant effect on facilitating conditions.

5. Discussion and conclusion

The Pearson correlation analysis shows the medium level of correlation relationship is behavioral intention with performance expectancy, and social influence, while correlation is high level for behavioral intention with effort expectancy. The medium level of correlation relationship is behavior use with facilitating conditions, while correlation is high for behavioral use with behavioral intention. There is no significant relationship between age and performance expectancy, effort expectancy, social influence, and facilitating conditions. Similarly, there is no significant relationship between gender with performance expectancy, effort expectancy, social influence and facilitating conditions. The findings in mutual fund selection criteria exhibit that performance variable was still the main criterion among investors (11).

The results explained 84.4 per cent and 76 per cent of the varience of behavioral intention and behavioral use, which is higher with UTAUT model. Furthermore, (8) explained after including task technology fit and perceived credibilty variable with 61 per cent and 64 percent of the variace of behaviour intention and behaviour use of its variance, with performance expectancy was found the strongest of behavioral intention. Contrary to the UTAUT, the effect of effort expectancy on behavioral was insignificant. In addition, both behavioral intention and facilitating conditions were found to affect the actual usage behaviour and explained 64 percent of variance. Further analysis identified that the effort expectancy and social influence significantly influenced on behavioral intention. However, performance expectancy does not significantly affect the behavioral intention. In contrast, (7) concluded that performance expectancy issignificantly the largest contribution in behavioral intention for internet banking in Jordan. The main contributor to behavioral intention is effort expectancy, followed by social influence, and performance expectancy. Therefore, it is possible to reveal that effort expectancy and social influence have a significant influence on behavioral intention among respondents. Behavioral intention and facilitating conditions significantly influenc behavior use. The main contributor for behavioral use is behavioral intention, followed by facilitating conditions. Therefore, it can be assume that behavioral intention and facilitating conditions have a significant influence on behavior use among Malaysians. Age and gender, did not significantly affect on performance expectancy. In addition, age and gender do not have a significant effect on performance expectancy among respondents. Profession had a significant effect on effort expectancy, while gender, and education, did not significantly affect on effort expectancy. Therefore, profession has a significant influence on effort expectancy among respondents. Profession had a significant effect on social influence;while gender, age, and education, did not significantly affect on social influence. Therefore, profession has a significant influence on social influence among respondents. Age, education, and profession, did not significantly affect facilitating conditions. Thus, age, education and profession have no significant effect on facilitating conditions. The above findings contradict with the study by (12). Author examined which further examination of the inferential analysis highlightedthe level of education and income level of respondents, which may be a major determinant in influencing the adoption of internet banking.

The study of (9), suggest that models of technology acceptance should be re-formulated to focus more on the key role of the perceived usefulness of the service embedded in the new technology. Furthermore, (4) highlights the inadequacy of a concentration on simple acceptance of technology where technology is embedded in a consumer community of practice. The existence of counter-intuitive behaviours, technology paradoxes and intense social and emotional elements in actual text message usage all point to the need for a review of the definition of the key TAM constructs. A study by (12) distinguished that consumers with a good education profile tend to use technology application in internet banking. On the other hand, the results revealed that, (13) the lower age and male groups had a positive effect on investment decisions and display high awareness about mutual fund investments. Developing the effective and systematic framework is a must for FinTech service especially in mutual fund/ unit trust investments and the implementation of FinTech will provide service improvement and transformation for investment management services in the future.

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