

## **Adoption Analysis of Online Mutual Fund Investment Platform for Millennials in Indonesia**

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### **ABSTRACT**

Mutual Funds is an alternative investment designed to raise funds from people who have capital and have the desire to invest, but only have limited time and knowledge. In addition, Mutual Funds are also expected to increase the role of local investors to invest in the capital market. The theory of technology adoption is implemented in this study to analyze how technology adoption of online mutual fund investment with millennials as the main object of research. Extended of the Unified Theory of Acceptance and Use of Technology (UTAUT2) is applied using 7 internal variables and 3 external variables. After gathering 279 data respondents, it is found that there are several factors that have positive significance to behavioral intention to adopt online mutual fund investment, namely performance expectancy, effort expectancy, hedonic motivation, price value, habits, content design quality, user interface and perceived trust. Meanwhile, Content Design Quality and User Interface have positive significance to Performance Expectancy and Effort Expectancy. This finding will be useful for online mutual fund investment developers to transform conventional mutual fund to online platforms format.

Keywords: Millennial generation, Online Mutual Funds Investment, Technology Adoption, Indonesia.

### **1. INTRODUCTION**

Reported by Statistics Indonesia (BPS) in 2019, Indonesia was recorded to have more than 268 million population, this resulted in Indonesia occupying the fourth most populous country in the world. It is also mentioned that one third of the population in Indonesia are millennials. The Indonesia Central Securities Depository (KSEI) noted until October 2019, there are 60% of 2.28 million people of number investors coming from the millennial generation.

Investment has an important role in the economic sector, especially in developing countries.

Without adequate investment, it is difficult to expect high economic growth that results in economic prosperity for developing countries. One of the means used to accelerate the pace of development and the economy is through the capital market that is defined as an activity related to public offerings and securities trading, public companies related to securities issued, and institutions and professions related to securities.

There is a significant increase in the implementation of information technology and innovation in the financial services sector recently in Indonesia (Shulhan 2019). One of the real forms of innovation is the existence of online mutual funds that have begun to come widely in Indonesia. Starting in 2016, PT Manulife Asset Management Indonesia (MAMI) launched KlikMAMI, the first online mutual fund service in Indonesia which then encouraged other FinTech's to provide online mutual fund services with a variety of different features from one another (Setiawan 2016).

The number of mutual funds investors have been improving since the existence of online mutual funds investment platforms. The reasons for mutual funds are chosen by most investors, besides the easy and quick process, some online platforms also allow investors to deposit their money with a small nominal which is certainly very suitable for middle society in Indonesia. With the advancement of technology, the development of the capital market industry, and the existence of fintech, prospective investors have been easier to open securities accounts.

Transforming conventional mutual funds to an online basis is not easy since not many online mutual funds are successfully implemented by Indonesian investors (Shulhan 2019). As of now, there's very little work done about customer acceptance towards online mutual funds in Indonesia, especially Millennials as the sample of the study. This study will provide information about the level of awareness of online mutual funds in Indonesia, what factors that influence Millennial behavioral intention towards online mutual funds, and recommendation to online mutual fund developers to attract potential millennials investors.

## **2. LITERATURE REVIEW**

### **2.1 Millennials in Investment**

Definition of millennials based on (Raines 2002) are sociable, optimistic, talented, well-educated, collaborative, open-minded, influential, and achievement oriented. In a survey of IDN Research Institute in their report (Utomo 2019) has conducted a survey in several big cities of Indonesia, it is found that only 2% of the total millennials' expenditure is used for investment, and 51% is used for shopping. This finding was also revealed in a 2017 report by (Ali 2017). In that report also found that only 39.4% of 600 respondents had already had investment planning. Moreover from 2015 to 2018 Indonesia experienced significant growth in terms of capital market, align with the increasing number of new investors who were entering the capital market (Fitria et.al, 2019).

### **2.2 Mutual Fund in Indonesia**

(Singh 2011) in his study said that mutual funds are a pool of saving money from several investors who have a common financial goal. Then, the professional management would invest the money that had been collected from investors in capital market instruments, such as shares, securities and debentures. The return is gained from these investments and the capital appreciations realized are shared by its unit's holder in each proportion. Investor interest in mutual funds continues to increase due to its easiness and user friendly hence it is very preferable by most investors (Dewi & Rahadi, 2020). Reporting from the Financial Services Authority of Indonesia or in Indonesia we called OJK states that there is a significant increase in the number of SID (Single Investor Identification) increases in October 2019. This is directly proportional to the AUM (Asset Under Management), which is the management fund which

also has increased from the month September to October 2019 (Almawadi 2019).

### 2.3 Framework Development

Online mutual funds have only been propelled in Indonesia since 2016 and that the number of users is developing every year, it ought to be emphasized how imperative it is to utilize a investigate show for the usage of innovation from a number of previous studies (Dewi & Rahadi, 2020). There is some literature in this area indicating that a variety of analytical mechanisms have been developed to investigate the implementation intentions of related information technology and information systems (IT/IS) for example the technology acceptance model (TAM) (Davis, 1989), the technology-organization and environment (TOE) framework (Tornatzky and Fleischer, 1990), the theory of planned behaviour (TPB) (Ajzen, 1991), extended of the unified theory of acceptance and use of technology (UTAUT2) (Venkatesh et al., 2012), etc. Many of these ideas have used fundamental concepts in the fields of psychology, communication, and IT to explain the motives of different types of IT/IS at the human and firm level (Yadav, 2016). Any of these models have been applied to further research to enhance predictive capabilities.

The Unified Technology Acceptance and Use Theory (UTAUT) was proposed by Venkatesh et al. in 2003 by reviewing eight main models: theory of reasoned action, TAM, motivational model, theory of planned behavior (TPB), combination of TAM and TPB, model of PC utilisation, innovation diffusion theory and social cognitive theory. The goal of UTAUT2 is to generate the extensions of the previous principle, UTAUT, to concentrate more on the sense of individual usage than on the corporate context to define the purposes of the IT / IS to follow. UTAUT (2003) was converted into UTAUT2 (2012) by introducing more variables than the original UTAUT. The variables are Hedonic Motivation (HM), Price Value (PV), and Habit (H). Although the previous model has already carried out four variables, which are Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI) and Facilitating Conditions (FC). Such specific variables were meant to improve the applicability of UTAUT within the sense of the user. It was also concluded that the new variables in UTAUT2 would give rise to certain substantial improvements in the variation described in the sense of behavioral purpose and the use of technology (Venkatesh, 2012).

Over the years, marketing research has found anomalies in the trend of acceptance of specific IT / IS around the globe, which is incomprehensible by using a single, specific design (Yadav, 2016). Such variations in patterns of adoption are primarily due to factors such as government policy, business development, consumer conditions and the like (Gong and Li, 2008; Alshamaila et al., 2013). In this context, the present study used the basic architecture of current models and expanded them by adding web design consistency (CDQ) and user interface (UI) as two new variables to resolve the specifications and underlying characteristics of the online mutual fund (Shulhan, 2019).

### 2.4 Conceptual Framework

Within the online mutual fund context, researchers have indicated various determinants or drivers that have had a positive effect on adoption decisions. Using UTAUT2 as the basis of conceptual framework and combined with a study by (Shulhan, 2019), researchers found that performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit and perceived trust will have positive effect on behavioral intention. Also, it is found that content design quality and user interface are determinants factors that effect on performance expectancy and effort expectancy. In addition, researcher have identified that there is limitation information available on actual adoption or usage rates for Indonesia's online mutual fund and this might be due to the limited number of studies carried in this field.

The author adopted research of (Madan, 2016) as a basis for unified theory of acceptance and use of technology and it modified by several theories, which created such conceptual frameworks.

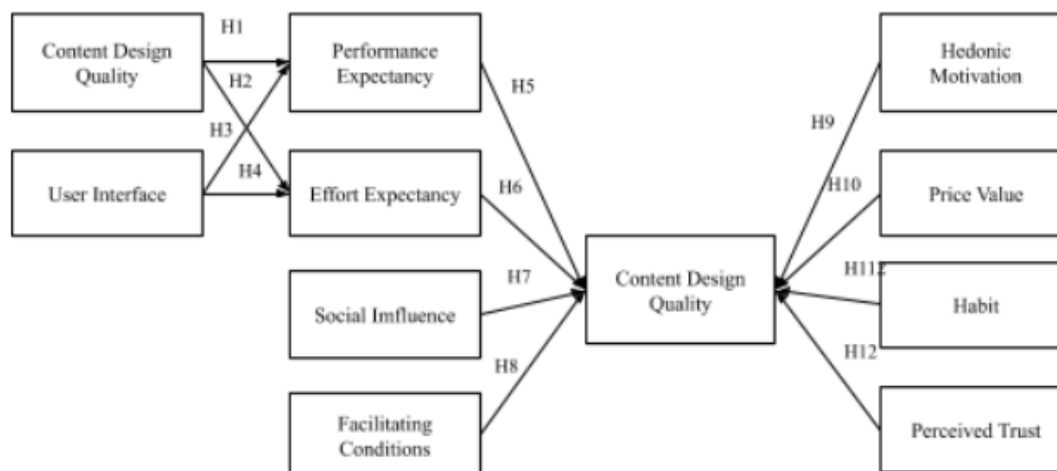


Figure 2. 1 Conceptual Framework

### 3. METHODOLOGY

Data is collected by using random sampling method through an online questionnaire. The study will be performed using quantitative approach as the suitable research methodology (Basias & Pollais, 2018). Then researchers will only use respondents who already used Online Mutual Fund to make the data results more valid. The questionnaire was distributed through Telegram groups of mutual fund, Twitter, Line Group and Instagram. Population size is about 2,500,000 and the sample size is 220 users gathered in April 2020.

The population of this research consists of millennials located in Bandung, Indonesia, who invest through online mutual fund, aged 20-38 years old because this research is targeted to millennials investors who use online mutual fund. (Malhotra, 2010) said 205 samples is the appropriate minimum number of samples of study. Data will be analysed by using PLS-SEM. PLS-SEM is an analytical method focuses on predictions in a series of hypothetical relationships by maximizing the variances described in the dependent variables.

### 4. RESULT AND DISCUSSION

#### 4.1 Demographic Data Analysis

From 279 respondents involved in this study, 60.9% are men and 39.1% are women. Most of the respondents are between 18 – 24 years old (69.5%), followed by 28% are 25 – 31 years old and the rest are 32 – 38 years old. There 59.5% of the total respondents are college students, followed by employees (23.3%), entrepreneur (7.2%) and civil servants (6.5%). It shows that most of the respondents (93.5%) have already known about online mutual fund, and 220 respondents (79.1%) have used online mutual fund investment platform before.

#### 4.2 Outer Model

Outer Model is shown on figure 4.1 using reflective mode. The reflective mode has an arrow (relationship) that leads from the construct to the item question in the measurement model. This outer model consists of 11 constructs as shown on figure 2.1. Questions are shown on table 3.1. These questions are utilized as indicators to measure each construct. The indicators are shown on figure 4.1.

### 4.3 Hypothesis Status

Hypothesis status is known by calculating t-statistic, and P-value. A hypothesis is accepted if its T-statistic value is greater than 1.96 otherwise it is rejected (Hair, 2014). As can be seen on table 4.1, hypothesis H8 and H9 are rejected because its t-statistic is under 1.96. Whilst other hypotheses are accepted. Afterwards, all accepted hypotheses will be examined whether they show a significant effect or not. A hypothesis status is stated as significant if its P-Values is less than 5% (Hair, 2014). Hypotheses H8 and H9 are not significant because their P-value are greater than 5%. While other hypotheses are significant because theirs are less than 5%.

Table 4. 1 Hypothesis Result

Hypothesis	Structural Path	T-Values	P Value	Result
H1	Content Design Quality -> Performance Expectancy	7.221	0	Accepted
H2	Content Design Quality -> Effort Expectancy	10.826	0	Accepted
H3	User Interface -> Performance Expectancy	2.514	0.012	Accepted
H4	User Interface -> Effort Expectancy	3.823	0	Accepted
H5	Performance Expectancy -> Behavioral Intention	3.829	0	Accepted
H6	Effort Expectancy -> Behavioral Intention	2.09	0.037	Accepted
H7	Social Influence -> Behavioral Intention	0.874	0.382	Rejected
H8	Facilitating Conditions -> Behavioral Intention	0.294	0.769	Rejected
H9	Hedonic Motivation -> Behavioral Intention	2.824	0.005	Accepted
H10	Price Value -> Behavioral Intention	2.195	0.029	Accepted
H11	Habit -> Behavioral Intention	9.243	0	Accepted
H12	Perceived Trust -> Behavioral Intention	2.133	0.033	Accepted

There are ten accepted and significant positive hypotheses including H1, H2, H3, H4, H5, H6, H7, H10, H11, and H12 and two hypotheses that are not accepted or not significant comprising of H8 and H9. As a result, the final framework model can be redrawn as shown on figure 4.2.

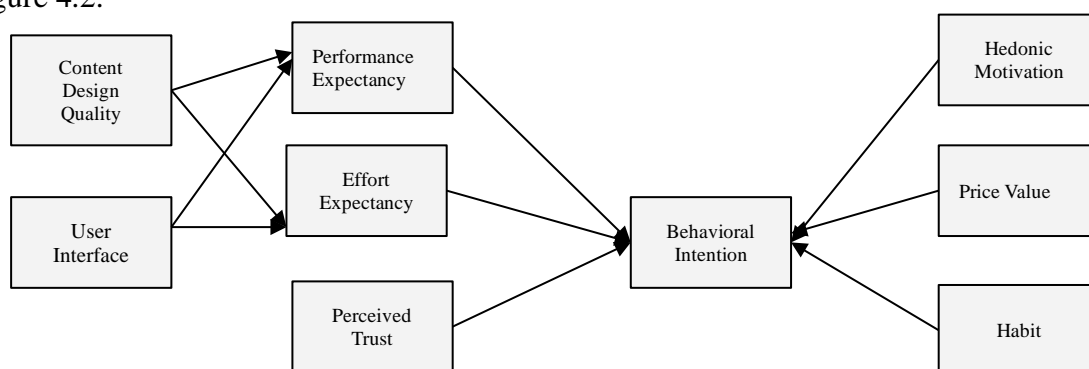


Figure 4.2 Final Framework

The correlation between content design quality and performance expectancy shows a positive relationship. This finding is in line with the prior study by (Shulhan, 2019) who also discussed online mutual fund adoption in Indonesia, it is found that content design quality has positive correlation to performance expectancy to adopt online mutual fund platforms. It shows that content design quality involves clarity, application design, simple interface, efficient



functionality, and up-to-date details have significant effect on using technologies to acquire any investment would increase their efficiency in the creation of investment transactions.

As for content design quality and effort expectancy in an online mutual fund context, it shows a positive relationship. This result shows that application design, simple interface, efficient functionality, and up-to-date details have significant effect in easiness to use and how easy it is to grasp the functionality of online mutual funds. This result is not consistent with the finding of (Shulhan, 2019) who found that content design quality is insignificant towards effort expectancy in using online mutual fund investment platforms.

The relationship between user interface and performance expectancy is accepted. This result shows that a user environment that includes the menus, navigation, interactivity, and various functions is directly significant on using technologies to acquire any investment would increase their efficiency in the creation of investment transactions. This finding supports the prior research by (Shulhan, 2019) who stated that user interface has positive correlation to performance expectancy to adopt online mutual fund platforms, especially in Indonesia.

User Interface and effort expectancy to use an online mutual fund is significantly correlated. The result is not consistent with prior study by (Shulhan, 2019) who found that user interface has no significant correlation with effort expectancy in using an online mutual fund platform. The result shows that menus, navigation, interactivity and various functions are directly significant on ease of use and how easy it is to grasp the functionality of online mutual funds.

As for the relationship between performance expectancy and behavioral intention, the hypothesis is rejected. This result shows that the enhancement performance to use the online mutual fund directly affects behavioral intention. These findings are consistent with prior finding which used UTAUT as their model, in the findings by (Tang, 2014; Madan, 2016; Al Mansoori, 2017; Khan, 2017; Rachmawati, 2018; Shulhan, 2019) who prove that performance expectancy has positive significant correlation to behavioral intention.

The relationship between effort expectancy and behavioral intention is significantly correlated. This finding is supported by previous studies that also used the UTAUT framework, (Ghalandri, 2012; Shulhan, 2019) who found that effort expectancy/ perceived ease of use has significant influence on behavioral intention to use online mutual funds. This result shows that effort and ease to understand the use of online mutual funds significantly correlate with intention to use the applications.

The relationship between hedonic motivation and behavioral intention is accepted. This finding is supported by (Yang, 2013; Tang, 2014) who found that encouragement in the form of enjoyment, fun and feeling entertained when a person uses technology is significantly correlated to behavioral intention to use application. The findings stated that the user's intention is also triggered not only from the utilitarian motivation or its functionality, but also, they pay attention to the user experience they would get in performing the technology.

The correlation of price value and behavioral intention is significantly positive. This result might be supported by the minimum balance invested is very affordable in online mutual fund platforms. Also, in this study most respondents came from among students, who have a relatively small monthly income. Hence, a small minimum balance requirement makes it easy for them to become mutual fund investors. This finding is also consistent with a previous study by (Rachmawati, 2018) who stated price value has positive influence on behavioral intention to use the application.

Habit is the extent to which the users use online mutual fund platform features gradually which then turns into a habit. This result might be occurred because of the existence of features in an online mutual fund platform which allows the users to routinely buy mutual funds in the application. This finding is also consistent with prior study by (Tang, 2014; Khan, 2017) who claimed that habit was positively correlated with behavioral intention to use the application.

Perceived trust has found to be significant to the behavioral intention to use an online mutual fund investment platform. Trust is explained where other parties will not behave opportunistically towards other individuals. This result is consistent with several studies which also used UTAUT as their framework, (Al Mansoori, 2017; Madan, 2016; Rachmawati, 2018) stated that perceived trust has a positive influence on behavioral intention.

## 5. CONCLUSIONS

### 5.1 Research Result

This research adopted the theoretical foundation from (Venkatesh et al., 2012) which is a combination from various conceptual frameworks of technological adoption that affect behavioral intention to use a technology. Researcher also use 2 external variables from (Shulhan, 2019) that also discuss online mutual fund adoption in Indonesia. This research has found out that there are six hypotheses that were significant to behavioral intention and four hypotheses that were significant to the performance expectancy and effort expectancy. The six variables that significantly affect behavioral intention are Performance Expectancy (PE), Effort Expectancy (EE), Perceived Trust (PT), Habit (HT), Hedonic Motivation (HM) and Price Value (PV). The two variables that directly affect the Performance Expectancy (PE) and Effort Expectancy (EE) are Content Design Quality (CDQ) and User Interface (UI). These significant variables can be used further as the reference or literature to further consider these variables as important variables in determining the adoption of an online mutual fund platform.

However, facilitating conditions and social influence have found to be insignificantly related to behavioral intention. Facilitating conditions refers to resources and knowledge of users to use the technology. Based on the authors' analysis, facilitating conditions is insignificant because of the given requirement that is a very low balance of mutual funds so that many people can use them. Related to knowledge, it might happen because the friendly and simple interface design makes users easy to interpret information on the platform. This finding is consistent with study by (Birch, A, 2009) who also stated that facilitating conditions is not significant to behavioral intention. Social influence refers to the effect of environmental factors such as opinions of a user's friends, relatives, and superiors on user behavior. In this study, it is found that social influence is not significant towards behavioral intention. The possible explanation is that most respondents claimed that they have self-initiative to use an online mutual fund. This statement is supported by (Chen, 2008) millennial generation is basically known as the trendsetter where they often take initiative to adopt new products instead of making decisions with others' influences.

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