

CUSTOMER LOYALTY AND SATISFACTION IN MUTUAL FUND PORTAL: DESIGN FEATURE, SERVICE QUALITY AND PRODUCT VARIETY

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Abstract:-

The purpose of this paper is to examine relationship the customer loyalty to customer satisfaction to portal design features and customer service quality of Mutual Fund Online portal in Indonesia. This relationship is important as a marketing strategy to attract and retain customers by leveraging digital technologies to extend Mutual fund online selling portal product, services, and delivery capabilities in Indonesia.

Research Methodology. *The research method of this study is based on quantitative approach, particularly by disseminating online questionnaire survey using google forms was distributed through Social Media such as WhatsApp Group of Mutual fund company network and communities and Instagram and Facebook community Mutual fund online Investors. Nonprobability sampling technique is used by selecting individual mutual fund investor who have experience in investing mutual fund via online as survey respondents. Survey result data then analyzed by performing Structured Equation Model (SEM) by using SMARTPLS.*

Findings: *The research findings show Information quality, portal firmness give significant positive affect to the portal design features of mutual fund online portal. Portal design features, and product variety offered will give significant positive influence on Customer satisfaction. Customer loyalty of mutual fund online portal predominantly influenced by Customer satisfaction and product variety of the portal.*

Originality/Value: *This paper can be used by Mutual fund companies (Investment Managers and Selling agents) to know what are the important design features to satisfy online investors in developing their online selling platform or to add the competitive advantage of their existing online selling portals. It also can be used by mutual fund online investor as reference in choosing their mutual fund online selling portal. Finally, this paper is to contribute to the literature of digitalization of mutual fund in Indonesia to understand the mutual fund online investor behavior and preference in Indonesia.*

Keywords:- *Mutual Fund Digitalization, Mutual fund online selling portal, Design features and Principles, Customer Satisfaction, Customer Loyalty, Reksa Dana Online*

INTRODUCTION

In a digital world nowadays the use of Information technology has been integral and essential part of investment and Financial Services. Advanced development in information technology have also changed in behavior of Indonesian investors who were using conventional, now have slowly have shifted to digital platform. Rapid penetration of internet and smartphones, global developments in fintech and information technology in the last few decades have indeed transformed the financial sector, especially capital markets, including mutual funds. Mutual fund industry in Indonesia has been in a remarkable growing trend over the last few years.

The journey of new era of digital age of Indonesia mutual fund industry is marked when the Indonesian Financial Services Authority (OJK) started to allow mutual fund to be transacted electronically in year 2014. OJK is aware that Indonesia as an archipelago country to reach rural and remote areas needs digitalization in Mutual fund distribution to encourage people to invest in capital market as well as to improve financial inclusion and literacy. Emerging distribution channels based on online or mutual fund digital ecosystem such as in payment and e-wallet, e-commerce, internet & mobile banking, investment manager and selling agent online selling are expected to gain further prominence in mutual fund industry. Mutual Fund distribution online digital platform in Indonesia is now available through various Digital outlets such as E-Commerce apps (eg. Tokopedia, Bukareksa, etc), E-Money (Ovo, Indosat Dompotku, etc), Investment Manager direct selling through digital platform and Selling Agent (Bank, Securities Company, Mutual Fund Super Market selling agent such as Bareksa, Ajaib, Tanamduit, etc). Mutual fund transactions that can now be accessed online simply using smartphone and internet connection, Investor can easily open an account, buy and sell mutual fund products. This ease of process is believed to be able to foster positive interest in the Indonesian people to invest in mutual funds, and is expected to increase access to the capital market for investors in the regions.

Mutual Fund Products in Indonesia have gained more popularity over last few years. With many new mutual fund products being launched every year, backed and supported with financial awareness and literacy initiatives by the industry and the regulator, investors begin to realize that mutual funds as a preference and favorable investment product to achieve their financial goals and investment objective which suitable for their risk profile. The number of AUM and Mutual Fund Products in Indonesia increase significantly in last few years. Based on the data published by OJK in 2018 average Mutual fund AUM grow 21 percent per year, with 244 new products launched every year. In line with the increase of AUM, number of investors of mutual fund also increase on average by 29% every year since 2014. These new mutual fund investors are mostly coming from digital platform or mutual fund online portal in the past few years. The potential growth for Mutual Fund industry in Indonesia continuously can be leveraged by digitalizing Mutual Fund distribution using online platform.

There are two types of mutual fund online portal in Indonesia, exclusive online selling mutual fund portal and supermarket online selling portal. First is supermarket mutual fund online portal that offers various types of Mutual Funds from many Investment Managers which owned by mutual fund selling agents such as securities companies, Bank and fintech companies for example *Bareksa*, IPOT Fund, Commonwealth Bank. Second type is exclusive mutual fund online portal, which is owned and managed by Investment Manager Company such as *Klikmami* from Manulife Asset Management, *Moinves* from Mandiri Manajemen Investasi and *iTram* from Trimegah Asset Management. This type of mutual fund online portal, is a direct online selling channel from Investment Manager Company. Although they can offer several types of Mutual Funds, this portal can only sell Investment Manager own managed mutual fund product. As per end of 2019, there are 59 mutual fund online selling portal registered and approved OJK. The number of exclusive mutual fund online selling portal owned by Investment Manager is still quite small number, 17 out of 92 or only 20 percent of Investment Manager own Mutual Fund online selling platform.

Each mutual fund online selling portal offer their unique and competitive advantages to customer. For example, a supermarket mutual fund portal offers variety mutual fund types from various investment manager and even allow their customer invest in other investment product such as stocks and government bond. Some also have unique services such as 5 minutes opening account and KYC process, auto investment features, robo-advisor facility, comprehensive analytics tools and research and many more. Many of these mutual fund portals are successfully gain popularity and attract people to open account and invest with them. Yet, most of mutual fund online selling portals have not gained popularity to mutual fund online investors.

In the financial services industry, customer satisfaction is predominantly a crucial factor which influence customer loyalty. A study shows that majority of customer attrition was due to customer dissatisfaction (Loveman, 1998). The most encountered challenges faced by mutual fund online selling portals today is in acquiring the new clients and maintaining their Asset under Management. It will be interesting to study customer satisfaction and loyalty toward mutual fund online selling portals in terms of portal design features aspects, product offered and customer service quality perspectives.

There were only few literatures which discussed important design features and principles that are crucial to the success and customer behavior of mutual fund online portal in Indonesia. Recent study only covers Technology Acceptance Model (TAM) of Indonesian popular mutual fund portal *Bukareksa* (Shulhan and Oetama, 2019). Any research which discussed design factors and principle as well as customer service quality which influence customer satisfaction and loyalty of Indonesian mutual fund online portal will be valuable. In order to identify what are the critical system design features

which influence customer satisfaction and impact of customer service quality which influence customer loyalty and customer satisfaction, it is necessary to discuss them altogether. The purpose of this research is to study what is the most critical elements of portal design features valued by the online investors and analyze how the design features and customer service quality will influence customer loyalty and satisfaction of Indonesian Mutual fund online portal. The critical elements of mutual fund online portal discussed in this paper include convenience aspects, information quality, product variety and firmness of the portal. This paper comprises of previous literature review, conceptual framework of the proposed model of the mutual fund online selling portal, research methodology and results discussion of the empirical studies, and finally concludes by discussing the findings and implications of the study results.

LITERATURE REVIEW

There are many journal papers which study the impact of financial technology, digitalization in financial services industry. However, when it comes specifically to topics of mutual fund online selling platform in Indonesia still few available or only discussed briefly. Therefore, this paper also taking account of impact and challenge of digitalization, investor preference of online trading as a study comparison.

Tamara, et al (2019) discussed the determinant of financial innovations and to test the correlations between organizational innovation and financial innovation of mutual fund companies, Investment Manager Skills and financial innovation, peer and financial innovation as well as technology information and financial innovation. Internet-based and IT digital platform significantly impact the way of mutual fund companies conducting business. Information technology innovation from the mutual fund companies' perspectives can be applied by performing artificial intelligent to give investment advice, reduce trading errors and avoid breach and violation such as for pre-trade and post trade checking for portfolio allocation limit and for quantitative analysis such for stock selection and allocation. They found that information technology have proven to influence financial innovation.

Shulhan and Oetama (2019), analyze mutual fund's online investor level of acceptance of fruitful launching of Indonesian mutual fund online marketplace online Bukareksa through popular e-commerce platform Bukalapak. They use Technology Acceptance Model (TAM) and with three additional external variables, which include perceived of trust, content design and user interface. The research focuses on what are the important factors that make Bukareksa accepted by Indonesian mutual fund investor. The study shows that all external constructs have good impacts on Perceived Ease of Use. In this study, however we will not be using TAM as a framework to analyze customer loyalty and satisfaction to Mutual fund online portal. This paper is more focus on evaluating customer value such as features, product and services offered by mutual fund online portal to attract and retain their customers. The Researcher also viewed that in the information system field, Technology Acceptance Model (TAM) which was developed by Davis (1989) is not suitable framework of investment and trading site design as it does not cover portal important features such as structural firmness in its conceptual models.

Balasubramanian, et al. (1999) noted seven critical reasons for investor to use online trading: Feel of being in control or empowered, cost or fee of transaction, availability, and faster execution speed, more convenience when doing transaction, accessibility to material information, investor distrust, discomfort and unsatisfactory experiences when dealing and communicating with traditional stockbrokers. Mohita Mathur (2014) uses 9 features variables to compare two modes online trading vs mobile trading. Online trading is more preferred option as far as the availability of features is concerned. It is more suitable platform as it provides faster processing, better tools and techniques for analysis, better speed, visibility and easier reviewing process than mobile trading.

Theoretical Framework

This research was adapted from a comprehensive design features and principle model proposed by Lee and Kim (2002) for online stock trading sites combined with critical aspect which affect customer loyalty such as customer service quality. They used design principles and important elements of websites as an assumption and metaphor of a building. They presume the similarity of architecture elements of both web sites and buildings have to underline on the quality and superiority of customers' experience such as firmness, delightfulness and convenient functionality aspect of the portal. They stated that main advantage of using the building metaphor is to develop a unique comprehensive characteristics of online trading portal design features, which cover critical aspects that mostly have not been discussed in many literatures. The reason we choose the online Stock trading sites model for comparison not fully adopt e-loyalty important factors because it is the most appropriate platform to meet the need of investor as they have similarity of design features and design principles characteristics. Online trading platform considered different from other conventional e-commerce services because of their amount of value transaction and high customer interaction. Online trading investors usually involves considerable amount of capital investments, and users need to deal with large amounts of market data and material information such as real-time market info and datafeed, news update, financial statements and research analyst reports) in their trading activities. Investors thus process the information extensively and interact highly with the system in terms of the service process by evaluating investment instrument, analyzing profit and loss opportunities, creating strategies, calculating risks, submitting orders to manage their portfolios (Cook et al, 1999).

Customer Loyalty

Customer loyalty in general is an attitude that refers to the measurement of the relationship of customers to the selection and use of a product. This linkage measure provides an overview of the use of the product in a long time and for the future, and this measure is able to reflect a very small chance of the possibility of a customer switching to use the competitor's product, despite any changes in competitor product in terms of price or other attributes (Oliver, 1999; Griffin, 2003; Peppers and Rogers, 2004). Chen (2008) also stated loyalty exists when customers feel satisfied, delighted and have intentions to repurchase and spread positive word-of-mouth about the product. Lin (2011) viewed customer loyalty as a commitment to use, repurchase, cross-purchase or recommend products or services of a particular brand. In this study, customer loyalty is defined as the customer's intentional visit to the website having been satisfied by their prior experiences. They felt the website has met their expectations. Our definition Customer loyalty is the degree of which customer feel pleasant, comfort and committed to repeatedly keep using company's product and services, not to switch to competitor and recommend to others. Customer loyalty is vital to grow business and increase the market share. This can be formed by satisfying the customer's needs and wants.

Customer Satisfaction

Customer satisfaction is a response to the customer's fulfillment of a usage or consumption experience. It is a pleasant response from the customer which is expected to be met, while dissatisfaction is a response in the form of disappointment because the expected is not met. (Buttle, 2004; Kotler and Keller, 2016; Arnould et al., 2005; Oliver, 1999). Subjective success of a service or design product system is most frequently measured by level of Customer satisfaction (DeLone and McLean, 1992). Assaf et al. (2011) stated that knowing how to satisfy customers is important to transform and leverage any available resources and information to achieve effective marketing strategies for future development of the organization. Higher customer satisfaction can result in a higher revenue to grow the business. It is vital to measure and maintain customer repeatedly visit and the use of the portal as performance indicators. If the customers are unsatisfied with the system or received unpleasant experience, there is little possibility they will visit and reuse the portal again for investing mutual fund. Hence the business value of the portal will be insignificant or becoming nonproductive asset. Satisfied customers are expected to re-visit and frequently use the service or product from the portal (Oliver, 1996). Therefore, our hypothesis customer satisfaction will positively relate to customer loyalty on mutual fund online selling portal.

Design Features

Alam and Yasin (2005) identified design features in a web site as characteristics and dominant factor which influences consumer perceptions of online purchasing. It is the portal properties which makes it as unique and attractive to the users. Ding et al (2010) stated system design is the way that design of critical service system elements creates meaningful experience which effect customer satisfaction. Using a concept of mutual fund portal as a building metaphor from Kim and Lee (2010), an Investment portal have three critical factors which include functional convenience, delightfulness and firmness as aspects of the portal. For delightfulness aspect can be achieved by providing quality and useful information in the portal. The basic philosophy upon the fact that customer satisfaction is affected by product design. Consequently, our hypothesis mutual fund Portal design features will give significant positive affect customer satisfaction.

Functional Convenience

Providing convenient functionalities and design for online investors to perform their planned activities when doing transaction is one of the determinant factors of portal design principle, as convenience is one of the vital elements to enhance customer satisfaction (Davis, 1989). Convenience refers to a condition when a customer feels that the web site is user friendly, simple, and intuitive. In mutual fund online selling context, this convenience factor includes hassle free, fast, paperless and non-manual processing for opening account, efficient and easy transaction activities. Online customers usually expect fast and efficient processing of their transactions. If online users get frustrated or dissatisfied in their efforts in doing transactions, they are more likely will not revisit the portal (Cameron, 1999). Mutual fund online portal also needs to provide convenience access to the portal from many different platforms such as mobile phone. It should have intuitive interactive and delightful design interface and navigation. Customers would also be coming back to the portal if it offered interesting, entertaining and interactive user interface as well as experience (Benjamin, 1995; Rice, 1997). Many studies also show that an e-business portal's homepage, or landing page display is one of the most important checkpoints to create customers' first good impression (Ho and Wu, 1999). A portal that is logical, simple and convenient to use will also create smaller possibility that users experiencing errors during transaction and will make user experience more satisfying. Thus, this customer satisfaction level will enhance customer loyalty. Our hypothesis convenience aspects will significantly give positive affect to mutual fund online portal design features.

Information Quality

As the number of mutual fund online investor recently rises significantly, the quality information provided by the mutual fund online selling portal becomes essential. Essential information need to be provided in mutual fund online portal would include market update information, NAV and Fund Performance, investment education and tips and in-depth company research reports. In addition to the market update and fund or product information, manual guide how to open account, how to invest and to do the transaction should be available to help online selling portal user. The value and quality of the information provided is predominantly important in order to meet the investor's needs. This because investor will rely on the usefulness, up to-date and quality information in their investment decision making process. (Wang and Strong, 1996;

Strong, 1997; Wang, 1998; Huang et al., 1999; Perry and Bodkin, 2000 in Lee and Kim, 2002). Therefore, information quality in the mutual fund online portal should be considered in design features perspectives. Our hypothesis information will give significant positive affect to the portal design features.

Product Variety Choice

Companies are more likely to acquire more customers and be able to retain them by offering a wide range of products, complete information and effective analysis tools (Chen and Hitt, 2002). By creating comprehensive product offerings, giving advice and effective decision support will attract customer attention and will increase customer satisfaction (Ding et al, 2010). For example, many investors provided with analysis tools and product comparison, which available on the online trading website to optimize their investment returns. Nevertheless, by only offering variety of product cannot create long term competitive edge (Kotha, Rajgopal, and Venkatachalam, 2004), as competitors can simply notice, follow and copy such similar propositions (Barney 1991; Scott 2007). Overall, portals that offer more variety and quality of product would attract more customer attention than those with less of choice. This product variety factors in this study also include type of mutual fund offered and product past performance offered by the portal. Customer satisfaction is a definitive outcome of fulfilling the consumer's need and expectation from the product performance (Alam and Yasin, 2010). Many online customers prefer not to deal with multiple vendors when they do their online shopping (Srinivasan et al, 2002). Similarly, this may also be relevant to online investors, where many of them, prefer to consolidate their portfolio and not willing to deal or open account with multiple mutual fund companies. In contrast, increase in the number of available investment manager selection at a single mutual fund online selling portal can significantly reduce opportunity cost and time for investor in opening account and searching suitable for investment product. The mutual fund online portal that offers variety of investment product will become as the leading, top-of-mind destination for one-stop investment destination which can result to customer loyalty. People like to search variety and well performed of investment products as well as to be able perform product analysis to suit their investment objective. Accordingly, we posit the hypothesis that product variety will give positive affect to customer satisfaction and loyalty of mutual fund online portal.

Firmness Principle

Using our theoretical framework by assuming the portal as a building metaphor, it should be strong and firm enough and apply all the necessary protections to prevent from all threats and vulnerabilities. Similarly, a mutual fund online selling portal should be secure, durable, robust and offer a good performance to provide confidence for customers (Jones et al., 2000), as it involves a significant value and high transaction frequency in their investment activities. Consequently, we decided that portal firmness characteristic is a mandatory design principle that may influence satisfaction to the mutual fund online selling portal. Most online customers need system firmness before they proceed with any online transaction and trading activities (Shankar, 1996). The design features for structural firmness includes robustness as well as security aspects. Robustness refers to the stability of a mutual fund online selling portal so that the customers can satisfactorily accessing the portal with acceptable speed and without error or system crash. Robustness is measured by system stability and accessibility (Huang et al., 1999). Security will relate to the safety level and it can be determined by measuring trust and credibility of system service quality (Zeithaml, 1988). Security aspect is really important because it will have strong impact to mutual fund online selling portal trust and reputation. Previous study from Lee and Kim (2002) stated that firmness principle will give positive affect to online trading customer satisfaction. Our hypothesis portal firmness principle will give positive affect to mutual fund online selling portal design features.

Customer Service Quality

Service quality in terms of customer services create essential social and economic outcomes, as it significantly affects customers' attitudes, intentions, and behaviors (Parasuraman, Zeithaml, and Malhotra, 2005). Customer service via various channels and platforms could be important especially for online financial services (Krishnan et al., 1999). Customers are hoping and expecting easy to reach, responsiveness and looking for satisfactory solutions of problems from the knowledgeable, respectful representative when contacting customer relationship officer (Froehle, 2006). Proper feedback will ease the customer's worry in using online transactions (Wolfenbarger and Gilly, 2003) and will let the customer more focus on their investment activities (Krishnan et al., 1999). Customer services quality will advance customers' knowledge base and skills as they interact with and learn from service representatives (Froehle 2006), which may reduce their perception of the challenges associated with the online financial services. Service failures will give negative affect to future business as they lower perception of company service quality and weaken company relationship bonds to customer (Bolton & Drew, 1992). Srinivasan et al. (2002) stated that service breakdown will have negative impact to customer repeat order behavior. Therefore, it is expected that the level of customer care quality that mutual fund portal exercises to minimize disruptions in customer service will lead to higher customer satisfaction and customer loyalty. Our hypothesis customer service quality will give significant positive affect to customer satisfaction and loyalty.

Research Model

Based on the above critical design features product variety offered and customer service quality correlation to customer satisfaction and loyalty explanation, a research model has been derived. Subjective evaluation of the mutual fund online selling portal denotes the customer overall evaluation of the information, system and customer service quality as well as product variety offered. This critical design features will correlate to customer satisfaction and customer service quality and customer satisfaction will correlate to customer loyalty towards the mutual fund online selling portal. The model is illustrated in figure 1 below:

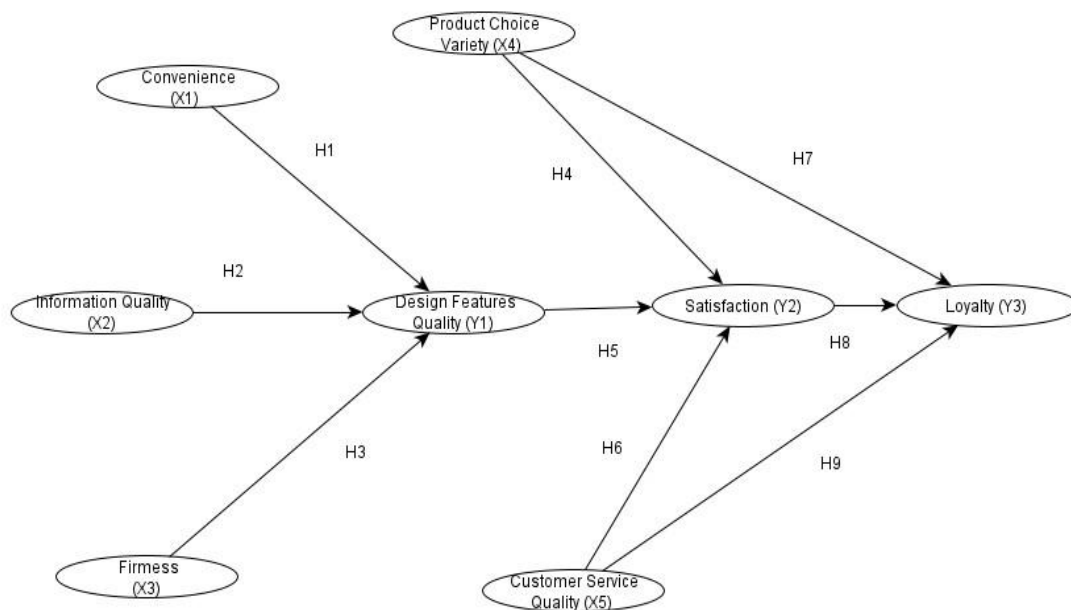


Figure 1: Research model of Relationship of System Design Features Quality, Customer Service Quality to Customer Satisfaction and Loyalty

Referring to the above model, X₁, X₂, X₃, represents the critical design feature aspects, X₄, X₅ and Y₁ represent the factors which effect to customer satisfaction, X₄, X₅ and Y₂ are critical factors which lead to customer loyalty. Based on the model series of hypothesis are developed:

- a. H₁; Convenience will make significant positive affect to the design features quality
- b. H₂: Information quality will make significant positive affect to the design features quality.
- c. H₃; Firmness will make significant positive affect to the design features quality.
- d. H₄; Product choice in portal will make significant positive affect to customer satisfaction.
- e. H₅: Portal Design features quality will make significant positive affect to the customer satisfaction.
- f. H₆: Customer Service Quality will make significant positive affect to mutual fund online portal Customer satisfaction.
- g. H₇: Product choice will make significant positive affect to mutual fund online portal Customer satisfaction.
- h. H₈: Customer satisfaction will make significant positive affect to mutual fund online portal Customer Loyalty.
- i. H₉: Customer service quality will make significant positive affect to customer loyalty the illustration operationalization of constructs is shown in table below.

Table 1: Variable Operational Construct and Indicators

Indicator No	Factors	Coding	Questions	Source
1	Satisfaction	SAT1	Overall, the mutual fund Online portal is satisfying.	(Oliver et al., 1996)
2	Design Features	FEA1	I like Mutual fund online portal because it has attractive and delightful features	(Oliver et al., 1996)
3		FEA2	I am happy and pleased to invest through the Online mutual portal.	(Oliver et al., 1996)
4	Loyalty	LOY1	Often use mutual fund Online portal when investing in mutual fund	(Oliver et al., 1996)
5		LOY2	I will keep using the Online mutual platform for mutual Fund investment in the future	(Oliver et al., 1996)
6		LOY3	I will recommend Mutual Fund Online Portal to others	(Almaiah, et al., 2016; Chavoshi & Hamidi, 2018)
7	Information Quality	INF1	The information accuracy provided by the Mutual Fund Online Selling Portal is reliable	(Huang et al., 1999)
8		INF2	The information provided by the Mutual Fund Online Selling Portal is objective	(Huang et al., 1999)
9		INF3	The information provided by the Mutual Fund Online Selling Portal helps me in making investment decisions	(Huang et al., 1999)

10		INF4	<i>Information provided from the Mutual Fund Online Selling Portal is always up to date</i>	(Huang et al., 1999)
11		INF5	<i>The information provided by the Mutual Fund Online Selling Portal can be easily understood</i>	(Huang et al., 1999)
12		INF6	<i>I can get the information I need from the Mutual Fund Online Portal comprehensively</i>	(Huang et al., 1999)
13	Convenience	CON1	<i>The process of creating an account and activating an account on the Mutual Fund Online Portal is fast and easy.</i>	(Duwitmu.com, 2014)
14		CON2	<i>I can easily make transactions using Mutual Fund Online Portal</i>	(Duwitmu.com, 2014)
15		CON3	<i>The homepage of mutual fund Online portal are interesting to see</i>	(Ho and Wu, 1999).
16		CON4	<i>Mutual fund Online portal feature provides a good page layout</i>	(Almaiah, et al., 2016; Chavoshi & Hamidi, 2018)
17		CON5	<i>Menu design of mutual fund Online portal is well structured</i>	(Almaiah, et al., 2016; Chavoshi & Hamidi, 2018)
18		CON6	<i>The display of the mutual fund portal is comfortable to read from any platform (mobile or computer)</i>	(Nikou & Economides, 2017)
19	Product Choice Variety	CHO1	<i>I can invest in various mutual fund product such as equity, balance, fix income and money market mutual fund product.</i>	(Duwitmu.com, 2014)
20		CHO2	<i>The Reksa Dana Online portal provides a variety of good past performance products from investment managers</i>	(Duwitmu.com, 2014)
21		CHO3	<i>The mutual fund Online portal provides comprehensive analysis tools such as past performance chart, product comparisons, risk profile investment projection calculators, product Performance Ratings, etc.</i>	(Duwitmu.com, 2014)
22		CHO4	<i>I choose the portal because it allows me to invest in other investment product such as equity, fix income, gold, etc</i>	(Duwitmu.com, 2014)
23	Firmness	FIRM1	<i>Mutual fund Online portal protect information security and data privacy of my account</i>	(Nikou & Economides, 2017)
24		FIRM2	<i>The Mutual Fund online selling portal is stable</i>	(Kim and Lee, 2002)
25		FIRM3	<i>The time to download the Mutual Fund Online Portal page is acceptable</i>	(Huang et al., 1999)
26		FIRM4	<i>I can access the mutual fund online portal anytime</i>	(Huang et al., 1999)
27	Customer Service Quality	CUS1	<i>Mutual fund online portal customer service gives a quick response to answer my inquiry.</i>	(Zeithaml, 1988)
28		CUS2	<i>Mutual Fund Online Portal Helpdesk helps me solve the problems I face during the transaction process</i>	(Selz et al., 1997)
29		CUS3	<i>Mutual Fund online portal provides various channels and facilities such as by e-mail, social media, chat features for communicating with users</i>	(Ding, et al., 2010)
30		CUS4	<i>Mutual fund portal give me personalize product recommendation which match with my risk profile and investment objective</i>	(Duwitmu.com, 2014)

RESEARCH METHODOLOGY

This Research Strategy was using quantitative approach by doing survey method to answer research questions. Researcher believe that online survey method is suitable and good way to collect data when it is confined to geographical area as it allows us to personally administer the questionnaires for this research purpose. However, online surveys may have potential biases in in the sampling coverage or selection: such as people who do not have internet access. In this

case, our data collection method is appropriate because our target subjects have Internet access, are very familiar with online transaction contexts, possess a sufficient knowledge understanding and experience in investing mutual fund online. The sampling method used is the nonprobability method (non-random) or intentional sampling using purposive sampling. By using this sampling technique sample respondent are selected on the basis of expertise and experience in the subject that is being investigated. In this research the target population will be the retail or individual investor of mutual fund. Sampling frame which we will use is mutual fund individual investor who use mutual fund online selling portal (supermarket or exclusive mutual fund online selling portal) for transaction. Currently number of investors who use mutual fund online selling portal is still unknown, or never been published by regulator. However, from the publication (bareksa.com, 2019) we know that the total population or number of mutual fund investor based on KSEI S-Invest (Indonesia Central Securities Depository Integrated Investment Management System) data is more than 1,71 million. As we will be using SEM-PLS, the minimum sample size required in PLS-SEM is obtained using the formula 10 times of the maximum number of indicators of a latent variable. In this study our maximum number of indicators is 6 from Convenience Latent Variable. Therefore, the minimum number of samples is 60. This study involves 100 of respondents of mutual fund online investors as sample.

Types and sources of data used in this study using primary data. Primary data was obtained or collected directly in the form of online questionnaire filled out by respondents and direct observation. This research setting was conducted in Jakarta by distributing online questionnaires in writing in Bahasa Indonesia to Mutual Fund online investors through questionnaire sheets (see Appendix 1) that were distributed online through survey questionnaire links such as google docs form that were shared with respondents by researchers. This questioner sent via social media such as WhatsApp Group, Instagram, Facebook and Telegram Community. The survey period for data collection taken from 7 April to 20 May 2020. The respondents were asked to answer the survey questions based on their experience using mutual fund online selling portal. Every respondent required to answer the questions using 5-points Likert scale from 1 (Strongly Disagree) to 5 (Strongly agree). The scale indicators and constructs used in this research were developed based on the guidelines suggested by Kim and Lee (2002) related with Online Trading designed features and Shulhan and Oetama (2019) related with Indonesian Popular Mutual Fund online *Portal Buka Reksa* Technology Acceptance Model for customer satisfaction, customer loyalty, convenience, firmness, information gathering constructs. We also adapted research questioners by Ding et al (2010) related with Impact of Service System Design and Flow Experience on Customer Satisfaction in Online Financial Services for product variety and customer service quality indicators. We first conducted in-depth discussions with several mutual fund online investors, asset management industry practitioners and academic researcher to generate their views of the indicator items. Then we evaluated the items based on their feedback several items were deleted or modified. We then pretested the questionnaire survey with five mutual fund investors. Respondents were explicitly asked to indicate any ambiguities or potential sources of error caused by either the format or the wording of the questionnaire. Inputs from these respondents were used to further refine and improve the instrument.

The data from the survey result analyzed by performing Structured Equation Model (SEM) with the ordinary Least square estimation method (PLS-SEM). SEM was completed by using PLS analysis SmartPLS version 3.2.1. From previous study literatures, there are several techniques can be used to analyze the strength and the quality of the predictive value of the model (Hair et al, 2014). The purpose and advantage of PLS-SEM is as follows:

- Intended for causal predictive analysis rather than theory testing or confirmation
- Can run with both reflective and formative indicators
- Able to analyze and estimate complex models.
- Able to run in small sample size.
- Able to minimize errors from endogenous constructs or dependent constructs.

RESULT AND DISCUSSION

Survey Result

Due to limited amount of time, we have collected 100 sample respondents after their validity check in the survey. Respondents were 62.9% of male and 37 % were female, most of them access their mutual fund online portal from their mobile devices and invest in supermarket mutual fund online portal. The demographic profile of the respondents and questioner survey result are respectively summarized in Table 2 and Table 3.

Table 2: Respondent demographic profile

Total Respondents		100
Sex (%)	Male	73
	Female	27
Age (%)	<25	26
	25-50	72
	>50	2
Online Platform Preference (%)	Browser Smartphone	18
	Browser computer	15
	Desktop App	1
	Mobile Apps	66
Prefer to invest mutual fund online from	Investment Manager Portal	36
	Supermarket Mutual fund online portal	64

Table 3: Indicator Mean and Std Deviation Result

Indicator	Mean	StdDev	Indicator	Mean	StdDev	Indicator	Mean	StdDev
CHO1	4.390	0.665074	CUS1	3.880	0.913203	INF1	4.110	0.723278
CHO2	4.210	0.769297	CUS2	3.920	0.849004	INF2	4.150	0.701729
CHO3	4.140	0.765678	CUS3	4.150	0.833333	INF3	4.070	0.819645
CHO4	3.860	1.146096	CUS4	3.810	1.098162	INF4	4.140	0.75237
CON1	4.300	0.731679	FEA1	4.250	0.74366	INF5	4.160	0.748331
CON2	4.390	0.633971	FEA2	4.340	0.654742	INF6	4.110	0.737111
CON3	4.090	0.829932	FIR1	4.200	0.724743	LOY1	4.130	0.895048
CON4	4.140	0.738822	FIR2	4.110	0.694786	LOY2	4.320	0.723069
CON5	4.120	0.742369	FIR3	4.220	0.704674	LOY3	4.100	0.810287
CON6	4.100	0.78496	FIR4	4.440	0.656283	SAT1	4.330	0.620443

Measurement Assessment

The purpose measurement assessment is to evaluate the measurement model and structural model that we use in our hypothesis in this study. Measurement model can be performed by evaluating outer loading table, discriminant convergence validity, composite reliability (Cronbach alpha) and Average Variance Extracted result. The structural model evaluation was performed by using R Squared and coefficient path result. In this study we follow Hair et al (2014) baseline to evaluate our measurement and structural model.

Outer Loadings

Each latent variable must be able to explain each indicator variance at least 50%. Therefore, the absolute correlation between the latent variable and the indicator must be higher than 0.7 (absolute value of standard external loadings or called outer loadings). Based on below table all our indicators are greater than 0.7

Table 4: Outer Loading Table

	CONVENIENCE	CUSTOMER SERVICE QUALITY	DESIGN FEATURES	FIRMNESS	INFORMATION QUALITY	LOYALTY	PRODUCT VARIETY	SATISFACTION
CHO1							0.828	
CHO2							0.841	
CHO3							0.784	
CHO4							0.559	
CON1	0.833							
CON2	0.815							
CON3	0.898							
CON4	0.918							
CON5	0.888							
CON6	0.811							
CUS1		0.889						
CUS2		0.866						
CUS3		0.872						
CUS4		0.810						
FEA1			0.907					
FEA2			0.900					
FIR1				0.879				
FIR2				0.847				
FIR3				0.903				
FIR4				0.873				
INF1					0.793			
INF2					0.860			
INF3					0.783			
INF4					0.757			
INF5					0.820			
INF6					0.815			
LOY1						0.888		
LOY2						0.891		
LOY3						0.732		
SAT1								1.000

Discriminant Validity

Discriminant validity refers to the degree of discrepancy between attributes that should not be measured by the measuring instrument and theoretical concepts about the variable. In our model all cross loading value is greater than the correlation with other latent variables means all our variable instruments measured with theoretical concepts.

Table 5: Discriminant validity table

	CONVENIENCE	CUSTOMER SERVICE QUALITY	DESIGN FEATURES	FIRMNESS	INFORMATION QUALITY	LOYALTY	PRODUCT VARIETY	SATISFACTION
CONVENIENCE	0.862							
CUSTOMER SERVICE QUALITY	0.815	0.860						
DESIGN FEATURES	0.791	0.703	0.904					
FIRMNESS	0.848	0.757	0.805	0.876				
INFORMATION QUALITY	0.788	0.731	0.760	0.726	0.805			
LOYALTY	0.671	0.564	0.732	0.647	0.665	0.840		
PRODUCT VARIETY	0.807	0.690	0.700	0.738	0.711	0.624	0.762	
SATISFACTION	0.742	0.654	0.718	0.723	0.687	0.674	0.674	1.000

Reliability Test

Following is a common baseline for evaluating reliability of model using Cronbach's alpha (CA). It is mentioned that If CA result is higher than 0.80, it means that the model reliability level is very strong. If it ranges from 0.60 to 0.80, it means the level is within an acceptable level, and if CA is lower than 0.60, it indicates the model is unreliable or weak (Hair et al,2014). Referring to the table below, all our constructs reliability level is very strong. In summary, there is no unreliable construct in this study.

Table 6: Cronbach Alpha

VARIABLE CONSTRUCTS	Cronbachs Alpha	Remarks
CONVENIENCE	0.930	Very strong
CUSTOMER SERVICE QUALITY	0.882	Very strong
DESIGN FEATURES	0.775	Acceptable
FIRMNESS	0.899	Very strong
INFORMATION QUALITY	0.891	Very strong
LOYALTY	0.788	Acceptable
PRODUCT VARIETY	0.759	Acceptable
SATISFACTION	1.000	Very strong

Convergent validity (CV) test is performed to evaluate the outer model by taking into account the convergent validity assessment threshold. The threshold hinge on the outer loading and the average variance extracted (AVE). It is stated that if AVE is higher than 0.70, it is an ideal level and if it ranges from 0.40 to 0.70, it is good, and AVE is lower than 0.40, it is invalid (Hair et al, 2014). From the results in Table below, minimum AVE value is 0.640. The model has an acceptable result of convergent validity as there is no invalid construct.

Table 7: Average Variance Extracted

LATENT VARIABLES	AVE	Remarks
CONVENIENCE	0.742	Ideal
CUSTOMER SERVICE QUALITY	0.739	Ideal
DESIGN FEATURES	0.816	Ideal
FIRMNESS	0.767	Ideal
INFORMATION QUALITY	0.648	Good
LOYALTY	0.706	Ideal
PRODUCT VARIETY	0.580	Good
SATISFACTION	1.000	Ideal

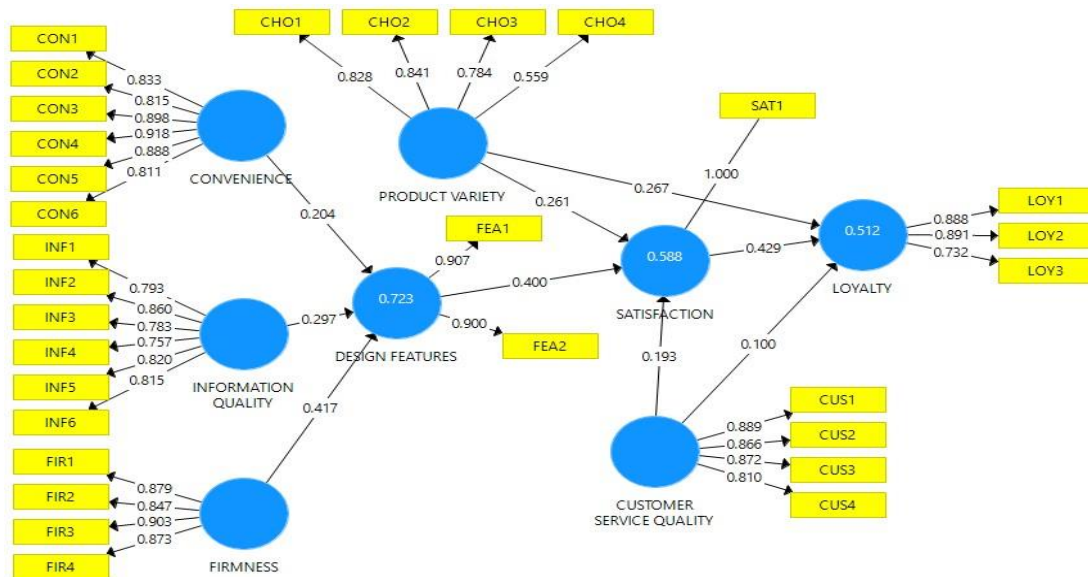


Figure2: Model PLS Algorithms Result

Predictive Ability

The coefficient of determination (R^2) is performed to determine the extent of the predictive ability of the model (Hair et al, 2014) where R^2 higher or equal to 0.75, it implies a good model, when R^2 is higher or equal to 0.50 and lower than 0.75, it implies a moderate model, and R^2 is smaller than 0.50, it implies a weak model (Hair et al,2014). From the table below our model indicates good predictive ability for all dependent variables design features, loyalty and satisfaction.

Table 8: R Square table

Dependent Variables	R Square	Result
DESIGN FEATURES	0.723	Moderate
LOYALTY	0.512	Moderate
SATISFACTION	0.588	Moderate

Table 9: Path Coefficients Model

	DESIGN FEATURES QUALITY	LOYALTY	SATISFACTION
CONVENIENCE	0.090		
CUSTOMER SERVICE QUALITY		0.259	0.259
DESIGN FEATURES QUALITY			0.634
FIRMNESS	0.135		
INFORMATION QUALITY	0.418		
LOYALTY			
PRODUCT VARIETY	0.248		
SATISFACTION		0.500	

The coefficient path of all constructs creates the positive relationship to the corresponding dependent variables. The respective order of the most significant design features which create value added for customer are information quality, product variety, firmness and followed by convenience aspects.

Hypothesis testing status can be determined by calculating T-statistics, and P-value. A hypothesis is supported if its T-statistics calculation is greater than 1.96 otherwise it will be rejected. Following hypothesis testing, all accepted hypotheses then will be examined the significance of affect. The affect is stated as significant if its P-Value result is lower than 5% (Hair et al., 2014)

Table 10: Hypothesis Result

Hypothesis	T Statistics	P Values	Hypothesis Result
CONVENIENCE -> DESIGN FEATURES (H1)	1.366	0.172	Rejected
INFORMATION QUALITY -> DESIGN FEATURES (H2)	2.859	0.004	Accepted Significant
FIRMNESS -> DESIGN FEATURES (H3)	3.207	0.001	Accepted Significant
PRODUCT VARIETY -> SATISFACTION (H4)	2.239	0.026	Accepted Significant
DESIGN FEATURES -> SATISFACTION (H5)	3.055	0.002	Accepted Significant
CUSTOMER SERVICE QUALITY -> SATISFACTION (H6)	2.13	0.034	Accepted Significant
PRODUCT VARIETY -> LOYALTY (H7)	2.472	0.014	Accepted Significant
SATISFACTION -> LOYALTY (H8)	4.005	0.000	Accepted Significant
CUSTOMER SERVICE QUALITY -> LOYALTY (H9)	0.852	0.395	Rejected

Based on the above hypothesis status table, there are seven accepted and significant hypothesis which include H₂, H₃, H₄, H₅, H₆, H₇ and H₈ while the other two H₁ and H₉ are not valid or rejected. Our first, and last hypothesis convenience, customer service quality will give significant positive affect to perceived value of portal design features were rejected as they have value for T-statistics are smaller than 1.96. This might be because convenience aspect is common user expectation when they investor doing online transaction. The customer expects the portal should be simple, intuitive, and user friendly. This determinant factors possibly can be meet by most of mutual fund online selling portals as the mean result of our convenience variable show quite high result (>4.00). Our H₉ where customer service quality will give significant positive affect to customer loyalty. Despite customer service quality will give significant affect to customer satisfaction, it will not influence the investor loyalty in mutual fund online portal case. It shows that not many mutual fund online investors close or redeem all their account due to customer care service quality reason in their pre and post mutual fund transactions. This is possibly because online investors avoid opening multiple account in many mutual fund online portals. It implies that customers prefer to keep investing using the portal as long as they are satisfied product and features offered.

Based on our outer loading factors we found that homepage (CON3), design & layout (CON4), and good menu structured (CON5) are the distinguishing factors which affect portal convenience principle. From the mean value of (CON1 and CON2) we noticed that most of the mutual fund online users quite satisfied with account opening and activation and easy transaction process. From the outer loading factor download system security and download speed of the portals portal is the most important factors to contribute to the portal firmness aspect. Referring to survey result mean value it seems that most users of mutual fund portal are quite satisfied with their current speed, stability, and robustness of the portal as the average value for those indicators are > 4.00.

From H₂ and H₃ result, we are certain that information quality and portal firmness are ne the most important aspect as it will have significant positive affect to design features. This implies that the mutual online portal providers should provide quality of contents with comprehensive accurate, reliable, and up-to-date information and maintain satisfactory security protection and have acceptable download speed in their portal design features. Referring to H₄ and H₅ we convince that both portal features and product variety offered will give significant positive impact to customer satisfaction in using the portal. The H₆, Customer service quality from marketing and client complaint handling function will also play important role to mutual fund online portal customer satisfaction. Interestingly, we noticed that personalize service and recommendation indicator from portal customer service (CUS4) has the lowest mean value. This indicates that investors are less satisfied with investment product recommendation from customer service. This probably due to online investor less interaction in seeking investment advice or lack of investment product knowledge or investor risk profile understanding from mutual fund online customer service. Finally, from H₈ result there is no doubt that overall customer satisfaction toward the mutual fund online selling portal will significantly give positive influence on customer loyalty. It is in line with the theory that satisfied customer will revisit the portal and repeatedly use the product and services.

CONCLUSION

In conclusion, this study is the initial effort to contribute to the digitalization of mutual fund literature in Indonesia which proposed system design, customer service quality, customer satisfaction and customer loyalty model as theoretical framework. Based on the above study result, it shows that our overall the quality of our proposed model has acceptable result of convergent validity and discriminant. This means all constructs in this model are valid and supported by conceptual theory. Furthermore, all the constructs in this model are also reliable and have moderate predictive ability for portal design features, customer satisfaction and customer loyalty for dependent variables. All dependent constructs in the path model also show positive relationship to their independent constructs. Our hypothesis result shows that two important factors which significantly influence portal design features are information quality and portal firmness. It also shows that portal design features, providing variety of well performed product as well as customer service quality significantly affect customer satisfaction. Customer satisfaction and product variety offered to mutual fund online portal will lead to loyal investor.

Based on the study result, we have identified that customers value the benefit of quality information provided in the portal in making investment decision and choosing which product that match their profile and investment horizon. Beside product material information such as fund fact sheet, past performance and prospectus, customers also need investment tips and education as well as market outlook update and research report to help them invest in mutual fund. Mutual fund online investors use portal rich of information and resources as an acceptable substitute to customer service representative consultation for product consideration before making investment decision which typically associated to conventional mutual fund service. Product variety and quality was the second most important competitive advantage of the mutual fund online portal. Therefore, it is critical for the fund manager to maintain their performance to attract and satisfy the investors. For the selling agents they need to selectively offer only quality product to their customers. Advanced product tools analysis features such as investor risk profile calculator, product comparison and investment projection will help the customer in selecting the products which satisfy their investment needs. Online Investors also concern about portal security and robustness. Mutual fund online portal can achieve this by implementing adequate Information System Security Standard such as by obtaining prominent IT System Information Security certification and regular system audit by independent reviewer. Furthermore, Mutual fund online portal customer service representative should be responsive, helpful to answer inquiry or to resolve customer problem in timely fashion. They should be knowledgeable, easy to contact

and should optimize various social media channels to engage with their online investors. Customer long term relationship might be affected by pre and post investor transaction activities by customer service representatives. Mutual fund online portal should know how to satisfy their customers and need to utilize any available information and resources to achieve effective marketing strategies for their portal development.

There is no doubt that mutual Fund online portal company need to have competitive advantage in their portal product and features to satisfy the customer's needs. Thus, mutual fund online selling platform will be more attractive and customer will be pleased to invest using the portal. In order to create high customer loyalty and satisfaction, they need to provide quality portal contents, convenience features, and robust portal and have variety and quality products offered as well as maintain good customer relationship. Mutual fund online companies must fulfil the need and customer expectation in order to get pleasant response. The more customer delighted and attracted with portal design features, provided with customer service quality and product variety offered, the more satisfy and loyal the customer investing using the mutual fund online portal. Providing good portal design features, variety and well performed products and quality of customer services are they key success factors to answer the challenge in customer acquisition and retention for Indonesian Mutual fund online selling portal providers.

RESEARCH IMPLICATION

From the study result, it indicates that most of the mutual fund online investor prefer to invest from supermarket mutual fund online portal from selling agents. They also access the portal using their mobile device. Mutual fund companies need to develop comfortable, convenience and reliable mobile platform for their customers. In terms of digital marketing strategy, it is highly recommended for Investment manager company to work collaboratively with selling agents as their distribution channel partner to acquire more customers to invest in their fund and to expand their market share. Therefore, Investment Manager Companies can have better customer penetration and generate more revenues from their Asset Under Management.

LIMITATION AND FURTHER RESEARCH

Due to limited time and resources, this research study only uses considered a small number of sample size (100 respondents), which may not significantly represent the proportion of mutual fund online investors population. It also analyses mutual fund online portal customer loyalty only from the customer satisfaction of portal design features, product variety offered and customer service quality perspectives. Further research might consider the effect cost and fees when investing in the portal and other factors such as brand image, social media virtual communities' influences to the investor loyalty satisfaction and mutual fund online portals performance.

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