

Performance of E-Service Quality at Mutual Fund Portal in Indonesia

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Abstract

The topic of electronic service quality (e-service quality) has been developed especially during pandemic 2020. This study examines the performance of e-service quality in relating to customer satisfaction in the context of online investment portal. The online Mutual Fund portal has increased new investors via its ease of access, affordability, and product availability. The results of the study show that aspects of Portal design, customer service quality, and security have a significant positive influence on the quality of electronic services but not on fulfillment aspects. Furthermore, the aspect of electronic service quality is proven to have a significant effect on customer satisfaction and brand image but does not influence customer trust. In addition, Brand Image does not affect the satisfaction, trust, and loyalty of online Mutual Fund customers. While customer satisfaction and trust have a significant positive effect on customer loyalty, this customer satisfaction does not encourage customers to be more trusting of online Mutual Fund portal service providers. This study provides empirical result from e-service quality framework from Blut in Journal of Retailing (2015 & 2016).

Keywords

Online Mutual Fund Portal, Portal Design, Security, Customer Service quality, Fulfilment, E-Service Quality, Customer Satisfaction, Brand Image, Trust, Customer loyalty

1. Introduction

Mutual Fund products are currently increasingly popular and have become an investment instrument that can be said to be suitable for investors with various characters, ranging from aggressive, moderate, or conservative. Mutual Funds are very suitable for beginners to advanced investors because they have the advantage of having high liquidity, easier to be transparent and managed by professionals. According to George (2016) there are four main factors that drive the rapid growth of the Mutual Fund industry. Namely, ease of access (Accessibility) supported by infrastructure and wider distribution channels, affordability (affordability), public awareness of the importance of investment (Awareness) and availability (Availability) of various types of products in accordance with the risk profile and investment objectives of customers. Innovation and technological progress are important factors that support public interest in investing in Mutual Funds (Panda and Ali, 2018).

The online Mutual Fund investment services offered by investment manager companies and Mutual Fund selling agents since OJK allowed account opening and Mutual Fund purchase transactions to be conducted electronically in 2014 was an important breakthrough in the Mutual Fund industry in Indonesia. This service greatly facilitates the public and makes mutual fund investment more comfortable and friendly for ordinary investors. The process of opening accounts and conventional Mutual Fund transactions that were previously carried out was deemed time consuming and inefficient because they had to rely on physical documents manually and required wet signatures. The digital Mutual Fund platform will become a trend in the future because it can adapt to the times, by providing convenience, customer convenience and more efficient transactions and will

also make the capital market industry, especially Mutual Funds more transparent, competitive, and oriented towards reputation, service quality and performance. Performance.

It is important for companies that provide online Mutual Fund transaction portals to get loyal customers to ensure the continuity of their business. Because loyal customers will affect the company's profits and customer retention in the long term (Belwal and Amireh, 2018). To benefit from a loyal customer base, online Mutual Fund companies need a thorough understanding of the antecedents of e-loyalty, namely the important elements related to customer loyalty in their online sales (e-commerce) business. With this understanding, online Mutual Fund companies can develop strategies to provide competitive advantages in increasing customer loyalty (Srinivasan, et al, 2002).

In the face of intense competition between companies providing online Mutual Funds portals, aspects that affect E-Service Quality and how the relationship between E-Service Quality is related to company image, trust, satisfaction, and loyalty from online Mutual Fund portal customers for can improve the company's financial performance becomes important to be researched. This study aims to study the effect of electronic service quality on corporate image, trust, satisfaction, and customer loyalty both to investment manager companies and mutual fund selling agents. As well as researching what factors are the most influential in the evaluation of electronic services and the assessment of the quality of the portal from investors.

There are many journal papers and research related to E-Service Quality, Trust, brand image, customer satisfaction and customer loyalty. However, all these variables are discussed partially and separately. For example, research that studies the dimensions of E-Service Quality (Yoo and Donthu, 2001; Zeithaml et al., 2002; Wolfinbarger and Gilly, 2003; Parasuraman et al., 2005; Blut et al., 2015; Rita, et al, 2019), the relationship between portal design, user experience, customer satisfaction, customer loyalty and financial performance (Lee and Kim, 2002, Mbama, 2018) and the effect of service quality on brand image (Wu et al, 2011) and brand image on trust in satisfaction. and customer loyalty.

Furthermore, so far, there has been no research that focuses on E-Service Quality, corporate image, trust, customer satisfaction and loyalty, especially in relation to the development of online Mutual Funds in Indonesia. Several previous studies have focused more on user trust to make purchase intentions to invest in Mutual Funds through certain marketplace platforms (Anggraeni, 2019), customer satisfaction and loyalty to investment manager companies and Technology Acceptance Model and Technology adoption on specific Mutual platforms. Certain online funds (Dewi and Rahadi, 2020; Shulhan and Oetama, 2019). Therefore, research on the relationship between the influence of E-Service Quality on trust, brand image of the company, customer satisfaction and loyalty of the online Mutual Fund portal will be interesting to discuss because it has added value if discussed holistically and simultaneously.

2. Literature Review

Online Mutual Fund Portal

The online Mutual Fund transaction portal is a system owned by Investment Manager companies and Mutual Fund Selling Agents that can facilitate account opening, "subscription transactions and electronic Redemption of Mutual Fund securities" which has received approval from the Financial Services Authority. which can be accessed online. To be able to conduct Mutual Fund transactions electronically, the online Mutual Fund portal is required to provide information electronically for investors, which at least contains the latest electronic Prospectus whose contents are the same as the Prospectus in printed form as well as user instructions for conducting Mutual Fund transactions online. The portal must also be able to present an easy-to-understand and communicative display of information, data, and/or documents to its users.

E-Service Quality

Currently the quality of e-commerce portal services is increasingly important because it not only evaluates business success or failure but also determines consumer experience in making interactive online purchases. Wolfinbarger and Gilly (2003) in Blut et al (2015) define E-Service Quality as a process from start to finish that is carried out in a transaction, which includes the process of getting the required information, setting up portal navigation, portal interactions with customers, delivery process, and finally give birth to satisfaction on the selected product. Based on the above definition, it can be concluded that E-Service Quality in the context of the online Mutual Fund portal is the quality of Mutual Fund transaction services carried out via the internet which includes the process from initial to post-purchase which can affect customer satisfaction. E-Service Quality assesses the quality of the facilities provided efficiently and effectively in carrying out all the required processes.

Previously, many studies have studied the conceptualization and proposed different specific attributes and dimensions related to the quality of e-services. The approach that is quite popular and most often used to measure service quality is the e-SERVQUAL model (Zeithaml et al., 2002), the IS Success Model (Delone & McLean, 2003) eTailQ compiled by Wolfinbarger

and Gilly (2003) and the latest hierarchical model. related to E-Service Quality proposed by e-Blut et al. (2016). In this study, researchers used the dimensions of E-Service Quality referring to a hierarchical model using a meta-analyst developed by Blut (2016) because according to Rita et al. (2019) the model is more accurate in representing e-commerce portals in predicting customer behavior without overestimating the importance of the attributes of E-Service Quality. In addition, this study also investigates the results of electronic service quality to achieve positive customer loyalty behaviors such as repurchase intentions, Word of Mouth (WOM) and site revisit intentions. Many literatures also show that these aspects are influenced by satisfaction, trust, and brand image of online mutual fund portal companies.

According to Blut (2016), the measurement of the quality of electronic services consists of four dimensions: Portal design, customer service quality, security/privacy, and fulfillment aspects of the portal. Portal design refers to all elements of the customer experience associated with a website, including information quality, website aesthetics, purchasing process, website convenience, product selection, price quotes, website personalization and system availability. A good portal design must emphasize usability by providing a design aesthetic, reflect a strong and associative service image to the brand, and be able to attract consumers to visit it (Diaz and Koutra, 2013). The results of the study of Montoya-Weissetal et al. (2003) show that various website design factors (eg, informational content, image navigation, and graphic style) have an effect on perceived service quality which in turn affects customer satisfaction. Furthermore, an effective, efficient, and trouble-free website with fast order processing results in higher service satisfaction for online retailers. Rita et al. (2019) mentions that customers rate their experience of using a website to assess the quality of service in online shopping as a whole. Then the hypothesis is made:

H1: Portal design can have a positive and significant impact on E-Service Quality

According to Liao and Cheung (2002) customers expect e-retailers to provide the required response in a timely manner. Prompt response and confirmation of service personnel and assisting customers in answering questions has a positive effect that can influence building customer trust and satisfaction with e-retailer services (Wagner and Rydstrom, 2001) because it can increase the perceived convenience of the service and reduce uncertainty in transactions. online (Gummerus et al., 2004). According to Blut (2016), the quality of customer service officers can contribute to the quality of electronic services. From this description, the following hypothesis is made:

H2 : Customer service has a positive and significant impact on E-Service Quality

Wolfenbarger and Gilly (2003) describe the aspect of fulfillment/reliability as the timeliness and delivery of the product according to which has been guaranteed to the customer, and the accuracy of the description of the product offered so that customers can get what they believe they ordered from an e-commerce service provider and do not feel harmed. Liao and Keng (2013) mention that post-payment complaints often occur by customers in online shopping compared to offline shopping because customers cannot confirm the product directly before making a purchase. Customers also face problems with frequent delivery times, order accuracy, and unreliable delivery quality. According to him, to provide superior service, the aspect of fulfillment and reliability in order processing is one of the determinants of the quality of electronic services. Customer trust and evaluation of the quality of e-services regarding the competence of portal providers to fulfill promised services in a reliable and honest manner. Collier and Bienstock (2006) suggest companies to focus on the results of electronic service quality, namely by ensuring customers receive the right product as ordered and in accordance with the expected time with the promised condition of the goods because it can affect the level of customer satisfaction. The results of a study by Wolfenbarger and Gilly (2003) show that compliance/reliability is the most decisive factor in electronic services that affects the level of customer satisfaction compared to other dimensions. From the description above, a hypothesis is made as follows:

H3 : Fulfillment/Reliability has a significant positive effect on E-Service Quality

Preliminary research into e-commerce services suggests the risks associated with loss of privacy and security of personal information are a barrier to potential customers using the service (Hui et al., 2007). The security aspect of e-commerce portals according to Holloway and Beatty (2008) concerns the extent to which the portal used is safe from financial risks, and personal information and privacy are protected. Customers must be confident in the ability of online shopping services to maintain financial information during delivery and storage. This is because customers have a higher level of risk when shopping online in terms of open access to information. Therefore, customers often worry about whether the website services they use will protect them from fraud after a transaction. According to Park and Kim (2003) customers will only share personal information and use portal services if the portal's security level is felt to meet their expectations and level of trust. According to Holloway and Beatty (2008), website security and privacy are important for assessing the quality of online shopping services. From the description above, the following hypothesis is made:

H4: Security has a positive and significant influence on E-Service Quality

Previous research from Gounaris et al. (2010) states that "E-Service Quality has a positive effect on e-satisfaction, besides that it can also affect both directly and indirectly through customer satisfaction on customer behavioral intentions, namely, to visit the site again, provide positive word of mouth and intention to make a purchase." In addition, based on the theory of disconfirmation, customer satisfaction in e-service can be seen as an effective response to the quality of service they feel which can give them positive feelings when they believe that the portal can provide what they expect.

Teck, et al. (2012) showed that service quality can significantly affect brand image. A strong and quality brand in addition to tending to have a good reputation image, also has good service quality. The brand is able to translate service quality and customer satisfaction into converting it into customer fanaticism. Aspizain (2016) states that if customers already have a good perception of service quality assessment, it can simultaneously form a positive image of a brand. Previous research has also shown that the quality of electronic services has a positive effect on customer trust (Cho and Hu, 2009; Wu et al., 2010, 2018). According to Lee and Turban (2001) shopping online through the internet must involve trust not only between online sellers and customers but also between customers and the computer system where transactions are executed. Furthermore, research from Alrubaiee & Alkaa'ida (2011) observed that service quality in the healthcare industry has a direct positive effect on customer trust and has an indirect positive effect on trust mediated by customer satisfaction. From the description above, the following hypothesis can be made:

H5: E-Service Quality has a positive and significant effect on Brand Image

H6: E-Service Quality has a positive and significant effect on Satisfaction

H7: E-Service Quality has a positive and significant effect on Trust.

Based on previous research, it was found that brand image has a significant effect on customer satisfaction (Chang and Tu, 2005; Giebelhausen et al., 2016; Martenson, 2007). Bird et al. (1970) stated that brand image can have a potential effect on customer satisfaction by comparing the differences in perceptions between users and non-users of a brand's products and services. According to Johnson, et al. (2001). Customers usually prefer companies with a positive image which can give a higher perception in terms of quality, value, satisfaction and loyalty.

Flavian et al. (2005) stated that brand image can positively reduce risk so as to develop consumer trust. Mukherjee and Nath (2003) note that brand image usually influences customer decision-making behavior during transactions, thereby verifying a significant relationship between brand image and customer trust. Lien et al. (2015) asserted that brand image is an important precursor in determining trust. It is stated that a valuable and attractive brand image can increase consumer confidence in the product/service of a brand.

Previous research has also suggested that brand image can have direct and indirect effects on loyalty (Hart and Rosenberger, 2004; Da Silva and Alwi, 2008). Brand image can be viewed as a predictor of customer loyalty. A positive company brand image not only helps companies to increase competition but also stimulates loyalty because it encourages repeat purchases (Porter and Claycomb, 1997). From the description above, the following hypothesis can be made:

H8 : Brand Image will have a significant positive effect on Trust

H9 : Brand Image will have a positive and significant impact on Loyalty

H10: Brand Image will have a positive and significant impact on Customer Satisfaction

Customer satisfaction according to Fornell, et al. (1996) can be interpreted as the result of the customer's overall assessment based on the experience of purchasing, using an item or service over time. In the marketing concept, satisfaction can be achieved if the company can facilitate what are the expectations and needs for goods and services from customers. From previous research by Fassnacht and Köse (2007) and Garbarino and Johnson (1999) noted that satisfaction is one aspect of trust assessment. Therefore, satisfaction is one of the important prerequisites for the formation of trust. In addition, dissatisfied customers according to Anderson and Srinivasan (2003) generally in addition will seek information on alternative products and services and switch, they also lose trust and are reluctant to build close relationships with these sellers.

Wirtz (2018) states that the foundation for building true loyalty lies in customer satisfaction. However, satisfaction alone cannot explain the overall customer loyalty. Customer satisfaction is at the core of maintaining a company's long-term relationship in the online retail context (Winter, 2001). Satisfied customers tend to use services more often and have stronger repurchase intentions and are often willing to refer products or services to their relationships compared to those who are dissatisfied (Zeithaml et al., 1996). The relationship between customer satisfaction and loyalty has been found significantly in various

studies (Anderson and Srinivasan, 2003; Park and Kim, 2003). From the description above, the following hypothesis can be made:

H11: Customer satisfaction has a significant positive effect on customer loyalty.

H12: Customer satisfaction has a significant positive effect on customer loyalty.

The concept of trust according to Everard and Galletta (2006) and (Kim et al., 2009) is a positive belief and customer dependence on reliability that can be built from the integrity of service providers. Previous research from Song et al. (2019) stated that trust has a relationship with image, satisfaction, and loyalty. While the definition of customer loyalty according to Griffin (2003) and Peppers and Rogers (2004) is generally a positive attitude which refers to the measurement of customer relationships on choices, preferences and usage loyalty of a product or service. Han and Hyun (2013) state that trust is a type of bond that sustains a stable long-term relationship between buyers and sellers. The relationship shows a state where trusted suppliers can be relied on and they can fulfill their promises as expected by customers (Chiu et al., 2012). Sirdeshmukh et al., (2002) also confirmed that trust plays an important role in influencing positive word of mouth communication and customer repurchase behavior. According to Lankton et al., (2010) the concept of trust that comes from a satisfying experience is an important factor in determining repeat purchase intentions. Upamannyu et al. (2014) stated that trust can lead to loyalty because trust can even arise from customer satisfaction with the way the company handles complaints. From the description above, the following hypothesis can be made:

H13: Trust will have a positive and significant effect on customer loyalty

This study adapts from Rita et al. (2019) related to online shopping using the hierarchy theory from Blut (2016) and the model from Song et al. (2019) which examines the effect of Brand Image, trust satisfaction on brand loyalty from an offline shop brand. Based on the hypothesis that has been described previously, the model in this study can be described as follows: (Figure 2)

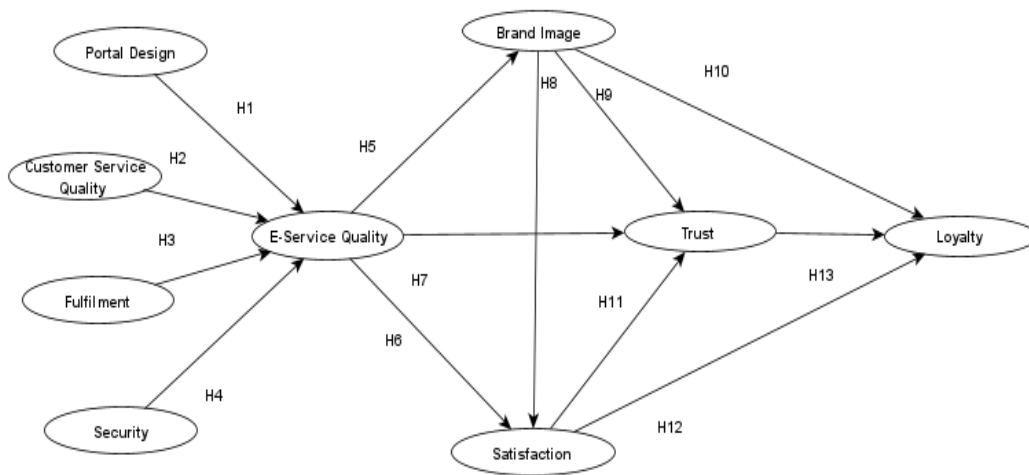


Figure 2. Research Model

3. Methods

The data of this research were analyzed by using Structural Equational Modeling (SEM) data analysis technique with the method of least squares path modeling (Partial Least Square-PLS-SEM). PLS SEM analysis was carried out using the SmartPLS version 3.2.8 application.

The questionnaire in this study consisted of two parts that had to be filled out by the respondent. The first part of the questionnaire contains demographic information from the survey respondents. In the second part of the survey questionnaire contains statement items related to the main data or indicator variables that are needed for research.

4. Data Collection

Collecting data in this study using primary data through the distribution of a questionnaire survey using google form. The target respondents in this study are online Mutual Fund portal customers, either through the exclusive online Mutual Fund portal from investment managers or online Mutual Fund supermarkets owned by Mutual Fund Selling Agent companies who have opened accounts for more than 1 year or have transacted at least 1 time a year. Questionnaires will be distributed to the Mutual Fund industry worker community and members of the Mutual Fund investor social media group. The minimum sample size is determined by the one-proportion estimation formula commonly used in descriptive cross-sectional research designs, which is a minimum of 97 samples. The number of question items in this study were 43 which are shown in Table 1 below:

Table 1. Variable Operations

Variable	Attribute / Item Indicator	Source
Customer Satisfaction	<ul style="list-style-type: none"> SAT1: Satisfied with the product and service provided SAT2: Meet expectations and needs SAT3: Happy with the choice of using the portal 	Fornell (1992); Ding, et al (2010)
Customer Loyalty	<ul style="list-style-type: none"> LOY1: Not thinking of switching to another portal LOY2: Will keep using in future LOY3: Will inform the advantages of the product or service they use LOY4: Would recommend the product or service they use 	Srinivasan, et al. (2002)
E-Service Quality	<ul style="list-style-type: none"> ESQ1: Overall. the experience of using the portal is very good ESQ2: The overall quality of the services provided is very good ESQ3: Feeling very comfortable using the portal 	Blut (2016); Holloway and Beatty (2008)
Portal Design	INFORMATION QUALITY <ul style="list-style-type: none"> INF1: Provides the complete information I need INF2: The information provided is always up to date INF3: The information provided can be easily understood 	Huang et al. (1999)
	ESTETIKA <ul style="list-style-type: none"> EST1: Visually appealing and fun. 	Blut (2016); Holloway and Beatty (2008)
	ORDER PROCESS <ul style="list-style-type: none"> ORD1: Transaction and payment processes can be done easily and quickly. ORD2: Account opening, and account activation can be done easily and quickly 	Blut (2016); Holloway and Beatty (2008)
	CONVENIENCE <ul style="list-style-type: none"> CON1: The display is comfortable to read from various platforms (smartphones, computers). CON2: The portal navigation menu design is easy to learn and well structured 	Ho and Wu (1999); Almaiah, et al. (2016); Chavoshi and Hamidi (2018);
	PRICE <ul style="list-style-type: none"> PRI1: Offers lower Mutual Fund transaction fees compared to other portals PRI2: Minimum investment is lower than other online Mutual Fund portals 	Quiserto (2014)
	AVAILABILITY <ul style="list-style-type: none"> AVA1: Portal has fast download time and responsive interface 	Blut (2016); Holloway and Beatty (2008)
	PERSONALIZATION <ul style="list-style-type: none"> PER1: Has interactive features that can provide product recommendations according to needs. PER2: Makes me feel that I am a unique customer 	Srinivasan, et al. (2002)
	PRODUCT VARIETY <ul style="list-style-type: none"> PRD1: Offer a wide selection of products PRD2: Offers a wide range of products that interest me. PRD3: Provides comprehensive analysis tools to facilitate decision making. 	Blut (2016); Holloway and Beatty (2008)
Customer Service Quality	<ul style="list-style-type: none"> CUS1: Provided a fast response to answer my questions. CUS2: The customer care staff helped me solve the problem well CUS3: Provides various communication channels to contact customer care 	Zeithaml (1988); Selz et al. (1997); Ding, et al. (2010)
Fulfillment/Reliability	<ul style="list-style-type: none"> FUL1: Stable and rarely experience problems FUL2: Honest, accurate and reliable product information to invest in Mutual Funds FUL3: Completion of the transaction as I expected 	Kim and Lee (2002); Holloway and Beatty

	<ul style="list-style-type: none"> FUL4: transaction confirmation letters are always received on time 	(2008);
Security	<ul style="list-style-type: none"> SEC1: I feel safe in transacting. SEC2: Have adequate security features. SEC3: Safeguard and protect my personal information. 	Blut (2016); Holloway and Beatty (2008)
Trust	<ul style="list-style-type: none"> TRU1: The advice and recommendations provided by the online Mutual Fund portal can be trusted TRU2: The company that provides the online Mutual Fund portal is credible TRU3: I am happy with the standard of quality and expertise of the online Mutual Fund portal. 	Gefen (2002); Lee and Turban (2001); Urban et al. (2009)
Brand Image	<ul style="list-style-type: none"> BI1: Image Portal is very friendly for millennial investors BI2: Image The online Mutual Fund portal that I use is very innovative. BI3: Image Online Mutual Fund Portal that I compared to other Mutual Fund portals. 	Salinas & Perez (2009); Martinez et al. (2009)

5. Results and Discussion

Demographic Data Analysis

Based on the sample data of online Mutual Fund customers in this study, most customers (69.6%) transacted Mutual Funds online through the Mutual Fund Selling Agent portal, which consisted of the remaining 39.1%, transacted Mutual Funds directly through the Investment Manager company's online Mutual Fund portal. It was found that customers of the online Mutual Funds portal, Mutual Fund Selling Agents, generally transact transactions more often than investment manager customers every year. The potential market share for online Mutual Funds portal customers is generally customers in the age range of 25-40 (64.35%) who work as employees with a minimum education degree. Namely, are millennials who are entering an established age and realizing the importance of investing. Based on customer reference source statistics, it is known that online Mutual Fund Selling Agent companies have a digital marketing strategy that is more effective in attracting customers, while investment manager companies rely more on the company's sales marketing staff. Based on the statistical results of the research survey conducted, the platform used for customers to access the Mutual Fund portal, generally through a smartphone application. Characteristics and profiles of respondents can be seen in Table 2 below.

Table 2. Characteristics and Profile of Research Respondents

Characteristics of Respondents	Category	Total		Selling Agent Mutual Fund Portal Customer		Investment Manager Mutual Fund Portal Customers	
		Freq	%	Freq	%	Freq	%
Gender	Male	69	60.0%	39	55.7%	30	66.7%
	Female	46	40.0%	31	44.3%	15	33.3%
Age	17-24	29	25.22%	24	35.29%	5	10.64%
	25-40	74	64.35%	36	52.94%	38	80.85%
	>41	12	10.43%	8	11.76%	4	8.51%
Education	Senior High School	18	15.7%	13	18.6%	5	11.1%
	Diploma	10	8.7%	6	8.6%	4	8.9%
	Bachelor (S1)	76	66.1%	45	64.3%	31	68.9%
	Postgraduate (S2)	11	9.6%	6	8.6%	5	11.1%
Profession	State Civil Apparatus	2	1.7%	2	2.9%		0.0%
	House Wife	7	6.1%	4	5.7%	3	6.7%
	Employee	64	55.7%	36	51.4%	28	62.2%
	Student	28	24.3%	23	32.9%	5	11.1%
	Self-employed	12	10.4%	5	7.1%	7	15.6%
	Other	2	1.7%		0.0%	1	2.2%
Domicile	Bekasi	18	15.7%	14	20.0%	4	8.9%
	Bogor	6	5.2%	4	5.7%	2	4.4%
	Depok	13	11.3%	10	14.3%	3	6.7%

	DKI Jakarta	48	41.7%	24	34.3%	24	53.3%
	Tangerang	22	19.1%	12	17.1%	10	22.2%
	Tangerang Selatan	8	7.0%	6	8.6%	2	4.4%
Frequency of Mutual Fund Transactions in a Year	1-2 times	32	27.8%	13	18.6%	19	42.2%
	3-4 time a year	21	18.3%	14	20.0%	7	15.6%
	5-6 time	9	7.8%	7	10.0%	2	4.4%
	More than 7 times	53	46.1%	36	51.4%	17	37.8%
Online Mutual Fund Portal Platform used	Browser Computer	6	5.2%	4	5.7%	7	15.6%
	Browser Smartphone	3	2.6%	2	2.9%	5	11.1%
	Desktop Application	3	2.6%	3	4.3%	0	0.0%
	Mobile Application	103	89.6%	61	87.1%	33	73.3%
Get an Online Mutual Fund Portal reference from	Family members/friends/relatives	31	27.0%	19	27.0%	12	27.0%
	Paid ads	6	5.2%	4	6.0%	2	4.0%
	Sales marketing / customer relations officer of the company	18	15.7%	2	3.0%	16	36.0%
	Social Media / Online community	35	30.4%	32	46.0%	3	7.0%
	Online Mutual Fund portal company website	25	21.7%	13	19.0%	12	27.0%
Long time being a Customer of the Online Mutual Fund Portal	Less than 1 year	50	43.5%	36	51.4%	14	31.1%
	1 to 2 years	36	31.3%	13	18.6%	23	51.1%
	2 to 3 years	19	16.5%	13	18.6%	6	13.3%
	More than 3 years	10	8.7%	8	11.4%	2	4.4%
Mutual Portal Customer Type	Investment Fintech Application (APERD Online)	54	47.0%	54	77.1%		0.0%
	Online Trading Securities Company	16	13.9%	16	22.9%		0.0%
	Investment Manager's Online Mutual Fund Portal	45	39.1%		0.0%	45	100.0%

Study Test Results

This study uses partial least square (PLS) path modeling which is applied to the SmartPLS software to assess the validity and reliability of the measurements. Composite Reliability (CR), factor loading, and average extracted variance (AVE) were used to test the convergent validity of the constructs and indicator items. In this study the researcher followed the baseline from Heir et al. (2014). That is, the questionnaire item used is a questionnaire item with a loading factor of more than 0.7 to be accepted. Meanwhile, the variable is said to be reliable if its composite reliability value is more than 0.7 and Cronbach's Alpha is more than 0.6. In this study, the researchers did not include several indicators, namely FUL1, PRC1 and ORD2 because they have validity values that are convergent validity test results and composite reliability in this study can be seen in Table 3 below.

Table 3. Validity and Reliability Test Results

Variabel	Item	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
Availability	AVA1	1	1	1	1
Brand Image	BI1	0.898	0.856	0.912	0.775
	BI2	0.924			
	BI3	0.816			
Convenience	CON1	0.908	0.819	0.917	0.846
	CON2	0.931			
Customer Service Quality	CUS1	0.843	0.856	0.902	0.696
	CUS2	0.839			
	CUS3	0.872			
	CUS4	0.782			
E-Service Quality	ESQ1	0.905	0.836	0.902	0.755
	ESQ2	0.793			

	ESQ3	0.904			
Aesthetics	EST1	1	1	1	1
Fulfillment	FUL2	0.827	0.758	0.862	0.676
	FUL3	0.876			
	FUL4	0.758			
	Information Quality	INF1	0.804	0.752	0.858
	INF2	0.804			
	INF3	0.843			
Loyalty	LOY1	0.881	0.879	0.917	0.734
	LOY2	0.844			
	LOY3	0.855			
	LOY4	0.846			
Order Process	ORD1	1	1	1	1
Personalization	PER1	0.921	0.818	0.917	0.846
	PER2	0.918			
Price	PRC2	1	1	1	1
Product variety	PRD1	0.774	0.711	0.838	0.633
	PRD2	0.86			
	PRD3	0.748			
Satisfaction	SAT1	0.881	0.823	0.894	0.738
	SAT2	0.839			
	SAT3	0.856			
Security	SEC1	0.905	0.851	0.909	0.77
	SEC2	0.888			
	SEC3	0.838			
Trust	TRU1	0.792	0.664	0.815	0.595
	TRU2	0.801			
	TRU3	0.718			

Multicollinearity Test, Weighting

In this study, researchers used Portal Design as a second order construct with formative type (Ringle et al., 2012). Each attribute of the portal design such as information quality, price, availability, convenience, order processing, product variety, personalization is a first order construct with a reflective type. Therefore, multicollinearity test (VIF), as well as significance and weighting need to be done.

Table 4. Weighting and Multicollinearity Test Results

Formative construct (Second order)	Reflective Construct (1st Order Construct)	Weight	VIF	P-Value
Portal Design	Availability	0.125	2.261	0.000
	Convenience	0.218	2.194	0.000
	Aesthetic	0.129	2.163	0.000
	Information Quality	0.279	2.201	0.000
	Order Process	0.083	1.716	0.000
	Personalization	0.184	1.834	0.000
	Price	0.095	1.83	0.000
	Product variety	0.247	2.03	0.000

Based on the significance test and the sign of the weight was statistically significant ($p < 0.01$), and all of them had a positive sign. The Table 4 above shows that Product Variety, Information Quality and Convenience are the 3 main important factors in the portal design aspect. All VIF values from the first order construct of the Portal design variable (with a range of 1.83 to 2.261) are still below the threshold of 3.3 (Lee and Xia, 2010). This means that the level of multi-multicollinearity for the portal design variable in this study is not problematic. So that formative-reflective construction can be used for structural model testing

Measurement of the Inner (Inner Model) and Hypothesis Testing

Measurement of the inside (Inner Model) using SmartPLS can be done by running the PLS Algorithm on the research model. The results of the measurement of the inside in this study can be seen in the Figure 2 below.

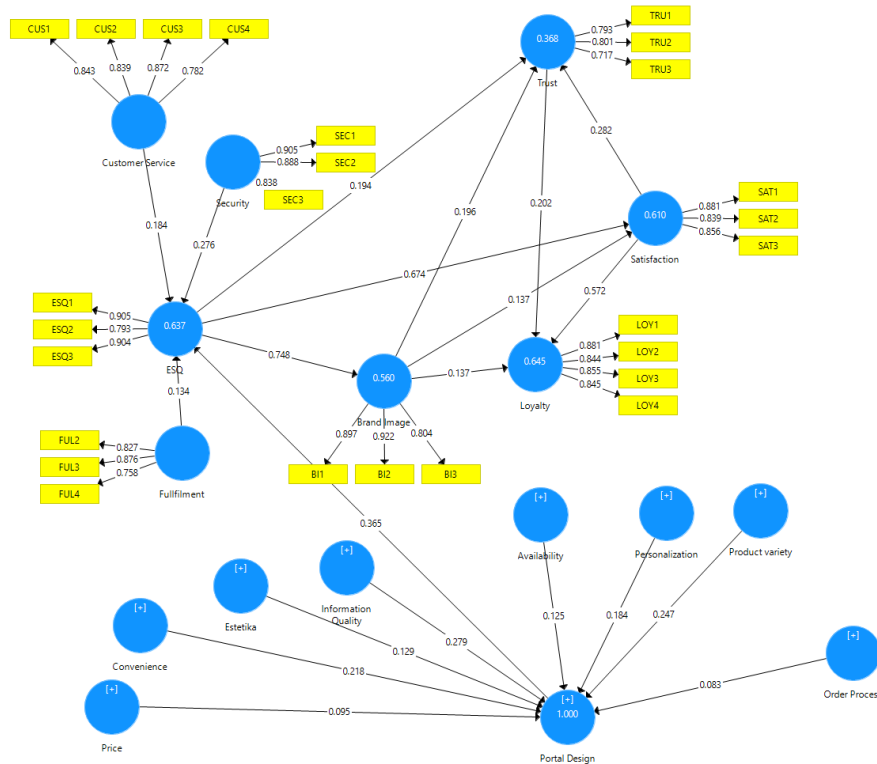


Figure 2 Results of PLS Algorithm Data Model Analysis

In this study, based on data processing using the SmartPLS application on all hypotheses, there were 8 accepted hypotheses and 5 rejected hypotheses. The results of hypothesis testing can be seen in Table 5 below.

Table 5. Hypothesis Testing Results Using SmartPLS

Hypothesis	Path	Path Coefficient	T-Stat	P-Value	Conclusion
H ₁	Portal Design -> e-Service Quality	0.365	3.902	0.000	Hypothesis accepted
H ₂	Customer Service -> e-Service Quality	0.184	2.348	0.019	Hypothesis accepted
H ₃	Fulfillment -> e-Service Quality	0.134	1.661	0.097	Hypothesis rejected
H ₄	Security -> e-Service Quality	0.276	2.981	0.003	Hypothesis accepted
H ₅	E-Service Quality -> Brand Image	0.748	19.795	0.000	Hypothesis accepted
H ₆	E-Service Quality -> Satisfaction	0.674	9.623	0.000	Hypothesis accepted
H ₇	E-Service Quality -> Trust	0.194	1.158	0.247	Hypothesis rejected
H ₈	Brand Image -> Satisfaction	0.137	1.574	0.116	Hypothesis rejected
H ₉	Brand Image -> Trust	0.196	1.561	0.119	Hypothesis rejected
H ₁₀	Brand Image -> Loyalty	0.137	1.168	0.243	Hypothesis rejected
H ₁₁	Satisfaction -> Trust	0.282	1.980	0.048	Hypothesis accepted
H ₁₂	Satisfaction -> Loyalty	0.572	3.905	0.000	Hypothesis accepted
H ₁₃	Trust -> Loyalty	0.202	2.600	0.009	Hypothesis accepted

In addition to testing the hypothesis above, the results of this study are also to determine whether there is a significant difference between online Mutual Fund portal customers and investment managers online Mutual Fund portal customers Mutual Fund selling agents. In this study, the two groups are said to have a significant difference in the probability of 5% of the error rate if the p-value is less than 0.05 or greater than for a certain difference of each tested path coefficient. For that, it can be done by

doing PLS Multi Group Analysis using the SmartPLS application. The results of the PLS Multi Group Analysis can be seen in Table 6 below.

Table 6. MGA Testing Results Portal Selling Agent Vs Investment Manager

Path	Selling Agent			Investment Manager			Selling Agent vs IM			Conclusion
	Path coef	t-stat	p-val	Path coef	t-stat	p-val	Path coef	t-stat	p-val	
POR->ESQ	0.337	2.754	0.006	0.328	1.841	0.066	0.009	0.045	0.964	There is no significant difference
CUS->ESQ	0.179	1.583	0.113	0.208	2.181	0.029	-0.029	0.179	0.858	There is no significant difference
FUL->ESQ	0.100	0.791	0.429	0.181	1.705	0.088	-0.081	0.458	0.648	There is no significant difference
SEC->ESQ	0.294	2.477	0.013	0.330	2.456	0.014	-0.036	0.199	0.842	There is no significant difference
ESQ->BI	0.721	13.744	0.000	0.809	19.584	0.000	-0.088	1.209	0.229	There is no significant difference
ESQ->SAT	0.789	9.903	0.000	0.768	2.744	0.006	0.331	2.134	0.035	There is significant difference
ESQ->TRU	0.601	1.661	0.097	0.511	0.391	0.696	0.453	1.315	0.191	There is no significant difference
BI->SAT	0.042	0.406	0.685	0.422	2.483	0.013	-0.380	2.033	0.044	There is significant difference
BI->TRU	9.148	0.999	0.318	0.549	0.864	0.388	-0.229	0.605	0.547	There is no significant difference
BI->LOY	0.279	1.619	0.106	0.356	0.775	0.439	0.330	1.621	0.108	There is no significant difference
SAT->TRU	0.209	1.195	0.232	0.430	1.476	0.140	-0.221	0.700	0.485	There is no significant difference
SAT->LOY	0.528	2.778	0.006	0.943	6.294	0.000	-0.389	1.598	0.113	There is no significant difference
TRU->LOY	0.199	0.199	0.048	0.158	1.600	0.110	0.041	0.276	0.783	There is no significant difference

As for the results of hypothesis testing in this research, there are 8 accepted hypotheses and 5 rejected hypotheses. Aspects of Portal design, customer service quality, and security have a significant positive influence on the quality of electronic services in the context of the online Mutual Fund portal. While the fulfillment aspect does not affect the quality of electronic services. Furthermore, the aspect of electronic service quality has been shown to have a significant effect on customer satisfaction and brand image but not on customer confidence in the online Mutual Fund portal provider company. In addition, Brand Image does not affect the satisfaction, trust, and loyalty of online Mutual Fund customers. Meanwhile, customer satisfaction has a significant positive effect on customer loyalty and encourages customers to have more confidence in the credibility, competence and expertise of online Mutual Fund portal service providers. In this study, it was also found that customer trust had a significant positive effect on customer loyalty for companies providing online Mutual Fund portals.

Meanwhile, based on the results of further testing using PLS Multi Group Analysis (MGA) it was found that there was a moderating effect that caused 2 significant differences that affected customer satisfaction between the investment manager customer respondent group and the selling agent. In this case, E-Service Quality has a more significant effect on customer satisfaction of the online Mutual Fund portal of the Mutual Fund Selling Agent compared to the customer of the online Mutual Fund portal of the investment manager. On the other hand, the brand image (reputation and track record) of investment manager companies has a more significant impact on customer satisfaction.

6. Conclusions

This research is one of the initial efforts to contribute to the literature reference on the digitalization of the Mutual Fund industry in Indonesia by conducting an extensive investigation related to the quality aspects of electronic services in the context of the development of an online Mutual Fund transaction portal. In this study, the researcher adapted a comprehensive e-service quality model that is able to predict customer behavior better than other widely used scales without overestimating the importance of electronic service quality attributes.

Based on the results of the study conducted, the model proposed by the researcher has acceptable results of convergent validity and discriminant validity. This shows that all constructs, both formative and reflective, first order and second order in the structure of this model are supported by conceptual theory. Furthermore, all constructs in this model are also reliable and have moderate predictive ability. In terms of portal design aspects, product variety, information quality and convenience are the most dominant factors that can affect customer functionality assessments of the online Mutual Fund portal.

In the context of product variety and quality, it is very important for investment manager companies to always maintain and improve the performance of the Mutual Fund products they manage and provide a wide selection of products according to investment objectives and customer risk profiles. In this case, investment manager companies can optimize their product

marketing efficiently by establishing partnerships with Mutual Fund selling agent companies. So that they can focus more on the performance of the Mutual Fund products they manage. On the other hand, Mutual Fund selling agent companies need to be more selective in offering Mutual Fund products by only offering products that perform well from investment manager companies that have a track record and reputation to their customers.

Due to time and resource constraints, this study only used a small sample size (115 respondents), which may not significantly represent the proportion of online mutual fund investors and it is necessary to pay attention to the comparison of the number of respondents per group in order to be more balanced. Further research can focus on the context of the development of online Mutual Fund portals in Indonesia. That is by examining the relationship of E-Service Quality to the behavior of online Mutual Fund portal customers by combining trends in the market such as the collaboration of online Mutual Fund portals with marketplaces, digital wallets, payment gateway companies and digital banking, such as the collaboration of fintech companies to invest in mutual funds, Seeds with Digital Bank Company (Bank Jago) and the interesting acquisition of a mutual fund fintech company (Ajaib) over a securities company recently that has just happened in the Indonesian Capital Market today.

References

- Almaiah, M., Jalil, M. A., Man, M. Extending The Tam To Examine The Effects Of Quality Features On Mobile Learning Acceptance, *Journal Computers in Education*, 3(4), 453–485. (2016)
- Bird, M., Channon, C., Ehrenberg, A. Brand image and brand usage. *Journal of Marketing Research*. 307–314. (1970).
- Blut, M. E-Service Quality: development of a hierarchical model. *Journal of Retailing*. 92 (4), 500–517. (2016).
- Blut, M., Chowdhry, N., Mittal, V., Brock, C. E-Service Quality: a meta-analytic review. *Journal of Retailing*. 91 (4), 679–700. (2015).
- Cho, J.E., Hu, H., The effect of service quality on trust and commitment varying across generations. *International Journal of Consumer Studies*, 33 (4), 468–476. (2009).
- Collier, J. E., Bienstock, C.C. Measuring Service Quality in E-Retailing, *Journal of Service Research*, 8 (3), 260-275. (2006).
- Da Silva, R.V., Alwi, S.F.S. Online corporate brand image, satisfaction and loyalty. *Journal of Brand Management*, 16(3), 119-144. (2008).
- Ding, X., Verma, R. & Iqbal, Z. Self-Service Technology and Online Financial Service Choice. *International Journal of Service Industry Management*, 18 (3), 246-268. (2007).
- Ding, X., Hu, P., Verma, R. & Wardell, D.. The Impact of Service System Design and Flow Experience on Customer Satisfaction in Online Financial Services. *Journal of Service Research*, 13,96-110. (2010).
- Everard, A., Galletta, D. F. How presentation flaws affect perceived site quality, trust, and intention to purchase from an online store. *Journal of Management Information Systems*,22,55. (2006).
- Flavián, C., Guinalíu, M., Torres, E., The influence of corporate image on consumer trust: a comparative analysis in traditional versus internet banking. *Internet Research*, 15(4), 447–470. 2005.
- Gefen, D. E-commerce: the role of familiarity and trust. *Omega*, 28(6), 725-737. (2000).
- Gounaris, S., Dimitriadis, S., Stathakopoulos, V., An examination of the effects of service quality and satisfaction on customers' behavioral intentions in e-shopping. *Journal Service Marketing* 24 (2–3), 142–156. 2010.
- Hair, J., Hult, G., Ringle, C., and Sarstedt M. *A Primer on Partial Least Squares Structural Equation Modeling*. Thousand Oaks, California: Sage Publications. (2014).
- Han, H.,Hyun, S.S. Customer retention in the medical tourism industry: Impact of quality, satisfaction, trust, and price reasonableness. *Tourism Management*. 46,20-29 (2015).
- Hart, A.E., Rosenberger, P.J. Effect of corporate image in the formation of customer loyalty: an Australian replication. *Australasian Marketing Journal*, 12(3), 88-96. (2004).
- Ho, C. F., and Wu, W. H. *Antecedents of Customer Satisfaction on the Internet: An Empirical Study of Online Shopping*, Proceeding of the 32nd Hawaii International Conference on System Sciences, 1-9. (1999).
- Holloway, B.B., Beatty, S.E. Satisfiers and dissatisfiers in the online environment: a critical incident assessment. *Journal of Service Research*. 10 (4), 347–364. (2008).
- Hui, K-L., Teo, H.H., Lee,S-Y.T. The value of privacy assurance: an exploratory field experiment. *MIS Quarterly*, 31(1),19–33. (2007).
- Johnson, M.D., Andreessen, T.W., Lervik, L. & Cha, J. The evolution and future of national customer satisfaction index models. *Journal of Economic Psychology*, 22, 217-245. (2001).
- Lee, G., Xia, W., Toward agile: an integrated analysis of quantitative and qualitative field data on software development agility. *MIS Q.* 34 (1), 87–114. 2010.
- Lee, M.K.O., Turban, E., A trust model for consumer internet shopping. *International Journal of Electronic and Commerce*, 6 (1), 75–91. 2001.
- Liao, Z., Cheung, M. T.Internet-based e-banking and consumer attitudes: an empirical study. *Information & Management*, 39(4),283-295. (2002)
- Lien, C., Wen, M., Huang, L., Wu, K., Online hotel booking: the effects of brand image, price, trust and value on purchase intentions. *Asia Pacific Management Review*, 20(4), 210–218. 2015.
- Martenson, R. Corporate brand image, satisfaction and store loyalty: a study of the store as a brand, store brands and manufacturer brands. *International Journal of Retailing and Distribution Management*. 35 (7), 544–555. (2007).

- Mbama, C. Digital banking, customer experience and bank financial performance: UK customers' perceptions. *International Journal of Bank Marketing*, 36 (2), 230-255. (2018).
- Mukherjee, A., Nath, P. A model of trust in online relationship banking. *International Journal of Bank Marketing*, 21 (1), 5–15. (2003).
- Panda, J. & Ali, S. Digital Footprint in Indian Mutual Fund Industry. *Shodhadya Research Journal*, 5, 29-34. (2018).
- Parasuraman, A., Zeithaml, V. A. & Malhotra, A. ES-QUAL a multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213-233. (2005).
- Park, C-H., Kim, Y-G. Identifying key factors affecting consumer purchase behavior in an online shopping context. *International Journal of Retail and Distribution Management*, 30(1), 16–29. (2003).
- Peppers, D., & Rogers, M. *Managing Customer Relationships: A Strategic Framework*. New Jersey: John Wiley & Sons, Inc. (2004).
- Porter, S.S. and Claycomb, C. The influence of brand recognition on retail store image. *Journal of Product & Brand Management*. 6(6), 373-387. (1997).
- Quiserto, R. Cara Investasi Reksadana Online Terbaik. Retrieved from: [https://duwitmu.com/reksadana/reksadana-online-terbaik/\(2014\)](https://duwitmu.com/reksadana/reksadana-online-terbaik/(2014)).
- Rita, R, Oliveira, T., Farisa, A. The impact of E-Service Quality and customer satisfaction on customer behavior in online shopping. *Journal Heliyon*. 5(10). (2019). Retrieved from: <https://doi.org/10.1016/j.heliyon.2019.e02690>
- Shulhan, F., Oedema, R. *Analysis of Actual System Use from Bukareksa Mutual Fund Feature Using Technology Acceptance Model*. Conference Paper. 10.1109/ICIMTech.2019.8843752. (2019).
- Sirdeshmukh, D., Singh, J., Sabol, B. Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing*, 66(1), 15–37. (2002).
- Srinivasan, S.S., Anderson, R., Ponnabolub, K. Customer loyalty in e-commerce: an exploration of its antecedents. *Journal of Retailing*, 78, 41–50. (2002).
- Teck, M.T., Tze, W.L., Lee, S.S.W., Ong, B.F.M., and Tan, S. Consumer-based Brand Equity in the Service Shop. *International Journal of Marketing Studies*. 4(3); (2012). ISSN 1918-719X E-ISSN 1918-7203.
- Upamannyu, D.N.K., Gulati, C., Mathur, D.G. Effect of brand trust, brand image on customer brand loyalty in fmecg sector at gwalior region. *IRMJCR*. 2(2), 83–93 (2014).
- Wagner, J. and Rydstrom, G. Satisfaction, Trust and Commitment in Consumers = Relationships with Online Retailers, *E - European Advances in Consumer Research*. 5, 276-281. (2001).
- Winter, R.S. A framework for customer relationship management. *California Management Review*, 43(3), 89–105. (2001).
- Winter, R.S. A framework for customer relationship management. *California Management Review*, 43(3), 89–105. (2001).
- Wirtz, J. *Winning in Service Markets Series, Vol. 10: Managing Customer Relationships and Building Loyalty*. WS Professional. (2018).
- Wolfenbarger, M. & Gilly, M. C. eTailQ: Dimensionalizing, measuring and predictingetail quality. *Journal of Retailing*, 79(3), 183-198. (2003).
- Wu, J.J., Hwang, J.N., Sharkhuu, O., Tsogt-Ochir, B. Shopping online and off-line? Complementary service quality and image congruence. *Asia Pacific Management Review*. 23 (1), 30–36. (2018).
- Wu, P.C.S, Yeh, G. Y, Hsiao, C.R. The effect of store image and service quality on brand image and purchase intention for private label brands. *Australasian Marketing Journal (AMJ)*. 19(1), 30-39. (2011).
- Zeithaml, A. Consumer perceptions of price, quality and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52, July 2-22. (1988).
- Zeithaml, V. A., Parasuraman, A. & Malhotra, A. Service quality delivery through web sites: a critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362-375. (2002).

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