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UNDERSTANDING USER SATISFACTION IN USING MOBILE-BASED BEAUTY AND SKINCARE E-COMMERCE APPLICATION IN INDONESIA

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ABSTRACT

The internet is currently an essential need for Indonesian people. Mainly because of the covid-19 pandemic that makes activities must be done remotely, including shopping. One of the best-selling products purchased online during a pandemic is beauty and skincare. In Indonesia, there is one special e-commerce application widely used and quite famous by the people of Indonesia who sell beauty and skincare products. However, not a few are still dissatisfied with using the application. This research aims to describe factors affecting user satisfaction in using beauty and skincare e-commerce applications in Indonesia. This research model adopts and modifies the ISSM model by DeLone and Mclean, TAM, and the Trust. SEM-PLS is also used to analyze the results of a survey collected by 185 respondents to validate the hypothesized model practically. User satisfaction in using beauty and skincare e-commerce applications depends on system quality, information quality, service quality, perceived ease of use, perceived usefulness, and trust. In the end, the results showed that trust, perceived usefulness, and system quality has a significant direct relationship to user satisfaction. In addition, perceived ease of use and user satisfaction has a significant relationship with completely mediated by perceived usefulness.

Keywords: *E-Commerce, ISSM DeLone & McLean, Technology Acceptence Model (TAM), Trust, User Satisfaction, Modeling, SEM-PLS*

1. INTRODUCTION

The development of internet technology is now able to push towards a faster global era. According to survey data conducted by the Association of Internet Service Providers (APJII), there are 196.7 million internet users with a penetration of 73.3% of the total population in Indonesia [1]. This can prove that the internet has become an essential part of the community and has even become a necessity.

What's more, in the current technological era, the competition of the business world is also getting tighter. Business people compete to maintain their business or company so that the business can continue to run. One of the efforts that can be done is to create new customers and retain old customers to increase sales. In the current situation, not only in Indonesia but even the entire country, there is a Covid-19 pandemic.

The existence of the Covid-19 pandemic, causing activities that are usually done outdoors or home, must be done indoors or remotely. One of the activities that can be done outside the house before the pandemic hit is shopping. Sales activities or shopping online did exist before the pandemic, but according to one of the e-commerce CEOs in Indonesia said that before the covid-19 pandemic, shopping / selling online was an option, but now, this activity has become a necessity for business people or retail stores in selling and marketing their products online to maintain business [2]. This is value can have a positive long-term impact on e-commerce CEOs in Indonesia because consumers will increasingly get used to shopping online.

Based on data [3], there is an increase in the use of e-commerce after the covid-19 pandemic. This makes online shopping through e-commerce a habit. Buying products online through e-commerce is not only in the form of packaged products, shoes, and accessories. However, it turns out that beauty and skincare products have become the best-selling

products widely purchased online [4]. Some Indonesian e-commerce, does sell beauty and skin care products, but there are also some special e-commerce in Indonesia that sell only beauty and skin care products.

One of the special e-commerce beauty and skincare in Indonesia had the most significant number of visitors, as many as 3.1 million, in the fourth quarter [5]. E-commerce has launched a mobile-based application to increase the ease of consumers to shop for beauty and skincare products. The application provides features that can meet the needs of consumers in getting products and information about beauty and skincare so that consumers can feel easy, comfortable, and satisfied in using the application. Nevertheless, not a few users or consumers feel satisfied in using the application.

Based on preliminary research results conducted on 18 participating respondents, 76.5 percent of respondents had experienced insatiate in using the application. Some things that reduce customer satisfaction can be concluded, such as:

1. Information provided through the application is not always accurate and relevant (69.2%).
2. Sometimes, the application interrupts the system crash while it is being used in proceeding to payment (46.2%).
3. Sometimes, at checkout, the system freezes. (38.5%).
4. There is no detailed tracking order information. (30.8%).
5. Customer services on the application are not satisfactory, because it is not in accordance with the user's expectations (38.5%).
6. Difficult user interface (38.5%).

The existence of this unsatisfactory phenomenon can reduce the use and reduction of transactions that will occur. A successful information system is a system that uses advanced technology, complete and straightforward [6].

Increasing customer satisfaction can also increase consumers' tendency to reuse the app or repudiate a product using the app. Hence, this study aimed to identify the characteristics that might influence user happiness with beauty and skincare apps in Indonesia and make these aspects suggestions for e-commerce in Indonesia to boost user satisfaction.

To measure user satisfaction, the study adopted variables from several model theories, namely theories pioneered by DeLone & McLean (Information System Success Model) where the variables used are system quality, information quality, and also service quality. Then, the theory pioneered by Davis 1998 is TAM (Technology Acceptance Model) which is perceived ease of use and perceived usefulness. Finally, the study also adopted variable trusts which are believed to be variables that can measure user satisfaction.

2. LITERATURE REVIEW

2.1 E-Commerce

E-Commerce is an online platform that is considered a technology solution for small sellers or retailers [7]. E-commerce is an activity in buying and selling products online or electronically by customers and from company to company using a computer as an intermediary for business transactions [8]. Other things are also developed by [9] the process by which buyers and sellers exchange information, money, and goods through electronics, especially by using the internet or online, can also be referred to as e-commerce.

2.2 User Satisfaction

User satisfaction is a condition where the user feels happy or disappointed that can be formed from the comparison of the effects felt by a prosuk or service in accordance with the expected value [10]. Many studies have been conducted to evaluate user satisfaction in various subjects and circumstances. According to DeLone and McLean [11] User satisfaction should be assessed in terms of e-commerce usage and should encompass the entire customer experience cycle, from searching for information to purchase, payment, acceptance, and service. When clients are happy with the complete experience of placing a purchase through e-commerce, this is known as user satisfaction. These steps are then designed to measure user satisfaction through system quality, information quality, and service quality [12]. The success of the system or the application itself can also contribute to user satisfaction when utilizing an application. The DeLone and Mclean model, also known as the ISSM, is frequently used and gives insight into the performance of information systems in many studies. It can be claimed that this model is a model that is suited for assessing the success of information systems [13].

2.3 System Quality

System quality is a metric used to assess user satisfaction with e-commerce. System quality is used to assess the quality of a system derived from information technology. Users of e-commerce systems value responsiveness, availability, and dependability. [11]. System quality has been proven to be a gauge for user satisfaction and have an effect on user satisfaction has been proven by [6], [14].

2.4 Information Quality

Information quality is a user satisfaction measure used to measure the quality of information coming out of an e-commerce system [12]. The content of e-commerce is captured by the quality of information. E-commerce customers demand information that is relevant, tailored, comprehensive, and easy to grasp [11]. In addition, this information quality factor has also been proven to be a gauge of user satisfaction that has an influence in increasing user satisfaction [6], [14].

2.5 Service Quality

Service quality is the level of support provided by the system and shared by IT department users [12]. Critical components might influence service quality: quality assurance given, empathy supplied by the system to the user, and system responsiveness, which is the quality of the system's response to user activities [12]. The quality of service is one of the things that is often noticed by users. This dimension is now more important in the e-commerce sector than ever before, because users are now customers [11]. Support from bad users will be lost customers who are also disappearing [11]. Proven by research conducted by [6] proves that the quality of service is an important factor that can increase user satisfaction.

2.6 Perceived Ease Of Use

Perceived ease of use is one of the factors adopted from the TAM model (Technology Acceptance Model). Tam theory aims to measure the acceptance of an information technology. Perceived ease of use is a feeling where the user feels confident that by using a system there is no need to do more effort [15]. Amin [16] proves that perceived ease of use can be used to measure user satisfaction in mobile website users. Nowadays, anyone can do shopping activities using their smartphone anywhere, and anytime. This can make users feel happy because they can get the desired thing easily. Thus, perceived ease of use can be considered as one of the factors that can measure the success of user satisfaction in the e-commerce sector.

2.7 Perceived Usefulness

Some studies prove that perceived usefulness is associated with perceived ease of use and has an impact on user attitudes, which also has a relative impact on user satisfaction [16], [17]. Perceived usefulness is described as the extent to which a user believes that using the system can improve their job performance, which is aposthetic about the user's intention to use the system [15]. In this study, perceived usefulness is defined as a pennilaian or overall perception of the usefulness of e-commerce beauty and skin care applications used by users of the application. The higher the usefulness value of a system, the more acceptance and intention to use the technology, and also it can increase satisfaction with the use of a technology. Thus, perceived usefulness can be considered as a factor that can measure user satisfaction.

2.8 Trust

Trust is one aspect when trading. Consumer confidence in e-commerce is the subjective belief of consumers that the seller will fulfill his transactional obligations as consumers understand it [18]. Trust has been shown to be an important factor in influencing consumer behavior toward technologists, especially in uncertain environments, such as e-commerce [19]. According to [20] in the world of e-commerce, trust is the willingness of customers to position themselves for the possible losses that will be experienced when making online shopping transactions and hope that sellers will promise transactions that will facilitate customers. Trust has always been one of the factors that can affect various aspects such as reusing technology, repurding a product from an e-commerce system, including user satisfaction. This is proven by [16] Trust is a factor that can affect users in using mobile websites. In the context of e-commerce, [21] proves that trust affects customer satisfaction when using the B2C e-commerce platform. Therefore, it can be said that trust can affect user satisfaction in using beauty and skin care e-commerce applications.

3. METHODOLOGY

3.1 Research Model and Hypothesis

In this study, the models adopted were the ISSM DeLone &McLean and Technology Acceptance Model (TAM) models. The study adopted and modified the model to measure user

satisfaction levels in Indonesia in using beauty and skincare e-commerce applications. There are six variable independents: system quality, information quality, service quality, perceived ease of use, and trust. One variable intervening is perceived usefulness. And, one variable dependent is user satisfaction. Figure 3 below is a research model, which researchers have modified.

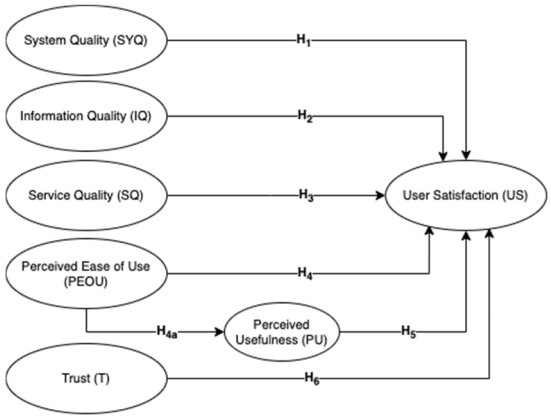

Figure 3: Research Model

The correlation between factors in this study may be seen in the diagram above. User satisfaction is strongly linked to the relationship between system quality, information quality, and service quality [6] [17]. But on research [14] It is proven that service quality does not have a significant relationship to user satisfaction. Therefore, the hypothesis that is formulated :

H1. System quality has a significant influence on user satisfaction.

H2. Information quality has a significant influence on user satisfaction.

H3. Service quality has a significant influence on user satisfaction.

According to previous research conducted by [16] It demonstrates a positively significant correlation between perceived ease of use and user contentment, as well as perceived usefulness and user satisfaction. It also reveals to researchers that perceived utility and perceived ease of use might be a construct that influences user satisfaction. In addition, this study will also prove whether perceived usefulness can be an indirect influence (variable intervening) between perceived ease of use against user satisfaction. Similarly, the theory of technology acceptance (TAM) model itself and also supported by previous research [16] perceived ease of use indirectly has a significant influence on user satisfaction through perceived usefulness. Thus, the hypothesis formulated for this study ::

H4. Perceived ease of use has a significant influence on user satisfaction

H4a. Perceived ease of use has a significant influence on user satisfaction mediated by perceived usefulness.

H5. Perceived usefulness has a significant influence on user satisfaction

Moreover, [16] It also proves that trust has a significant positive relationship with user satisfaction. Other researchers [22] It also proves that trust has a significant influence on customer satisfaction. The hypothesis formulated is :

H6. Trust has a significant influence on user satisfaction

3.2 Data collection

The research method used in this research is quantitative research methods. The research instrument used in this study was a questionnaire. The questionnaire in this study was used as a research instrument.

This questionnaire contains elements regarding respondents' demographics such as gender, age, occupation, and domicile or residence and statement items taken from relevant research. Each questionnaire item has a value category. The scores for each questionnaire item used in the study referred to an assessment of the Likert scale. The scale of the categories used is: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. These questionnaires are distributed through social media platforms and instant messaging applications.

3.3 Population and Sample

The population used in this study is the people who are in certain areas in Indonesia, namely Jakarta, Bogor, Depok, Tanggerang, and Bekasi, who are users of beauty and skincare e-commerce applications.

The study used snowball sampling techniques used to identify respondents according to the study criteria.. This sampling refers to calculations according to [23] some researchers propose that at least 20 cases are required for each variable. Therefore, it can be generated sample withdrawal in this study that is :

7 variable x 20 = 140 sample

So, in thisstudy, the minimum sample that must be collected is 140 samples..

3.4 Data Analysis Technique

The data that has been collected will be processed using Smart-PLS software version 3.3.2. Evaluating measurement models (reliability and validity test) and structural models (R-Square, Path Coefficient, and P-Value) will be conducted using Smart-PLS version 3.3.2.

Multiple linear regression is used to determine how much influence free variables have on dependent variables. Based on the research model that has been proposed in this study, the researchers formulated the following equations:

$$US = \beta_{10} + \beta_{11}.SYQ + \beta_{12}.IQ + \beta_{13}.SQ + \beta_{14}.PEOU + \beta_{15}.PU + \beta_{16}.T + \epsilon_1 \quad (1)$$

$$PU = \beta_{20} + \beta_{21}.PEOU + \epsilon_2 \quad (2)$$

Keterangan :

US = User Satisfaction
SYQ = System Quality
IQ = Information Quality
SQ = Service Quality
PEOU = Perceived Ease of Use
PU = Perceived Usefulness
T = Trust

3.4.1 Validity test

The validity test is used to measure the validity of each questionnaire item, whether each item of the questionnaire is valid or not. In this study, the validity test used is to use:

1) Loading Factors

The loading factor validity test is used to assess the relationship between indicators and their variable constructs. The expected loading value should be greater than 0.7 [24].

2) Average Variance Extracted

For each construct, the validity test utilizing variable average values must have a value larger than 0.5 [24].

3) Cross Loading

The validity test method using cross-loading is one method of discriminant validity that aims to determine if an indicator can be a good gauge for variable construction. This method can be done by comparing the loading value of the indicator on the intended construct must be greater than the loading value of the indicator itself with other constructs [24].

3.4.2 Reliability test

Reliability testing is a method of measuring whether each questionnaire item used is reliable or not. In this study, to test reliability, methods were used with :

1) Cronbach's Alpha

Cronbach's Alpha was one of the methods used in the study to test the reliability of questionnaire items. Questionnaire items are said to be reliable or reliable if they have a value of more than 0.7 [25].

2) Composite Reliability

Composite reliability is a method used to measure the reliability of questionnaires, just like Cronbach's Alpha. With this method, the questionnaire item will be said to be reliable if it has a value of more than 0.7 [25].

3.4.3 R-Square

One way for evaluating structural models is R-Square or coefficient determinant. The R-Square formula is used to calculate the effect of independent factors on dependent variables [26]. Because R-Square values vary from 0 to 1, R-Square numbers above 0.5 are considered acceptable [27].

3.4.4 Path Coefficient and P-Value

To test the hypothesis in the study, researchers used a path coefficient. Path coefficient shows the relationship between latent variables in structural models that establish regression relationships from one construct to another. Path values can be either positive or negative values—the value in showing whether the relationship between variables is in line or contrary.

In addition, researchers must also raise the level of significance of each variable relationship. The significance level is used to determine whether a latent variable has a significant relationship or not. T-Statistic or P-Value can be used to determine the degree of significance. The P-Value approach was employed in this work to estimate the significance level of latent variables. P-Value itself has a specific absolute value or level called alpha (α). The alpha value in the study was 0.05 (5%), which is the maximum possible wrong decision limit. Relationships between variables can be said to be significant if they have a P-Value of less than 0.05.

4. RESULT AND DISCUSSION

4.1 Respondent Description

Through questionnaires that have been distributed online, overall, 204 respondents filled out the survey. Based on all the data in the database, it is known that there are some data from respondents that do not fit the criteria of this study and must be deleted. Once deleted, the respondent data used in this study is as much as 185 data. Women dominated this study's respondents by as much as 90.27 percent. Then, the age that dominates at the age of 21-25 years as much as 75.68 percent. Domicile of residences in dominance by the Jakarta area as much as 55.68 percent. In addition, the work of respondents was dominated by university students as much as 62.16 percent. Table 1 below shows respondent demographic data in more detail.

Table 1: Participant's Demographic

Category	Description	Freq	%
Domicile	Jakarta	103	55.68
	Bogor	15	8.11
	Depok	24	12.97
	Tanggerang	37	20
	Bekasi	6	3.24
Gender	Female	167	90.27
	Male	18	9.73
Age	15 – 20	23	12.43
	21 – 25	140	75.68
	26 – 30	16	8.65
	>31	26	14.05
Job	Student	6	3.24
	University Student	115	62.16
	Entrepreneur	9	4.86
	Private Employee	34	18.38
	Governent Employee	5	4.86
	Others	16	8.65

4.2 Validity Test

As previously stated, this study employed loading factor, average variance extracted (AVE), and cross-loading to examine the validity of questionnaire questions.

4.2.1 Loading Factor

The validity test using loading factor can be said to be valid if each indicator has the above values 0.7.

When there is an indicator that does not meet the validity requirements, it should be eliminated. In this study, several indicators must be eliminated because they are not following the loading factor validity test requirements, namely SYQ1, SYQ4, IQ5, and SQ2. Table 2 below shows the loading factor results when all indicators are said to be valid.

Table 2: Loading Factor Result

Construct	Item	Loading Factor	Result
System Quality	SYQ2	0.797	Valid
	SYQ3	0.719	Valid
	SYQ5	0.853	Valid
	SYQ6	0.785	Valid
Information Quality	IQ1	0.737	Valid
	IQ2	0.759	Valid
	IQ3	0.807	Valid
	IQ4	0.808	Valid
	IQ6	0.721	Valid
Service Quality	SQ1	0.782	Valid
	SQ3	0.74	Valid
	SQ4	0.873	Valid
	SQ5	0.749	Valid
	SQ6	0.796	Valid
Perceived Ease of Use	PEOU1	0.749	Valid
	PEOU2	0.845	Valid
	PEOU3	0.826	Valid
Perceived Usefulness	PU1	0.708	Valid
	PU2	0.798	Valid
	PU3	0.737	Valid
	PU4	0.783	Valid
Trust	T1	0.804	Valid
	T2	0.878	Valid
	T3	0.89	Valid
User Satisfaction	US1	0.757	Valid
	US2	0.743	Valid
	US3	0.729	Valid
	US4	0.751	Valid
	US5	0.821	Valid

4.2.2 Average Variance Extracted (AVE)

The validity test using average variance extracted (AVE) can be said to be valid if each construct has a value of 0.5. Table 3 below shows the results of AVE in this study.

Table 3: Average Variance Extracted (AVE) Result

Construct	AVE	Result
System Quality	0.624	Valid
Information Quality	0.589	Valid
Service Quality	0.623	Valid
Perceived Ease of Use	0.653	Valid
Perceived Usefulness	0.573	Valid
Trust	0.736	Valid
User Satisfaction	0.579	Valid

4.2.3 Cross Loading

The item is legitimate if the loading value of the indicator on the intended construct is larger than the loading value of the indicator itself with other constructs, according to the validity test utilizing cross-loading. Table 4 is the result of cross-loading this study, where the results of cross-loading are said to be valid.

Table 2: Loading Factor Result

	IQ	PEOU	PU	SQ	SYQ	T	US
IQ1	**0.737**	0.38	0.302	0.188	0.328	0.399	0.364
IQ2	**0.759**	0.381	0.328	0.313	0.337	0.421	0.33
IQ3	**0.807**	0.415	0.358	0.298	0.416	0.417	0.358
IQ4	**0.808**	0.399	0.389	0.303	0.427	0.427	0.392
IQ6	**0.721**	0.336	0.329	0.415	0.338	0.295	0.359
PEOU1	0.529	**0.749**	0.3	0.257	0.438	0.33	0.385
PEOU2	0.331	**0.845**	0.358	0.2	0.316	0.338	0.407
PEOU3	0.365	**0.826**	0.444	0.315	0.341	0.305	0.346
PU1	0.239	0.258	**0.708**	0.282	0.243	0.281	0.35
PU2	0.364	0.388	**0.798**	0.325	0.325	0.341	0.423
PU3	0.41	0.324	**0.737**	0.337	0.308	0.332	0.422
PU4	0.326	0.398	**0.783**	0.336	0.29	0.38	0.442
SQ1	0.316	0.274	0.302	**0.782**	0.298	0.205	0.271
SQ3	0.336	0.215	0.302	**0.74**	0.226	0.261	0.195
SQ4	0.337	0.257	0.348	**0.873**	0.329	0.319	0.354
SQ5	0.292	0.241	0.287	**0.749**	0.182	0.292	0.293
SQ6	0.289	0.269	0.438	**0.796**	0.303	0.301	0.266
SYQ2	0.475	0.363	0.399	0.296	**0.797**	0.414	0.381
SYQ3	0.283	0.247	0.137	0.194	**0.719**	0.304	0.366
SYQ5	0.391	0.358	0.352	0.29	**0.853**	0.381	0.472
SYQ6	0.377	0.437	0.321	0.294	**0.785**	0.349	0.423
T1	0.412	0.328	0.358	0.281	0.37	**0.804**	0.382
T2	0.424	0.306	0.399	0.274	0.38	**0.878**	0.483
T3	0.477	0.397	0.383	0.348	0.429	**0.89**	0.475
US1	0.293	0.29	0.374	0.234	0.374	0.407	**0.757**
US2	0.386	0.398	0.394	0.274	0.339	0.454	**0.743**
US3	0.22	0.266	0.331	0.159	0.348	0.268	**0.729**
US4	0.292	0.31	0.45	0.249	0.388	0.323	**0.751**
US5	0.528	0.469	0.491	0.394	0.509	0.495	**0.821**

4.3 Reliability Test

After conducting a validity test of the questionnaire item used, the next step is a reliability test. Test reliability in research to test whether each questionnaire item is already potent or reliable to gauge the construct of this study. To test the reliability of questionnaire items in the study will use Cronbach's Alpha and composite reliability.

4.3.1 Cronbach's Alpha

Test the reliability of questionnaire items using Cronbach's Alpha can be reliable if it has a value above 0.7. Table 5 below is the result of Cronbach's Alpha test, which proves that all questionnaire items used are reliable.

Table 5: Cronbach's Alpha Result

Construct	Cronbach's Alpha	Result
System Quality	0.789	Reliable
Information Quality	0.825	Reliable
Service Quality	0.849	Reliable
Perceived Ease of Use	0.733	Reliable
Perceived Usefulness	0.752	Reliable
Trust	0.821	Reliable
User Satisfaction	0.82	Reliable

4.3.2 Composite Reliability

Just like testing reliability using Cronbach's Alpha, composite reliability also has a provisioned value to determine whether the item is reliable or not. If the value of the item on the variable construct has an end above 0.7, it is said to be reliable. Table 6 shows the results of composite reliability, which proves that the questionnaire item is reliable.

Table 6: Composite Reliability Result

Construct	CR	Result
System Quality	0.869	Reliable
Information Quality	0.877	Reliable
Service Quality	0.892	Reliable
Perceived Ease of Use	0.849	Reliable
Perceived Usefulness	0.843	Reliable
Trust	0.893	Reliable
User Satisfaction	0.873	Reliable

4.4 R-Square or Coefficient Determinant

As explained earlier that by evaluating R-Square can find out the influence of independent variables on dependent variables. Table 6 below shows the results of the R-Square evaluation in this study:

Table 6: R-Square Result

Construct	R-Sqare
Perceived Usefulness	0.210
User Satisfaction	0.471

Table 6 above shows that the influence of variable perceived ease of use on perceived usefulness has an R-Square value of 0.210. This indicates that the effect of variable perceived ease of use on variable perceived usefulness is 0.210 or 21%, while 79% is another variable that is outside of this study.

Then, it is also known that the influence of variable system quality, information quality, service quality, perceived ease of use, perceived utility, and trust on user satisfaction is 0.471 or 47%. In comparison, 53% is a variable that is outside of this study.

4.5 Hypothesis Test

After evaluating R-Square, the next is to test the hypothesis on this study. In testing hypotheses, the study used path coefficient and P-Value to determine the level of significance. Table 7 below shows the results of the path coefficient and also P-Value.

Table 5: Hypothesis Test Result

H	Relationship	Path Coeff	P-Value	Decision
H1	SYQ → US	0.229	0.002	**Accepted**
H2	IQ →US	0.064	0.372	**Rejected**
H3	SQ → US	0.031	0.606	**Rejected**
H4	PEOU → US	0.118	0.051	**Rejected**
H4a	PEOU → PU → US	0.458	0.000	**Accepted**
H5	PU → US	0.266	0.000	**Accepted**
H6	T → US	0.211	0.003	**Accepted**

H1: System Quality has a significant influence on User Satisfaction

The first hypothesis in this study shows that System Quality has a significant influence on User Satisfaction. The results of the hypothesis test showed that the p-value of 0.002 is smaller than 0.05. Thus, the first hypothesis is accepted.

H2: Information Quality has a significant influence on User Satisfaction

The second hypothesis in this study shows that Information Quality does not have a significant influence on User Satisfaction. The results of the hypothesis test showed that the p-value of 0.372 is greater than 0.05. Thus, the second hypothesis was rejected.

H3: Service Quality has a significant influence on User Satisfaction

The third hypothesis in this study shows that Service Quality does not have a significant influence on User Satisfaction. The results of the hypothesis test showed that the p-value of 0.606 is greater than 0.05. Thus, the third hypothesis was rejected.

H4: Perceived Ease of Use has a significant influence on User Satisfaction

The fourth hypothesis in the study suggests that Perceived ease of use has no significant effect on user satisfaction. The results of the hypothesis test showed that the p-value of 0.051 is greater than 0.05. Thus, the fourth hypothesis was rejected.

H4a: Perceived ease of use has a significant influence on user satisfaction mediated by perceived usefulness

Hypothesis 4a in this study shows that Perceived Ease of Use has a significant influence indirectly on User Satisfaction through Perceived Usefulness. The hypothesis test results showed that this relationship has a p-value of 0.000, which is less than 0.05. Thus, this hypothesis is accepted. The results of the previous hypothesis show that perceived ease of use has no significant effect on user satisfaction. Perceived ease of use and user satisfaction has a significant relationship that is completely mediated by perceived usefulness. Based on the path value that shows the value of 0.458 means, perceived ease of use completely mediated by perceived usefulness is the relationship that most affects user satisfaction.

H5: Perceived Usefulness has a significant influence on User Satisfaction

The fifth hypothesis in the study suggests that Perceived Usefulness has a significant influence on user satisfaction. The results of the hypothesis test showed that the p-value of 0.000 is smaller than 0.05. Thus, the fifth hypothesis is accepted. And the path value in this study shows that perceived usefulness of 0.266 is the second factor that most affects user satisfaction..

H6: Trust has a significant influence on User Satisfaction

The sixth hypothesis in this study shows that Trust has a significant influence on User Satisfaction. The results of the hypothesis test showed that the p-value of 0.003 is smaller than 0.05. Thus, the fifth hypothesis is accepted. And, according to the path value for variable Trust in this study, which is 0.211, the Trust is the third factor that most affects user satisfaction..

5. SUGGESTION

5.1 Managerial Implication

Based on the results found in this study that system quality, perceived usefulness, trust, and perceived ease of use relationships that are fully mediated by perceived usefulness are the most significant relationships to user satisfaction. It turns out that when users feel the ease of using the application, such as operating the application, they can easily find information in the application, the ease of interacting in the application, and the user feels that this e-commerce application is useful can increase user satisfaction. To increase the user's satisfaction in this aspect, can further improve the ease of users in meeting their needs, such as providing innovation of new features in the application that provide convenience in meeting their needs and ensure that the benefits of these features are that users can feel. On the other hand, perceived usefulness directly affects user satisfaction. The usefulness of this application both in terms of usability and the benefits of existing features can increase user satisfaction. Unfortunately, it turns out that the results in this study found that perceived ease of use directly does not affect user satisfaction. That is, users tend to pay attention to the application's usefulness even though this application is not considered difficult to use.

In addition, a good system quality can also help improve user satisfaction. Therefore, it would be better if the system's quality, for instance, reducing the occurrence of system freeze, can make the system have a quick time-load, ensuring all features and buttons in every application interaction can function properly can be upgraded. This is good for increasing user satisfaction because, from this study, the quality of this system becomes one of the factors that affect user satisfaction. Furthermore, based on the responses, it is regrettable that the findings of this study indicated that information quality and service quality did not have a substantial effect on customer happiness. Users tend not to care about the quality of information and the quality of services provided. However, sometimes if they feel the quality of information and service provided is not good, they tend to complain. This can also affect user

satisfaction. Therefore, it is good to improve and develop in terms of information quality and service quality.

The study also found that trust has a significant influence on user satisfaction. That is, this user satisfaction can increase if they have a sense of trust in this e-commerce. The important thing that can be done to increase user trust is to treat customers/users well, honorably, maintain their commitment, and be disrespectful when interacting with them. Therefore, such treatments can be maintained or developed again to make users more confident in this e-commerce. However, when users feel lied to, it can have a more severe impact on user satisfaction. They can immediately feel disappointed because they feel lied to, or in other words, they do not get their wishes as expected.

5.2 Theoretical Contributions

The study uses existing research models information system success model (ISSM) by DeLone and McLean, and the technology acceptance model (TAM) by Davis. The study modified the two models to measure user satisfaction in using beauty and skincare e-commerce applications. In addition, this study also adopts variable trusts that have been proven by [14] [25] it can have a significant impact on user satisfaction. Issm by DeLone and McLean is a model used to measure the success of an information system that can affect net profits from both organizational and individual perspectives. In contrast, TAM is a model used to know the acceptance of information technology. In this study, both models were modified and added variable trust to measure user satisfaction in using e-commerce applications. The model used in this study, found still valid to be used to this day in other studies in different sectors.

5.3 Limitation

Limitations in a study can be found in any research. Same with this research. In this study, data was collected by only 185 respondents who used beauty and skincare e-commerce applications only in certain regions in Indonesia, as specified in this study. Based on the R-Square value that has been stated in table 6, it can also be known that the variable independent variable only affects 47% of the variable dependent, namely user satisfaction. There are still 53% of variables or factors not identified in the study. Therefore, future research should expand its scope in other countries or in certain regions in that country and increase the number of participants. Furthermore, it can add more variables that can affect user satisfaction.

6. Related Past Works

Based on the results that have been outlined in this study, there are some differences in results from previous studies. First, this study shows that system quality has a significant influence on user satisfaction. The results of this study are supported by previous research [6] [14] This shows that system quality has a significant influence on user satisfaction. This can prove that system quality has a significant influence on improving user satisfaction. Therefore, by improving the quality of the system in beauty and skin care applications, it can directly also increase user satisfaction in using the application.

The second is, the study found that information quality does not have a significant influence on user satisfaction in using beauty and skin care applications. This finding is inversely proportional to previous research [6] [14], Which suggests that information quality has a significant influence on user satisfaction. The study found that the quality of information is not one of the factors that can affect user satisfaction in using beauty and skin care applications. That is, the quality of information generated by beauty and skin care applications has no effect on user satisfaction in using beauty and skin care applications.

Third, in this study found that service quality did not have a significant effect on user satisfaction in using beauty and skin care applications. This research is supported by findings in previous research [14] It is revealed that service quality has no influence on user satisfaction. While with [6] is suggested that service quality affects user satisfaction. In this study, it means that the amount of quality service provided does not affect user satisfaction in using beauty and skin care applications.

Fourth, perceived ease of use does not have a significant influence directly on user satisfaction, inversely proportional to previous research by [16] Which reveals that perceived ease of use has a direct influence on user satisfaction in using mobile websites. In this study, it means that the sense of ease felt by users in using beauty and skin care applications does not affect user satisfaction in using beauty and skin care applications.

Meanwhile, other results show that perceived ease of use has an indirect influence on user satisfaction which is fully mediated by perceived

usefulness. In previous research [16] It does not explain that there is a variable mediation. But in this study it was found that variable perceived usefulness is a mediation between perceived ease of use and user satisfaction. In this study, that is, users feel that when they feel the ease and usefulness in using the application, they will feel satisfied in using the beauty and skin care application.

Fifth, the study found that perceived usefulness had a significant influence on user satisfaction. The results of this study are supported by previous research [16] indicates that perceived usefulness has a direct relationship that is significant to user satisfaction. By increasing the level of usability or adding innovations that improve the usability of the application, it can increase user satisfaction in using beauty and skin care applications.

Finally, the study also found that trusts have a significant influence on user satisfaction in using beauty and skin care applications, this is supported also by previous research. [16], [21] suggests that trust has a significant relationship to user satisfaction. Trust can be said to be one of the factors that must be improved in the context of online shopping. Directly, the amount of user trust in using this beauty and skin care application can increase user satisfaction in using the application.

7. CONCLUSION

It can be concluded that this study contributed by using variables from ISSM model such as system quality, information quality, service quality and also variables from the TAM model such as perceived ease of use and perceived usefulness, also adds variable Trust that has been proven to be the trust factor can have an influence on user satisfaction to identify user satisfaction in using mobile-based beauty and skincare e-commerce applications. Knowing about user satisfaction in using an e-commerce application is essential because when users feel satisfied in using e-commerce applications, this can also increase transactions that will be done. Therefore, this study was conducted to find out the factors that affect user satisfaction, especially in the e-commerce sector.

This research uses a quantitative approach. Data obtained through the spread of questionnaires online provided 185 participants who provided feedback on the questionnaire. This study found that not all variables can have a significant influence on user satisfaction.

Based on the results found, system quality, perceived usefulness, and trust significantly influence user satisfaction. In addition, the study found that perceived ease of use indirectly affects user satisfaction which is fully mediated by perceived usefulness. As it turns out, the perceived ease of use relationship that is completely mediated by perceived usefulness is the most significant relationship to user satisfaction. Meanwhile, the study also found that information quality, service quality, and perceived ease of use did not significantly affect user satisfaction.

Regardless of the findings in this study, there are still limitations that can be developed again for future research. No less important, paying attention to the perception of quality, prioritizing the ease of use and usefulness of the application, and trust can increase user satisfaction in using mobile-based beauty and skincare e-commerce applications.

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