



Marketplace application success analysis using Modified Delone McLean

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Abstract

Shopee is the biggest E-Commerce platform in Indonesia. Based on SimilarWeb data, Shopee's visit rate during August 2021 recorded 26.92 million Daily Active Users (DAU) accessing it via Android mobile devices. At the end of 2021, Shopee's active users reached 130 million people. This research focuses on Shopee's success factors and their impact on improving customer service. The primary research of this study is Information Systems Success Model developed by Delone Mclean. This study adds two constructs from the UTAUT (United Theory of Acceptance and Use of Technology) research model. This study uses primary data, primary data obtained directly from 450 samples. Statistical tests in this study use Simultaneous Equation Model (SEM) with the SmartPLS application for running tests. Overall, this study can analyze the factors that can influence the successful use of the Shopee application. Successful use consists of 3 dimensions/variables (satisfaction, use, and net benefits); these three variables have an R-Square between 54% -64%.

Analisis keberhasilan aplikasi Shopee menggunakan Delone McLean ISSM (Information System Success Model)

Abstrak

Keywords:

DeloneMclean;

information system;

Shopee; success model

Aplikasi Shopee sebagai salah satu pengembang platform E-Commerce merupakan salah satu developer terbesar di Indonesia. Berdasarkan data SimilarWeb, tingkat kunjungan Shopee selama Agustus 2021 mencatatkan sejumlah 26,92 juta pengguna aplikasi aktif harian (unique daily actives users/DAU) yang mengakses melalui perangkat mobile Android. Pada akhir kuartal 2021 pengguna aktif Shopee mencapai 130 juta orang. Fokus penelitian ini ialah pada faktor keberhasilan aplikasi shopee dan dampaknya pada peningkatan layanan konsumen. Model penelitian yang menjadi dasar penelitian adalah Model Kesuksesan Sistem Informasi yang dikembangkan oleh Delone Mclean, peneliti menambahkan 2 konstruk dari model penelitian UTAUT (Unified theory of acceptance and use of technology). Penelitian ini menggunakan data primer. Data primer berupa data yang diperoleh secara langsung dari pengguna shopee sebanyak 450 sampling. Pengujian statistik dalam penelitian ini berupa simultaneous equation model (SEM) dengan bantuan aplikasi SmartPLS. Secara keseluruhan model penelitian dapat menganalisis faktor-faktor yang dapat memengaruhi keberhasilan penggunaan aplikasi Shopee. Keberhasilan penggunaan terdiri dari 3 dimensi/variabel (kepuasan, penggunaan dan net benefit), tiga variabel tersebut memiliki R-Square antara 54%-64%.

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INTRODUCTION

Technology and information development have reached a significant stage, and its ability to dominate almost all business sectors. Technology can increase operational efficiency and effectiveness, which impacts improving the quality of products and services. During Industrial Revolution and the COVID-19 era, E-Commerce developed very rapidly.

Shopee is the biggest E-Commerce platform in Indonesia. Shopee provides various types of services and goods. Online buying and selling platform is a service innovation. Through service innovation, organizations can align services with customers and market demands. Service innovation is generally associated with engaging customers, intangible things, value creation, and relationships (Ding et al., 2019). The convenience and benefits of the online system can encourage consumers to switch to online buying systems. Acceptance and use of shop is high.

Measuring the success or effectiveness of information systems is crucial; it is essential to understand the value of information systems management activities and information systems investments. This study focuses on the success of a system or application as measured by the level of satisfaction, usage, and net benefits. The outcome of this study is that developers or related stakeholders are expected to be able to improve aspects that still need to be improved.

This study is essential because the e-commerce system that is already running still needs improvement. The business sector requires information that can be accessed quickly, on time, relevant, and accurately. Developing an e-commerce system is essential to improve services for consumers and strategic purposes. Therefore, management information system does not only look at technical aspects but also at managerial and behavioral aspects.

This study is intended to contribute to practitioners and academics. For academics, the results of this research can be used as input for teaching materials, especially in the information systems that focus on e-commerce. For future researchers, the results of this study can be used as a theoretical basis or reference material. For practitioners, the results of this research can be used as input for evaluating existing systems or as a consideration when creating a new system.

Service Innovations

According to Ding et al. (2019), in the competitive landscape, innovation is the keyword of the post-industrial era. In order to achieve this, companies need new strategies, capabilities, and competencies. Innovation is the key to increasing productivity. Technology is essential for organizations to make it easier for organizations to develop service innovations continuously. Service innovation is generally associated with engaging customers, intangible things, value creation, and relationships.

Value Creation Strategy

One of the keys to success in business is value creation. Successful companies understand that the goal of every business is to create value for consumers, employees,

investors, and shareholders. Value creation is usually based on constant innovation and always understanding customer needs. There are various methods for value creation in companies. To maintain its industry leadership position, the company must establish a continuous process of value creation. Companies using the Internet to increase transaction efficiency can create value for all parties involved.

Information Technology Success Model (ISSM)

This study develops Delone and Mclean's (2003) information system success model, combined with the UTAUT extensions model Venkatesh et al. (2012).

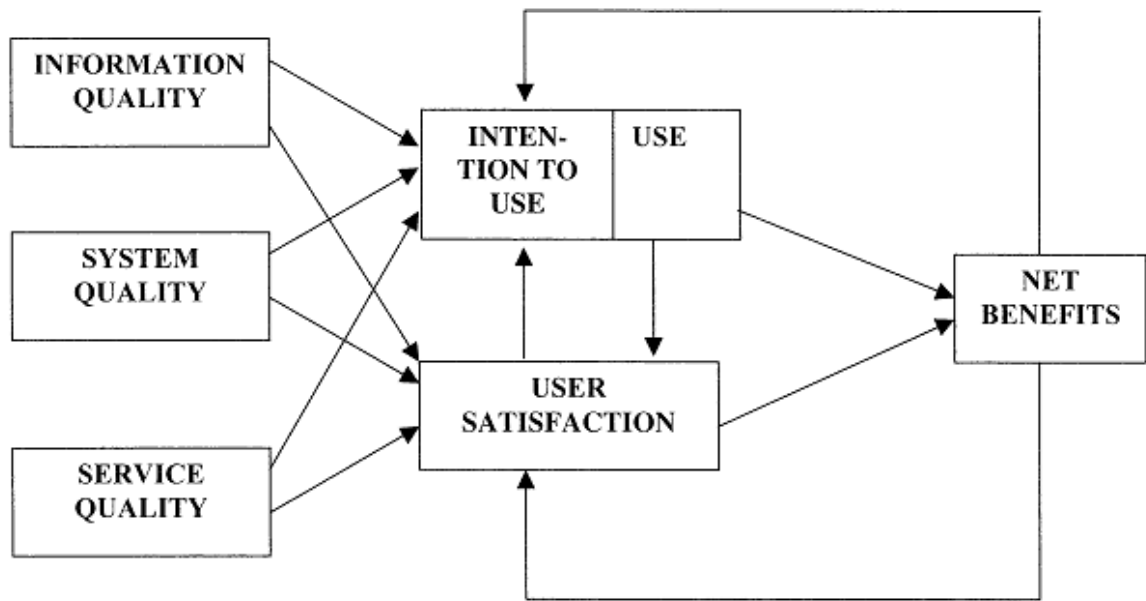
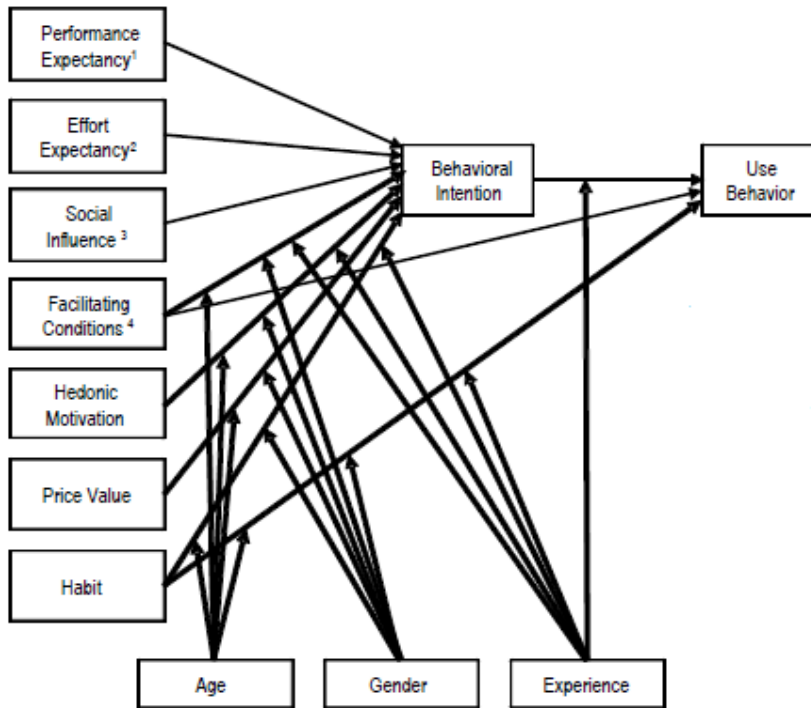


Figure 1. Information System Success Model

The ISSM consists of six dimensions, each contributing to an IT project's overall success. These dimensions are:

1. System quality: This dimension refers to the technical quality of the system, including its functionality, reliability, usability, and efficiency.
2. Information quality: This dimension refers to the quality of the information that the system provides, including its accuracy, completeness, relevance, and timeliness.
3. Service quality: This dimension refers to the quality of the service that the system provides, including its responsiveness, empathy, and assurance.
4. User satisfaction: This dimension refers to the satisfaction of the system's users, including their perceptions of the system's ease of use, usefulness, and overall satisfaction.

According to the ISSM, the success of an IT project depends on the extent to which these six dimensions are achieved. By evaluating each dimension, organizations can identify areas of strength and weakness and develop strategies to improve the success of their IT projects.



This study adds facilitating conditions and habit variables that can directly influence variable “use”.

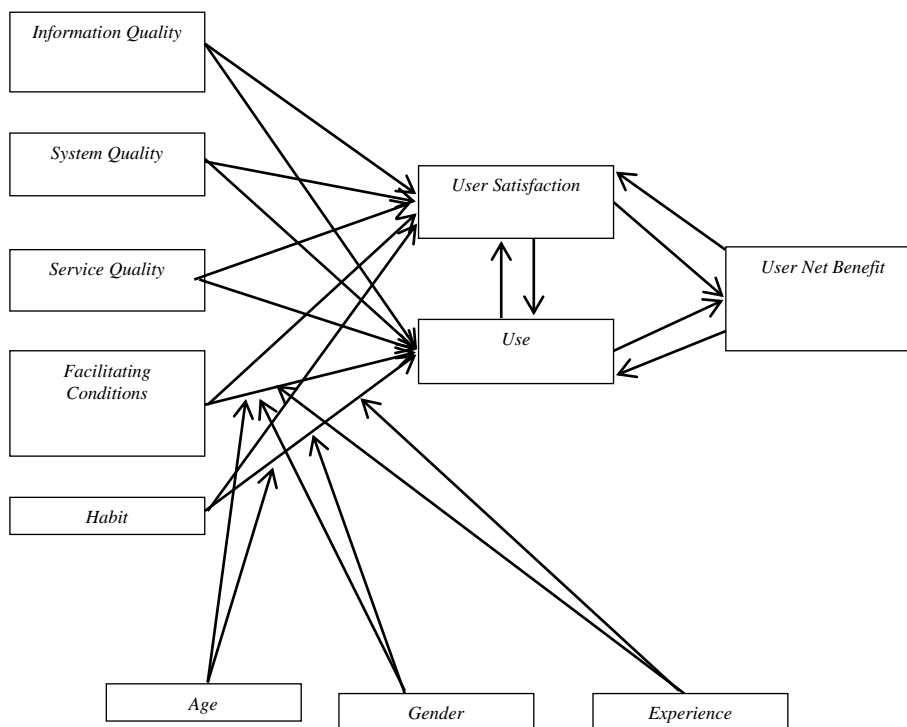


Figure 3. Research Model

Information Quality

Information quality describes the contents of the application/ website. The information must be accurate, complete, relevant, easy to understand, and provide security transactions (DeLone & McLean, 2004). Buyers expect to get enough information before they buy products and services. When information is irrelevant, outdated, and inaccurate, usage will decrease because the buyer's information needs still need to be met. Poor quality information will make consumers make more effort to get the information they need, increasing the costs incurred by the buyer and reducing consumer satisfaction. Jung et al. (2009) studied mobile TV consumers and found that poor information quality would reduce consumer satisfaction.

H1a: information quality on satisfaction (+).

H1b: information quality on usage (+).

System Quality

Aspects of system quality are convenience, availability, adaptability, and response speed (DeLone & McLean, 2003). System quality is related to the technical aspects of a system, such as ease of use, response time, reliability and availability (Khayun et al., 2011). If the seller's website is easy to use and has a good design, the buyer will feel good system quality which will impact consumer use—Bauer et al.'s research. (2006) proved that system quality is positively related to consumers.

H2a: system quality on satisfaction (+).

H2b: system quality on usage (+).

Service Quality

Aspects of service quality consist of answers to frequently asked questions, order tracking, and response speed (DeLone & McLean, 2003). Pitt et al. (1995) argue that service quality is a very important aspect of measuring the effectiveness of information systems. The services provided show the seller's sensitivity and ability to serve consumers, so the service is positively related to usage. Services that match consumer expectations will lead to satisfaction. Satisfaction is formed because what the consumer wants is fulfilled by the seller. Low seller response will also create dissatisfaction among consumers. Service quality can increase consumer satisfaction in mobile ticketing (Deng et al., 2010).

H3a: service quality on satisfaction (+).

H3b: service quality on usage (+).

Facilitating Conditions

According to Hartono (2007), facilitating conditions are the supporting infrastructure and technical aspects available to support the system, so if there are no adequate facilitating conditions, it will reduce the level of use and satisfaction from users. Confidence and belief are cognitive aspects of consumers; cognitive aspects can shape consumer

satisfaction. Consumer satisfaction is a function of expectations and expectancy disconfirmation (Oliver, 1980).

Age differences will be seen in the context of adopting or using certain technologies. Older consumers tend to need help processing new or complex information. This difficulty can be attributed to the decline in cognitive and memory abilities associated with the ageing process (Posner, 1996). Therefore, compared to younger consumers, older consumers tend to give more importance to adequate support. The availability of adequate support in the context of this study is a facilitating condition.

Men, more than women, are willing to spend more effort overcoming obstacles and difficulties to pursue their goals. Women tend to focus more on the magnitude of the effort involved and the process of achieving their goals. Thus, men tend to rely less on facilitating conditions when considering new technologies, whereas women tend to emphasise external enabling factors more.

Experience can moderate the relationship between facilitating conditions and usage behaviour. Greater experience can lead to greater familiarity with technology and knowledge, reducing user dependency on external support.

H4a: facilitating conditions on satisfaction (+).

H4b: Age, gender, and experience can strengthen the positive relationship between facilitating conditions on usage.

Habits

Habits are defined as the extent to which people tend to perform automatic behaviour due to learning (Limayem et al., 2007). *Habits* are tendencies that result from previous experience. According to Venkatesh et al. (2003), the habit directly affects use. Habit is the main driver influencing the effect (Limayem et al., 2007). *The effect* is a feeling of joy, excitement, pleasure, depression, displeasure, or aversion related to an individual based on a particular action. Habit affects satisfaction directly by causing an effect (Limayem et al., 2007).

Gender differences moderate habit. Research has shown that women tend to pay more attention to details and elaborate on details than men. Thus, a habit will have a stronger effect on intention and usage for more experienced consumers.

H5a: habit on satisfaction (+).

H5b: Age, gender, and experience can strengthen the positive relationship between habit and usage.

Use and User Satisfaction

According to Hartono (2007), usage includes consumers visiting a web/application to retrieve information and execute transactions on the web. Use by consumers or suppliers is an important measure of the successful use of e-commerce systems, especially if customer use is more voluntary. Satisfaction is the cumulative feeling consumers have from interacting with service providers (Oliver, 1980). Consumers will only use a system again if they feel satisfied. Liu et al. (2011) found that satisfaction strongly determines

consumer continuance behaviour. So that use and satisfaction have a reciprocal relationship.

H6a: use on satisfaction (+).

H6b: satisfaction on usage (+).

User Net Benefit

According to Petter et al. (2008), the net benefit is the contribution of information systems to individuals, groups, organizations, industries and countries. According to Hartono (2007), the measure of net benefit success is organized by level; there are levels of individuals, groups, organizations, industries and countries. In this study, net benefits are focused on the individual level. Satisfaction and use will increase net benefit. Satisfaction and use have a reciprocal relationship with net benefits; if they are good, it will increase consumer use and satisfaction.

H7a: satisfaction on net benefits (+).

H7b: use on net benefits (+).

H8a: net benefits on satisfaction (+).

H8b: net benefit on usage (+).

METHODE

The sampling method used is the purposive sampling method. Sample criteria in this study were (1) having made transactions at Shopee more than once and (2) respondents aged over 17 years. The method in this research is quantitative. According to Hartono (2014), quantitative research tests existing theories based on measuring research variables. Quantitative data is in the form of measurements of the variables to be tested: information quality, system quality, service quality, use, user satisfaction and net benefits. The measurement data for these variables were obtained from questionnaires using a Likert scale of 1-5.

Instrument Testing

The researcher conducted a pilot test before data collection and data processing. The purpose of conducting a pilot test is to ensure that the questionnaire items are sufficient, correct and understandable (Hartono, 2008) and that the questionnaire is valid and reliable. The pilot test also asked respondents to provide input regarding the distributed questionnaires.

Validity Test

Validity is measured based on convergent validity and discriminant validity of each indicator. Convergent validity was determined using the estimation results of three criteria, factor loading of more than 0.7 and average variance extracted (AVE) of more than 0.5. Discriminant validity was determined using the AVE criterion over the squared correlation value between construct pairs. According to (Hartono: 2015), the parameter of the discriminant validity test is $\sqrt{\text{AVE}} > \text{latent variable correlation and cross loading of more than 0.7 in one variable}$.

Reliability Test

The reliability test aims to determine the level of consistency of measurement results if the measurement is carried out more than once for the same phenomenon with the same measuring instrument. This test is carried out with measurements that meet the criteria for a composite reliability value above 0.70. Another reliability test method is to use the Cronbach Alpha of each item in one variable with a value of more than 0.60.

Method of Analysis

The SEM (Structural Equation Model) method was used with the variance approach (partial least squares). The software used for this research model is SMART PLS 2.0.

RESULTS AND DISCUSSION

Research Instrument Test

Before testing the hypothesis, this study tested the measurement model first with the aim to verifying indicators and latent variables. These tests include testing the validity and reliability.

Validity Test

The validity test consists of two aspects, convergent validity test and discriminant validity test.

Convergent Validity

Table 1. Communalities and AVE

Items	AVE	Communality
Habits	0.907	0.907
Satisfaction	0.744	0.744
Facilitation conditions	0.748	0.748
Information quality	0.623	0.623
Service quality	0.665	0.665
System quality	0.556	0.556
Net benefits	0.718	0.718
Use	0.835	0.835

Based on the results of the validity test, as shown in the table 1., all indicators have fulfilled the convergent validity test criteria because all AVE and communalities are more than 0.5. AVE, on the other hand, is a measure of the amount of variance that a set of observed variables share with a given factor. It is calculated as the average of the squared factor loadings for the observed variables on that factor. A high AVE indicates that the observed variables are highly related to the underlying factor, and suggests that the factor is a good representation of the construct being measured.

Discriminant Validity

Table 2. Cross Loadings

Items	Habits	Facilitation Conditions	Information Quality	Service quality	System Quality	Net Benefits	Use	Satisfaction
H1	0.952	0.396	0.486	0.258	0.416	0.400	0.555	0.465
H2	0.952	0.369	0.520	0.209	0.426	0.465	0.555	0.529
KF1	0.370	0.890	0.377	0.216	0.326	0.354	0.482	0.306
KF2	0.291	0.877	0.419	0.227	0.395	0.315	0.485	0.336
KF3	0.379	0.828	0.441	0.329	0.433	0.429	0.509	0.415
KI1	0.368	0.368	0.839	0.217	0.525	0.531	0.437	0.540
KI2	0.416	0.377	0.841	0.247	0.546	0.541	0.462	0.571
KI3	0.466	0.397	0.789	0.276	0.544	0.528	0.426	0.564
KI4	0.440	0.328	0.662	0.108	0.659	0.379	0.379	0.484
KI5	0.399	0.409	0.802	0.234	0.561	0.517	0.461	0.551
KP1	0.175	0.217	0.224	0.647	0.318	0.234	0.210	0.276
KP2	0.168	0.281	0.239	0.886	0.306	0.242	0.173	0.318
KP3	0.240	0.270	0.217	0.899	0.311	0.247	0.194	0.331
KP4	0.208	0.204	0.223	0.805	0.282	0.225	0.247	0.322
KS1	0.293	0.282	0.596	0.283	0.698	0.390	0.301	0.479
KS2	0.279	0.179	0.422	0.321	0.609	0.393	0.210	0.515
KS3	0.361	0.304	0.468	0.362	0.781	0.405	0.312	0.538
KS4	0.375	0.421	0.573	0.188	0.831	0.480	0.394	0.575
KS5	0.349	0.330	0.540	0.316	0.783	0.480	0.293	0.552
KS6	0.319	0.380	0.584	0.259	0.809	0.449	0.296	0.522
KS7	0.318	0.397	0.535	0.241	0.684	0.400	0.410	0.518
NB1	0.315	0.370	0.548	0.289	0.503	0.826	0.485	0.717
NB2	0.337	0.374	0.616	0.287	0.524	0.820	0.472	0.629
NB3	0.366	0.381	0.519	0.221	0.500	0.856	0.480	0.632
NB4	0.483	0.337	0.556	0.215	0.512	0.883	0.574	0.669
NB5	0.424	0.337	0.449	0.220	0.392	0.851	0.487	0.578
P1	0.510	0.542	0.501	0.208	0.418	0.517	0.902	0.501
P2	0.478	0.527	0.482	0.228	0.398	0.573	0.942	0.508
P3	0.609	0.494	0.524	0.264	0.364	0.529	0.897	0.495
SATISFIED1	0.472	0.252	0.510	0.286	0.578	0.636	0.473	0.831
SATISFIED2	0.391	0.363	0.481	0.405	0.608	0.558	0.369	0.814
SATISFIED3	0.369	0.303	0.643	0.296	0.610	0.637	0.450	0.847
SATISFIED4	0.507	0.399	0.642	0.345	0.639	0.734	0.521	0.906
SATISFIED5	0.501	0.436	0.672	0.334	0.630	0.714	0.537	0.909

Based on the results of the validity test, as shown in the table 2, all indicators have met the criteria for discriminant validity testing because all cross loadings are more than 0.5.

Reliability Tests

Table 3. Composite Reliability and Cronbach's Alpha

Construct	Composite Reliability	Cronbach's Alpha
Habits	0.951	0.897
Satisfaction	0.935	0.913
Facilitation conditions	0.899	0.832
Information quality	0.891	0.846
Service quality	0.887	0.825
System quality	0.897	0.864
Net benefits	0.927	0.902
Use	0.938	0.901

Based on the results of the reliability test, as shown in the table 3, the composite reliability value of each construct is above 0.7 and Cronbach's alpha is above 0.6 so that it can be said that the measuring indicators used in this study are reliable.

Assessing the Inner Model/Structural Model

This study has fulfilled the testing of the measurement model (outer model), the next step is to test the structural model (inner model). Structural model testing is carried out to predict causal relationships between variables or hypothesis testing (Hartono and Abdillah, 2014). Structural model testing is done by using the R-square and the path coefficient or t-statistic for each path. The R-Square results are presented in Table 4.

Table 4. R-Square value

Construct	<i>R-Square</i>
Use	0.544
Satisfaction	0.636
Net Benefits	0.636

Variabel use has an R-square value of 0.5446. This means that the variables of information quality, system quality, service quality, facilitating conditions and habits can explain variations in changes in usage variables of 54.46%. Satisfaction has an R-square value of 0.6361. This means that information quality, system quality, service quality and usage can explain variations in the satisfaction variable change of 63.61%, while the rest is explained by variables outside this research model.

The net benefit has an R-square value of 0.6362. This means that the use and satisfaction variables can explain the variation in changes in the net benefit variable of 63.62%, while the rest is explained by variables outside this research model.

Path coefficient or inner model indicates the level of significance in hypothesis testing (Hartono and Abdillah, 2014). The results of data processing with PLS are presented in Table 5.

Table 5. Inner Model Results

Items	Original Sample (O)	Sample Means (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (O/STERR)
Habit -> Satisfaction	0.107	0.109	0.048	0.048	1.692
Habits -> Usage	0.337	0.331	0.068	0.068	4.681
Info Q -> Satisfaction	0.246	0.248	0.053	0.053	3.219
Info Q -> Usage	0.241	0.237	0.070	0.070	2.621
Services Q -> Satisfaction	0.115	0.115	0.039	0.039	2.655
Services Q -> Usage	0.024	0.030	0.041	0.041	0.484
System Q -> Satisfaction	0.393	0.390	0.065	0.065	4.347
System Q -> Usage	0.050	(0.052)	0.058	0.058	0.744
satisfaction -> Netbenefit	0.630	0.628	0.036	0.036	1.427
Facility condition -> Satisfaction	0.070	(0.063)	0.059	0.059	1.007
Facility condition -> Usage	0.335	0.348	0.068	0.068	4.336
Usage -> Satisfaction	0.193	0.187	0.074	0.074	2.271
Satisfaction -> Usage	0.075	0.079	0.089	0.089	0.794
Netbenefit -> Satisfaction	0.457	0.458	0.068	0.068	6.489
Netbenefit -> Usage	0.267	0.265	0.080	0.080	3.559
Usage -> Netbenefit	0.245	0.239	0.054	0.054	4.018

Description: * significant (t count> 1.64), T-table determined significant at alpha 0.05 (t-count more than t-table 1.64).

Table 6. Moderation Effect Test

Items	Original Sample (O)	Sample Means (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (O/STERR)
Habits -> Usage	0.691	0.685	0.271	0.271	2.664
Habits * Age -> Usage	(0.082)	(0.063)	0.437	0.437	0.193
Habit * Experience -> Usage	(0.650)	(0.640)	0.277	0.277	2.033
Habits * Gender -> Usage	(0.121)	(0.172)	0.314	0.314	0.382
Facility Condition -> Usage	0.272	0.252	0.195	0.195	1.195
Facility Conditions * Age -> Usage	0.039	0.075	0.423	0.423	0.077
Facility Conditions * Experience -> Usage	0.097	0.093	0.403	0.403	0.203
Facility Conditions * Gender -> Usage	0.609	0.620	0.490	0.490	1.356

Description: * significant (t count> 1.96)

Table 6 presented moderation effect test, the moderating effect shows the interaction between the moderator variable and the independent variable in influencing the dependent variable. The results of the SMARTPLS inner model can be seen in Figure 4.

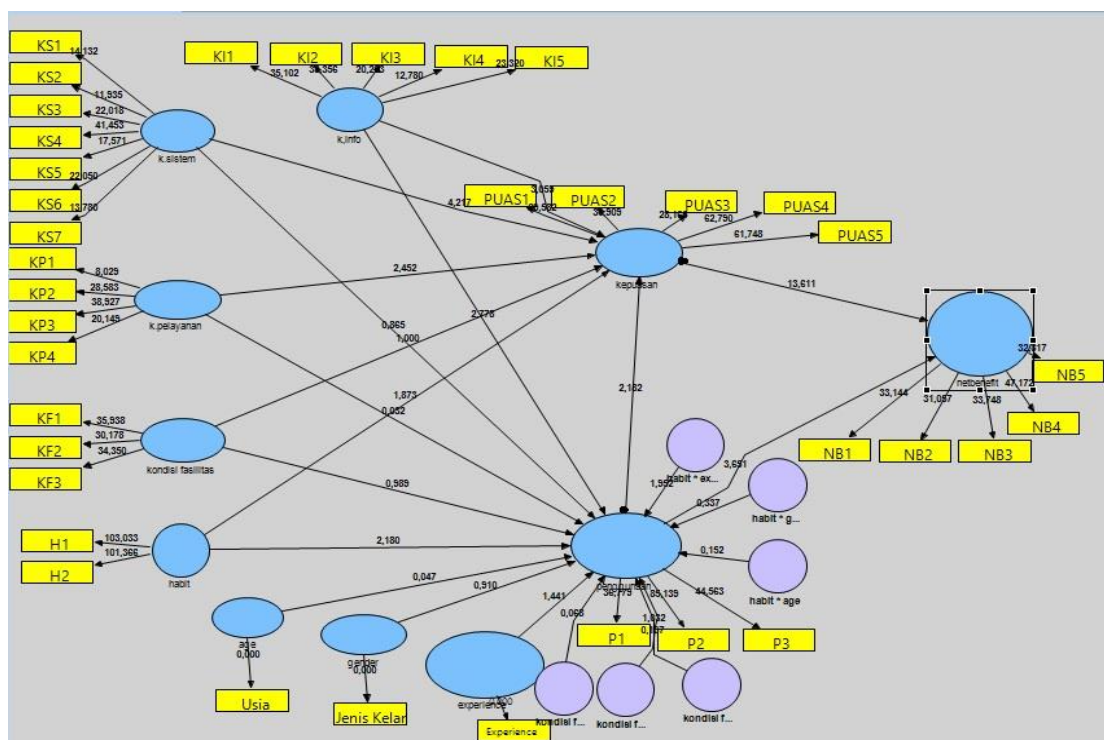


Figure 4. Inner Model SmartPLS

Based on the beta coefficient and t-statistic values above, the test results in this study are as follows.

Discussion

Summary of hypothesis testing shown in table 7 conclude that majority of hypothesis tested are supported. It means the model developed by the researcher can be used to predict satisfaction, usage and net benefits.

Hypothesis 1a and 1b

Information quality has a positive and significant effect on user satisfaction. The results of this study are in accordance with the results of the research of Delone and Mclean (2003) which states that the quality of information describes the content in applications/websites. Web content must be accurate, complete, relevant, easy to understand and provide security. Buyers expect to get enough information before they buy products and services. When information is irrelevant, outdated, and inaccurate, usage will decrease, because the buyer's information needs are not met. Information quality has a positive and significant effect on consumer use in making online purchases. The research results are

in accordance with the results of Jung et al. (2009) which states that the poor quality of information will reduce consumer satisfaction.

Table 7. Summary of Hypothesis Testing

Hypothesis	Variable	Results	Information
1a	Information quality on satisfaction	Supported	
1b	Information quality on usage	Supported	
2a	System quality on satisfaction	Supported	
2b	System quality on usage	Not supported	
3a	Service quality on satisfaction	Supported	
3b	Service quality on usage	Not supported	
4a	Facilitating conditions on satisfaction	Not supported	
4b	<i>Age, gender, and experience</i> can strengthen the positive relationship between facilitating conditions on usage.	Not supported	Facilitating conditions have a positive effect on use, but there is no moderating variable that moderates facilitating conditions on use
5a	Habit on satisfaction	Supported	
5b	age, gender and experience can strengthen relationships positive relationship between habit and use.	Not supported	<i>Habit</i> has a positive effect on use, but only <i>experience</i> moderates the relationship between <i>habit</i> and use. So that hypothesis 5b is not supported
6a	Usage on satisfaction	Supported	
6b	Satisfaction on use	Not supported	
7a	Satisfaction on net benefits	Supported	
7b	Usage on net benefits	Supported	
8a	Net benefit on satisfaction	Supported	
8b	Net benefit on use	Supported	

Hypothesis 2a and 2b

System quality has a positive and significant effect on user satisfaction, accordance with research from Bauer et al. (2006). Bauer et al. (2006) found that system quality positively affects customer satisfaction, because system quality is closely related to customer satisfaction.

Hypothesis 3a and 3b

Service quality has a positive and significant effect on satisfaction. Services that match consumer expectations will lead to satisfaction. Satisfaction is formed because what the consumer wants is fulfilled by the seller. Low seller response will also create dissatisfaction in consumers. In other fields, service quality has been researched to increase customer satisfaction (Deng et al., 2010). Service quality has no effect on use, not in accordance with the results of research by Delone and Mclean (1992).

Hypothesis 4a and 4b

Facilitating conditions have a significant positive effect on satisfaction. Consumer satisfaction is a function of expectations and expectancy disconfirmation (Oliver, 1980). Hope and expectancy disconfirmation is cognitive statements are generated through a process of comparison and precedence satisfaction decisions (Oliver, 1980). Oliver (1980) explains that the expectancy disconfirmation paradigm is a cognitive paradigm

because of the process Comparing in judgments requires disconfirmation judgment in processing information. Facilitating conditions have a significant positive effect on use (use), but only experience moderates facilitating conditions on use. Experience can moderate the relationship between facilitating conditions and usage behavior.

Hypothesis 5a and 5b

Habit has a significant positive effect on satisfaction. Habit is the main driver that influences affect (Limayem et al., 2007). Affect is defined as a feeling of joy, excitement, or pleasure, or depression, displeasure, or hatred related to individuals based on certain actions. By causing an affect, habit influences satisfaction directly (Limayem et al., 2007). Habit has a significant positive effect on use, but only experience moderates' habit on use. The relationship between experience and habit is formed and strengthened as a result of repeated behavior (Limayem et al., 2007). Thus, habit will have a stronger effect on intention and usage for more experienced consumers.

Hypothesis 6a and 6b

Use has a positive influence on satisfaction, but satisfaction has no effect on usage. This shows that consumers as a whole have been satisfied, but satisfaction is not a major factor in using the Shopee application.

Hypothesis 7a and 8a

Satisfaction has a positive influence on the user net benefits and users net benefit also has a positive effect on satisfaction. Satisfaction is a benefit that obtained by users, these benefits then become factors that influence satisfaction. So it can be concluded that satisfaction and net benefits have a reciprocal relationship. Satisfaction and net benefits reinforce the relationship between the two.

Hypothesis 7b and 8b

Use has a positive effect on net benefits and net benefits also have a positive effect on use. Use and net benefits have a reciprocal relationship. Use and net benefits reinforce the relationship between the two.

CONCLUSION

This study concluded that the model developed by the researcher can be used to predict satisfaction, usage and net benefits, although there are some unsupported constructs. The age distribution in this study was uneven. Respondents were dominated by respondents aged 20-35 years at 42.6%, became one of the causes variable age not moderating the relationship between the independent and dependent variables. Future research can consider the age distribution, so that the age distribution can be more even.

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