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Evaluation Of Cryptocurrency Trading Exchange Application (Binance) Based On Delone & Mclean Information System Success Model

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INFO ARTIKEL

Keywords:
Binance, Delone & McLean Information System Success Model, Information Quality, Net Benefits, Service Quality, System Quality, System Use, User Satisfaction.

Abstract

The gradual increase in the cryptocurrency market capitalization, reaching a staggering 2.9 trillion USD in November 2021 (CoinMarketCap, 2023). Binance is one of the prominent cryptocurrency trading exchange providing services for buying, selling, and storing various types of cryptocurrencies (Binance, 2023). However, user testimonials have raised concerns regarding inadequate Service Quality when users encounter issues. This research aims to quantitatively assess the influence of variables within the Delone & McLean Information System Success Model (2003), specifically focusing on the Binance Cryptocurrency Trading Exchange Application. The study emerges from a researcher's interest in exploring user perceptions of the Binance application. Primary data was collected via questionnaires distributed on social media platforms to users of the Binance Trading Platform, resulting in a total of 142 respondents. Data analysis was conducted using Smart PLS. The research findings reveal that five of the nine hypotheses were rejected, otherwise four hypotheses accepted. This study suggests the developers of the Binance Cryptocurrency Trading Exchange Platform enhance Service Quality & Information Quality particularly in the realm of Customer Service. The development of a more responsive Customer Service bot capable of effectively addressing trader concerns could substantially enhance User Satisfaction.

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Introduction

Binance is a cryptocurrency trading platform founded in 2017 by Changpeng Zhao. It is a trading exchange platform that provides services to buy, sell, and store various types of cryptocurrencies. In addition, Binance also offers various features such as spot trading, futures trading, staking, margin trading, and lending. Binance is the trading exchange platform with an average daily volume of $65 billion, 300 billion spot transactions, and provides 24/7 customer support in 40 languages worldwide 1. Companies must guarantee quality for their sustainability. (Wildan, 2020). Based on data from the web statistic Similar Web, the trading

exchange platform Binance has users from all over the world. In February 2023, Binance had about 64.7 million website visitors. The source of competitive advantage today is innovation and creativity (Safrizal, 2023)

However, based on the pre-research interview with the informant and observation on Google Play Store and Product Review, the use of Binance application still faces some obstacles. Some of the obstacles are, unsatisfactory customer service, and frequent force-close of the application. Employee performance becomes a stage of achievement as an employee's work performance (Safrizal et al. 2020a; Safrizal et al., 2020b). The customer service provided by the application is unsatisfactory. When users encounter problems or difficulties in using the application, they are only directed to access the FAQ (Frequently Asked Questions). Human resources are by far the most important asset for organizations (Safrizal et al. 2020). The inability of the application to provide more responsive and personal support for its customers can result in user dissatisfaction. Without easy access to more comprehensive customer support, users may have trouble resolving issues or getting help when facing difficult situations (Rumondang et al., 2020). In addition, the application often force-closes. Force-close occurs when the application suddenly stops functioning without any notice or clear reason. This can disrupt the user experience and reduce their satisfaction level in using the application (Azmi et al., 2019). This phenomenon can cause serious problems for users who use the application for important purposes such as financial transactions or business. The instability of the application that often force-closes can also cause financial losses for users and a negative image for the company. Indonesia is a country rich in natural resources and human resources, with a vast land area and seas stretching across a large geographical are (Wildan et al., 2021).

The reason for conducting this study is to provide a valuable understanding of the effectiveness of a trading exchange platform that is assessed from the user experience in using the trading exchange platform. The era of globalization is always marked by rapid changes in overall economic conditions, which have led to a number of demands in response to these changes (Safrizal et al. 2020). As well as to provide feedback on the weaknesses/bugs that occur in the system for later improvement by the developer. Economic growth is the process of increasing per capita output in the long term (Wildan et al., 2020). In addition, this study focuses on the development and empirical testing of the Delone & McLean Information System Succession Model on the Binance application. The benefit is to enrich the intellectual discussion related to the model or empirical testing on each construct developed using the Delone & McLean Information System Succession Model. Focus on technologies that enable MCS to be implemented in smart cities, such as task management, data collection, incentive systems, monitoring, and cost-saving tools (Wildan et al., 2023).

This study uses the updated version of the D&M IS Success Model 2003 as the basis of this research. The study uses the dimensions of the Delone & McLean Model to empirically measure and determine the level of success of the implementation of information systems in this research, the D&M IS Succession Model (2003) is based on the process and causal considerations of the dimensions in the model interrelatedly. The measurement of these dimensions is not measured separately but the measurement is done holistically with one variable affecting another variable (Delone & McLean, 2003). This model can be used to evaluate the information quality provided by the platform, the system quality (such as the reliability and performance of the platform), and the service quality (such as

customer support). In addition, by using the Delone & Mclean Information System Success Model, it can also assess the extent of user intensity in using the platform and how satisfied they are with their experience. Finally, this model can assess the net benefits obtained by traders from using the platform. Supply chain network optimization can be carried out with the aim of minimizing the distribution costs of agricultural commodities. (Marita et al., 2021). The purpose of this study is that the researcher is interested in conducting quantitative research using the Delone & McLean Information System Success Model (D&M IS Success Model) to test the research model on the binance trading exchange application. however, research on the evaluation of the binance cryptocurrency trading exchange application using the Delone & McLean Information System Success Model 2003 (D&M IS Success Model 2003) is still rarely done. Therefore, this study is expected to contribute to the literature on information system evaluation and its success, especially on the Binance Cryptocurrency Trading Exchange Application.

RESEARCH METHODS

Operational Definitions and Measurement Items Development

This study aims to provide a comprehensive understanding of the Binance Trading Platform, by using the Delone and McLean information system model to evaluate the cryptocurrency trading exchange platform. This study uses a quantitative method with primary data sources from the results of distributing questionnaires to users of the binance trading platform service. The questionnaire distribution is used to determine the influence and satisfaction of users in using the Binance Trading Platform service. The sampling technique in this study is determined based on the theory of Hair et al., (2010) which states that the number of samples taken is at least multiplied by 5 times and a maximum of 10 times the number of indicators used in the study. The indicators used in this study are 25 indicators, so the number of samples in this study is the minimum limit of 25 x 5 = 125 and the maximum limit of 25 x 10 = 250 respondents.

The design of the questionnaire was based on the literature of the questionnaire concerning related studies. The original researcher's scale items were adapted to the needs of this study, and some of the wording was modified to fit the variables measured in this study. The current study employed partial least squares (PLS) to analyze the validity and reliability of the questionnaire items measuring the constructs used in the study. This study used two stages to conduct the reliability and validity analysis of the questionnaire. In the first stage, the convergent and discriminant validity of the questionnaire items and variables were analyzed. In the second stage, the empirical analysis was conducted to measure the reliability of the model measured by the constructed questionnaire (Hair et al., 2019). PLS is considered to be one of the most reliable tools in the measurement and correlation of measurement items and variables (Shmueli et al., 2016). All questions were measured on a 5-point Likert scale, ranging from 1: "strongly disagree" to 5: "strongly agree." The questionnaire was translated from the literature, contextually modified, and reviewed by two scholars working on virtual money platforms and technology finance and then revised to address the responses. Subsequently, the questionnaire was distributed to Cryptocurrency trading community (all with experience using online cryptocurrency exchanges) who were asked to ask questions and make suggestions about the content of the questionnaire that they had doubts about, needed to add to, or needed to correct. Based on these suggestions, the scale questions were revised in detail, and the sample was administered based on the revised questionnaire. One of the strategic

issues in the competitive business world is finding internal and external competencies that are difficult to imitate and can support valuable products and services, especially in the Indonesian batik industry.(Hasanah wt al., 2023)

Table 1. Operational Definition of Constructs.

Constructs	Definition	Source
Information Quality	The content of the information provided by the online cryptocurrency exchange is compared to the user's expectations of the quality of the information after using the system.	Delone & McLean, 2003; Lee et al., 2007; McKinney et al., 2002
System Quality	The system operation, functions, and interface arrangement provided by the online cryptocurrency exchange are compared with the users' expectations of the system quality after using the system.	Delone & McLean, 2003; Lee et al., 2007; McKinney et al., 2002
Service Quality	The part of the service provided by the online cryptocurrency exchange is compared with the user's expectations of the quality of the service after using the system.	Delone & McLean, 2003; Lee et al., 2007;

The data analysis method uses statistical analysis using a structural model as a Partial Least Square (PLS) analysis tool using the Smartpls program tool. PLS (Partial Least Square) is a variant-based Structural Equation Modeling (SEM) analysis model that can test the dimensional model and structural model simultaneously (Ghozali & Fuad, 2008). Analysis with PLS has three analysis models, namely the inner model that describes the relationship between latent variables, the Outer Model that describes the relationship between latent variables and indicator variables, and hypothesis testing.

Hypotheses Development and Research Framework

According to Delone & McLean (2003), information quality is one of the factors that influence the success of information systems. Schaupp et al., (2009) found that information quality is an important factor in predicting satisfaction. Seddon & Kiew (1996) also stated that information quality is the most important factor that affects user satisfaction . Moreover, (Y.-S. Wang & Liao, 2008) and Wang et al., (2019) claimed that information quality has an impact on user satisfaction. Based on the research by Abdillah et al., (2020), information quality of a certain information system is related to the value, benefit, and relevance of the frequency generated for system use. When a system can provide high information quality that is complete, accurate, up-to-date, and reliable, users will feel more satisfied with the information they obtain. Therefore, the following research hypothesis is proposed in this study:

Hypothesis 1 (H1). Information Quality (IQ) is significantly associated with the System Use (SU).

Delone & McLean (2003) stated that information quality is one of the factors that influence the success of information systems. Schaupp et al. (2009) found that information quality is an important factor in predicting satisfaction. Seddon & Kiew (1996) also stated that information quality is the most important factor that affects user satisfaction. Moreover, Wang & Liao (2008) and Wang et al (2019) claimed that information quality has an impact on user satisfaction. Based on the research by Abdillah et al. (2020), information quality of a certain information system is related to the value, benefit, and relevance of the frequency generated

for system use. When a system can provide high information quality that is complete, accurate, up-to-date, and reliable, users will feel more satisfied with the information they obtain. Based on this, the researcher has a hypothesis that the better the information quality provided, the more it will affect user satisfaction. Therefore, the following research hypothesis is proposed in this study:
Hypothesis 2 (H2). Information Quality (IQ) is significantly associated with User Satisfaction (US).

Delone & McLean (2003) revealed that the usefulness of a system can be seen from the frequency of use of the system. If the system can be used, this indicates that someone will be helped by the system, and this reflects that the system has good quality and can be beneficial in the process. Wang et al (2019) in their research on paid mobile learning stated that system quality has a significant positive effect on intention to reuse. The reason the researchers included intention to reuse in this argument is because Wang & Liao (2008) stated in their research on the e-commerce system success model that they adopted intention to reuse as a substitute variable to simplify the relationship between user satisfaction, intention to use, and use variables. Therefore, in this study it is suspected that the relationship between system quality (SYSQUAL) and system use (SU) is positive. In this study, the researchers argue that the higher the system quality of the cryptocurrency trading exchange binance, the higher the system use of the cryptocurrency trading exchange binance. therefore, hypothesis 3 is stated:
Hypothesis 3 (H3). System Quality (SYSQUAL) is significantly associated with the System Use (SU).

"The success of an information system used by an organization is determined by the quality of the system itself" (Delone & McLean, 2003). Simply put, if the system quality of a system is poor, then users will feel dissatisfied with using the system. Therefore, user satisfaction will be higher if the system used is more reliable and credible (Schaupp et al., 2009). According to the research conducted by Rai et al., (2002), system quality has a positive effect on user satisfaction. Based on the findings obtained by Wang & Liao (2008), system quality has a significant impact on user satisfaction. In addition, based on the findings of Abdillah et al. (2020), system quality has a positive relationship with user satisfaction. This happens because the higher the quality of a system offered, the higher the level of user satisfaction. Moreover, based on the research conducted by Fitriani & Suaryana (2022), system quality has a significant positive effect on user satisfaction. This happens because users have confidence in using the system because it can help users work faster with better results. Therefore, system quality affects user satisfaction. Thus, the better the system quality, the more it will affect the higher level of user satisfaction. Therefore, hypothesis 4 is stated:
Hypothesis 4 (H4). System Quality (SYSQUAL) is significantly associated with User Satisfaction (US)

According to Delone & McLean (2003), service quality has a significant effect on the use of information systems. Service quality is related to information systems that can ensure customers are free from danger, risk, or harmful things. Service quality is also related to the attitude of care and the ability to understand the needs of users and can provide fast service. If the service quality is low, users will feel less comfortable using fintech services, which can result in a decrease in the intensity of system use. However, Ernawati et al., (2021) in their research stated that service quality has no effect on use. In addition, Rahayu et al., (2018) in their research also stated that service quality has no effect on use, this happens

because the unresponsive response makes students less interested in using the Student Information System (SIKMA). The difference in empirical test results obtained in the above research is the basis for researchers in determining research hypotheses, so in this study hypothesis 5 is stated as:
Hypothesis 5 (H5). Service Quality (SERVQ) is significantly associated with System Use (SU).

Delone & McLean (2003) argued that measuring service quality is important for e-commerce because on the website, if customer satisfaction is low, it will affect the decrease in sales. In addition, according to Istianingsih & Utami 2009) (2009), if system users feel that the service quality provided by the application provider is good, they are more likely to be satisfied with the use of the system. Rahayu et al. (2018) stated that service quality has a positive effect on user satisfaction.
Hypothesis 6 (H6). Service Quality (SERVQ) is significantly associated with User Satisfaction (US)

Positive experiences related to system use lead to greater satisfaction. If users believe that system use of information brings great benefits, then the likelihood of a system being reused is higher (Schaupp et al., 2009; Wang & Liao, 2008; Wang et al., 2019). In this case, when users show high frequency of system use, the likelihood of user satisfaction is also higher (Wang & Liao, 2008). The research conducted by Wang & Liao (2008) showed empirical evidence that system use has a relationship with user satisfaction. This model states that system use has a connection to user satisfaction, and they are interdependent on each other. Therefore, hypothesis 7 is stated:
Hypothesis 7 (H7). System Use (SU) is significantly associated with User Satisfaction (SU).

Net benefits are defined as the overall positive impact of information systems on the organization, such as increased efficiency, productivity, and profitability. Therefore, organizations that successfully promote and encourage the use of the intended information systems can expect an increasee in net benefits over time (DeLone & McLean, 2003). According to the research conducted by Wang & Liao (2008), use or in this study called system use has a significant effect on net benefits. The research conducted by Silalahi & Pramedia (2018) stated that the use of fintech lending has a positive and significant effect on net benefits. Therefore, in this study the researcher has a hypothesis that system use in this study affects net benefits.
Hypothesis 8 (H8). System Use (SU) is significantly associated with the Net Benefits (NB).

Delone & McLean (2003) defined net benefits as the overall positive impact of information systems on the organization, such as increased efficiency, productivity, and profitability. Therefore, organizations that successfully ensure user satisfaction can expect an increase in net benefits over time. In addition, in the research conducted by McGill et al., (2003), they stated that the more satisfied users are with the system, the more they agree that the system helps them perform well in business. Empirical studies have supported this hypothesis, showing that user satisfaction of information systems contributes to the net benefits of the organization. According to the research conducted by Silalahi & Pramedia (2018), user satisfaction has a positive and significant effect on net benefits. A similar finding was also found by another research by Seddon & Kiew (1996) which also

showed that user satisfaction affects system use, which ultimately affects net benefits. Therefore, the researcher has a hypothesis that user satisfaction of the cryptocurrency trading exchange binance users affects net benefits. Therefore, hypothesis 9 is stated:

Hypothesis 9 (H9). User Satisfaction (US) is significantly associated with Net Benefits (NB).

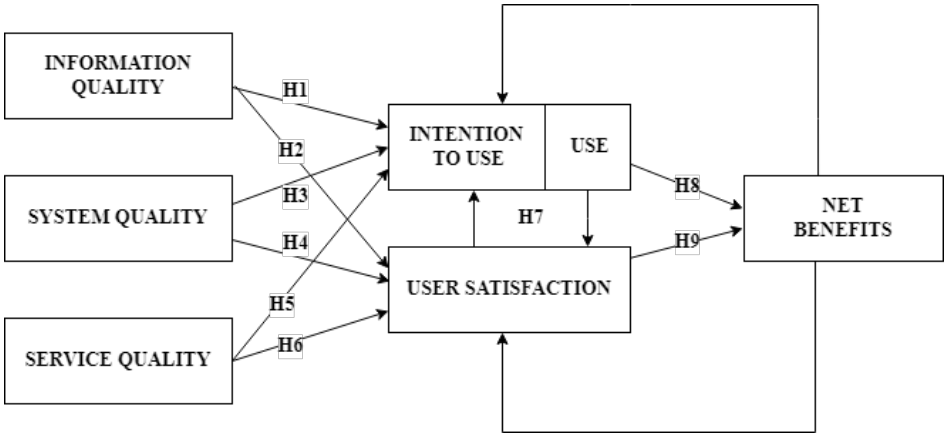

Figure 1. Research Framework Source: Delone & Mclean (2003)

This study was conducted by a independent survey that sampled users of online cryptocurrency exchanges in Indonesia. This research employed a Purposive sampling methodology for data collection and collected a total of 142 samples. Binance one of many of the most popular cryptocurrency trading platforms in Indonesia. Therefore, this research detected duplication of respondents, incomplete surveys, and respondents using online cryptocurrency platforms other than Binance as exclusion criteria to avoid sampling bias (Ante et al., 2023). After deleting the invalid samples, the number of valid samples was 248. These samples included participants of different age groups, genders, education levels, occupational categories, and income levels. According to past research, in the case of cryptocurrency users, the groups are not only differentiated with the help of demographics but other factors, including motivations and purchase intentions. Furthermore, cryptocurrency users are deemed to follow similar and common needs compared to other similar markets (Ante, 2023).

The proportion of males was 78%; the highest proportion was in the age group of 21–25 (62.7%), followed by 26–30 (16.2%); the proportion of those married was 44%; the proportion of those with tertiary education was 57%, and those with a Bachelor degree was 38%; the highest proportion of occupations was freelancer (33.8%), followed by the private-employee (25.4%); and the experience in using online cryptocurrency exchanges was mainly in Binance. This is because this study focuses on the Binance platform or application as the object of research. In this study, the respondents were selected based on the exclusive use of Binance as part of the research criteria, so that the entire sample of respondents were Binance users. Finally, most respondents (44.9%) used “Spot Trading” on the Binance Trading Platform, indicating that this type of trading was dominant among them. Other types of trading that respondents used were “Futures” (26.3%), “Swap

Farming" (17.8%), "P2P" (10.5%), and "Margin Spot" (0.4%).

RESULT

Outer Model

The empirical data of this study were analyzed using Smartpls software. Firstly, it should be ensured that the measurement instruments used have good reliability and validity.

The reliability of a measurement tool indicates the consistency and stability of its measurement results, while validity indicates whether the measurement tool can accurately measure the concept to be studied. In convergent validity, we are concerned with the correlation between the measurement instrument and the concept it measures. In order to ensure astringent validity, we need to conduct validation of the measurement model. This can be achieved by analyzing the indicators of the factor loading, average variance extracted (AVE), and reliability. From the results in Table 2, all the measures in this study have a factor loading above 0.7, and the values of reliability and AVE for each construct are also above 0.7 and 0.5, respectively. This indicates that the measurement tools can accurately measure the study concepts and provide reliable and valid findings (Hair et al., 2019).

Table 2. Convergent Validity.

Construct	Range of Factor Loading	Composite Reliability	Average Variance Extracted
Information Quality	0.860~0.936 (4 items)	0.944	0.807
System quality	0.725~0.863 (4 items)	0.917	0.690
Service quality	0.768~0.919 (4 items)	0.893	0.736
System use	0.837~0.864 (4 items)	0.910	0.715
User Satisfaction	0.830~0.884 (4 items)	0.899	0.749
Net Benefits	0.771~0.885 (4 items)	0.914	0.682

Inner Model

This can be seen from table 3 R-square for the dependent variable, namely Variable System Use, Variable User Satisfaction, and Variable Net Benefits. The R-square value was 0.735 for the System Use variable, 0.803 for the User Satisfaction Variable, and 0.594 for the Net Benefit Variable, which meant the percentage of influence on the independent variable was 73.5%, 80.3%, and 59.4% while the rest was 26.5%, 19.7% and 40.6% were influenced by other factors.

Table 3. R Square.

Construct	R Square
System Use	0.735
User Satisfaction	0.803
Net Benefits	0.594

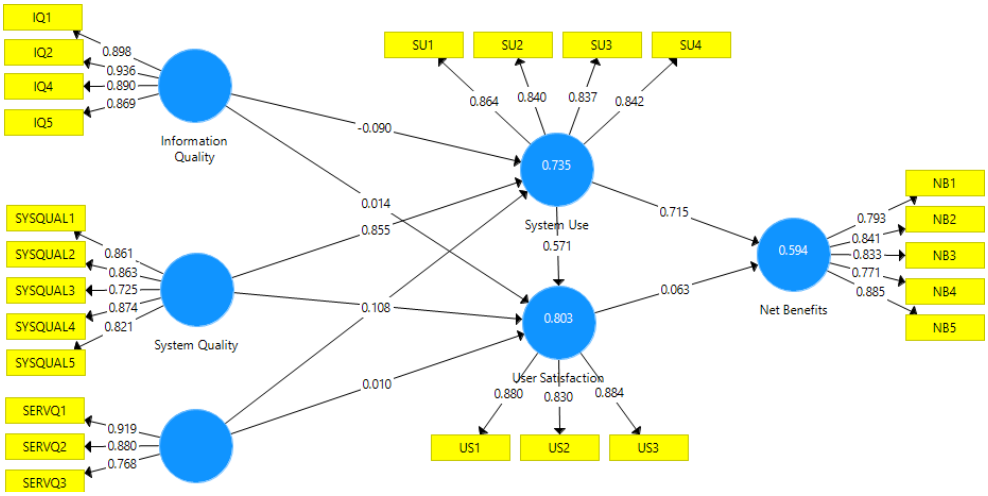

Figure 2. Inner Model Result.

Hypothesis Testing

To find out whether each hypothesis can be accepted, a bootstrap algorithm with a t-value (t-value) was used to determine the significance level of the path coefficients. The hypothesis was accepted if the value of t-statistics > 1.96 and p value < 0.0250 (two tailed). The significance of each path is also examined. The results of the final path analysis are shown in Figure 2 and Table 4, and the results are provided in this paper for hypothesis validation and analysis.

Table 4. Research Hypotheses Testing.

	Jalur	*Original Sample (O)*	*Sample Mean (M)*	*Standard Deviation (STDEV)*	*T Statistics (|O/STDEV|)*	*P Values*	*Hypothesis*
H_1	***Information Quality > System Use***	-0.090	-0.059	0.102	0.885	0.376	Rejected
H_2	***Information Quality > User Satisfaction***	0.014	0.013	0.073	0.192	0.848	Rejected
H_3	***System Quality > System Use***	0.855	0.859	0.045	18.856	0.000	Accepted
H_4	***System Quality > User Satisfaction***	0.349	0.369	0.139	2.502	0.013	Accepted
H_5	***Service Quality > System Use***	0.108	0.073	0.116	0.934	0.351	Rejected
H_6	***Service Quality > User Satisfaction***	0.010	0.013	0.075	0.128	0.899	Rejected
H_7	***System Use > User Satisfaction***	0.571	0.545	0.151	3.792	0.000	Accepted
H_8	***System Use > Net Benefits***	0.715	0.707	0.128	5.593	0.000	Accepted
H_9	***User Satisfaction> Net Benefits***	0.063	0.078	0.130	0.482	0.630	Rejected

Firstly, H1, H3, and H5 examine the relationship between information quality, system quality, and service quality with system use. The results show that only system quality has a significant effect on system use (t-statistics = 18.856, p-

value = 0.000). Therefore, H3 is accepted and H1 and H5 are rejected.

Secondly, H2, H4, H6, and H7 examine the relationship between information quality, system quality, service quality, and system use with user satisfaction. The results show that only system quality (t-statistics = 2.502, p-value = 0.013) & system use (t-statistics = 3.792, p-value = 0.000) has a significant effect on user satisfaction. Therefore, H4 and H7 are accepted and H2 and H6 is rejected.

Finally, H8 and H9 examine the relationship between system use and user satisfaction with net benefits. The results show that only system use has a significant effect on net benefits (t-value = 5.593, p-value = 0.000). Therefore, H8 is accepted and H9 is rejected.

DISCUSSION

Information Quality did not affect System Use. This result is consistent with the studies of McGill et al., (2003) and Iivari (2005) that state that Information Quality does not have a significant influence on System Use. The reason why Information Quality does not have a positive and significant influence on System Use is because the users perceive that, although the information quality provided by the application is good enough, they still need human interaction or additional support to deal with the problems that may arise when transacting. Users may think that the success of the information system does not only depend on the information quality itself, but also on how well the system can provide reliable support, especially in solving problems or overcoming obstacles that may occur when transacting. Therefore, this finding suggests that in order to increase System Use, Binance Trading Platform needs to consider the aspects of human support and the application's ability to solve user problems as very important factors. This way, the platform can better meet the user needs and ensure that the system use becomes more efficient and satisfying.

Information Quality did not affect User Satisfaction. Users need human interaction or additional support to deal with the problems that may arise when transacting, so the success of the information system also depends on the system's ability to provide reliable support. Therefore, this study highlights the importance of Binance Trading Platform to consider the aspects of human support and the application's ability to solve user problems as significant factors in increasing User Satisfaction. This result is consistent with the studies of Koo et al., (2013); Prameswara & Wirasedana, (2018) & Susanty (2013) that state that Information Quality does not have a significant influence on User Satisfaction.

System Quality did not affect System Use. According to Delone & McLean (2003), system quality has a positive impact on online-based usefulness, such as adaptability, availability, reliability, response time, and usability. This means that the better the system quality, the gre\ater the use of an application. This is consistent with previous research findings by Abdillah et al., (2020); Fitriani & Suaryana (2022); Wang & Liao (2008); Wang et al., (2019). There is a positive correlation between System Quality and System Use, which means that the higher the System Quality, the more likely the users are to continue using the system. Based on this explanation, it can be concluded that good System Quality can increase the use because the system is designed with a focus on a better user experience. In the context of Binance Trading Platform, the improvement of system quality can affect the system use in several ways. For example, the improvement of

system reliability can reduce downtime and disruptions, which in turn can increase system use. The Binance Trading Platform system that is easy to use will enable users to be more efficient and effective in executing their trading activities. This can make the platform more useful for traders and can encourage further use.

System Quality has a significant positive effect on User Satisfaction. This is in line with the research conducted by Abdillah et al., (2020); Fitriani & Suaryana (2022); Rai et al., (2002); Wang & Liao (2008) that stated that System Quality had a positive effect on User Satisfaction. This happens because the higher the quality of a system offered, the higher the level of User Satisfaction. Related to Cryptocurrency Trading Exchange that provides a service that provides ease of access, fast response time and easy use, it will increase the satisfaction felt by traders or investors in using the Binance Trading Platform service. Based on this, it can be concluded that in the context of Binance Trading Platform service, there is a significant positive effect of System Quality on User Satisfaction. In addition, the perception of System Quality is formed through the interaction of users with the application system, and elements such as adaptability, availability, reliability, response time, and usability have an influence on User Satisfaction. Therefore, System Quality plays an important role in shaping User Satisfaction.

Service Quality did not influence System Use. This means that the service quality offered by the platform did not affect how much users used the system. This is different from the theory and previous research findings that revealed that service quality influenced user perception of reliability, security, responsiveness, and empathy of the system, which impacted system use. This happened because of other factors that were more dominant, such as lower expectations of users towards service quality, and the unstable and risky condition of the crypto currency market. Therefore, the suggestion for further research is to measure service quality using indicators on the service quality variable that are more specific and suitable for the characteristics of the Binance Trading Platform application, and to control external variables that can affect system use.

Service Quality did not influence User Satisfaction. This is consistent with the research of Sharma & Lijuan (2015) that stated that external factors, such as market conditions, can affect user perception of online applications on Service Quality and User Satisfaction variables. This was caused by two main factors, namely higher expectations of users towards Service Quality, and the unstable and risky condition of the crypto currency market. This result is different from some previous studies that stated that Service Quality had a positive effect on User Satisfaction on e-commerce applications. This research suggests for further research to use Service Quality indicators that are more specific and suitable for the characteristics of Binance Trading Platform, and to control external variables that can affect User Satisfaction.

System Use had a positive and significant effect on User Satisfaction. This means that the more users used the system, the higher the level of satisfaction they felt. User Satisfaction increased when users used the information system with high credibility, quality information and good service, which indirectly affected the increase in system use (Rahayu et al., 2018). This means that the more positive the user attitude towards Binance Trading Platform, the higher the user satisfaction with the platform. This result supported the research hypothesis and was consistent with the information system success model developed by Delone and McLean (2003), which showed that System Use had a significant impact on User Satisfaction. This finding was also in line with the research conducted by Wang & Liao (2008) that showed empirical evidence that System Use had a relationship with User Satisfaction. From the analysis above, it can be concluded that System Use had a positive and significant effect on User Satisfaction in various information system contexts. This indicates that the more often users used the information system, the greater the satisfaction they felt with Binance Trading Platform.

System Use had a positive and significant effect on Net Benefits. This means that the more often and intensive traders used the system, the greater the

net benefits they felt. This supported the theory of Delone & McLean Information System Success Model that stated that system use could impact net benefits (DeLone & McLean, 2003). This hypothesis was also supported by some recent studies that examined the effect of System Use on Net Benefits in different information system contexts, such as e-learning system (Park, 2009), e-commerce system (Schaupp et al., 2009; Sharma & Lijuan, 2015), & e-government system (Wang & Liao, 2008). Therefore, the result of this hypothesis test was consistent with the findings in previous studies that showed a positive and significant influence between System Use and Net Benefits variables. This means that the higher the level of system use, the greater the net benefits that traders felt. Thus, it can be concluded that system use had a significant impact on net benefits.

User Satisfaction had no significant effect on Net Benefits, which was different from previous studies that found a positive and significant relationship between the two variables. The researchers argued that User Satisfaction was not enough to measure the success of information system in the context of Binance Trading Platform, and suggested to use other variables that were more relevant and specific. User Satisfaction and Net Benefits were concepts that changed along with the development of technology and market. User Satisfaction could be influenced by external factors, such as competition, regulation, trend, or social issues related to Binance Trading Platform. Net Benefits could also be influenced by internal factors, such as strategy, policy, or innovation done by Binance Trading Platform. Therefore, the researchers argued that the relationship between User Satisfaction and Net Benefits was not static and linear, but complex and non-linear, which required a deeper and holistic analysis (Lee & Jeon, 2020). Thus, Binance Trading Platform needed to consider those factors in their evaluation and development.

CONCLUSION

This research aimed to explore the relationship between online cryptocurrency exchanges and the quality of information system services, and how it affects the operation of the cryptocurrency market and user needs. The research focused on the binance trading platform, one of the leading platforms in the industry. The results showed that System Quality was the most influential factor on the success of the platform, and that adaptability, availability, reliability, response time, and usability were the key aspects of its implementation. System Quality also had a positive and significant impact on system usage and user satisfaction, implying that Binance Trading Platform developers should constantly improve and enhance their system quality to provide a better user experience and encourage the sustained use of the platform. For future research, it is suggested to increase the sample size, extend the research scope, and examine other factors that may affect the users of the Binance Trading Platform information system. Moreover, it is recommended to use multiple data collection methods such as observation and interview to obtain more comprehensive and reliable data. This research hopes to contribute to the development and innovation of the cryptocurrency market and the information system services that support it.

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