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Acceptance and Success of Oss Rba (Online Single Submission Risk Based Approach) Information System Using the Utaut Ii and Delone & Mclean Models

Prantiastio[1*], Farikhin[2], Rinta Kridalukmana[3]

[1] Magister Information System, Diponegoro University, Semarang, Indonesia.
[2] IS and Mathematics Department, Diponegoro University, Semarang, Indonesia.
[3] Departement of Computer Engineering, Diponegoro University, Semarang, Indonesia.

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Corresponding Author:
Prantiastio
prantiastio47@gmail.com

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Abstract: This research, conducted in South Sumatra Province, employs the Unified Theory of Acceptance and Use of Technology II (UTAUT II) and the DeLone & McLean Model to assess user satisfaction and system success in the OSS RBA implementation. This study utilized PLS-SEM software to model the research, employing a quantitative approach through Likert-scale questionnaires. The research focused on business actors in South Sumatra who registered their permits on the OSS RBA platform, where 41.129 businesses completed registration in 2022. Adhering to sampling criteria, the sample size was set at 250 samples to ensure credibility, balancing the number of parameters and indicators for latent variables, as 25 indicators were present. This research findings reveal that Performance Expectancy, Price Value, System Quality, and Service Quality significantly influence User Satisfaction, subsequently User Satisfaction significantly influence Net Benefit. Conversely, Effort Expectancy, Social Influence, and Information Quality do not significantly affect User Satisfaction. These insights provide a comprehensive understanding of the evolving business licensing landscape in South Sumatera Province.

Keywords: Acceptance; Delone & McLean; OSS RBA; Success; UTAUT II

Introduction

In response to shifting economic dynamics and the desire to foster a more favorable investment climate, the Indonesian government has enacted significant legislative changes, such as Law Number 11 of 2020 on Job Creation (*Cipta Kerja*) (Lestari et al., 2023). This law gave rise to the Online Submission Risk-Based Approach (OSS RBA) for business licensing, introduced in August 2021). The OSS RBA system aims to simplify the licensing process and create seamless integration with government agencies. However, it faces challenges, including technical issues and lack of effective inter-ministry coordination, resulting in inconvenience for business actors, with approximately 5,000 service tickets submitted each month in 2022 (Yip et al., 2019).

This research focuses on assessing acceptance and success in the implementation of OSS RBA, leveraging the Unified Theory of Acceptance and Use of Technology II (UTAUT II) and the DeLone & McLean Model. This research is centered on South Sumatra Province, chosen for its investment potential and diverse economic activities (Hasnah, 2019).

This research aims to evaluate the acceptance level of the OSS RBA system among business actors and examine the benefits that the government and business actors derive from its implementation, shedding light on the evolving landscape of business licensing in South Sumatra (Roehl et al., 2013).

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a model used to describe how information systems are adopted by business actors.

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This model was initially introduced by Venkatesh and his colleagues. UTAUT represents a fusion of eight existing models or theories: The Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivation Model (MM), Theory of Planned Behavior (TPB), Combined TAM and TPB (CTAM-TPB), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT) (Venkatesh et al., 2003)). The integration of these models results in four key variables within UTAUT: performance expectancy, effort expectancy, social influence, dan facilitating condition. The modification of the UTAUT model led to the introduction of three new variables for UTAUT II: hedonic motivation, price value, and habit (Pertiwi et al., 2017)). Refer to Fig. 1 for a visual representation of the UTAUT II model.

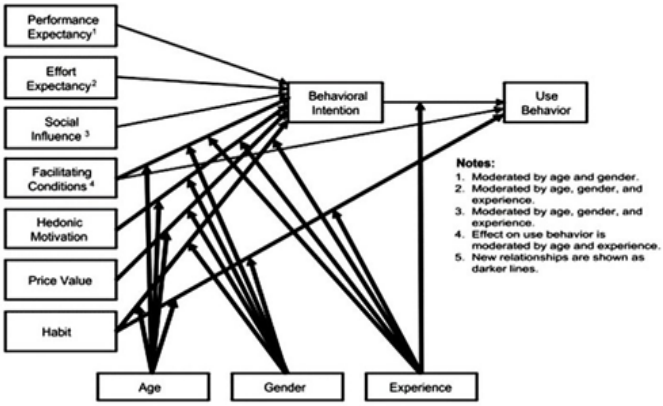

Figure 1. UTAUT II acceptance model

The DeLone & McLean Success Model was initially introduced by William H. DeLone and Ephraim R. McLean in 1992 to identify the variables contributing to system success (DeLone et al., 1992). This model comprises six variables, as depicted in Figure 2. Reference (DeLone et al., 2003) was the first introduced the modification of their model in 2003. The modifications to the DeLone & McLean model can be observed in Figure 2.

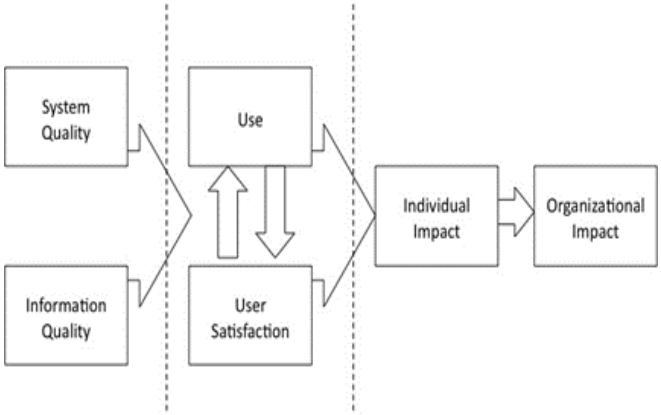

Figure 2. DeLone & McLean Success Model in 1992

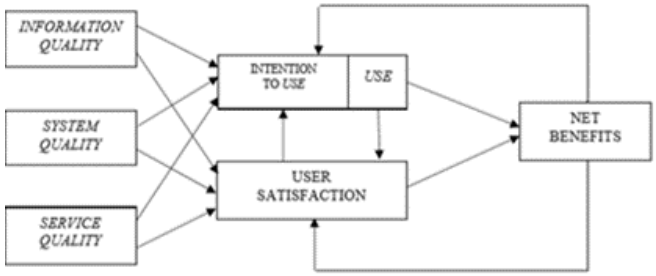

Figure 3. DeLone & McLean success model in 2003

The acceptance and success of information systems, refers to the willingness of user groups to adopt information systems (Pikkarainen et al., 2004). When assessing information system acceptance, one of the measures that can be employed is usability. There are five aspects of usability, they are learnability, rememberability, efficiency of use, reliability of use, and user satisfaction (Hikmah et al., 2018).

Information system success is influenced by the independent and combined effects of system quality, information quality, and service quality. These factors collectively affect both usage (use) and user satisfaction. The magnitude of usage can positively or negatively influence user satisfaction. Both usage and user satisfaction impact individual and organizational outcomes or net benefits (Sutabri, 2012).

Performance expectancy describes the extent to which business actors believe that using the OSS RBA system will help enhance their performance (Venkatesh et al., 2003). When business actors perceive the information system as valuable for improving their performance, they are more likely to feel satisfied and confident in reusing the system in the future (Pertiwi et al., 2017). This hypothesis is supported by prior research, which indicates that performance expectancy influences user satisfaction (Santosa et al., 2021; Wibowo, 2017).

H1: Performance Expectancy has Positive and Significant Influence on User Satisfaction

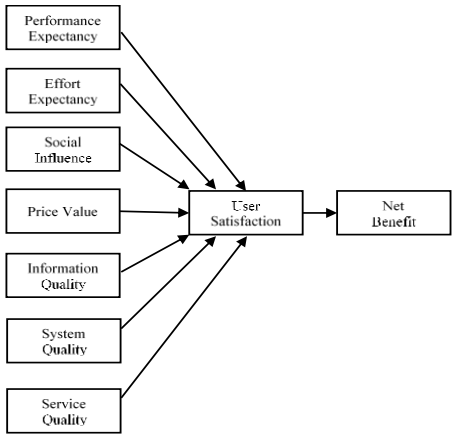

Figure 4. Proposed research model

Effort expectancy refers to the level of ease associated with using the system (Venkatesh et al., 2012). Previous research supports this hypothesis by finding that the effort expectancy variable positively influences user satisfaction (Ariyanto et al., 2022). When business actors find the information system easy to use, they tend to be more satisfied with their experience (Wagiman et al., 2023). This satisfaction leads business actors to feel comfortable with the registration process (Ljubojevic et al., 2014).

H2: Effort Expectancy has Positive and Significant Influence on User Satisfaction

Social influence is defined as the extent to which an individual perceives that their close associates or those in their vicinity influence the use of an information system (Venkatesh et al., 2003). The social influence variable is used to measure the influence of the licensing system on business actors (Hartati, 2013). Based on prior research, the social influence variable can be used to analyze user satisfaction. The OSS RBA information system enables entrepreneurs to register their businesses with the government. Registered businesses tend to be trusted by consumers and business partners, leading those around business actors to influence them to use the OSS RBA information system (Lee, 2016).

H3: Social Influence has Positive and Significant Influence on User Satisfaction

Price value is defined as the benefit users gain in comparison to the costs and time spent (Venkatesh et al., 2012). Price value is a crucial factor in this research because business actors are highly sensitive to cost expenditure. Increasing cost expenditures make business actors less satisfied with the existing information system.

H4: Price Value has Positive and Significant Influence on User Satisfaction

Information quality is used to measure the quality of the output generated by an information system. This variable is also defined as the level of information quality provided by the system and its usefulness to business actors. This hypothesis is employed because previous research indicates that information quality influences user satisfaction. An ideal licensing system is expected to provide clear, accurate, and rule-compliant information, which should bring enjoyment and satisfaction to business actors.

H5: Information Quality has Positive and Significant Influence on User Satisfaction

System quality is used to measure the quality of the information system. This variable is also defined as the overall technical quality of the information system for the licensing process, such as responsiveness and the presence of user-friendly feature. This hypothesis is employed in the research because it is supported by prior research, indicating that system quality influences user satisfaction.

H6: System Quality has Positive and Significant Influence on User Satisfaction

Service quality is described as the quality of the service provided by the information system in line with the user's perception or viewpoint. This variable is also defined as the service provided to business actors by the developers of the OSS RBA information system. If the OSS RBA information system provides good service, business actors will feel satisfied after using it. The better the service business actors receive, the more it will enhance user satisfaction with the OSS RBA information system.

H7: Service Quality has Positive and Significant Influence on User Satisfaction

User satisfaction refers to the responses of business actors regarding their contentment and pleasure after using the OSS RBA licensing information system effectively. Therefore, the net benefit variable reflects what business actors gain from the OSS RBA information system through the standard of satisfaction they receive.

H8: User Satisfaction has Positive and Significant Influence on Net Benefit

Reference enhanced their model through a study known as "The DeLone and McLean Model of Information Systems Success: a Ten-Year Update". DeLone and McLean merged the individual impact and organizational impact into a single variable called "net benefit" (Kay et al., 2012). Net benefit represents the impact of information system usage on user performance, both at an individual and organizational level.

Method

The materials required for this research include data from respondents who are business actors that have used the OSS RBA licensing information system. This research employs quantitative method, which involves processing questionnaire responses using a Likert scale. The research instrument, in the form of a questionnaire, was designed using a Likert scale consisting of 5 points: 1 = "strongly disagree", 2 = "disagree", 3 = "neutral", 4 = "agree", and 5 = "strongly agree". The questionnaire contains statements used to measure the research variables related to the OSS RBA information system

(Sugiyono, 2017)). Respondent data was collected through a questionnaire distributed in the South Sumatra Province using Google Forms and disseminated through social media platforms like WhatsApp, Instagram, and Facebook. The analysis for this research is conducted using Smart PLS software.

Data collection methods in this research employs 2 approaches: literature review, which involves the study of books, articles, and supportive literature; and questionnaires, utilizing Likert-scale questionnaires distributed through various social media platforms to gather responses from business actors in South Sumatra. These questionnaires are a set of written questions or statements for the respondents to answer.

The population in this research comprises business actors who have registered their business permits on the OSS RBA platform and are located in the South Sumatra Province. In 2022, a total of 41,129 businesses in South Sumatra had registered their businesses on OSS RBA. The sample for this research employs a non-probability sampling technique, specifically convenience or accidental sampling. To ensure the credibility of the results obtained through Structural Equation Modelling (SEM), a sufficiently large sample size is necessary. The determination of the sample size should be between 100 to 200 for populations and a minimum of 50. Additionally, it should be 5 to 10 times the number of parameters in the model and equal to 5 to 10 times the number of indicators for all latent variables (Solimun, 2002)(Solimun, 2002)(Solimun, 2002)(Solimun, 2002)(Solimun, 2002). With 25 indicators in this research, the sample size is set at 250 samples.

Result and Discussion

This study's research model was estimated using Partial Least Squares-Structural Equation Modelling (PLS-SEM) software. PLS-SEM software is the preferred choice for analyzing complex models, especially when dealing with small sample sizes, and is widely recognized in information systems research, as endorsed by. The research data analysis followed a two-step procedure, which involved evaluating the measurement model and then the structural model. Initially, the PLS measurement model was scrutinized to confirm its reliability and validity, with the outcomes reported in Tables 1 through 3. The structural model results reported in Figure 5.

The value of Cronbach Alpha (CA) and Composite Reliability (CR) were higher than the minimum required score of 0.70 (Hair et al., 2017). This indicating that the model has good internal consistency. The Factor Loading (FL) reliability was assessed based on the criterion that the loadings should be 0.70 or higher (Hair et al., 2017). The Average Variance Extracted (AVE) was used to evaluate convergent validity. The scores of AVE should be greater than 0.50 so that the latent constructs explain more than half of the variance of their items. As illustrated in Table 2, AVE for all latent variables is above the required threshold of 0.5, indicating good and consistent findings and ensuring convergence. These values ensure the validity and reliability of the constructs and measures in our research model.

Table 1. Factor Loading Findings

Indicator	Outer Loading
PE2	0.905
PE4	0.906
EE2	0.884
EE3	0.898
SI1	0.884
SI2	0.881
PV1	0.909
PV2	0.881
IQ2	0.884
IQ3	0.920
SyQ1	0.878
SyQ4	0.904
SeQ1	0.948
SeQ2	0.949
US1	0.887
US2	0.876
NB1	0.911
NB2	0.907

Table 2. Reliability and Convergent Validity Findings

	CA	Rho_A	Cr	Ave
Pe	0.781	0.781	0.901	0.820
Ee	0.740	0.742	0.885	0.794
Si	0.715	0.715	0.875	0.778
Pv	0.754	0.762	0.890	0.802
Iq	0.773	0.789	0.897	0.814
Syq	0.742	0.749	0.885	0.794
Seq	0.889	0.889	0.947	0.900
Us	0.714	0.715	0.875	0.777
Nb	0.790	0.790	0.905	0.827

Subsequently, discriminant validity was performed, regarded as one of the pivotal tests for the measurement model (Hair et al., 2017). Discriminant Validity can be assessed through three methods: Heterotrait-Monotrait Ratio (HTMT), Fornell-Lacker Criterion, and Cross Loading. HTMT exhibits superior accuracy and sensitivity compared to other Discriminant Validity measurements. The HTMT measurement results, presented in Table 3, met the necessary criteria, indicating the acceptance of discriminant validity. The findings from the measurement or outer model validate that our research model demonstrates strong internal consistency and validity. Therefore, it can be concluded

that all model constructs are statistically distinct and suitable for further examination in the structural model.

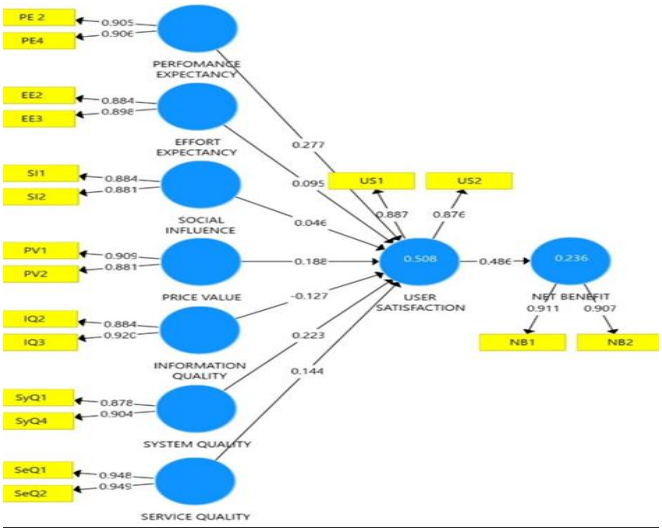

Figure 5. Structural model results

Out of the 8 hypotheses, 5 were accepted, and 3 were rejected. Four variables significantly influence User Satisfaction: Performance Expectancy (T Statistics 4.291 > 1.96 and P Values 0.000 < 0.05), Price Value (T Statistics 2.626 > 1.96 and P Values 0.009 < 0.05), System Quality (T Statistics 3.144 > 1.96 and P Values 0.002 < 0.05), and Service Quality (T Statistics 2.394 > 1.96 and P Values 0.017 < 0.05). User Satisfaction significantly affects Net Benefit (T Statistics 8.224 > 1.96 and P Values 0.000 < 0.05). However, 3 variables do not influence User Satisfaction: Effort Expectancy (T Statistics 1.384 > 1.96 and P Values 0.167 < 0.05), Social Influence (T Statistics 0.818 > 1.96 and P Values 0.414 < 0.05), and Information Quality (T Statistics 1.852 > 1.96 and P Values 0.065 < 0.05). In the Original Sample (O) values, all variables have a positive influence, except Information Quality, which has a negative impact on User Satisfaction (-0.181). The variable with the most positive significant impact on User Satisfaction is Performance Expectancy (0.277).

Table 3. Discriminant Validity Findings

	EE	IQ	NB	PE	PV	SeQ	SI	SyQ	US
EE									
IQ	0.823								
NB	0.591	0.629							
PE	0.813	0.845	0.691						
PV	0.752	0.853	0.659	0.859					
SeQ	0.613	0.529	0.441	0.676	0.536				
SI	0.756	0.661	0.497	0.738	0.688	0.603			
SyQ	0.785	0.751	0.683	0.849	0.755	0.832	0.778		
US	0.711	0.596	0.646	0.840	0.751	0.689	0.669	0.842	

Table 4. Hypothesis Testing Results

	Hypothesis	Original Sample (O)	T Statistics (|O/STDEV|)	P Values	Description
H1	PE → US	0.277	4.291	0.000	Accepted
H2	EE → US	0.095	1.384	0.167	Rejected
H3	SI → US	0.046	0.818	0.414	Rejected
H4	PV → US	0.188	2.626	0.009	Accepted
H5	IQ → US	-0.127	1.852	0.065	Rejected
H6	SyQ → US	0.223	3.144	0.002	Accepted
H7	SeQ → US	0.144	2.394	0.017	Accepted
H8	US → NB	0.486	8.224	0.000	Accepted

Business actors perceive OSS RBA as beneficial for business licensing. The acceptance of H1, where performance expectancy significantly influences user satisfaction, confirms this belief. However, H2 is rejected, indicating that effort expectancy does not affect user satisfaction. This could be because business actors are well-versed in using social media, making OSS RBA effortless. In 2022, Hootsuite's research found that 68.9% or 191.4 million Indonesians were active social media users, and social media has become an integral part of business life. Businesses adapting to the digital age must understand digital technology, including applications like OSS RBA, reducing the effort required.

The rejection of H3 suggests that social influence doesn't significantly impact user satisfaction, possibly because business actors have no choice but to use OSS RBA for licensing due to government policy. This obligation diminishes the influence of those around them. Nonetheless, business actors maintain trust in OSS RBA, even when it's offered at no cost. H4 is accepted, signifying that price value significantly influences user satisfaction.

OSS RBA's wealth of information may be excessive for micro and small business owners, which are the majority of this research's respondents. They mainly require NIB-related information only. As a result, H5 is rejected, signifying that information quality doesn't affect user satisfaction. The government has created an efficient OSS RBA website, free of frequent errors, accessible via various devices, and supported by IT Helpdesk services. This is reflected in the acceptance of H6 and H7.

This research findings support H8, indicating that user satisfaction significantly influences net benefit. Satisfied business actors benefit from ease in obtaining business licensing and increased public trust through transparent licensing processes.

Conclusion

Business actors in Indonesia consider the OSS RBA as a valuable and beneficial platform for streamlining the business licensing process. This research revealed that familiarity with social media and the seamless integration of OSS RBA into business operations diminishes the impact of effort expectancy. Additionally, the widespread use of social media in the country underscores the importance of adapting to digital technology, reducing the perceived effort in utilizing OSS RBA. Nevertheless, this research showed that information quality on the OSS RBA platform, though extensive, not all of that informations align with the needs of micro and small business owners, leading to the rejection of the hypothesis regarding its impact on user satisfaction. The government's successful implementation of an efficient OSS RBA website with robust technical quality and service quality, supported by IT Helpdesk services, was reflected in the positive acceptance of these factors. The findings underscore the crucial role of user satisfaction, as supported by H8, in achieving net benefits, which not only ease the process of obtaining business legitimacy but also foster increased public trust through transparent licensing procedures.

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