

The Influence of System Quality, Application Features, and User Experience on User Satisfaction of the Si D'nok Application

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ABSTRACT

The development of information technology encourages government agencies to implement digital systems to improve the quality of public services. One of the digital innovations implemented by the Semarang City Population and Civil Registration Service is the Si D'nok application (Population Online Document Information System), which aims to make it easier for the public to access population administration services quickly, accurately, and transparently, especially in Genuk District, Semarang City. This study aims to analyze the effect of system quality, application features, and user experience on user satisfaction of the Si D'nok application. The research method used is a quantitative approach through a survey of registered application users. The study used a quantitative approach involving 96 respondents calculated using the Solvin formula. The results showed that system quality, application features, and user experience had a positive and significant effect on user satisfaction of the Si D'nok application.

Keywords: System Quality, Application Features, User Experience, User Satisfaction

INTRODUCTION

The rapid advancement of information technology has driven the public and governmental sectors to adopt digital solutions to improve performance and efficiency. This technological progress compels government institutions to undergo transformation across various areas, including public service delivery. Civil registration services essential for guaranteeing every citizen's right to a legal identity are a core part of this transformation. These services are legally mandated under Law No. 23 of 2006 on Population Administration, as amended by Law No. 24 of 2013 (Pada et al., 2021).

Genuk District in Semarang City is one such administrative area striving to enhance the quality of its public services in response to digitalization demands. To support the implementation of e-government, the Semarang City Government launched an innovative digital platform called Si D'nok (Population Online Document Information System), developed by the city's Civil Registry Office (Dukcapil). The app aims to provide residents with quick, accurate, and transparent access to various population administration services.

The Si D'nok app offers several services, including applications for birth and death certificates, electronic ID cards (KTP), child identity cards (KIA), family cards (KK), and residency transfers. Currently, it is only available on the Android Play Store under the search term "Si D'nok Kota Semarang." Users aged 17 and above can access most services through a registered account, except for in-migration requests, which do not require registration.

However, user feedback from the Google Play Store reveals a low satisfaction rate, with the app receiving a modest rating of 2.8 out of 5 stars. Public reviews highlight several issues such as difficulties in account registration, login errors, and an unintuitive interface. These complaints indicate underlying problems in the system's quality, the app's features, and the overall user experience.

In light of these issues, the authors were motivated to conduct a study titled "The Influence of System Quality, Application Features, and User Experience on User Satisfaction of the Si D'nok Application." This research aims to provide valuable insights and recommendations to both application developers and government stakeholders, helping them enhance the quality and effectiveness of the app to better meet user expectations and improve overall satisfaction.

METHODOLOGY

A variable refers to any element defined by the researcher for investigation, with the goal of obtaining relevant information that can lead to meaningful conclusions (Sugiyono & Lestari, 2021). This study employs two types of variables. The independent variables also known as predictor or explanatory variables are those that influence or cause changes in other variables. In this research, the independent variables are system quality (X1), application features (X2), and user experience (X3). On the other hand, the dependent variable, which is affected by the independent variables, is public/user satisfaction (Y).

Sample and Data Collection

This study adopts a quantitative research method. The research was conducted in Genuk District, Semarang City, with the target population being residents who use the Si D'Nok application. The sampling technique employed was purposive sampling, chosen because it allows the selection of respondents based on specific criteria (Sugiyono & Lestari, 2021). Using this method, the minimum required sample size was determined to be 96 respondents. Data collection was carried out through questionnaires and literature review.

Analyzing of Data

This study employed several stages of data analysis, including instrument testing, classical assumption tests, multiple linear regression analysis, and hypothesis testing. Instrument testing involved a validity test to ensure the accuracy of the measurement tool in capturing variables, and a reliability test using Cronbach's Alpha to assess the internal consistency of the instrument.

Classical assumption testing included:

- a. Normality test, to evaluate the distribution of residuals,
- b. Heteroscedasticity test, to check for uniformity of variance, and
- c. Multicollinearity test, to detect potential correlations among independent variables.

Multiple linear regression analysis was applied to measure the influence of system quality, application features, and user experience on user satisfaction. Hypothesis testing was conducted both partially (t-test) and simultaneously (F-test), with decisions based on significance values. The coefficient of determination (R^2) was used to assess how much of the variance in the dependent variable (user satisfaction) could be explained by the independent variables, with all statistical analyses performed using SPSS software.

RESULTS AND DISCUSSION

Results

This study was conducted in Genuk District using the Slovin formula to determine the sample, consisting of 96 employees as respondents. All distributed questionnaires were successfully returned. The research instrument includes respondent identity data and statements related to the three main variables studied. The following are the characteristics of respondents in this study in Table 1. Based on the analysis of 96 respondents, the largest group came from private employees, namely 58 respondents or 60.4%. The second rank was occupied by students with 20 respondents, which is equivalent to 20.8%. From this data, it can be concluded that private employees are the most active group in making online purchases at Shopee to meet their needs. This may be due to their busyness at work, so they do not have enough time to shop directly. Thus, they choose a more practical way.

In the application feature variable on the use of the Si D'nok application, it can be seen that respondents gave a relatively positive assessment. The lowest value obtained was 4.05, which is related to the Ease of Access to Information about a Product or Service indicator. Although this value indicates good satisfaction, there are still some things that can be improved to make it easier for users to access product or service information. Meanwhile, the Product Innovation indicator obtained a value of 4.26, which shows that respondents are quite satisfied with the level of innovation offered by the Si D'nok application in presenting new and interesting features. Overall, although there is room for improvement in the aspect of ease of access to information, the application features are generally considered quite good and innovative by users.

The User Experience variable shows that the perceived hedonic aspect obtained the highest score of 4.10, indicating that users are very satisfied with the elements that provide pleasure and emotional satisfaction during the use of the Si D'nok application. The fun features and interactive experiences offered by the application are considered positive by most users. On the other hand, the perceived utilitarian aspect obtained the lowest score of 3.98, indicating that although the Si D'nok application is considered quite functional, there are still several aspects that can be improved related to its efficiency and utility. This indicates that there is room for improvement, especially in terms of accelerating access to key features or increasing more practical functionality in supporting user needs. The public satisfaction variable shows that the transparency indicator obtained the highest score of 4.32, indicating that the public is very satisfied with the extent to which the information provided by the Si D'nok application can be accessed clearly and openly. This reflects high trust in the completeness and openness of the data submitted. On the other hand, the sustainability indicator scored the lowest at 4.06, indicating that although users feel that the Si D'nok application can run well in the long term, there is still a little concern about the sustainability and maintenance of application features in the face of changing user needs. However, overall, the level of public satisfaction with this application is relatively high.

Table 1. Characteristics of Research Respondents

No	Gender	Frekuensi	Persentase (%)
1	Male	31	32%
	Female	65	68%
	Number	96	100%
	Occupation Type	Frekuensi	Persentase (%)
2	Employee	58	60,4
	Self-Employed	13	13,5
	Civil Servant	5	5,2
	Student	20	20,8
	Number	96	100%

Source: Processed Data

Discussion

The validity test showed that all questionnaire items were valid because the calculated r value was greater than the table r value. The reliability test also indicated that all variables were reliable because Cronbach's Alpha was greater than 0.60. The normality test (Kolmogorov-Smirnov) showed that the data were normally distributed, while the Glejser test and multicollinearity test confirmed the absence of heteroscedasticity and multicollinearity.

Multiple linear regression analysis yielded the equation $Y = 0.143X_1 + 0.699X_2 + 0.188X_3$. All independent variables (workload, competence, and work environment) have a significant positive effect on employee performance. The t -test showed that all three variables had a significant partial effect. The F -test showed a significant simultaneous effect. The adjusted R^2 value of 0.691 means that 69.1% of employee performance is explained by these three variables.

The system quality variable has an influence on public satisfaction. With a positive regression coefficient and a calculated t greater than the t table, the influence of system quality on public satisfaction is positive and significant. The influence of application features on public satisfaction shows a positive regression coefficient, with a calculated t value of 10,634 and the t table value 1,98609. Because t count is greater than t table ($10,634 > 1,98609$) and a significance value of 0.000 which is smaller than 0.05, then H_2 is accepted. This shows that the application feature variable has an influence on public satisfaction. With a positive regression coefficient and a t count greater than the t table, the influence of application features on public satisfaction is positive and significant. User experience on public satisfaction shows a positive regression coefficient, with a t count value of 2,114 and the t table value 1,98609. Because t count is greater than t table ($2,114 > 1,98609$) and a significance value of 0.037 which is smaller than 0.05, then H_3 is accepted. This shows that the user experience variable has an influence on public satisfaction. With a positive regression coefficient and a calculated t that is greater than the t table, the influence of user experience on public satisfaction is positive and significant.

CONCLUSION

This study aims to determine the influence of System Quality, Application Features, and User Experience on user satisfaction with the Si D'nok application using a questionnaire distributed via Google Forms. Data analysis using SPSS version 27 revealed that System Quality (X_1) can influence user satisfaction by providing a strong foundation in the form of a stable, secure, and user-friendly system. Application Features (X_2), which are relevant and innovative, enhance the user experience by

allowing users to interact more easily and effectively with the application. User Experience (X3), which encompasses user-friendly design and interaction, plays a crucial role in improving users' perceptions and comfort when using the system or application.

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