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The Influence of User Interface, User Experience, and User Trust on Purchase Intention

Hafidzah Aryani[1]*, Ratih Amelia [2], and Bethani Suryawardani[3]
[12]Department of Digital Business, Universitas Negeri Surabaya, Indonesia
[2]Department Marketing Management, Telkom University, Bandung, Indonesia
*hafidzaharyani.22034@mhs.unesa.ac.id

Abstract

Penelitian ini bertujuan untuk menguji pengaruh User Interface, User Experience, dan User Trust terhadap Purchase Intention pada Aplikasi e-Peken Pembeli Surabaya. Metode penelitian menggunakan pendekatan kuantitatif dengan data yang dikumpulkan melalui survei kuesioner online berskala likert lima poin, yang akan dikumpulkan dari 196 responden berdasarkan perhitungan rumus Lameshow. Teknik analisis yang digunakan adalah Structural Equation Modeling Partial Least Square (SEM-PLS) melalui perangkat lunak SmartPLS versi 4. Hasil penelitian menunjukkan bahwa User Interface memiliki pengaruh positif dan signifikan terhadap Purchase Intention dengan nilai p-value 0.001. User Trust juga memiliki pengaruh positif dan signifikan terhadap Purchase Intention dengan nilai p-value 0.00. Sebaliknya, User Experience tidak terbukti berpengaruh signifikan terhadap Purchase Intention dengan nilai p-value 0.218. Hal ini menunjukkan bahwa kualitas antarmuka dan kepercayaan pengguna merupakan faktor penentu utama dalam mendorong minat beli konsumen pada platform e-commerce pemerintah lokal, sementara pengalaman pengguna belum terbukti memberikan dampak langsung yang signifikan terhadap Purchase Intention pada Aplikasi e-Peken Surabaya.

Keywords: *User Interface; User Experience; User Trust; Purchase Intention; E-Peken Surabaya.*

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*Corresponding author
E-mail: hafidzaharyani.22034@mhs.unesa.ac.id

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Abstract

This study aims to examine the influence of User Interface, User Experience, and User Trust on Purchase Intention on the Surabaya Buyer e-Peken Application. The research method uses a quantitative approach with data collected through a five-point Likert scale online questionnaire survey, which will be collected from 196 respondents based on the Lameshow formula calculation. The analysis technique used is Structural Equation Modeling Partial Least Square (SEM-PLS) through SmartPLS software version 4. The results show that User Interface has a positive and significant influence on Purchase Intention with a p-value of 0.001. User Trust also has a positive and significant influence on Purchase Intention with a p-value of 0.00. Conversely, User Experience is not proven to have a significant effect on Purchase Intention with a p-value of 0.218. This indicates that interface quality and user trust are the main determining factors in driving consumer purchasing interest on local government e-commerce platforms, while user experience has not been proven to have a significant direct impact on Purchase Intention on the Surabaya e-Peken Application..

Keywords*:User Interface; User Experience; User Trust; Purchase Intention; E-Peken Surabaya.*

INTRODUCTION

Digital transformation has revolutionized the global economic structure, particularly in the e-commerce sector. The global e-commerce market has now reached US$26.7 trillion and continues to grow in line with the growth of internet usage (Hayes & Downie, 2025). Indonesia is even projected to become the country with the highest e-commerce growth in the world, surpassing India, Brazil, and Mexico (Yonatan, 2024). Amidst this rapid growth, MSMEs have become the primary users of digital platforms, with approximately 90% of export activity in the ASEAN-6 region dependent on e-commerce support (Amazon, 2024). The digital transformation process at the business level cannot run alone, but requires policy support from the government (Kawung et al., 2022).

East Java recorded around 9.78 million MSME units by 2024, with Surabaya City as one of the main contributors, having around 150 thousand active MSMEs (East Java Cooperatives and SMEs Service, 2024; Elaine, 2024). Responding to this need, the Surabaya City Government launched the e-Peken application on October 31, 2021, as a local e-commerce platform designed to empower MSMEs through digital transactions (Surabaya City Government, 2022). However, its presence does not guarantee success. Several MSMEs reported a lack of orders despite having been registered for a long time, and public awareness of e-Peken remains low (Fahmi, 2023; Resty, 2022). Large marketplace platforms remain superior due to their mature interfaces and more optimized marketing strategies.(Lestari, 2025).

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The advantages of e-commerce are not solely about price and product. The quality of the user experience is now a key element in creating added value.(Tiwari & Kumari, 2024). StudyCyr, (2008)sayUI is the first visual aspect that influences the perception of the quality and reliability of an application, whileQalati et al., (2021)states that visual aesthetics and ease of navigation have been shown to influence user trust and purchase intention. UX encompasses the overall feeling a user experiences when interacting with an application, from the ease of finding products to the smoothness of transactions.(Luther et al., 2020). On the other hand,Pavlou & Gefen, (2004)confirmTrust is a fundamental factor in online transactions that is closely related to the perception of security and platform credibility, as well as being a major determinant in the intention to adopt government digital services.(Carter et al., 2011; Isnaini et al., 2025).

Different from previous studies, which mostly tested UI, UX, or trust separately in large-scale commercial marketplaces, this study integrates these three variables in one model to test public service-based e-commerce platforms which are still rarely studied.(Gumay et al., 2024)The selection of variables in this study is based on the unique characteristics of e-Peken as a local platform developed by the local government and operating in a different dynamic than commercial marketplaces in general. User Interface was chosen because the quality of the visual design and ease of application navigation are the first elements perceived by users, which directly shape their initial impression and willingness to interact further with the platform. User Experience was chosen because the comfort and smoothness of the overall interaction in the application determine whether users feel motivated to complete a transaction. User Trust was chosen because, as a government-initiated platform, e-Peken relies heavily on public trust in its credibility, security, and reliability as a foundation for driving purchasing behavior. These three variables are highly relevant and have great potential in explaining the factors that drive purchase intention on e-Peken. Based on this phenomenon, this study aims to:

1. Analyzing the influence of User Interface on Purchase Intention in the Surabaya e-Peken Application.
2. Analyzing the influence of User Experience on Purchase Intention in the Surabaya e-Peken Application.
3. Analyzing the influence of User Trust on Purchase Intention in the e-Peken Surabaya application.

4. Analyzing the influence of User Interface, User Experience and User Trust on Purchase Intention in the Surabaya e-Peken Application.

TAM

The Technology Acceptance Model (TAM) was first introduced byDavis, (1989) As a development of the Theory of Reasoned Action (TRA), it is designed to explain and predict the extent to which individuals accept and use an information technology system. The core of this model lies in the argument that a person's decision to adopt technology is largely determined by the cognitive perceptions formed during interactions with the system.(Hassenzahl, 2010).)Mahendra, (2016) defines TAM as a conceptual framework that analyzes user acceptance of information systems based on their perceptions and attitudes. TAM is now widely applied in the context of modern digital technology such as mobile applications, social media, and e-commerce platforms.(Wicaksono, 2022)This flexibility is what keeps TAM relevant for understanding user behavior in an ever-changing digital environment.Davis, (1989)defineTAM itself consists of five main components, namely Perceived Ease of Use, Perceived Usefulness, Attitude Toward Using, Behavioral Intention to Use, and Actual Technology Use. Perceived Ease of Use refers to the user's belief that a technology can be understood and operated without excessive effort, which then influences Perceived Usefulness as the belief that the technology is able to increase user effectiveness.(Kim & Lennon, 2013). Systems that are easy to use tend to be perceived as more useful, and this is where positive attitudes are formed that drive behavioral intentions as the strongest predictor of actual technology use.(Tumsifu et al., 2020).

In this study, TAM serves as a theoretical basis for explaining how UI, UX, and User Trust shape the Purchase Intention of e-Peken users.Yang & Sihotang, (2022)findUser Interface is directly related to Perceived Ease of Use, because an intuitive and consistent interface makes it easier for users to navigate the system. In this study,Ritonummi & Niininen, (2021) User Experience reflects a user's overall evaluation of their interaction with an application, which contributes to Perceived Usefulness and a positive attitude toward technology. Meanwhile, User Trust acts as a reinforcing factor that builds user confidence in transactions, thus driving more concrete purchase intentions.(Alhuwaishel & Saleh, 2025). Through the TAM framework, this study attempts to systematically map how these three variables work in shaping user behavior on local e-commerce platforms based on public services.

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HCI

Human-Computer Interaction (HCI) accShneiderman, (1986) is a scientific discipline that studies how humans interact with interactive computer systems, while also examining the impact of this technology on individuals, organizations, and society at large. The initial foundations of HCI were built byCard et al., (1983)Through a cognitive psychology approach, which places an understanding of human thought processes at the heart of system design, its scope is broad, encompassing not only ease of use but also interaction techniques, effective information presentation, and responsive communication between users and systems.(B. Myers et al., 1996)details that the study of system design in HCI includes input-output device components, control mechanisms, feedback presentation, documentation, training, and interface evaluation methods.

As user expectations increase and technology advances rapidly, HCI continues to evolve, including through the integration of artificial intelligence in interface design.(B.A. Myers, 2024).B.A. Myers, (2025)to emphasize,Good interface design needs to be based on a deep understanding of user preferences, cognitive processes, and behaviors to ensure the resulting system is truly adaptive and comfortable to use. Due to its iterative nature, digital systems need to be tested repeatedly to ensure the interface remains intuitive and responsive. HCI ultimately serves as a fundamental framework that ensures interface design aligns with user expectations and improves the overall quality of the experience.(Dix, 2017; Kheder, 2023). In the context of this research, HCI is a supporting theory that underlies the understanding of the User Interface as an element that directly shapes user perception and interaction with the e-Peken application.

User Interface

The user interface is a fundamental element that serves as the point of direct interaction between the user and the digital system. In the context of mobile applications, the quality of UI design is crucial, given the user's reliance on ease of navigation and clarity of display.(Zolkepli et al., 2020). StudyWatulingas, (2020)sayA well-designed UI not only increases convenience, but also shapes user purchase intent.Princess, (2021)put forwardAn intuitive and responsive interface encourages users to continue the purchase process, while a confusing interface can actually stop transactions mid-process. Aspects such as visual aesthetics, perceived security, and reviews from other users also contribute to increased purchase conversions.(Sri Purwantini, 2025).

In this study, User Interface was measured using five indicators derived from HCI principles.Shneiderman, (1986)and developed byZamri & Al Subhi, (2015), namely simplicity, user-friendliness, directionality, interactivity, and informativeness. Previous research consistently shows that UI quality has a positive effect on purchase intention. Vo et al., (2023)found that UI Quality has a significant positive effect on Purchase Intention in e-commerce in Vietnam.Qalati et al., (2021)also proves that website quality, including visual aesthetics and ease of navigation, influences trust and purchase intention through perceived quality. However, the studyAmalya & Usman, (2025)found that UI did not always have a direct effect, suggesting that platform context and user characteristics also determine the strength of this relationship. Based on this, the first hypothesis of this study is formulated as follows:
H1: User Interface has a positive and significant effect on Purchase Intention of e-Peken Surabaya application users.(Andy et al., 2024).

User Experience

User Experience is a broader construct than UI, encompassing the entire experience, emotions, and perceptions of users when interacting with a system.(ISO 9241-11, 2018). In the realm of HCI, UX describes user evaluations and reactions that occur during and after the use of a digital service.(Hornbæk & Hertzum, 2017). The main focus of UX is to ensure that the entire series of interactions feels intuitive and comfortable, not only from a technical perspective, but also how the user interprets and assesses the experience as a whole.(Andy et al., 2024). Positive UX has also been shown to build greater trust in digital platforms, especially in government services.(Alhuwaishel & Saleh, 2025).

The User Experience variable in this study was measured using four indicators fromHornbæk & Hertzum, (2017), namely usability, perceived usefulness, comfort, and enjoyment. Several studies support the relationship between UX and purchase intention.Andy et al., (2024) found that UX influences purchase intention through comfort and ease of use factors.Suryanto et al., (2020)also proves that UX has a significant positive effect on purchase intention, even with User Trust as a strong mediator. However,Watulingas, (2020) The results show that UX has a positive but not consistent effect across platform contexts. This discrepancy in findings indicates the need for retesting on specific platforms such as e-Peken. Based on this, the second hypothesis is formulated as follows:
H2: User Experience has a positive and significant effect on Purchase Intention among e-Peken Surabaya application users.(Andy et al., 2024).

User Trust

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Gefen et al., (2003) defines trust as consumer confidence that a transaction between a buyer and a seller will proceed smoothly despite uncertainty. Trust plays a role in reducing perceived risk while increasing behavioral intentions to use technology.Pavlou & Fygenson, (2006)emphasizes that privacy protection and data security are integral to the perception of a service provider's reliability.Mayer et al., (1995) expands this understanding by explaining that trust reflects perceptions of the credibility and moral integrity of a trusted party. In the context of government digital platforms like e-Peken, trust is the foundation that determines whether users are willing to make transactions consistently.

The User Trust variable is measured using four indicators adapted fromMayer et al., (1995)AndPavlou, (2003), namely ability, integrity, benevolence, and privacy. Empirical evidence consistently shows that trust is a strong predictor of purchase intention.Liu, (2022) emphasized that trust is a key factor influencing the intention to use government digital services.Prahiawan et al., (2021)proves that e-trust has a positive and significant effect on repurchase intention, even stronger than other variables in the model.Rinestri et al., (2025)also found a positive relationship between user trust and purchase intention in Indonesian marketplaces. These findings confirm that the higher a user's trust, the more likely they are to make a purchase. Based on this, the third hypothesis is formulated as follows:

H3: User Trust has a positive and significant effect on Purchase Intention among e-Peken Surabaya application users.(Rinestri et al., 2025).

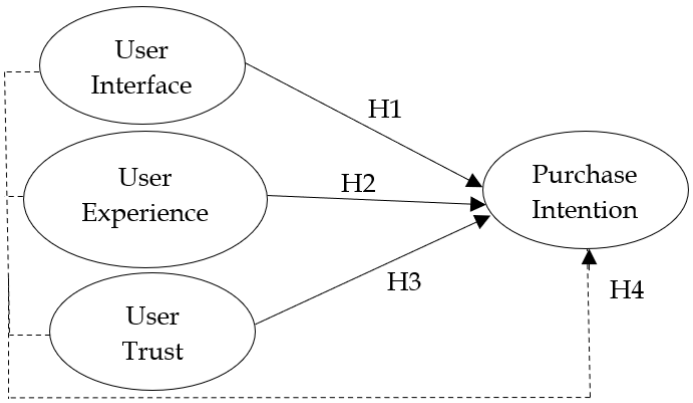
Purchase Intention

Purchase intention represents an individual's conscious plan or willingness to buy a product, reflecting how consumers process information, evaluate alternatives, and respond to both internal and external stimuli. As a psychological indicator, purchase intention signals the likelihood of future purchasing behavior and is shaped by factors such as perceptions, trust, interface quality, and digital interaction experiences.Zhao et al., (2020) explain that purchase intention forms through a process influenced by consumer experience, perceived product benefits, and available external information. In digital environments, the intensity of consumer interaction on a platform significantly contributes to the formation of purchase intention, as online settings allow consumers to access information and recommendations more rapidly and extensively(Wang et al., 2023).

Recent studies highlight that the quality of digital platforms increasingly shapes consumer intentions in online environments.Vo et al.,

(2023),found that UI quality and consumer trust both have a significant positive effect on purchase intention in e-commerce contexts, whileQalati et al., (2021)demonstrated that website quality encompassing visual aesthetics and ease of navigation strengthens trust and purchase intention through quality perception.See-To & Ho, (2014)further add that purchase intention is also reinforced by communicative interactions among consumers, such as electronic word of mouth (eWOM), which amplifies platform credibility and deepens user engagement.

However, the existing literature tends to examine purchase intention in the context of large commercial marketplaces, leaving limited empirical evidence on how interface design, user experience, and trust collectively shape purchase intention on government-initiated local e-commerce platforms. Most studies test these variables in isolation, with some integrating all three within a single model in the context of public service-based digital platforms. This gap underscores the need to explore how UI, UX, and User Trust simultaneously drive the psychological formation of purchase intention in platforms like e-Peken. In this study, purchase intention is measured using three indicators adapted from Dodds et al. (1991) and further developed by Zhao et al. (2020), namely interest in trying the product, preference for the product, and likelihood to purchase.



This study addresses these gaps by empirically examining the relationship between User Interface, User Experience, User Trust, and Purchase Intention among e-Peken users in Surabaya. In doing so, the findings are expected to provide scientific evidence that enriches the existing literature on the determinants of purchase intention within government-based local e-commerce platforms. The results of this study are also anticipated to offer theoretical contributions to the advancement of digital consumer behavior models, as well as practical insights for platform managers and local governments in designing more user-centered digital

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service strategies that strengthen interface quality, user experience, and trust mechanisms to enhance purchase intention.

Measurement

The User Interface measurement indicators in this study refer to the basic principles of HCI put forward byShneiderman, (1986)and developed byZamri & Al Subhi, (2015) with the following indicators:

1. Simplicity, defined as the ease of understanding an application's display without causing excessive cognitive load on the user.
2. User Friendliness, defined as the level of user-friendliness of an interface that is accessible to users with various backgrounds and technological abilities.
3. Directional, defined as the application's navigational ability to guide users through each stage of use clearly and logically.
4. Interactivity, defined as the system's ability to respond to every user action quickly and consistently.
5. Informative, defined as the extent to which the interface presents relevant information and provides feedback that helps the user understand their activity.

The User Experience measurement indicators in this study refer toHornbæk & Hertzum, (2017) with the following indicators:

1. Usability, defined as the extent to which users can use an application to achieve goals easily and without significant difficulty.
2. Perceived Usefulness, defined as the user's belief that using an application can improve performance or meet their needs in a real way.
3. Comfort, defined as a feeling of comfort and not being physically or mentally tiring that users feel while interacting with an application.
4. Enjoyment, defined as the pleasure and emotional satisfaction felt by users in their activities in the application, regardless of the functional results obtained.

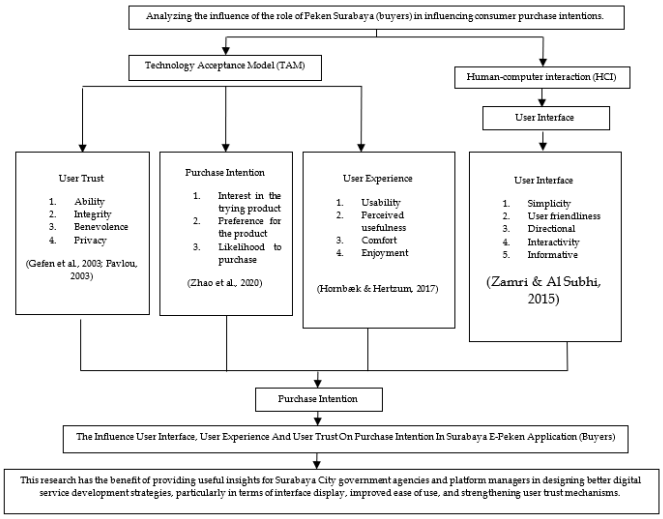
The User Trust measurement indicators in this study were adapted fromMayer et al., (1995) AndPavlou, (2003)with the following indicators:

1. Ability, defined as the level of user confidence in the platform's technical capabilities in carrying out service functions correctly and according to expectations.
2. Integrity, defined as user confidence that the platform operates honestly, transparently, and consistently in every interaction.

3. Benevolence, defined as the user's belief that the service provider has good intentions and cares about the user's interests.
4. Privacy, defined as a user's belief that their personal data and transaction activities are protected from misuse or leakage.(Pavlou & Fygenson, 2006)

The Purchase Intention measurement indicators in this study were adapted from Dodds et al. (1991) and developed by Zhao et al. (2020) with the following indicators:

1. Interest in trying the product, defined as the consumer's initial interest in trying the product after obtaining information or experience from the platform.
2. Preference for the product, defined as the level of consumer tendency to choose a product in the e-Peken application compared to similar products on other platforms.
3. Likelihood to purchase, defined as the level of consumer confidence in purchasing a product in the near future



METHODS

This study used a quantitative approach with a survey method to examine the influence of independent variables on purchase intention. Primary data was collected through an online questionnaire distributed to respondents who met the research criteria: active users of the Surabaya e-Peken Beli application who had browsed or made transactions on the application.

The sample size for this study was 196 respondents, determined using a non-probability sampling technique with a purposive sampling approach according to predetermined criteria. This sample size was deemed to meet

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the adequacy requirements for Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis as recommended by Hair et al. (2021), who suggest a minimum sample size proportional to the complexity of the model being tested. Data were analyzed using SmartPLS 4 software through two main stages: testing the measurement model (outer model) and the structural model (inner model).

Outer model testing was conducted to ensure the validity and reliability of the research instrument, including convergent validity testing through outer loading and Average Variance Extracted (AVE) values, discriminant validity testing through cross-loading analysis and the Fornell-Larcker criterion, and reliability testing using Composite Reliability and Cronbach's Alpha values. Meanwhile, inner model testing was conducted to evaluate the strength of the relationship between variables, including the coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2). Hypothesis testing was conducted using bootstrapping techniques to obtain path coefficient, t-statistic, and p-value values at a significance level of 0.05. All research procedures maintained the confidentiality of respondent data and followed applicable research ethics standards.

RESULTS AND DISCUSSION

Description of Respondent Characteristics

This section presents the results of data analysis based on a questionnaire distributed to 196 respondents who used the Surabaya e-Peken application. Data analysis was conducted using SmartPLS 4 software to test the validity, reliability, and validity of the research hypothesis. The discussion describes the findings regarding the influence of User Interface, User Experience, and User Trust on Purchase Intention in the Surabaya e-Peken application.

No	Demographic Variables	Classification	Number	Presentation
1	Gender	Man	64	32.7%
		Woman	132	67.3%
2	Age	17-28	123	62.8%
		29-40	48	24.5%
		41-52	17	8.7%
		53-64	8	4.1%

. Based on the characteristics of the respondents, a total of 196 e-Peken application users participated in this study. In terms of gender, respondents were predominantly female at 67.3% and the remaining 32.7% were male. In terms of age, the majority of respondents were in the 17–28 age group with 123 people or 62.8% of the total sample, followed by the 29–40 age group with 48 respondents or 24.5%. The 41–52 age group consisted of 17 respondents or 8.7%, while the 53–64 age group had the smallest number with 8 respondents or 4.1% of the total sample. This distribution indicates that the use of the e-Peken application is still dominated by young people, while participation from older age groups tends to be lower. This likely reflects the demographic segment that is most active in interacting with digital-based e-commerce platforms in the city of Surabaya.

Validity and Reliability Test Results

Before testing the hypothesis, a data quality test was conducted. The validity test is used to measure whether the indicators in the questionnaire are valid, while the reliability test measures the consistency of the respondents' answers. The summary of these tests is presented in Table

Table 1. Validity Test

Variables	Indicator Code	Outer Loading Value	Condition	Information
X1. User Interface	X1.1.1	0.721	>0.7	**Valid**
	X1.1.2	0.718	>0.7	**Valid**
	X1.2.1	0.745	>0.7	**Valid**
	X1.2.2	0.723	>0.7	**Valid**
	X1.2.3	0.746	>0.7	**Valid**
	X1.3.1	0.756	>0.7	**Valid**
	X1.3.2	0.709	>0.7	**Valid**
	X1.4.1	0.709	>0.7	**Valid**
	X1.4.2	0.738	>0.7	**Valid**
	X1.5.1	0.722	>0.7	**Valid**
	X1.5.2	0.713	>0.7	**Valid**
X2. User Experience	X2.1.1	0.745	>0.7	**Valid**
	X2.1.2	0.718	>0.7	**Valid**
	X2.2.1	0.672	>0.7	**Invalid**
	X2.2.2	0.686	>0.7	**Invalid**
	X2.3.1	0.765	>0.7	**Valid**
	X2.3.2	0.764	>0.7	**Valid**
	X2.4.1	0.668	>0.7	**Invalid**
	X2.4.2	0.749	>0.7	**Valid**
	X3.1.1	0.713	>0.7	**Valid**

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X3. User Trust	X3.1.2	0.706	>0.7	**Valid**
	X3.2.1	0.754	>0.7	**Valid**
	X3.2.2	0.717	>0.7	**Valid**
	X3.3.1	0.788	>0.7	**Valid**
	X3.3.2	0.797	>0.7	**Valid**
	X3.4.1	0.661	>0.7	**Invalid**
	X3.4.2	0.784	>0.7	**Valid**
Y. Purchase Intention	Y.1.1	0.704	>0.7	**Valid**
	Y.1.2	0.807	>0.7	**Valid**
	Y.2.1	0.729	>0.7	**Valid**
	Y.2.2	0.806	>0.7	**Valid**
	Y.3.1	0.688	>0.7	**Invalid**
	Y.3.2	0.732	>0.7	**Valid**
	Y.3.3	0.745	>0.7	**Valid**

Evaluation of the Measurement Model (Outer Model)

Table 2. Cross Loading Result

Indicator	X1	X2	X3	Y
X1.1.1	**0.721**	0.280	0.587	0.589
X1.1.2	**0.718**	0.271	0.504	0.524
X1.2.1	**0.745**	0.372	0.570	0.598
X1.2.2	**0.723**	0.364	0.612	0.568
X1.2.3	**0.746**	0.346	0.590	0.604
X1.3.1	**0.756**	0.400	0.596	0.610
X1.3.2	**0.709**	0.306	0.568	0.520
X1.4.1	**0.709**	0.312	0.589	0.504
X1.4.2	**0.738**	0.341	0.628	0.582
X1.5.1	**0.722**	0.418	0.574	0.545
X1.5.2	**0.713**	0.310	0.577	0.595
X2.1.1	0.335	**0.745**	0.349	0.310
X2.1.2	0.316	**0.718**	0.363	0.336
X2.2.1	0.337	**0.672**	0.382	0.323
X2.2.2	0.372	**0.686**	0.404	0.375
X2.3.1	0.297	**0.765**	0.379	0.385
X2.3.2	0.329	**0.764**	0.357	0.346
X2.4.1	0.354	**0.668**	0.373	0.329
X2.4.2	0.352	**0.749**	0.394	0.409
X3.1.1	0.594	0.342	**0.713**	0.571
X3.1.2	0.594	0.369	**0.706**	0.605
X3.2.1	0.681	0.444	**0.754**	0.664
X3.2.2	0.593	0.384	**0.717**	0.608
X3.3.1	0.586	0.431	**0.788**	0.635
X3.3.2	0.594	0.408	**0.797**	0.621
X3.4.1	0.492	0.326	**0.661**	0.485
X3.4.2	0.590	0.372	**0.784**	0.619

Y.1.1	0.595	0.326	0.556	**0.704**
Y.1.2	0.614	0.381	0.682	**0.807**
Y.2.1	0.553	0.346	0.633	**0.729**
Y.2.2	0.581	0.412	0.669	**0.806**
Y.3.1	0.518	0.379	0.514	**0.688**
Y.3.2	0.518	0.361	0.566	**0.732**
Y.3.3	0.689	0.359	0.612	**0.745**

Based on table 4.8, the cross-loading results show that each indicator has the highest loading value on the measured construct compared to other constructs. The indicator on the User Interface variable shows the largest loading value in column X1, as does the User Experience indicator in column X2, the User Trust indicator in column X3, and the Purchase Intention indicator in column Y. This indicates that each indicator is appropriate in representing its latent variable.

Table 3. Reliability Table Result

Variables	Cronbach's Alpha	Composite Reliability	AVE Value
X1 User Interface	0.911	0.925	0.529
X2 User Experience	0.868	0.897	0.521
X3 User Trust	0.882	0.907	0.550
Y Purchase Intention	0.866	0.897	0.556

Structural Model Evaluation (Inner Model) and Hypothesis Testing Results

Table 4. Hypothesis Testing

	Original sample (O)	T statistics (O/STDEV|)	P Values	Meaning
UI -> PI	0.354	3,384	0.001	Significant
UT -> PI	0.497	4,345	0.000	Significant
UX -> PI	0.067	1,232	0.218	Not Significant

CONCLUSION

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Based on the research results above, there are still several limitations. Therefore, further research is expected to consider the following suggestions. First, it is hoped that future studies can expand the research variables used, such as perceived risk, service quality, user satisfaction, or digital promotion factors, given that research examining the e-Peken application as a public service-based e-commerce platform remains limited. Second, future research is expected to broaden the scope by not only focusing on the e-Peken Surabaya application but also comparing it with other e-commerce platforms such as Tokopedia, Shopee, and Bukalapak, which will provide more comprehensive insight into e-Peken's competitive position and the factors influencing user purchase intentions. Third, the User Experience variable is recommended to be re-examined in future studies, as although it did not show a significant effect on Purchase Intention in this study, it may still play an important indirect role or be influenced by other variables such as User Trust or user satisfaction. Finally, future research is encouraged to employ more diverse respondent characteristics in terms of age, occupation, and level of experience in using digital applications, so that the findings can be more representative and generalizable.

The results of this study indicate that User Interface (UI) has a positive and significant effect on Purchase Intention (β = 0.354; p = 0.001). This finding confirms that the quality of interface design plays a crucial role in encouraging consumers' intention to purchase through the e-Peken application. A clear navigation structure, attractive visual appearance, responsive interaction, and informative content reduce users' cognitive effort while browsing products, ultimately increasing their willingness to complete transactions. From the perspective of the Technology Acceptance Model (TAM), an intuitive interface enhances users' Perceived Ease of Use, which subsequently strengthens their behavioral intention to use the platform (Davis, 1989). Likewise, Human-Computer Interaction (HCI) theory emphasizes that effective interface design minimizes user frustration and creates smoother interactions (Shneiderman, 1986). The present findings are consistent with previous studies conducted by Vo et al. (2023), Qalati et al. (2021), and Andy et al. (2024), who reported that interface quality significantly increases purchase intention in e-commerce environments. These findings imply that although e-Peken operates as a government-supported marketplace, users still evaluate it using the same usability standards applied to commercial digital platforms.

The analysis further reveals that User Experience (UX) does not significantly influence Purchase Intention (β = 0.067; p = 0.218). This result suggests that users' overall experience while interacting with the application

has not yet become a primary determinant of their purchasing decisions. One possible explanation is that most respondents may access e-Peken primarily to search for local products rather than for an enjoyable digital shopping experience. Consequently, users prioritize practical considerations such as product availability, trustworthiness, and transaction security over emotional satisfaction or entertainment. In addition, because e-Peken is relatively less mature than major marketplaces such as Shopee or Tokopedia, users may have lower expectations regarding experiential aspects. This finding differs from studies by Suryanto et al. (2020) and Andy et al. (2024), which found that UX positively influences purchase intention. However, it is consistent with Watulingas (2020), who argued that the effect of UX varies depending on platform characteristics and user context. Therefore, UX may function indirectly through mediating variables such as customer satisfaction, perceived value, or user trust rather than directly affecting purchase intention.

Among the three independent variables, User Trust demonstrates the strongest influence on Purchase Intention ($\beta = 0.497$; $p < 0.001$). This finding indicates that users are more willing to purchase products when they perceive the platform as reliable, secure, and transparent. In government-supported digital platforms, trust becomes particularly important because users expect accountability, privacy protection, and institutional credibility. According to TAM extensions incorporating trust, user confidence reduces uncertainty and perceived risk, thereby increasing users' willingness to conduct online transactions (Pavlou, 2003; Gefen et al., 2003). The findings are consistent with Liu (2022), Prahiawan et al. (2021), and Rinestri et al. (2025), all of whom concluded that trust is among the strongest predictors of purchase intention in digital commerce. For e-Peken, strengthening trust through secure payment systems, transparent seller verification, reliable customer support, and comprehensive privacy protection should therefore become a strategic priority.

Overall, the findings demonstrate that functional platform quality is more influential than experiential quality in shaping consumers' purchase intention on government-based local e-commerce platforms. Unlike commercial marketplaces that compete primarily through personalized shopping experiences and promotional campaigns, e-Peken users appear to place greater emphasis on usability and institutional credibility. This distinction highlights the unique characteristics of public-service digital marketplaces, where trust and operational reliability outweigh hedonic shopping experiences. The results also extend the application of the Technology Acceptance Model (TAM) by demonstrating that User Interface and User Trust are more dominant determinants of behavioral intention than User Experience in the context of local government e-commerce.

From a practical perspective, these findings provide several managerial implications for the Surabaya City Government and e-Peken platform developers. First, continuous improvement of the application's interface should remain a priority by simplifying navigation, improving search functionality, enhancing visual consistency, and optimizing mobile responsiveness. Second, strengthening users' trust requires continuous improvement of cybersecurity measures, transparent seller verification, secure payment systems, and responsive complaint handling mechanisms. Third, although User Experience was not found to have a direct significant effect, improving application performance, personalization, and interaction quality may still indirectly enhance users' purchasing behavior through greater satisfaction and continued platform usage. Therefore, future platform development should adopt a holistic approach that combines usability, security, and service quality to improve the competitiveness of e-Peken in Indonesia's increasingly dynamic digital marketplace.

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