

## **The Influence of User Factors on AI and User Experience in the Lazada**

**Dinda Virgia Yurendira<sup>1</sup>, Brilian Dwi Saputra<sup>2</sup>, Osly Usman<sup>3</sup>**

<sup>1</sup>Department of Digital Business, Universitas Negeri Jakarta, Indonesia

<sup>2</sup>Department of Digital Business, Universitas Negeri Jakarta, Indonesia

<sup>3</sup>Department of Digital Business, Universitas Negeri Jakarta, Indonesia

### **Abstract**

This research reviews specific problems in considering how much influence the factors of user data security, user satisfaction, user retention, application of artificial intelligence (AI) and impact on user experience. The goal is to provide useful guidance for app developers and e-commerce business owners to improve User Experience and integrate AI effectively. This research is included in Quantitative study by distributing online questionnaires to Lazada application users. The aim is to understand user views of Lazada application services. And these factors have a significant role in maintaining competitiveness and improving applications. And the research concludes that user data security and user retention factors have worthy of attention on applications of artificial intelligence and user experience. However, user experience with the application of artificial intelligence (AI) and user experience has an insignificant influence.

**Keywords:** user security; user satisfaction; retention; application of AI; and user experience.

## **1. Introduction**

In Indonesia, competition is fierce in the e-commerce application platform and Lazada occupies the third position based on factors such as: Ranking in App Store and Playstore, Rate of Monthly Customer Visits, and Number of mentions on Twitter, Instagram, and Facebook (E - Indonesian Trade Map., 2021).

User Experience (UX) plays an important role in mobile applications. From making users feel secure about the data they enter, making users feel satisfied, to increasing user retention of the app. Artificial intelligence (AI) allows applications to learn from user behavior and provide a more customized experience. For example, by using AI, apps can anticipate user preferences, provide more precise recommendations, and even identify potential problems or user errors to optimize the experience.

This increases the likelihood that users will be satisfied with the application, as they get a solution that fits their needs. And in this context, the application of Artificial Intelligence (AI) can have a great impact and potential to improve the quality of User Experience and user comfort in applications.

Previous research has also shown that factors such as User Security, User Satisfaction, and User Retention have a close relationship with the adoption and success of mobile applications. However, there is no research that specifically examines how these factors affect AI applications to improve the User Experience of e-commerce applications in Indonesian.

The purpose of this research is the impact of User Security, User Satisfaction and User Retention on AI application in improving User Experience in Lazada Indonesia application. This study will also explain the preferences of Lazada Indonesia Application users in Jakarta, Bogor, Depok Tangerang, and Bekasi (JABODETABEK) towards e-commerce applications and the factors that influence their use.

It is anticipated that the results of this research will provide advantages for application developers and e-commerce business owners to improve User Experience and integrate AI effectively. In addition, this research can also make an additional contribution to the theoretical understanding of the factors that influence the adoption of application technology.

## **2. Literature Review**

### **2.1 User Security**

“Security is a ‘derivative concept’; Different world views give rise to different conceptions” (Chen, C. W., & Demirci, S. 2019). Security holds diverse connotations for each person, specifically concerning an e-commerce enterprise's capability to regulate and sustain the integrity of transactional data during continual online transactions. (Listiani & Wulandari, 2023). “Security is the ability of an online shop to control and maintain the security of data transactions...” (Susanti, 2021). According to Agus Sutedjo, 2021, in the journal "The Effect Of Trust, Perception Of Risk And Security On Consumer Purchase Interest In Lazada". Arpah, M., & Nabella, S. D. (2023) states “that security issues are an important aspect in an information system. Online transaction security is how to prevent fraud or at least detect fraud in information-based systems, where the information itself has no physical meaning.”

Darmawan & Putra (2022) states that consumers who make purchases online pay attention to security in payments, consumer privacy and misuse of personal information. Not only that,

but Security is also the capability of a platform online shop to govern and uphold the security of data transactions. And security assurance plays an important role in establishing trust by reducing consumer concerns about apprehensions regarding the mishandling of personal information data and easily corrupted transactions.

## **2.2 User Satisfaction**

User Satisfaction is "The pleasant or unpleasant feeling for the user is related to the benefits that people want as a result of interaction with the information system" (Abdurrahman, D. T, 2020). Beliefs related to information and system integrity and attitudes based on information satisfaction and system satisfaction objects. (Oladimeji, K. A., & Abdulkareem, A. K. 2023). The important role of user satisfaction in technology adoption and system usability, exploring the relationship between user motivation and satisfaction should be an important step in imagining more sophisticated AI-powered tools. (Shao, C., & Kwon, K. H. 2021).

## **2.3 User Retention**

Based on Lin, Y. H., et al. (2020) "User retention is defined as the number of initial users still active within a certain time period. User retention is usually calculated as the number of those still active divided by the total number of registered users." And according to Liu, B. M., et al. (2023) "User retention is a common problem as attrition and compliance are important aspects of mobile devices." Retention rate is also a key metric for app marketers because it allows them to know what percentage of the user base remains using the app over time compared to the number of uninstalls (Azzahra, T. R., & Kusumawati, N. 2023).

## **2.4 Application of Artificial Intelligence (AI)**

Artificial Intelligence (AI) is a quickly developing technological phenomenon that all industries want to utilize to increase efficiency and reduce costs (Hassani, H., et al. 2020). Then according to Yigitcanlar, T., (2020). "Artificial intelligence (AI) is one of the most disruptive technologies of our time. In simple terms, AI can be defined as machines or computers that imitate the cognitive functions that humans associate with the human mind, such as learning and problem solving."

"Artificial intelligence (AI) pertains to the capability of machines and software to emulate human cognitive functions and behavioral patterns, including the capacity to learn, reason, and respond to circumstances beyond the pre-programmed data set within the machine." (Aggarwal., et al. 2022).

## **2.5 User Experience**

"User experience is associated with several facets, encompassing functional, emotional, affective, experiential, hedonic, and aesthetic elements in the interaction between individuals and a product or service." (Chen, T., et al 2021). The UX Concept casts a wide net on all aspects of user experience, especially subjective experience. (Lewis, J. R., & Sauro, J. 2021). According to Norman (2021) "The term "User Experience" (UX) was initially coined in 1995 in the context of human interface research and applications. Its original definition emphasized the interaction between humans and a system, encompassing various aspects extending beyond mere human interface or usability."

Sauer, JSonderegger, A., & Schmutz, S. (2020) also argue that in their journal “user experience is also often considered a vague and unclear concept. When reviewing the many definitions put forward in the research literature, they can be classified into three main types: (a) a holistic view of user experience, (b) an expansion of the usability concept and (c) a primary focus on emotions. The 'holistic' approach refers to user experience as all of a person's actions, sensations, considerations, feelings and feelings when interacting with a technical device or service.”

### **3. Material and Method**

This methodology must have comprehensive details to facilitate replication by other researchers. This section summarizes all the methodological subtleties necessary for the reproduction of the work by future scholars. Designed to briefly describe the research design, sample characteristics, research instruments, procedural methodology, and data analysis procedures.

#### **3.1 Design Study**

This research was designed to find out how user factors such as security, satisfaction, and retention influence the adoption of artificial intelligence and its impact on user experience. This research uses quantitative research methods. According to Taherdoost, H. (2022) "Quantitative research is a method that uses numerical values obtained from observations to explain and describe phenomena that can be reflected from these observations." Quantitative research also measures and analyzes variables to obtain results and includes the usage and the examination of quantitative data involves the application of specific statistical methodologies to address inquiries related to quantity, identity, magnitude, characteristics, location, timing, and methodologies.

This study represents an explanatory research methodology, focused on delineating the interconnectedness among various variables through a quantitative approach in order to substantiate. “The findings show that predictors, namely product quality, service quality, perceived comfort, and perceived ease of use have a significant effect on users. experience and trust Similarly, user experience and trust influence user satisfaction and play a partial mediating role between predictors and user satisfaction.”

“Artificial Intelligence (AI) systems incorporate human-like intelligence traits into various business and marketing operations, including sales, budget allocation, and decision-making, ultimately aiming to optimize customer profitability. These systems offer a compelling advantage in market segmentation, identification of customer preferences, improvement of their overall experience, and fulfillment of their needs” (Uzir, M.U.H., et.al. 2021.)

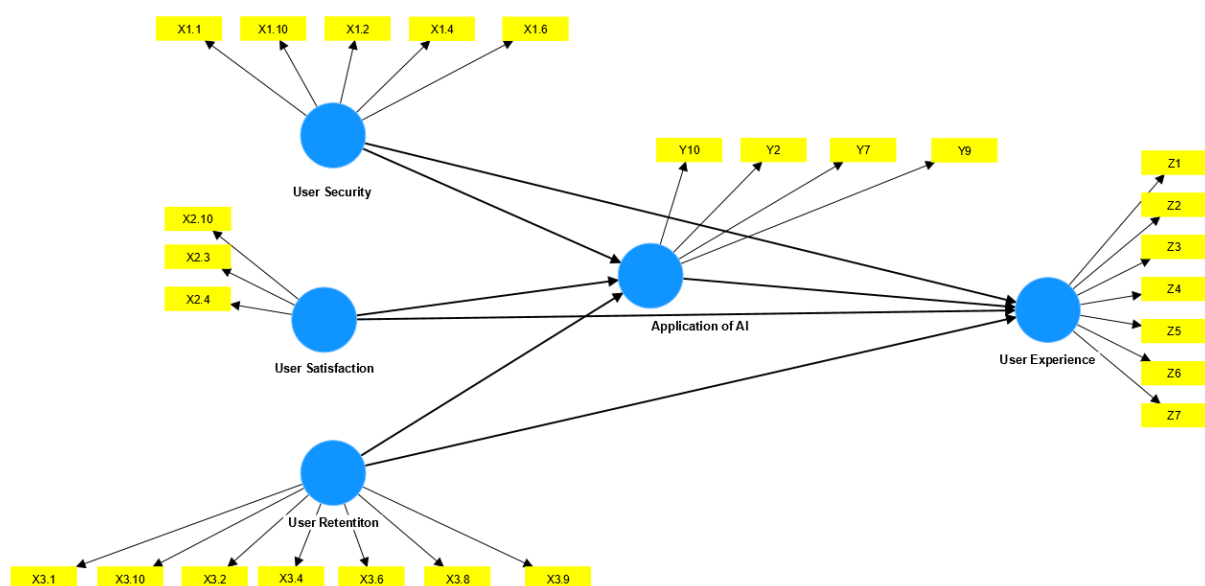
By combining explanations of the relationships between variables in this research, researchers can produce stronger and more detailed findings about how Security, Satisfaction, Retention relate to the Implementation of Artificial Intelligence and its impact on the Lazada Application User Experience. The combination of these two approaches will help understand the complex dynamics in the context of such applications and can provide valuable insights for application development.

The population of the research carried out were Lazada Indonesia application users who live in Jakarta, Bogor, Depok Tangerang, and Bekasi (JABODETABEK) areas. From this population, the sampling technique used was simple random sampling, where sampling was used randomly without paying attention to age and gender restrictions in the population and the study comprised a total of 100 samples for validity testing. Then after the data was obtained, the data was analyzed using statistical analysis data analysis techniques using the SmartPLS (Partial Least Squares) Statistics application with version 4.0.

### 3.2 Data Analysis

Researchers used Smart PLS version 4.0 using calculation features in the form of the PLS-SEM algorithm and bootstrapping with data obtained through questionnaires distributed to Lazada application users in the Jakarta, Bogor, Depok Tangerang, and Bekasi (JABODETABEK) area. This research emphasizes 5 variables that are interconnected and influence each other. Data collection uses a questionnaire on Google Form using indicators that can influence each variable consisting of User Security, User Satisfaction, User Retention, Application of Artificial Intelligence and User Experience. Thus, the following is the hypothesis of this research in processing the data that has been obtained:

- H1 : User Security in the Application of AI
- H2 : User Satisfaction with the Application AI
- H3 : User Retention to the Application of AI
- H4 : User Security on User Experience
- H5 : User satisfaction with user experience
- H6 : User Retention of User Experience
- H7 : Application of AI to User Experience
- H8 : User Security in the Application of AI and its impact on User Experience
- H9 : User satisfaction with the implementation of AI and its impact on user experience
- H10 : User Retention to the Application of AI and its impact on User Experience



**Figure 1.** Research Model

#### 4. Result

According to Hakim et al, Composite Reliability 2021 is a part that can be used in research to test the reliability value of certain variables. This variable can be said to have good reliability if it has a composite reliability value greater than 0.7. The variable can be deemed to possess commendable reliability or meets the requirements if it has a cronbach alpha value greater than 0.7 as well. After a variable pass both tests, the variable is declared reliable if it passes both tests.

Furthermore, according to the journal Saputra et al., (2020), measuring the validity of a variable requires consideration of the average variance extracted (AVE) value.

**Table 1.** Construct Reliability and Validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
User Security	0.817	0.822	0.872	0.578
User Satisfaction	0.720	0.719	0.843	0.642
Application of Artificial Intelligence (AI)	0.828	0.830	0.886	0.661
User Experience	0.881	0.882	0.908	0.585
User Retention	0.892	0.895	0.915	0.607

In table 1 above, it can look at the reliability and construct validity to depict good values. This is because based on the overall results the data shows good results for each existing variable. The condition for a variable to be declared reliable is to have a cronbach alpha value above 0.70 and composite reliability above 0.70 and the overall data shows a value above 0.70. And also the validity test requires an AVE that is greater than 0.5. The data also shows good results, namely that all variables have AVE values above 0.5.

**Table 2.** Discriminant Validity

	User Security	User Satisfaction	Application of Artificial Intelligence (AI)	User Experience	User Retention
User Security					
User Satisfaction	0.742				
Application of Artificial Intelligence (AI)	0.739	0.875			
User Experience	0.797	0.810	0.924		
User Retention	0.758	0.915	0.865	0.772	

The condition for a variable to have a validity value requires the AVE value to be above 0.5 and have the square root of the AVE of a particular variable that is greater than the correlation. And in table 2 above, factors related to user data security. There are no numbers listed in the table above, which indicates that no correlation value has been determined for other factors in the matrix. Meanwhile, User Satisfaction has a positive correlation of 0.742 with the Application of Artificial Intelligence (AI). This shows that user satisfaction has a fairly strong positive correlation with the level of application of artificial intelligence (AI) technology. With higher levels of AI implementation, user satisfaction tends to increase.

Furthermore, the Application of Artificial Intelligence (AI) is positively correlated with User Data Security (0.739), but this value is slightly lower than the correlation with User Satisfaction. User Experience shows the highest correlation with Artificial Intelligence (AI) Implementation (0.810), indicating a close relationship between the level of AI implementation and better user experience. User Retention is strongly correlated with User Satisfaction (0.915) and also has a fairly high correlation with Artificial Intelligence (AI) Implementation (0.865), indicating that higher AI adoption tends to increase user retention.

**Table 3.** R-Square

	R-square	R-square adjusted
Application of Artificial Intelligence (AI)	0.616	0.604
User Experience	0.699	0.686

In table 3 above, there is information regarding R-square and adjusted R-square, which indicates the extent to which the variability of a variable is influenced by other variables in the analysis. For example, the variable Application of Artificial Intelligence (AI) shows an R-square value of 0.616, which illustrates that around 61.6% of the variability in Application of Artificial Intelligence (AI) can be explained by other variables in the model tested.

In addition, the adjusted R-square value (0.604) provides an adjusted measure of model complexity. The User Experience value shows variability with a value of 69.9% which is influenced by other variables, while the adjusted R-square value (0.686) provides an adjusted picture of the model.

Next in this research is calculating the path coefficient as material for analyzing the direct influence of variables. According to Hair et al., (2021) The hypothesis will have a direct effect, or the results can be accepted if when calculating the path coefficient the relationship between variables has a T Statistics value  $> 1.960$  or P Values  $< 0.05$ . So, in this study the result is apparent in the subsequent table:

**Table 4.** Path Coefficient

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values	Results
User Data Security ->	0.172	0.173	0.082	2.100	0.036	Accepted

Application of Artificial Intelligence (AI)						
User Data Security -> User Experience	0.273	0.268	0.104	2.617	0.009	Accepted
User Satisfaction -> Application of Artificial Intelligence (AI)	0.236	0.228	0.134	1.763	0.078	Rejected
User Satisfaction -> User Experience	0.110	0.115	0.105	1.044	0.297	Rejected
Application of Artificial Intelligence (AI) -> User Experience	0.524	0.523	0.092	5.706	0.000	Accepted
User Retention -> Implementation of Artificial Intelligence (AI)	0.467	0.476	0.118	3.950	0.000	Accepted
User Retention -> User Experience	0.038	0.039	0.110	0.347	0.729	Rejected

In table 4 above, it states that the relationship from User Data Security to the Application of Artificial Intelligence (AI) and User Data Security to User Experience an accepted because the P-value < 0.05 and the T-Statistics value > 1.96. However, the relationship from User Satisfaction to the Application of Artificial Intelligence (AI) and User Satisfaction to User Experience was rejected because the P-value was > 0.05, indicating an insignificant relationship between these variables.

In the next variable, the relationship between the Application of Artificial Intelligence (AI) to User Experience and User Retention to the Application of Artificial Intelligence (AI) is the acceptance of this is grounded in the P-value of less than 0.05 and the T-Statistics surpassing 1.960. However, the relationship between User Retention and User Experience is rejected because the P-value is > 0.05. The results of this analysis provide insight into the strength and significance of the relationships between the variables in the model. An accepted relationship indicates a significant influence between these variables, while a rejected relationship indicates that the relationship between the variables is not significant.

**Table 5.** Specific Indirect Effect

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values	Results
User Retention -> Implementation of Artificial Intelligence	0.244	0.251	0.084	2.925	0.003	Accepted



(AI) -> User Experience						
User Satisfaction -> Application of Artificial Intelligence (AI) -> User Experience	0.124	0.118	0.073	1.702	0.089	Rejected
User Data Security -> Application of Artificial Intelligence (AI) -> User Experience	0.090	0.090	0.044	2.069	0.039	Accepted

From the results of the specific indirect effect calculation in table 5 above, it shows the results of the analysis regarding the indirect influence of certain variables on other variables through mediator variables where the relationship from User Retention to the Application of Artificial Intelligence (AI) to User Experience is accepted because the P-value < 0.05 and T-Statistics exceed 1.96, indicating a significant effect.

However, the relationship from User Satisfaction to the Application of Artificial Intelligence (AI) to User Experience was rejected because the P-value was > 0.05, indicating an insignificant effect. The relationship from User Data Security to the Application of Artificial Intelligence (AI) to User Experience is accepted because the P-value < 0.05 and the T-Statistics exceed 1.96, indicating a significant effect.

## 5. Discussion

This research shows that there are 10 hypotheses that will be tested for the relationship between two or more variables. In this section, we will focus on the 10 hypotheses and state whether the relationship is significant or not based on the calculation results.

### **H1 : The Relationship between User Data Security and the Application of Artificial Intelligence (AI)**

From the conducted research, it is evident that the impact of the User Data Security variable on the Application of Artificial Intelligence (AI) has a path coefficient value of 0.172. This shows that there is a significant positive influence between T statistics 2,100 > 1.960 with a P-value of 0.036 < 0.05. The following data shows that increasing the security of user data on the Lazada application will tend to have a positive impact with the application of artificial intelligence (AI) technology. With the increased security of user data, there is also a higher probability of adopting and implementing artificial intelligence technology on the platform.

### **H2 : Relationship between User Data Security and User Experience**

From the research that has been conducted, it can be seen that the influence of the User Data Security variable on User Experience has a path coefficient of 0.273. This shows that there is a significant correlation with T statistics of 2,617 > 1.960 and P-value of 0.009 < 0.05. This data indicates that improvements in user data security on the Lazada application have a positive influence on user experience. And with the increased security of user data, there is a significant improvement in the user experience of using the platform.

### **H3 : The Relationship between User Satisfaction and the Application of Artificial Intelligence (AI)**

From the research that has been carried out, it can be seen that the influence based on Path Coefficients path data from User Satisfaction to the Application of Artificial Intelligence (AI), there is a path coefficient of 0.236. This value shows a significant correlation with T statistics of  $1.763 < 1.960$  and P-value of  $0.078 > 0.05$ . This data indicates that the influence of the level of user satisfaction on the application of artificial intelligence (AI) technology in the Lazada application tends to be not positively significant. Thus, the level of user satisfaction may not significantly influence the implementation of artificial intelligence technology on the platform.

### **H4 : Relationship of User Satisfaction with User Experience**

From the research that has been conducted, it can be seen that the influence based on Path Coefficients path data is from User Satisfaction to User Experience, with a path coefficient value of 0.110. This value shows that there is a weak and insignificant relationship with T statistics of  $1.044 < 1.960$  and P-value of  $0.297 > 0.05$ . This data indicates that the level of user satisfaction does not have a significant influence on the user experience on the Lazada platform. Thus, it is possible that changes in user satisfaction levels do not significantly affect the user experience on the platform.

### **H5 : The Relationship between the Application of Artificial Intelligence (AI) and User Experience**

From the research that has been carried out, it can be seen that the influence based on Path Coefficients path data from the Implementation of Artificial Intelligence (AI) variable on User Experience with a path coefficient value of 0.524. This shows that there is a positive and significant relationship with T statistics of  $5,706 > 1,960$  and P-value  $0.000 < 0.05$ . From the following data, it can be concluded that the influence resulting from the application of artificial intelligence technology in the Lazada application has a significant impact on user experience. Therefore, improvements or changes in artificial intelligence technology have the potential to have a positive effect on the user experience on the platform.

### **H6 : The Relationship between User Retention and the Application of Artificial Intelligence (AI)**

Derived from the conducted research, it can be seen that the influence of Path Coefficients data from the User Retention variable on the Application of Artificial Intelligence (AI) shows a path coefficient of 0.467. This value indicates that the relationship between user retention and the application of artificial intelligence (AI) technology has a significant influence. With T statistics of  $3,950 > 1,960$  and P-value of  $0.000 < 0.05$ . This data confirms that user retention significantly influences the adoption of artificial intelligence technology on the Lazada platform. Thus, the higher the user retention rate, the more significant the possibility of using artificial intelligence technology on the platform.

### **H7 : Relationship between User Retention and User Experience**

Derived from the conducted research, it can be seen that the influence of the Path Coefficients path data from the User Retention variable with User Experience shows a path coefficient of 0.038. With a T statistics value of  $0.347 < 1.960$  and P-value  $0.729 > 0.05$ . The data above shows that the relationship between User Retention and User Experience tends to be statistically insignificant. This value indicates that User Retention in the application does not significantly influence the User Experience on the platform. This indicates that the influence of User Retention on user experience cannot be measured statistically significantly within the observed data framework.

### **H8 : User Retention to Artificial Intelligence (AI) Implementation and its impact on User Experience**

Based on research on the results of the Significant Indirect Effect of User variables on the Application of Artificial Intelligence (AI) and its impact on User Experience, it can be seen that the path coefficient is 0.244. These results show a positive influence between user retention, the application of artificial intelligence (AI), and user experience on the Lazada platform. With T statistics of  $2.925 > 1.960$  and P-value  $0.003 < 0.05$ . Thus, it can be concluded that this influence is positively significant. And this confirms that increasing user retention in the implementation of artificial intelligence technology at Lazada significantly affects the user experience on the platform.

### **H9 : User Satisfaction with the Implementation of Artificial Intelligence (AI) and its impact on User Experience**

Based on research that has been conducted on the results of the Significant Indirect Effect of the User Satisfaction variable on the Application of Artificial Intelligence (AI) and its impact on User Experience, there is a path coefficient of 0.124. This shows that there is a positive influence between user satisfaction, the application of artificial intelligence (AI), and user experience on the Lazada platform. With T statistics of  $1.702 < 1.960$  and P-value  $0.089 > 0.05$ . Therefore, this relationship is not positively significant. From these results, it can be concluded that the relationship between user satisfaction and user experience through the application of artificial intelligence on the Lazada platform is not positively significant.

### **H10 : User Data Security against the Application of Artificial Intelligence (AI) and its impact on User Experience**

Based on research that has been conducted on the results of the Significant Indirect Effect of the User Data Security variable on the Application of Artificial Intelligence (AI) and its impact on User Experience, a path coefficient of 0.090 was found. This shows that there is a positive influence between user data security, the application of artificial intelligence (AI), and user experience on the Lazada platform. With T statistics of  $2.069 > 0.196$  and P-value  $0.039 < 0.05$ . Thus these results, the relationship is proven to be positively significant. And it can be concluded from these results that the relationship between user data security and user experience through the application of artificial intelligence on the Lazada platform is positively significant.

## **6. Conclusion, Implication, and Recommendation**

This research shows significant results for several research variables conducted on Lazada application users. In this context, every variable that is proven to be significant shows a positive influence on various aspects of the user experience in using the Lazada application. These results can provide insight for application developers to carry out further development.

By considering the factors that have a significant impact, application developers can focus on improving aspects that influence user comfort and satisfaction in using the application. This creates opportunities for the Lazada app to continue to grow and retain users, as user satisfaction and overall app usability increase. With this approach, the application can remain relevant, and users feel satisfied and get maximum benefits from using the Lazada application.

## **7. References**

### **Article Journal**

Abdurrahaman, D. T., Owusu, A., & Bakare, A. S. (2020). Evaluating factors affecting user satisfaction in university enterprise content management (ECM) systems. *Electronic Journal of Information Systems Evaluation*, 23(1), pp1-16.

Aggarwal, K., et al. (2022). Has the future started? The current growth of artificial intelligence, machine learning, and deep learning. *Iraqi Journal for Computer Science and Mathematics*, 3(1), 115-123.

Arpah, M., & Nabella, S. D. (2023). The Effect of Trust, Perception of Risk and Security on Consumer Purchase Interest in Lazada (Empirical Study on Students of The Faculty of Economics and Business, Ibn Sina University). *International Journal of Accounting, Management, Economics and Social Sciences (IJAMESC)*, 1(4), 304-316.

Azzahra, T. R., & Kusumawati, N. (2023). The Impact of Mobile Service Quality, Perceived Value, Perceived Usefulness, Perceived Ease of Use, Customer Satisfaction Towards Continuance Intention to Use MyTelkomsel App. *Journal of Consumer Studies and Applied Marketing*, 1(1), 46-60.

Berni, A., & Borgianni, Y. (2021). From the definition of user experience to a framework to classify its applications in design. *Proceedings of the Design Society*, 1, 1627-1636.

Chen, C. W., & Demirci, S. (2019). Factors affecting mobile shoppers' continuation intention of coffee shop online store: A perspective on consumer tolerance. *International Journal of Electronic Commerce Studies*, 10(2), 203-238.

Chen, T., Guo, W., Gao, X., & Liang, Z. (2021). AI-based self-service technology in public service delivery: User experience and influencing factors. *Government Information Quarterly*, 38(4), 101520.

El-Sherif, D. M., Abouzeid, M., Elzarif, M. T., Ahmed, A. A., Albakri, A., & Alshehri, M. M. (2022, February). Telehealth and Artificial Intelligence insights into healthcare during the COVID-19 pandemic. In *Healthcare* (Vol. 10, No. 2, p. 385). MDPI.

- García-Estela, A., Cantillo, J., Angarita-Osorio, N., Mur-Milà, E., Anmella, G., Pérez, V., ... & Colom, F. (2022). Real-world implementation of a smartphone-based psychoeducation program for bipolar disorder: observational ecological study. *Journal of Medical Internet Research*, 24(2), e31565.
- Hakim, M. F., Anhar, M., & Sampurna, D. S. (2021). The Influence of Work Motivation, Work Discipline and Work Environment on Job Satisfaction. *Indonesian Journal of Business, Accounting and Management*, 4(01), 20-27.
- Hassani, H., Silva, E. S., Unger, S., TajMazinani, M., & Mac Feely, S. (2020). Artificial intelligence (AI) or intelligence augmentation (IA): what is the future?. *Ai*, 1(2), 8.
- Kanade, A., Bhoite, S., Kanade, S., & Jain, N. (2023). Artificial Intelligence and Morality: A Social Responsibility. *Journal of Intelligence Studies in Business*, 13(1), 65-75.
- Kivimaa, P., Brisbois, M. C., Jayaram, D., Hakala, E., & Siddi, M. (2022). A socio-technical lens on security in sustainability transitions: Future expectations for positive and negative security. *Futures*, 141, 102971.
- Lewis, J. R., & Sauro, J. (2021). Usability and user experience: Design and evaluation. *Handbook of Human Factors and Ergonomics*, 972-1015.
- Lin, Y. H., Chen, S. Y., Lin, P. H., Tai, A. S., Pan, Y. C., Hsieh, C. E., & Lin, S. H. (2020). Assessing user retention of a mobile app: survival analysis. *JMIR mHealth and uHealth*, 8(11), e16309.
- Munir, M., & Darmawan, D. (2022). The Role of Trust, Ease of Use and Security on Shopping Interests at Lazada. *Engineering and Technology International Journal*, 4(03), 135-145.
- Nathaniel, B. A., Christiana, A. O., & Olanrewaju, F. E. (2019). USABILITY EVALUATION OF USERS' EXPERIENCE ON SOME EXISTING E-COMMERCE PLATFORMS. *Library Philosophy and Practice*, 1-17.
- Norrahman, R. A., & Badruddin, B. (2023). THE EFFECT OF USING ARTIFICIAL INTELLIGENCE ON CUSTOMER TRUST ON SHARIA BANK SERVICES IN INDONESIA. *IERJ Islamic Economics Review Journal*, 2(2), 56-65.
- Oladimeji, K. A., & Abdulkareem, A. K. (2023). An Assessment of User Satisfaction with E-Police in Nigeria. *RUDN Journal of Public Administration*, 10(1), 130-143.
- Saputra, A., & Tentama, F. (2020). Construction of the subjective well-being scale. *International Journal of Scientific and Technology Research*, 9(2), 38-42.
- Sauer, J., Sonderegger, A., & Schmutz, S. (2020). Usability, user experience and accessibility: towards an integrative model. *Ergonomics*, 63(10), 1207-1220.
- Shao, C., & Kwon, K. H. (2021). Hello Alexa! Exploring effects of motivational factors and social presence on satisfaction with artificial intelligence-enabled gadgets. *Human Behavior and Emerging Technologies*, 3(5), 978-988.

Xu, F., & Du, J. T. (2019). Examining differences and similarities between graduate and undergraduate students' user satisfaction with digital libraries. *The Journal of Academic Librarianship*, 45(6), 102072.

Yigitcanlar, T., & Cugurullo, F. (2020). The sustainability of artificial intelligence: An urbanistic viewpoint from the lens of smart and sustainable cities. *Sustainability*, 12(20), 8548.

Yoon, S., & Kim, M. (2023). A Study on the Improvement Direction of Artificial Intelligence Speakers Applying DeLone and McLean's Information System Success Model. *Human Behavior and Emerging Technologies*, 2023.

Zakaria, M. H., & Boer, R. F. (2022). The Effect of the Implementation of "Veronika" Virtual Assistant Chatbot on Customer Experience and Satisfaction in Using Telkomsel Service. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 5(4), 29196-29208.

Zhang, H.; Hu, L. Dispel the Clouds and See the Sun: Influencing Factors and Multiple Path of User Retention Intention Formation. *Preprints* 2023, 2023071345. <https://doi.org/10.20944/preprints202307.1345.v1>