

**E-WALLET UTILIZATION ON INDIVIDUAL USERS: IMPACT ON SOCIAL, ENVIRONMENTAL, AND PSYCHOLOGICAL FACTORS  
(Study on MSMEs in Palu City)**

**PEMANFAATAN E-WALLET PADA INDIVIDUAL USER: DAMPAK PADA FAKTOR SOSIAL, LINGKUNGAN, DAN PSIKOLOGIS  
(Studi Pada UMKM di Kota Palu)**

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**ABSTRACT**

The goal of this study is to examine how individual users' use of e-wallets affects three key aspects of MSMEs in Palu City: social, environmental, and psychological. This study assesses the primary factors influencing technology adoption—performance expectations, effort, social influence, and supportive conditions—using the UTAUT model. The results of a quantitative study using a survey with 397 participants indicated that these three factors were significantly impacted by the use of e-wallets. These findings demonstrate how technology innovation can improve financial inclusion, lessen its negative effects on the environment, and give MSME participants convenience and security.

**Keywords : E-wallet, Social Factors, Environmental Factors, Psychological Factors, UTAUT**

**ABSTRAK**

*Penelitian ini tujuannya untuk menguji bagaimana implementasi e-wallet oleh pengguna individu mempengaruhi tiga aspek utama UMKM di Kota Palu: sosial, lingkungan, dan psikologis. Studi ini menilai faktor-faktor utama yang mempengaruhi adopsi teknologi-ekspektasi kinerja, usaha, pengaruh sosial, dan kondisi yang mendukung-menggunakan model UTAUT. Dengan pendekatan kuantitatif melalui kuesioner yang melibatkan 397 responden, hasil penelitian memperlihatkan bahwa implementasi e-wallet berpengaruh signifikan terhadap ketiga faktor tersebut. Temuan ini menyoroti pentingnya inovasi teknologi dalam meningkatkan inklusi keuangan, mengurangi dampak lingkungan, serta memberikan kenyamanan dan rasa aman bagi pelaku UMKM.*

**Kata Kunci: E-wallet, Faktor Sosial, Faktor Lingkungan, Faktor Psikologis, UTAUT**

**1. INTRODUCTION**

The implementation of E-Wallet has a positive impact on MSMEs in Indonesia, crucial in economic growth. This technology allows MSME players to improve operational efficiency and access some financial services that could not be achieved before. E-Wallets (digital wallets) that are very well known and commonly used by Indonesians include Gopay, OVO, Dana, Shopeepay, Link Aja, and others (Armilia & Isbanah, 2020; Johan et al., 2022; Oleh & Elsiyana Johan, n.d.). This shows that the use of E-Wallets can further reduce transaction costs, and even expand market reach for MSMEs to adapt to technological developments, thereby increasing their competitiveness in the digital market.

The use of E-Wallets presents a great social impact, especially in terms of financial inclusion. E-Wallet means that MSMEs can reach a wider range of consumers, especially those who may not have access to conventional banking. The find of this study is in

accordance with the research undertaken by (Putri & Nesneri, 2024; Sari & Siregar, 2022; Umiyati et al., 2021) which proves that social support positively affects the intensity of E-Wallet use, especially in the younger generation and MSMEs. This financial inclusion allows small businesses to contribute more significantly to the digital economy and sustainable local economic growth. Financial socialization is a situation where a person goes through the process of creating and enhancing standards, norms, values, attitudes, knowledge, and conduct in order to bring about prosperity for the community in which one lives. Monetary socialization, as characterized by (Armilia & Isbanah, 2020; Ayustia et al., 2023; Junias et al., 2023).

In addition, the use of E-Wallets also contributes to preserving the environment. E-Wallet transactions also reduce dependence on the use of paper and other actual materials usually involved in cash transactions. Research by (Abbasi et al., 2022; Che Nawi et al., 2024) shows that the reduced use of these materials is in line with international calls for countries to reduce their carbon footprint and promote greener economic practices. This not only improves the corporate world but also contributes to a clean and sustainable environment.

Psychologically, Using an e-wallet gives you a sense of security to the users of the technology. MSME players can carry out their transactions using this technology without concerning the risks that can lead to losing cash, or other security threats that arise. (Basalamah et al., 2022; Mustofa & Maula, 2023) proved that perceived simplicity of usage and perceived security are two important aspects in attracting users' desire to utilize e-wallet technology. This is especially important with respect to MSME players who seek comfort and certainty in their transactions. Thus, In the case of e-wallet adoption by users who are unfamiliar with financial technology, a sense of security reinforces this element.

However, there is still an aspect hindering the adoption of E-Wallets among MSMEs in Palu City: psychological issues in the form of trust in the security of digital platforms. The difficulty faced by some businesses is their anxiety over the security risks of their data and not yet being accustomed to the ever-evolving technological changes. The main motivators to continue using E-Wallets among new users, according to a study by (Reza et al., 2024), are business expectations and satisfaction. These factors illustrate the importance of user experience in mitigating security-related issues.

This research will be able to provide another insight into the adoption of this technology in a more specific context. This research is intended to address the gap in previous research that does not indicate the impact of E-Wallet implementation that has literacy and technology infrastructure challenges.

## 2. LITERATURE REVIEW

### 2.1. UTAUT (Unified Theory Of Acceptance And Use Of Technology)

UTAUT was expanded by Venkatesh in 2003 as one of the newest models for technology adoption. The UTAUT technique is typically used in information technology user acceptability studies. "Theory of reasoned action (TRA), The technology acceptance model (TAM), Motivational models (MM), Theory of planned behavior (TPB), Combined TAM and TPC (C-TAMTPB), The model of the PC utilization (MPCU), Innovation diffusion theory (IDT), and Social cognitive theory (SCT)" are the eight major theories of technology acceptance that were combined to form UTAUT. (Venkatesh et al., 2003) developed a theory known as the "Unified Theory Of Acceptance And Use Of Technology (UTAUT)" based on the findings of their investigation and comparison of the eight models that were put to the test. The results of combining these theories gave rise to the main constructs, namely Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions (Mulyati et al., 2023; Sultana et al., 2023; Tusyanah et al., 2021). The idea that performance can be improved with technology is known as performance expectancy. Perceptions of how easy the technology is to use are referred to as effort expectations. People's impression that the people around them encourage the use of technology is a form of social influence. One example of supporting conditions is external assistance that can make using technology easier. In terms of e-wallet implementation, the UTAUT model helps explain the factors behind MSME implementation of this technology as well as how this technology affects users' social, environmental, and psychological well-being.

### 2.2. E-Wallet Implementation in MSMEs

According to (Manurung et al., 2024; Zahara et al., 2024) E-wallets provide MSMEs with greater transaction efficiency, flexibility and convenience. (Saffanah & Amir, 2022) Financial technology known as e-wallet or digital wallet allows customers to store money electronically and make transactions without using cash. Businesses can lower transaction costs and speed up the payment process by implementing e-wallets in MSMEs, which ultimately increases consumer satisfaction. Additionally, using e-wallets provides the benefit of automatically logging transactions, making it easier to manage MSME finances. Related to the UTAUT model, the implementation of e-wallets by MSMEs is driven by their perception that this technology can offer real benefits to their operations (performance expectations) and ease of use (business expectations) (Omer et al., 2015). Performance Expectancy is the main factor that encourages MSMEs to implement this e-wallet.

### 2.3. The Impact of E-Wallet Utilization on Social Factors

According to (Evi, 2023; Rifa'ie & Chan, 2024) Social effect is one of the primary elements influencing MSMEs' adoption of e-wallets, because business owners strongly consider the perceptions of their community before choosing to adopt new technology. (Kilay et al., 2022; Umiyati et al., 2021) One of the key elements in the UTAUT model that influences a person's decision to embrace new technology, such as electronic wallets, is social influence. Support from coworkers, the business community, and customers all work together to make e-wallets seem like a legitimate and efficient method of payment in the setting of MSMEs. Additionally, by demonstrating professionalism and modernity—qualities that society values in the process of embracing digital innovations—e-wallet use can help MSMEs and their clients build stronger interpersonal relationships.

H1: E-Wallet Implementation by MSMEs in Palu City has a significant effect on Social Factors.

### 2.4. The Impact of E-Wallet Utilization on Environmental Factors

According to (Suyanto, 2023; Zhang et al., 2023) Because electronic wallets lessen the need for cash, they also lessen the carbon impact that comes with the creation and shipping of actual money. By reducing paper consumption—particularly by doing away with the need to print transaction receipts—the use of e-wallets contributes to environmental sustainability. In

addition, within the framework of the UTAUT model, conditions that facilitate the platform—such as adequate digital infrastructure and increased environmental awareness—can motivate people to adopt more environmentally friendly technologies (Watmah et al., 2020). MSMEs that care about the environment in their business processes will be more likely to adopt e-wallets as a way to ensure sustainability.

**H2: E-Wallet Implementation by MSMEs in Palu City has a significant effect on Environmental Factors.**

### 2.5. The Impact of E-Wallet Utilization on Psychological Factors

According to (AY et al., 2024; Bado et al., 2024; Utomo & Rahman, 2024). The convenience and security of electronic wallets increase consumer comfort and confidence psychologically. From a psychological point of view, the use of electronic wallets can have an impact on consumer perceptions of the security and convenience of transactions. (Venkatesh et al., 2003) The UTAUT model states that effort and performance expectations have a major impact on how users perceive the security and usability of e-wallets. MSMEs are more likely to feel psychologically comfortable in using e-wallets when they believe that they are safe and practical, which in turn encourages more regular and continuous use.

**H3: E-Wallet Implementation by MSMEs in Palu City has a significant effect on Psychological Factors.**

### 2.6. Impact of E-Wallet Utilization on Social, Environmental and Psychological Factors

Some previous study has focused on the elements that influence e-wallet adoption and how they affect social, environmental, and psychological aspects. For example, (Ramadhan & Nur, 2024) found that the use of e-wallets changes social interaction patterns by creating a faster and more convenient transaction experience. (Zaidan et al., 2024) revealed that the use of e-wallets has the potential to reduce negative impacts on the environment, especially by reducing paper waste. (Utomo & Rahman, 2024) also highlighted the importance of security and psychological comfort in influencing users' decisions to implement e-wallets in their businesses.

**H4: E-Wallet implementation by MSMEs in Palu City simultaneously has a significant effect on social, environmental, and psychological factors.**

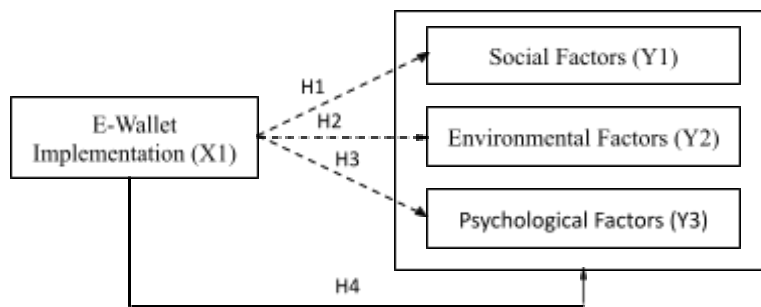


Figure 1. Conceptual Framework

Description:

- > : Partially Affected
- > : Simultaneously Affected

## 3. METHOD

This research uses quantitative methodology. Quantitative data is information that is represented numerically using a measurement scale. The type and source of data used in this research is primary data, which is obtained through questionnaires distributed to MSMEs in Palu City. Likert scale will be used in quantitative analysis of this research. Each variable studied will be tested using a regression relationship testing approach. E-Wallet Implementation (X1) is an independent variable, while Social Factors (Y1) Environmental Factors (Y2) and Psychological Factors (Y3) are dependent variables.

According to data from the Ministry of Cooperatives and MSMEs in 2024, there were 46,165 MSMEs in Palu city, which constituted the population of e-wallet users in this study. Researchers set a Margin of Error (MoE) of 5% and utilized the Slovin algorithm to determine the research sample size. A sample of 397 respondents who satisfied certain requirements—namely, being e-wallet users in MSMEs in the Palu city area—was derived from these computations.

**Table 1.** Variable Operational Matrix

| Variables                                   | Indicators   | Scale  |
|---|--|--------|
| Implementation of Utilization E-Wallet (X1) | <ol style="list-style-type: none"> <li>1. Availability and Popularity</li> <li>2. Features and Functionality</li> <li>3. Security</li> <li>4. Compatibility and Integration</li> <li>5. Costs and Rates</li> <li>6. Customer Support and Service</li> <li>7. Reputation and Trust</li> </ol> | Likert |
| Social Factors (Y1)                         | <ol style="list-style-type: none"> <li>1. Group</li> <li>2. Family</li> <li>3. Role and Status</li> </ol>  | Likert |
| Environmental Factors (Y2)                  | <ol style="list-style-type: none"> <li>1. Social Conditions</li> <li>2. Government Policy</li> <li>3. Supportive Facilities</li> </ol>   | Likert |
| Psychological Factors (Y3)                  | <ol style="list-style-type: none"> <li>1. Motivation</li> <li>2. Perception</li> <li>3. Knowledge</li> <li>4. Learning</li> <li>5. Beliefs and Attitudes</li> </ol>  | Likert |

Source: Data processed by researchers (2025)

WarpPLS 7.0 was used in this study's analysis, which was carried out in a number of methodical steps. The process begins with designing the Inner and Outer Model, followed by making a path diagram. Furthermore, the diagram is converted into a system of equations, then model estimation is carried out. The next stage is evaluating Goodness of Fit, and finally testing the hypothesis by applying the Bootstrapping Resampling method.

#### 4. RESULT AND DISCUSSION

**Table 2.** Respondent Characteristics

| No              | Type of Characteristics                | Percentage % |
|-----------------|--|--------------|
| 1               | Gender                                 |              |
|                 | - Male                                 | 40.1%        |
|                 | - Female                               | 59.9%        |
| 2               | Age                                    |              |
|                 | - < 20                                 | 1%           |
|                 | - 20 – 30                              | 44.8%        |
|                 | - 31 – 40                              | 21.5%        |
|                 | - 41 – 50                              | 23.3%        |
| - > 50          | 8.7%                                   |              |
| 3               | Business Experience                    |              |
|                 | - < 1 Year                             | 1%           |
|                 | - 1 - 5 Years                          | 36.6%        |
| - > 5 Years     | 59.3%                                  |              |
| 4               | Business Type                          |              |
|                 | - Culinary                             | 51.7%        |
|                 | - Fashion                              | 9.3%         |
|                 | - Services                             | 31.4%        |
|                 | - Industry                             | 6.4%         |
| - Others        | 1%                                     |              |
| 5               | Frequency of E-Wallet Usage in a Month |              |
|                 | - < 5 times                            | 5.8%         |
|                 | - 5 - 10 times                         | 37.2%        |
|                 | - 11 - 20 times                        | 34.9%        |
| - > 20 Times    | 22.1%                                  |              |
| 6               | Most Frequently Used E-Wallet Types    |              |
|                 | - Dana                                 | 39%          |
|                 | - Gopay                                | 7.6%         |
|                 | - Ovo                                  | 10.5         |
|                 | - ShopeePay                            | 19.8%        |
|                 | - LinkAja                              | 13.4%        |
| - Others        | 8.9%                                   |              |
| 7               | Top Reasons to Use E-Wallets           |              |
|                 | - Ease of Transaction                  | 45.3%        |
|                 | - Promo/Discount                       | 12.8%        |
|                 | - Payment Speed                        | 32%          |
| - Safety Factor | 9.9%                                   |              |

Source: Primary data processed (2025)

**Testing for validity and reliability in the measurement model is part of the evaluation of the outer model.** In structural equation modeling (SEM), Convergent validity is acknowledged in two methods: covariance-based SEM, also known as confirmatory factor analysis (CFA), and SEM-PLS, also known as the outer model. Convergent validity for reflective constructs is evaluated using two primary criteria: (1) indicator loadings must be greater than 0.7 and (2) have a significant p value (<0.05). However, loading requirements beyond 0.7 are frequently challenging to satisfy in practice, particularly for recently developed measurement devices. Researchers are encouraged to think about keeping indicators with loadings between 0.40 and 0.70 in these circumstances.

In the model analysis, indicators with factor loadings less than 0.40 should be excluded. Meanwhile, It is necessary to thoroughly examine the impact of categories with average variance extracted (AVE) and composite reliability factor loadings between 0.40 and 0.70. If indications in this range can raise AVE and composite reliability above the cutoff points of 0.50 for AVE and 0.7 for composite reliability, they can be removed. However, the impact on the legitimacy of the construct material must also be taken into account during the removal process. Some indicators are occasionally kept in place despite having a comparatively low load since they support the construct's content validity (Hair et al., 2022). The factor loadings for every indication are shown in Table 3.

**Table 3.** Validity Testing based on Loading

| Variables                          | Indicators | Loading | P value |
|------------------------------------|------------|---------|---------|
| <b>E-Wallet Implementation (X)</b> | X1.1       | 0.723   | <0.001  |
|                                    | X1.2       | 0.734   | <0.001  |
|                                    | X1.3       | 0.816   | <0.001  |
|                                    | X1.4       | 0.865   | <0.001  |
|                                    | X1.5       | 0.875   | <0.001  |
|                                    | X1.6       | 0.796   | <0.001  |
|                                    | X1.7       | 0.894   | <0.001  |
|                                    | X1.8       | 0.816   | <0.001  |
|                                    | X1.9       | 0.891   | <0.001  |
|                                    | X1.10      | 0.893   | <0.001  |
|                                    | X1.11      | 0.889   | <0.001  |
|                                    | X1.12      | 0.905   | <0.001  |
|                                    | X1.13      | 0.908   | <0.001  |
|                                    | X1.14      | 0.895   | <0.001  |
| <b>Social Factors (Y1)</b>         | Y1.1       | 0.792   | <0.001  |
|                                    | Y1.2       | 0.85    | <0.001  |
|                                    | Y1.3       | 0.858   | <0.001  |
|                                    | Y1.4       | 0.867   | <0.001  |
|                                    | Y1.5       | 0.809   | <0.001  |
|                                    | Y1.6       | 0.853   | <0.001  |
| <b>Environmental Factors (Y2)</b>  | Y2.1       | 0.873   | <0.001  |
|                                    | Y2.2       | 0.906   | <0.001  |
|                                    | Y2.3       | 0.906   | <0.001  |
|                                    | Y2.4       | 0.91    | <0.001  |
|                                    | Y2.5       | 0.914   | <0.001  |
|                                    | Y2.6       | 0.932   | <0.001  |
| <b>Psychological Factors (Y3)</b>  | Y3.1       | 0.834   | <0.001  |
|                                    | Y3.2       | 0.817   | <0.001  |
|                                    | Y3.3       | 0.931   | <0.001  |
|                                    | Y3.4       | 0.859   | <0.001  |
|                                    | Y3.5       | 0.897   | <0.001  |
|                                    | Y3.6       | 0.746   | <0.001  |
|                                    | Y3.7       | 0.933   | <0.001  |
|                                    | Y3.8       | 0.918   | <0.001  |
|                                    | Y3.9       | 0.921   | <0.001  |
|                                    | Y3.10      | 0.935   | <0.001  |

Source: Primary data obtained by researchers using WarpPLS 7.0 (2025)

Referring to the Loading validity table, all Loading values are larger than 0.7 and the p-value is less than 0.001, thus meeting the validity criteria in accordance with the required standard loading value.

**Table 4.** Validity Testing Based on Average Variance Extracted (AVE) and Composite Reliability (CR)

| Variable                           | Composite reliability coefficients (CR) | Average variances extracted (AVE) |
|------------------------------------|---|-----------------------------------|
| <b>E-Wallet Implementation (X)</b> | 0.974                                   | 0.726                             |
| <b>Social Factors (Y1)</b>         | 0.934                                   | 0.703                             |
| <b>Environmental Factors (Y2)</b>  | 0.965                                   | 0.823                             |
| <b>Psychological Factors (Y3)</b>  | 0.972                                   | 0.776                             |

Source: Primary data obtained by researchers using WarpPLS 7.0 (2025)

Validity and reliability testing was conducted through two main approaches. First, validity was measured using the AVE with a recommended value above 0.5. The results show that all AVE values have met the validity requirements. Second, reliability was tested with composite reliability (CR), where the recommended value is above 0.7. The findings show that all CR values have met the reliability criteria. After these two tests, discriminant validity was tested using the Fornell-Larcker approach (Hair et al., 2022). In Table 4.3, the results of discriminant validity testing are presented.

**Table 5.** Discriminant Validity Testing

|           | X     | Y1    | Y2    | Y3    |
|-----------|-------|-------|-------|-------|
| <b>X</b>  | 0.852 |       |       |       |
| <b>Y1</b> | 0.58  | 0.839 |       |       |
| <b>Y2</b> | 0.584 | 0.615 | 0.907 |       |
| <b>Y3</b> | 0.656 | 0.674 | 0.677 | 0.881 |

Note: The value inside () is the Square Root of AVE

Source: Primary data obtained by researchers using WarpPLS 7.0 (2025)

In the discriminant validity test, a comparison is made between the AVE square root of a latent variable and the correlation value between latent variables. The test shows that each latent variable has an AVE square root that is larger than the correlation between its variables. Based on these findings, it can be inferred that the latent variables have fulfilled the requirements of discriminant validity (Hair et al., 2022).

### Model Goodness of Fit Testing

Table 6. presents the WarpPLS results for the goodness of fit test.

**Table 6.** Model Goodness of Fit Testing

| Model Fit Criteria                       | Model Fit Value  |
|--|--|
| <b>Average Path Coefficient (APC)</b>    | P < 0.001 (Model Fit)  |
| <b>Average R-squared (ARS)</b>           | P < 0.001 (Model Fit)  |
| <b>Average adjusted R-squared (AARS)</b> | P < 0.001 (Model Fit)  |
| <b>Tenenhaus GoF (GoF)</b>               | GoF = 0.634, small $\geq$ 0.1, medium $\geq$ 0.25, large $\geq$ 0.36 (Model Large Fit) |

Source: Primary data processed by researchers using Warp PLS 7.0 (2025)

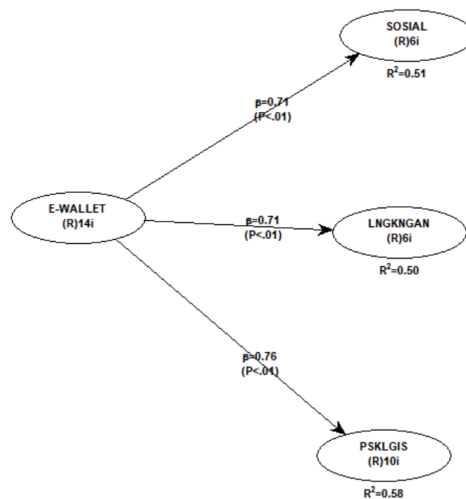


Based on the results of model fit testing in Table 6:

- ⇒ From the APC indicator, it is known that the P-Value = <0.001, which means <0.05, so the model fits based on the APC indicator.
- ⇒ From the ARS indicator, it is known that the P-Value = <0.001, which means <0.05, so the model fits based on the ARS indicator.
- ⇒ From the AARS indicator, it is known that the P-Value = <0.001, which means <0.05, so the model fits based on the AARS indicator.
- ⇒ From the GoF indicator, it is known that the GoF value is  $0.634 > 0.36$ , which means that the model fit is included in the large fit group (good).

**Inner Model Evaluation (Structural Model): Hypothesis Testing**

Figure 2. and Table 7. present the results of hypothesis testing.



**Figure 2.** Path Coefficient and P-Value

Source: Primary data processed by researchers using Warp PLS 7.0 (2025)

**Table 7.** Hypothesis Test Results

| Path  | Path Coefficient | P-Values | R-Squares |
|---|------------------|----------|-----------|
| E-Wallet Implementation (X) -> Social Factors (Y1)        | 0.712            | <0.001   | 0.507     |
| E-Wallet Implementation (X) -> Environmental Factors (Y2) | 0.706            | <0.001   | 0.499     |
| E-Wallet Implementation (X) -> Psychological Factors (Y3) | 0.765            | <0.001   | 0.585     |

Source: Primary data processed by researchers using Warp PLS 7.0 (2025)

Based on the results of hypothesis testing in Figure 2. and Table 7.

- ⇒ E-Wallet Implementation (X) has a positive effect on Social Factors (Y1), with path coefficient = 0.712, and significant, with P-Values = <0.001, which means <0.05

(Hypothesis Accepted). R-Squared value = 0.507, which means that E-Wallet Implementation (X) is able to explain or influence Social Factors (Y1) by 50.7%.

- ⇒ E-Wallet Implementation (X) has a positive effect on Environmental Factors (Y2), with path coefficient = 0.706, and significant, with P-Values = <0.001, which means <0.05 (Hypothesis Accepted). R-Squared value = 0.499, which means that E-Wallet Implementation (X) is able to explain or influence Environmental Factors (Y2) by 49.9%.
- ⇒ E-Wallet Implementation (X) has a positive effect on Psychological Factors (Y3), with path coefficient = 0.765, and significant, with P-Values = <0.001, which means <0.05 (Hypothesis Accepted). R-Squared value = 0.585, which means that E-Wallet Implementation (X) is able to explain or influence Psychological Factors (Y3) by 58.5%.

### **The Effect of the Impact of E-Wallet Utilization on Social Factors**

From the processed research results, the research shows that H1 e-wallet implementation has a significant influence on social factors that can be accepted, with a path coefficient of 0.712 and p-value <0.001. Thus, social aspects are significantly impacted by MSMEs' adoption of e-wallets in Palu City, because it creates better interactions and strengthens relationships with the community. This shows that the use of e-wallets can increase financial inclusion and strengthen interpersonal relationships between MSMEs and customers. According to aspects of UTAUT theory, social impact is one of the variables that influence technology adoption. In this instance, community and consumer support plays a significant role in MSMEs' adoption of e-wallets, demonstrating how views within the community can affect company decisions. The study's findings are consistent with those of (Umiyati et al., 2021) who found that social influence is a significant factor in the UTAUT model that influences people's decisions to adopt new technology.

### **The Effect of the Impact of E-Wallet Utilization on Environmental Factors**

According to the study's findings, e-wallets considerably increase environmental sustainability (p-value <0.001 and path coefficient 0.706). As a result, the adoption of H2 e-wallets by MSMEs in Palu City has a significant effect on environmental variables that are acceptable, leading to a wider positive impact on the environment and society. By reducing dependence on cash and reducing paper waste, e-wallets will encourage environmentally friendly business practices. Within the framework of UTAUT theory, the impact of e-wallet utilization on environmental factors can be analyzed through performance expectancy and social influence variables. This theory helps understand how the use of e-wallets can affect user behavior and its impact on the surrounding environment. Adoption of new technologies is facilitated by the availability of digital infrastructure and environmental consciousness. The results demonstrate that e-wallets are used by MSMEs that care about the environment, assuming that environmental issues have an impact on technology adoption at this stage. This research is in line with the book written by (Suyanto, 2023) wherein electronic wallets lessen reliance on cash and, as a result, the carbon footprint related to the creation and delivery of physical currency.

### **The Effect of the Impact of E-Wallet Utilization on Psychological Factors**

The results show that with a p-value of <0.001 and a path coefficient of 0.765, Thus, H3 e-wallet implementation by MSMEs in Palu City has a significant effect on psychological factors can be accepted, because it creates a sense of security and comfort in transactions, which is very important in building long-term relationships with customers. As a result, MSMEs are more comfortable utilizing this technology. According to UTAUT theory, effort and performance expectations have a big impact on how users view technology. Performance expectations are crucial because customers who believe that e-wallets improve transaction speed and efficiency are more likely to be positive and confident when utilizing this technology. effort expectations relate to ease of use, if users feel that e-wallets are easy to operate, they will be more

comfortable and motivated to adopt them, reducing the anxiety that may arise when transacting.

Furthermore, social influence also contributes significantly to user decisions. Support from close people can increase self-confidence and reduce uncertainty, encouraging individuals to be more open to e-wallet usage. In addition, Facilitating circumstances, such as having access to technical assistance and a suitable infrastructure, can lessen stress and improve users' psychological comfort. Finally, trust in the security and privacy of transactions is a crucial factor; a high level of trust can reduce concerns and increase comfort in transactions. This research shows that technology adoption by MSMEs is significantly influenced by their perceptions of e-wallet security and usability. The findings of this study are consistent with a study by (AY et al., 2024) which found that the psychological comfort and confidence of consumers are increased by the convenience and security of electronic wallets.

### **The Impact of E-Wallet Utilization on Social, Environmental and Psychological Factors**

The analysis results show that Y1 social factors, which have been significantly influenced by the application of e-wallets, have a path coefficient of 0.712 and P-Values <0.001. This is also evidenced in the research of (Ramadhan & Nur, 2024) where the use of e-wallets affects social interaction patterns by creating faster and easier transactions. E-wallets not only facilitate transactions but also increase interaction between users in both business and social contexts.

The path coefficient for Y2 environmental factors is also positive for e-wallet implementation, with a path coefficient of 0.706 and P-Values <0.001. Based on the R-squared value, which is 49.9%, e-wallet explains almost half of the variation that occurs in environmental factors. The finding of this study is in accordance with the research undertaken by (Zaidan et al., 2024), who noted that e-wallets can minimize negative impacts on the environment, particularly the reduction of paper waste. For e-wallet users, their shift to digital transactions will reduce the need for paper money and physical receipts, thus promoting environmental sustainability.

The final result shows that e-wallet implementation has a positive effect on the psychological factor, Y3, with a path coefficient of 0.765 and P-Values <0.001. The R-Squares value of 58.5% indicates that more than half of the variation in psychological factors can be explained by e-wallets. The finding of this study is in accordance with the research undertaken by (Utomo & Rahman, 2024), which identified that security and psychological comfort are the main drivers in influencing users to implement e-wallets in their business. Users feel safer and more comfortable in conducting digital transactions, reducing stress and increasing user satisfaction. In general, this study has provided clear evidence that e-wallet adoption is significantly contributed by social, environmental, and psychological factors.

With a significant contribution in each variable, e-wallet is not only a payment tool but also a medium that enables social, environmental, and psychological development in its users. Thus, hypothesis H4 which states that simultaneously the use of e-wallets by MSMEs in Palu City affects social, environmental, and psychological factors can be accepted. At this point it is important for stakeholders to continue to encourage the implementation of e-wallets and educate the public about their benefits in various aspects of life.

## **5. CONCLUSION**

From the findings and analysis, this research shows that there is a significant impact of using e-wallets on MSMEs in Palu City, especially in social, environmental, and psychological aspects. The results show that more specifically, e-wallets not only increase financial access, but also have an impact on environmental sustainability because they can reduce the use of cash and paper. Meanwhile, from a psychological perspective, e-wallets are able to provide a sense of security and comfort for its users and can have a positive impact on independence and confidence to transact.

The UTAUT model proves effective in analyzing the factors that drive the adoption of this technology and provides valuable insights into the dynamics of e-wallet usage by MSMEs. These findings develop the literature in terms of adoption related to financial technology,

especially MSMEs in Indonesia.

For future research, it is recommended to explore other factors such as digital infrastructure and financial literacy to deepen the understanding of the sustainability of e-wallet adoption. This can be seen as a call to the government to continue to encourage technological innovation and policies that support the sustainable growth of MSMEs to maximize their benefits in social and economic improvement through the utilization of e-wallets.

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