

# The Correlation Between the Users Familiarity with E-Payment Systems and its Willingness to Use the Application

James M. Macutob<sup>1</sup>, Kenneth H. Alvarado<sup>2</sup>, Dan Keruben Gabriel C. Villacarlos<sup>3</sup>,  
Markdy Y. Orong<sup>4</sup>

<sup>1</sup>College of Computer Studies, Misamis University, Ozamiz City, Philippines

\*\*\*\*\*

## Abstract:

This study examines the correlation between users' familiarity with e-payment systems and their willingness to use such applications among students of Misamis University. The research utilized quantitative methods and focused on assessing the relationship between perceived familiarity with e-payment platforms and willingness to adopt their use. Data were collected using surveys, and statistical analysis was performed using the Pearson product-moment correlation coefficient. Results revealed a perfect linear relationship ( $r = 1$ ) between users' familiarity with e-payment systems and their willingness to utilize these platforms, with a statistically significant p-value of 0.000. This indicates that higher familiarity with e-payment systems is strongly associated with a greater willingness to engage with these technologies. These findings underscore the importance of educational efforts and accessibility to foster familiarity and willingness among users.

**Keywords:** E-Payment Systems, Familiarity, Willingness, Misamis University, Pearson Correlation

\*\*\*\*\*

## 1. Introduction

The digitalization of financial transactions has transformed how people handle money, enhancing convenience and efficiency in daily activities (Alam et al., 2021; Khalatur et al., 2022; Shrier, 2022; Zeidy, 2022). Globally, the rapid growth of e-payment systems allows users to perform tasks such as transferring money, paying bills, and shopping online with just a few clicks (Alzoubi et al., 2022; Das, 2024; Firdausi, 2020; Nasr et al., 2020). In the Philippines, one notable player is GCash, a leading digital wallet that provides a variety of services tailored to meet users' daily financial needs (Gigante et al., 2022; Magtibay et al., 2024; Sharma, 2024; Witoelar et al., 2021). As the nation gradually transitions to a cashless economy, understanding the factors that drive the adoption of e-payment platforms is crucial (Abugu et al., 2023; Cai et al., 2020). This shift reflects advancements in technology and changing consumer behaviors, preferences, and expectations surrounding financial transactions (Madhavedi et al., 2024; Mahedi & Refat, 2023; Ogunlade, 2024; Pokhrel, 2024).

University students, known for their tech-savviness and frequent engagement with online services, form a unique demographic within the growing e-payment user base (Alswaigh & Aloud, 2021; Bacasmas et al., 2022; Lai & Tong, 2021; Rahyuni Rahayu et al., 2022). They often rely on platforms like GCash to conduct transactions, including transferring money, purchasing goods, and managing payments (Libre et al., n.d.; Pueblos & Jr, 2023; Reyes et al., 2021; Rujonel F. Cariaga et al., 2023; Susilo & Dizon, 2023). However, despite their frequent use of these platforms, there is limited research on how transaction types and familiarity with E-Payment influence students' willingness and acceptance of e-payment systems. Addressing this gap can shed light on how digital payment services can be optimized to better serve young users.

This study seeks to investigate the correlation between transaction types and familiarity with e-payment systems among Misamis University students. Specifically, it aims to understand how these factors impact students' willingness and comfort in using E-Payment. The study would explore various types of

transactions that students commonly engage in and examine the role of familiarity in shaping positive willingness of the platform.

This study aims to examine the types of transactions that Misamis University students and to assess their levels of familiarity with e-payment systems. By understanding these aspects, the research seeks to determine the ways in which specific transaction types and varying degrees of familiarity influence students' willingness and acceptance of E-Payment as a preferred digital payment platform. Furthermore, the study endeavors to identify the key factors driving e-payment adoption and usage among university students, contributing to a deeper understanding of what encourages or discourages young users from embracing cashless transactions.

This study would be guided by relevant theories on technology adoption, such as the Technology Acceptance Model (TAM), which emphasizes the influence of perceived usefulness and perceived ease of use on the acceptance of new technology (Al-Adwan et al., 2023; B.U. et al., 2021). Additionally, the Diffusion of Innovations Theory would be referenced to understand how familiarity with e-payment platforms can affect adoption rates (Mo et al., 2021; Stephen Otika et al., 2022). These theories provide a foundation for examining the impact of transaction types and familiarity on students' willingness of E-Payment.

The findings from this study hold practical value for e-payment service providers, by offering insights into the transaction preferences and familiarity levels of university students. Understanding these factors can help providers tailor their services to meet students' needs more effectively and refine their marketing strategies to highlight features that resonate with this demographic. Academically, this research contributes to the broader field of digital payment adoption by exploring specific influences within a university setting. The insights gained can guide future research on e-payment systems in the Philippines, aiding in the development of platforms that balance technological innovation with user preferences and needs.

## **2. Methodology**

This study employs a quantitative research design, using a structured survey to gather data on students' transaction types, familiarity with e-payment systems, and willingness of E-Payment. Target respondents are college students from Misamis University, selected through purposive sampling to ensure they have relevant experience with e-payment systems. This method allows for focused insights from students actively using digital payment platforms. The survey would be administered online through Google Forms, with distribution via popular social media channels like Facebook and Messenger, increasing accessibility for the respondents. The survey is designed with Likert-scale items and demographic questions to measure students' familiarity and willingness of E-Payment.

Data collection involves a self-administered survey that covers common transaction types, including peer-to-peer transfers, bill payments, online shopping, food delivery, and subscription services. The survey also includes questions on participants' familiarity levels with E-Payment and their overall willingness of using the platform. To analyze the data, descriptive statistics would summarize demographic information, transaction patterns, and familiarity levels. Inferential statistics, specifically correlation analysis, would assess the relationships between transaction types, familiarity, and willingness of E-Payment. The findings would identify trends that may explain how transaction types and familiarity influence students' acceptance and usage of E-Payment, providing insights that could inform future improvements in digital payment systems.

## **3. Results and Discussion**

A total of **231 college students** participated in the study, representing diverse academic programs across Misamis University.

**Table 1. Sex of the Respondents**

Sex	Frequency	Percent
1	132	57.1
2	99	42.9
<b>Total</b>	<b>231</b>	<b>100</b>

The table shows the distribution of respondents by sex. Out of the total 231 respondents, 132 (57.1%) are male, while 99 (42.9%) are female. This indicates that the majority of the respondents in the study are male, comprising more than half of the total population.

**Table 2. Department of the Respondents**

Department	Frequency	Percent
1	1	0.4
2	6	2.6
3	73	31.6
4	70	30.3
5	35	15.2
6	9	3.9
7	8	3.5
8	6	2.6
9	8	3.5
10	4	1.7
11	11	4.8
<b>Total</b>	<b>231</b>	<b>100</b>

The table presents the distribution of respondents across different departments. Among the 231 respondents, the department with the highest frequency is Department 3, with 73 respondents (31.6%), followed closely by Department 4, with 70 respondents (30.3%). These two departments account for the majority of the participants, making up over 60% of the total respondents. Departments 5, 6, 7, 8, and 9 have smaller representations, ranging between 2.6% and 15.2%. Department 1 has the lowest representation, with only 1 respondent (0.4%). This distribution indicates that the respondents are not evenly distributed across all departments, with some departments contributing significantly more participants than others.

**Table 3. Level of Familiarity**

Statement	Mean
F1	4.29
F2	4.06
F3	4.19
F4	4.1
F5	4.18
F6	4.11
F7	4.2
<b>General Weighted Mean</b>	<b>4.16</b>

The table highlights the respondents' level of familiarity with various statements, as indicated by their mean scores, which range from **4.06 to 4.29**. This range demonstrates that the respondents generally have

a high level of familiarity with the topics being assessed, as all mean scores are above **4.00**, suggesting agreement or strong familiarity with the statements.

Among the items, **F1** received the highest mean score of **4.29**, indicating that this statement aligns most closely with the respondents' knowledge or experience. This suggests that the respondents feel particularly confident or well-informed about the aspect covered by F1. In contrast, **F2** recorded the lowest mean score of **4.06**. Although it has the lowest score, it still reflects a high level of familiarity, demonstrating that respondents are generally knowledgeable about all the statements, even if there are slight variations in their responses.

The other statements—**F3 (4.19)**, **F4 (4.10)**, **F5 (4.18)**, **F6 (4.11)**, and **F7 (4.20)**—exhibit consistently high scores, with minor differences. This consistency suggests that the respondents have a balanced level of familiarity across the various topics, indicating a broad understanding rather than a skewed or selective knowledge.

The **General Weighted Mean of 4.16** reinforces this overall pattern, confirming that the respondents have a strong and uniform familiarity with the subjects under consideration. This finding implies that the respondents are generally well-acquainted with the concepts or scenarios presented in the statements.

The results have several implications. The high level of familiarity across all statements suggests that respondents may have prior exposure to, or experience with, the topics being evaluated. This could be attributed to effective communication, training, or accessibility of relevant information. The slightly lower familiarity in F2 could identify a potential area where more emphasis or clarification is needed to enhance understanding. On the other hand, the highest score in F1 could highlight an area of strength, where respondents have particularly strong knowledge or confidence.

The table demonstrates that the respondents have a consistently high level of familiarity with the topics assessed. This strong familiarity can serve as a solid foundation for further engagement or action related to the statements. Addressing areas with slightly lower scores could ensure an even stronger and more comprehensive familiarity among the respondents.

**Table 4. Level of Willingness**

Statement	Mean
W1	4.15
W2	4.19
W3	4.16
W4	4.17
W5	4.21
W6	4.17
W7	4.21
<b>General Weighted Mean</b>	<b>4.16</b>

The table provides an overview of the respondents' level of willingness regarding various statements, as represented by their mean scores. The scores range from **4.15 to 4.21**, indicating a consistently high level of willingness across all statements. Among the items evaluated, **W5 and W7** received the highest mean scores of **4.21**, reflecting the greatest level of willingness among respondents. This suggests that these specific statements resonate most strongly with the respondents, highlighting aspects where they feel particularly motivated or inclined.

On the other hand, **W1** recorded the lowest mean score of **4.15**. Although this is the lowest score, it still falls within the range that indicates a strong willingness. This consistency in high scores across all

statements suggests that the respondents are generally favorable and open to the ideas or actions assessed in the survey. The scores for **W2 (4.19)**, **W3 (4.16)**, **W4 (4.17)**, and **W6 (4.17)** further demonstrate a stable pattern of willingness, with only slight variations in the level of agreement.

The **General Weighted Mean of 4.16** reinforces this observation, showing that, on average, the respondents exhibit a strong level of willingness. This finding implies that the respondents are positively inclined towards the actions or ideas addressed in the statements.

These results have practical implications, particularly in understanding the factors that drive respondents' willingness. The consistently high scores suggest that respondents perceive the statements as relevant, achievable, or beneficial. For stakeholders, such as program developers or policymakers, these findings underscore the importance of reinforcing the areas that elicited the highest willingness (W5 and W7) while addressing any potential barriers that might slightly reduce the respondents' enthusiasm, as reflected in W1.

In conclusion, the table demonstrates that the respondents are generally willing and positively disposed towards the items evaluated. The minor variations in mean scores provide insight into areas where willingness could be further enhanced, ensuring sustained support or engagement.

**Table 5. Level of Perception**

Variables	r	Interpretation	p-value	Interpretation
Level of Familiarity	1	Perfect Linear	0	Significant
Level of Willingness				

The correlation analysis was conducted to determine the relationship between users' familiarity with e-payment systems and their willingness to use the application. The results indicate that the correlation is significant at the 0.01 level (2-tailed), confirming a statistically meaningful relationship between the two variables. The scale used for interpretation suggests that a correlation value between 0 and  $\pm 0.29$  represents no linear relationship,  $\pm 0.30$  to  $\pm 0.49$  indicates a weak linear relationship,  $\pm 0.50$  to  $\pm 0.69$  reflects a moderate linear relationship, and  $\pm 0.70$  to  $\pm 0.99$  denotes a strong linear relationship. A correlation value of  $\pm 1$  signifies a perfect linear relationship. In this study, the correlation between familiarity and willingness reached a perfect linear relationship ( $r = 1$ ), demonstrating that higher familiarity with e-payment systems directly aligns with greater willingness to use them. This result is based on a sample size of 42 respondents.

In Table 5, Pearson product moment correlation  $r$  is being used to determine the correlation between the transaction types and familiarity with e-payment systems among Misamis University students and their level of awareness. It shows they are significantly related since the  $p$ -value which is equal to 0.000 is lesser than the level of significance at 0.05 and both variables have a perfect linear relationship. This implies that the null hypothesis is rejected.

The table provides an analysis of the relationship between the level of familiarity and willingness regarding e-payment systems among Misamis University students, using the Pearson product-moment correlation coefficient ( $r$ ). The results indicate a **perfect linear relationship ( $r = 1$ )**, showing that changes in one variable correspond exactly to changes in the other. Additionally, the  $p$ -value of **0.000** is less than the significance threshold of **0.05**, confirming that this relationship is statistically significant.

This perfect linear relationship implies that as students' familiarity with e-payment systems increases, their willingness to use these systems also increases in a directly proportional manner. Such a high correlation is rare and suggests that these two variables are extremely closely linked in this context. The significance of the  $p$ -value further reinforces the conclusion that the relationship observed is unlikely to be due to random chance.

The findings carry important implications for efforts to promote the adoption of e-payment systems. Since familiarity significantly influences willingness, interventions should focus on increasing students' exposure to and understanding of these systems. Educational campaigns, demonstrations, and hands-on training could play a key role in fostering familiarity. Additionally, providing user-friendly platforms and addressing any barriers that may limit access, or understanding could enhance students' perception and confidence in utilizing e-payment systems.

Rejecting the null hypothesis also validates the theoretical premise that knowledge and ease of use drive behavioral intention. These results are consistent with the Technology Acceptance Model (TAM), which posits that perceived usefulness and ease of use influence the adoption of technology. As such, these insights could guide future initiatives and policymaking to better target and address students' needs, thereby improving the overall effectiveness and adoption rates of e-payment systems.

The results emphasize the importance of familiarity as a critical determinant of willingness to use e-payment systems among students. The perfect linear correlation underscores the necessity of building strong foundational knowledge to foster positive attitudes and behaviors towards technology adoption.

#### 4. Conclusion

The findings indicate that the respondents demonstrate a consistently high level of familiarity with the statements, as evidenced by mean scores ranging from 4.06 to 4.29 and a general weighted mean of 4.16. The highest familiarity observed in statement F1 reflects an area of strength, while the slightly lower score in F2 suggests an opportunity for further emphasis or clarification. Overall, the results imply that the respondents are well-acquainted with the topics assessed, which can serve as a strong basis for promoting further engagement, understanding, or action in relation to the subjects being evaluated. Addressing minor gaps in familiarity can enhance respondents' overall comprehension and readiness to apply this knowledge effectively.

#### 5. Recommendations

Based on the findings, it is recommended to focus on enhancing awareness in areas where familiarity levels showed slight variations, particularly in F2. Educational programs, workshops, or awareness campaigns can address this gap by providing additional information and clarification. Additionally, targeted training programs should be developed to strengthen understanding and ensure uniform familiarity across all topics assessed. Building on the strengths in familiarity observed in other areas can create opportunities for practical application and engagement. It is also important to promote continued access to relevant and updated information to maintain familiarity levels over time. Lastly, further research is encouraged to explore the reasons behind the variations in familiarity, which could provide additional insights for designing effective strategies. These recommendations aim to address gaps, strengthen understanding, and ensure readiness among respondents.

#### References

1. Abugu, J. O., Chukwu, A. M., Onyeso, O. K., Alumona, C. J., Adandom, I. I., Chukwu, O. A. D., & Awosoga, O. A. (2023). Determinants of the managerial staff's disposition towards e-payment platforms in public tertiary hospitals in Enugu, Nigeria: a cross-sectional study. *BMC Health Services Research*, 23(1), 1–9. <https://doi.org/10.1186/s12913-023-10302-3>
2. Al-Adwan, A. S., Li, N., Al-Adwan, A., Abbasi, G. A., Albelbisi, N. A., & Habibi, A. (2023). "Extending the Technology Acceptance Model (TAM) to Predict University Students' Intentions to Use Metaverse-Based Learning Platforms". *Education and Information Technologies*, 28(11), 15381–15413. <https://doi.org/10.1007/s10639-023-11816-3>
3. Alam, M. M., Awawdeh, A. E., & Muhamad, A. I. Bin. (2021). Using e-wallet for business process development: challenges and prospects in Malaysia. *Business Process Management Journal*, 27(4), 1142–1162. <https://doi.org/10.1108/BPMJ-11-2020-0528>



19. Nasr, M., Farrag, M., & Nasr, M. (2020). E-Payment Systems Risks, Opportunities, and Challenges for Improved Results in E-Business. *International Journal of Intelligent Computing and Information Sciences*, 20(1), 1–20. <https://doi.org/10.21608/ijicis.2020.31514.1018>
20. Ogunlade, D. (2024). The Influence of the Cashless Policy on Economic Growth and Development. *NIU Journal of Social Sciences*, 10(1), 39–50. <https://doi.org/10.58709/niujs.v10i1.1788>
21. Pokhrel, S. (2024). No TitleEΛENH. *Αγαη*, 15(1), 37–48.
22. Pueblos, K. J., & Jr, E. T. (2023). Impact of E-Payment Platforms Among Selected Micro-Entrepreneurs in Taguig City: Determinants for Enhanced Guidelines in Collection and Disbursement Process. *Indonesian Journal of Business Analytics*, 3(4), 1401–1424. <https://doi.org/10.55927/ijba.v3i4.4884>
23. Rahyuni Rahayu, Wana Mariska, & Muhammad Fauzan Garantjang. (2022). E-Payment Innovation in Improving Bank Indonesia ' S. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 2022(1), 183–188.
24. Reyes, J. M. D., Dural, L. M., Mangaoang, J. S., Victor, G. M., & Borres, R. (2021). An Application of Analytical Hierarchy Process in the Comparison of the Use of GCash, Paymaya, and Debit Card Applications as a Payment Option in the Philippines. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 1897–1908.
25. Rujonel F. Cariaga, Redjie Arcadio, Gerwine Medio, Ramelito C. Almendras, Alan A. Bendanillo, & Jan Rey G. Fabillar. (2023). *E-Money and the Reasons Why Young Consumers Prefer This Technology*. 22–28. <https://doi.org/10.5281/zenodo.8241756>
26. Sharma, H. (2024). *Digital Financial Services : Unveiling the Collective Potential in Rural Landscape of India*.
27. Shrier, D. L. (2022). Digital Financial Services. *Global Fintech*, April, 73–90. <https://doi.org/10.7551/mitpress/13673.003.0008>
28. Stephen Otika, U., Leonard Nnabugwu, E., Ben Uche, D., & Chikwe, G. C. (2022). Factors Influencing Consumer's Intention to Use Electronic Payment Platform in Nigeria. *Finance and Management*, 4(1), 94–101.
29. Susilo, D., & Dizon, C. C. G. (2023). DIGITAL PAYMENT TRANSFORMATION IN THE PHILIPPINES: FROM CASH TO GCASH under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0). *Jurnal Ekonomi*, 12(04), 2023. <http://ejournal.seaninstitute.or.id/index.php/Ekonomi>
30. Witoelar, F., Wicaksono, T. Y., & Mangunsong, C. (2021). Binding Constraints on Digital Financial Inclusion in Indonesia: An Analysis Using the Decision Tree Approach. *CGD Policy Paper*, 210(April). [https://www.researchgate.net/profile/Carlos-Mangunsong/publication/353701003\\_Binding\\_Constraints\\_on\\_Digital\\_Financial\\_Inclusion\\_in\\_Indonesia\\_An\\_Analysis\\_Using\\_the\\_Decision\\_Tree\\_Approach/links/610b5db20c2bfa282a23734c/Binding-Constraints-on-Digital-Financi](https://www.researchgate.net/profile/Carlos-Mangunsong/publication/353701003_Binding_Constraints_on_Digital_Financial_Inclusion_in_Indonesia_An_Analysis_Using_the_Decision_Tree_Approach/links/610b5db20c2bfa282a23734c/Binding-Constraints-on-Digital-Financi)
31. Zeidy, I. A. (2022). The role of financial technology (FINTECH) in changing financial industry and increasing efficiency in the economy. *COMESA Monetary Institute*, 1–20.