

ICMC 2023**The 3rd International Conference on Management and Communication****INTENTION TO USE E-COMMERCE PAYMENT: EMPIRICAL
EVIDENCE AMONG CONSUMERS IN SARAWAK**

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Abstract

This research looks at how several factors influence consumers' decision to use various online payment methods in Sarawak, Malaysia. E-commerce, enabled by e-payment systems, has become fundamental to modern corporate operations thanks to the proliferation of digital technologies. The purpose of this research is to provide light on why people use certain payment methods when shopping online. The findings reveal that customers' intent to utilise e-commerce payment systems is significantly impacted by criteria including utility, ease of use, and trust. It turns out that trust is the single most important factor in determining customer loyalty. The study stresses the need of establishing dependable payment methods as a means of gaining customers' trust. The results have important repercussions for stores contemplating an expansion into e-commerce. Retailers may boost consumer trust and encourage the widespread use of e-commerce by working to enhance the practicality, simplicity, and reliability of their online payment systems. This research adds to the body of knowledge on online payment methods and should prove useful to companies in Sarawak.

2357-1330 © 2023 Published by European Publisher.

Keywords: E-Commerce, Ease Of Use, Electronic Payment, Trust, Usefulness

1. Introduction

Technology improvements, especially in the e-commerce sector, have led to the widespread adoption of online payment methods. As a result of the influence of global trade and internet buying, merchants and retailers are improving their technological adaptation. The use of electronic payment methods is now fundamental to the functioning of the e-commerce market. But using electronic payment methods is difficult, therefore it's important to know what factors influence shoppers' willingness to use them when shopping online. The convenience of electronic payment methods may be contributing to their rising popularity in Malaysia, as found by the research of Ramalingam (2012). Ease of use to switch to cashless transactions is significantly influenced by how simple the transition is for them (Roy & Sinha, 2017).

This is why it's crucial to simplify online payment methods for regular people. Merchants and retailers may earn their customers' trust by providing convenient, secure payment options and enhancing their customers' overall shopping experiences. Doing so can increase confidence in online deals, leading to quicker adoption. This research into online shoppers' payment habits yields important data that can be used by companies in Malaysia to better serve their customers.

2. Research Problem and Research Objectives

Perceived usefulness of the services offered by e-payment systems has been found to play a significant role in shaping consumers' intentions to adopt those systems (Guritno & Siringoringo, 2013; Rono, 2014). However, gaining and earning trust in electronic payment systems is becoming a major concern for consumers. Kabir et al. (2017) support this statement, stating that online transactions involve a trust factor, whether through debit, credit cards, PayPal transfers, or other similar methods. In Sarawak, Malaysia, there is a lack of studies examining online payment methods. This study will build on earlier research to evaluate how shoppers in Kuching, Sarawak feel about various online payment options. The study's secondary objective is to determine which element is the most important in explaining the prevalence of different methods of online payment in Kuching, Sarawak.

3. Literature Review

3.1. Electronic payment system (E-Payment System)

As said by Agimo (2004), the e-payment systems allow for "payment by electronic transfer of credit card details, direct credit, or other electronic forms of payment other than cheque and cash". Other academics (Kaur & Pathak, 2015) have proposed defining an electronic payment system as any method by which a monetary exchange can be made in an online marketplace. According to the findings of Kabir et al. (2015), an Electronic Payment System is a set of interconnected parts that allows more than one party to make a transaction and exchange monetary value in the form of electronic resources. The use of credit cards in online purchases is becoming widespread (Junadi, & Sfenrianto, 2015). When making an online purchase, neither a physical credit card nor a signature is needed. Google Pay and Apple Pay are just two of the many online payment options accessible today (Junadi & Sfenrianto, 2015). About 53% of

foreign customers used credit or debit cards more than any other method of payment in the last six months of 2011, according to data given by First Data and Market Strategies foreign (2011).

According to Chavosh (2011), numerous financial institutions in Malaysia, both domestic and international, offer a variety of e-payment options. Consumers in Malaysia can now use their credit cards, e-wallets, debit cards, mobile payments, and the Automated Clearing House network everywhere in the country. Malaysians are not lagging behind other countries in terms of e-commerce payment systems, which are critical technology for lowering the obstacles to international trade.

The government of Sarawak has launched a new electronic payment system app known as Sarawak Pay. The Sarawak Government Fintech Platform allows for safer, quicker, and more convenient digital payment transactions and mobile wallets for software and hardware used in business. In addition, this is a key undertaking in the broader digital transformation of the Sarawak state economy. Users of the Sarawak Pay platform can do a variety of things, like save money digitally in an e-wallet, send and receive payments, split bills, request payments from friends, view transaction histories, and pay utility and local council bills.

3.2. Ease of use

The Ease of Use is widely considered as one of the most important factors influencing people's usage behavior of Electronic Payment Systems (EPS) (Davis, 1989; Kabir et al., 2017). Ease of use can be defined as "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989; p. 320). According to Davis, an easy-to-use system or software is more likely to be adopted by its target audience. However, contends that the term indicating ease of use actually refers to how little people believe a new idea will be to learn and utilise. In addition, he states that buyers believe that novel goods and services are simpler to use than their predecessors. Mathieson (1991) and others have claimed that users will put in the bare minimum of effort required to accomplish a task while interacting with a technological system.

Perceived ease of use can be considered as one of the most influential aspects in the decision to accept new technology, as stated by Liébana-Cabanillas et al. (2017). Numerous studies have shown a strong correlation between user friendliness and intent to use a product or service (Davis, 1989; Venkatesh & Davis, 2000) discovered a favourable correlation between self-reported usability and subsequent desire to use. Other studies (Lau, 2002; Roy & Sinha, 2014) also discovered favourable correlations. Although some studies have found that people are more likely to embrace EPS if they find it easy to use, other studies have found the opposite (Goh, 2017).

3.3. Perceived usefulness

A consumer's propensity to use electronic payment systems (EPS) is correlated with their perception of their usefulness (Liébana-Cabanillas et al., 2017), as technology can help them achieve their objectives. According to Davis (1989), the perceived usefulness is like the amount to which people utilise a tool because they feel using the tool will help them do their work more effectively. According to the study's findings, the variable helps boost an individual's performance capacity in the same way that a system's usefulness provides an advantage for its users. Being "capable of being used advantageously" is

also highlighted in the definition of "useful." According to Davis (1989), consumers expect a positive use-performance connection in exchange for the system's high usefulness.

According to several studies (Al-Amri et al., 2018; Venkatesh & Davis, 2000; Wei et al., 2017), consumers' perceptions of a product's usefulness have a significant impact on whether or not they plan to make a purchase. According to research by Liébana-Cabanillas et al. (2017), a user's attitude towards technology can affect whether or not they plan to utilise it. Another factor that influences consumer behaviour is the user's expectation of receiving a high level of benefit (Adams et al., 1992). Therefore, the purpose of this study is to investigate the significant relationship between E-Commerce Payment System, Perceived Usefulness and Intention to Use in Sarawak.

3.4. Trust

Due to the volitional nature of trust, trust is perhaps the most difficult problem arising in the online payment systems (Suwunniponth, 2015), that goes like "a defining feature of the major social and economic interactions where uncertainty is present" as stated by Pavlou (2003, p. 205). Consumers may be hesitant to make purchases from online stores due to a lack of trust, leading to the failure of e-commerce enterprises. According to research by Bock et al. (2012), consumers' faith in products and services can affect whether or not they adopt cutting-edge technologies. Users tend to use Electronic Payment Systems when they are assured of their privacy, their security, and the site's credibility through a trust mark (Suwunniponth, 2015).

Previous studies (Al-Amri et al., 2018; Kabir et al., 2017; Suwunniponth, 2015) have demonstrated that trust brings an important role in the widespread use in the use of online shopping and also payment methods. In addition, trust enhances the relationship when conducting business and the use of specific technological qualities (Gefen, Karahanna, & Straub, 2003). This is because trust is necessary to provide assurance of the outcome. When it comes to their private data, customers want to know that it will remain safe from prying eyes (Zhou, 2011). The trustworthiness of a payment system is also affected by other factors, such as the quality of the site's services, the quality of the data and service. (Suwunniponth, 2015). Trust is especially important in international online purchases because it can be difficult to pursue legal action in the event of a disagreement or fraud due to variations in culture and the business environment (Abdullahi, 2009; Kasuma et al., 2021). This study concludes that trust is a key component determining consumers' propensity to use E-commerce Payment Systems in Sarawak.

4. Research Methodology

Individual working-age men and women in Kuching, Sarawak, are the basic statistical unit of this study. Purposeful sampling has been used to administer 136 surveys. Using G-Power 3.1.9.2 and a total of three predictors, the necessary sample size was determined. Therefore, the study needs at least 89 participants. In order to accurately represent the population and draw conclusions about its features, the questionnaires have been correctly numbered and organized. Items for the questionnaire of this study were adopted from (Daştan & Gürler, 2016; Guritno & Siringoringo, 2013; Junadi & Sfenrianto, 2015; Oney et al., 2017; Wei et al., 2017).

5. Findings and Data Analysis

Google Forms was used to disseminate the survey, however, only 136 of them yielded usable data. A total of 136 complete surveys were analyzed using SPSS 25. Below is the information regarding the respondents' demographic (table 1).

Table 1. The Demographic Analysis of Respondent

Variables	Items	Frequency	Percentage (%)
Gender	Male	61	45%
	Female	71	55%
Age	21 – 30 Years Old	96	71%
	31 - 40 Years Old	18	13%
	41 - 50 Years Old	12	9%
	51 - 60 Years Old	6	5%
	61 Years Old >	3	2%
Marital Status	Married	46	34%
	Single	89	65%
	Divorced	1	1%
Residence	Urban / City	83	61%
	Suburban	21	15 %
	Rural / Village	32	24 %
Education	SPM and Lower	11	8%
	STPM	6	4%
	Diploma	19	14%
	Degree	92	68%
	Master and PhD	8	6%
Monthly Income	< RM1,000	70	51%
	RM1,001 - RM3,000	23	17%
	RM3,001 - RM5,000	28	21%
	RM5,001 >	15	11%
Have you ever heard about electronic payment system?	Yes	130	96%
	No	6	4%
Do you use Electronic Payment System when making online exchange?	Yes	118	87%
	No	18	13%
Sort of Electronic Payment System do you prefer to use	Boost	11	8%
	E-Wallet	17	13%
	MEPS	33	24%
	Online Credit Card Transaction	65	48%
	Sarawak Pay	9	7%

The descriptive statistics in Table 2 reveal that the mean values for all variables indicate an overall positive perception. Among the variables, "ease of use" obtained the highest mean score of approximately 4.1029, followed by "usefulness" and "intention to use electronic payment systems" with mean scores of 4.0754 and 3.9926, respectively. Conversely, the variable "trust" received the lowest mean score of 3.9069.

Table 2. Descriptive Statistics

Model	Mean	Std. Deviation	N
Ease to Use	4.1029	.67390	136
Usefulness	4.0754	.68470	136
Trust	3.9069	.79161	136
Intention to Use	3.9926	.75519	136

The dispersion or variability amongst respondents is quantified by the standard deviation. Lower numbers suggest less variation, which is often a good thing. Table 2 shows that the respondents were most in agreement with the "Ease of use" variable, with a standard deviation of only 0.67390. However, the standard deviation for "Trust" is the highest, at 0.79161, indicating a larger response variation.

Research Objective 1: To get to know the connection between the Ease of Use and also E-Commerce Payment System in Kuching, Sarawak.

Table 3. Pearson Correlation Analysis for (Ease to use)

Model		Intention to Use
Ease to Use	Pearson Correlation	.693**
	Sig. (2-tailed)	.000

In order to identify the relationship between the "Ease of Use" and the "E-Commerce Payment System," the results are presented in the table above. Based on table 3, it is evident there is a positive relationship between "Intention to Use" with the "Ease of Use". This resulted in a significant correlation coefficient of $r = 0.693$ and $p = 0.000$. Following the rule of thumb, this correlation falls within the moderate range. Therefore, it is clear that the study is supported, indicating that the use of the E-Commerce Payment System in Kuching, Sarawak is definitely influenced by the ease of use. Hence, it is safe to know that the finding is highly consistent and parallel with a study conducted by Wei et al. (2017), which also explains the relationship between the "Ease of Use", and also with the "Intention to Use".

Research Objective 2: To investigate the relationship between Usefulness and E-Commerce Payment System in Kuching, Sarawak (table 4).

Table 4. Pearson Correlation Analysis (Usefulness)

Model		Intention to Use
Usefulness	Pearson Correlation	.792**
	Sig. (2-tailed)	.000

Moving on to the next variable, the "Intention to Use", correlates positively with "Usefulness," with a coefficient of $r = 0.792$ and a significance level of 0.000. A high correlation between two variables indicates a robust connection between them. Therefore, this study's goal is confirmed; its usefulness affects the E-Commerce Payment System in Kuching, Sarawak. Previous studies Guritno and Siringoringo (2013) corroborate this finding by highlighting the connection between perceived utility and future adoption of electronic payment systems. They also infer that a user's propensity to utilize the Electronic Payment System is influenced by his or her intentions about the technology.

Research Objective 3: To determine the current relationship between the Trust and also E-Commerce Payment System in Kuching, Sarawak.

Table 5. Pearson Correlation Analysis (Trust)

Model		Intention to Use
Trust	Pearson Correlation	.822**
	Sig. (2-tailed)	.000

Finally, the association between trust and future use of the electronic payment method is $r = 0.822$, with a significance level of 0.000 as mentioned in table 5. This suggests that trust and the likelihood of utilising electronic payment methods are strongly correlated. Thus, the study's aim is validated; trust does affect Kuching, Sarawak's E-Commerce Payment System. Kabir et al. (2017) conducted a similar survey, and they too discovered that many respondents placed high value on trust.

Research Objective 4: To determine which variables, have the strongest relationship with the significant intention to use an E-Commerce payment system in Kuching, Sarawak.

Table 6. Result of Multiple Regression

R	R Square	Adjusted R Square	Std. Error of the Estimate
.842 ^a	.710	.703	.41147

F-Value: 80.276, Significant: 0.000

The aggregate regression model result was found to be significant ($p=0.0000.05$), with an F-value of 80,276. The results of the three independent variables on the dependent variable, which is regarding the Intention to Use Electronic Payment Systems are displayed in Table 6. It is evident that the correlation coefficient (R) in between the other three independent variables and with the dependent variable is 0.842. In addition, the adjusted R-squared value in the aforementioned table is 0.71, indicating that the three independent variables substantially explain 71% of the variance in the aspect of Intention to Use electronic payment systems. In conclusion, the indicated variation in the dependent variable is explained by the mentioned variance in the independent variables by a factor of 71. Notably, the remaining 29% of the variance cannot be explained within the scope of this study. In other words, the behavioural intention to use electronic payment systems may be influenced by additional factors.

Table 7. The Relationship between Variables (Standardized Coefficient Based on Beta Value)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.404	.228		1.770	.079
ETU	.076	.092	.067	.821	.000
Usefulness	.258	.092	.234	2.795	.009
Trust	.570	.072	.598	7.906	.000

It is evident from Table 7 that all independent variables explain the dependent variable significantly, as indicated by the significant F-test value of 0.00. In addition, all three independent factors have a positive and significant connection with the dependent variable (p-values of 0.00). According to the results, trust is the single most important factor in determining whether or not a consumer will use an electronic commerce payment system.

6. Conclusions and Recommendations

There is a strong link between the three characteristics studied here which are the Ease of Use, the Usefulness, and the Trust and also the predicted future adoption of the E-Commerce payment system in the location called Kuching, Sarawak. Its coefficient values indicate a favourable relationship between all variables. The strongest link between expected use of the E-Commerce Payment System and any of the variables is seen with Trust ($r=0.822$).

There are, however, some caveats to this study. First, time restraints made it difficult to investigate more factors that may affect the propensity to definitely utilize the Electronic Payment System. Due to its cross-sectional design, it can only provide a partial picture of the dynamic elements that shape people's propensity to use. Second, when compared to other districts, the majority of responders come from metropolitan regions (61% vs. 37%). The lack of suburban and rural viewpoints may reduce the findings' generalizability due to this geographical bias.

Moreover, remember that several elements play a role in shaping consumers' decisions. Future research should expand beyond the narrow scope of this study and look into factors like risk and security, subjective norms, and perceived rewards that may influence people's decisions to make use of the Electronic Payment Systems.

In sum, the Trust is the highly influential factor in determining future adoption of Kuching, Sarawak's e-commerce payment system. The study also found that the intention to utilise E-Commerce Payment Systems was highly influenced by the perceived ease of use and usefulness of these mentioned systems. Taking into consideration the fluidity of technology dissemination, it is obvious that the ease of use provided by electronic payment systems may encourage more people to make purchases through these channels, leading to a greater familiarity with E-Commerce Payment Systems in Malaysia.

Acknowledgments

This research is conducted as part of undergraduate final-year project submission and has been rewritten to suit conference requirements

References

- Abdullai, B. (2009). Electronic Payment Instruments use, as perceived by consumers in Macedonia. In *Proceedings of the Conference, Department of Management*. University of Tirana, Albania.
- Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived Usefulness, Ease of Use, and Usage of Information Technology: A Replication. *MIS Quarterly*, 16(2), 227. <https://doi.org/10.2307/249577>
- Agimo, J. (2004). Better Practice Checklist for ePayment. Australia government information management office. Retrieved on May 26th, 2015, from: http://www.agimo.gov.au/publicationsbetter_practice_checklist_for_epayment
- Al-Amri, R., Maarop, N., Jamaludin, R., Samy, G. N., Magalingam, P., Hassan, N. H., Ten, D. W. H., & Daud, S. M. (2018). Correlation analysis between factors influencing the usage intention of NFC mobile wallet payment. *Journal of Fundamental and Applied Sciences*, 10(2S), 215-228.
- Bock, G.-W., Lee, J., Kuan, H.-H., & Kim, J.-H. (2012). The progression of online trust in the multi-channel retailer context and the role of product uncertainty. *Decision Support Systems*, 53(1), 97-107. <https://doi.org/10.1016/j.dss.2011.12.007>
- Chavosh, A. H. (2011). Comparing the satisfaction with the bank's e-payment services between degree holder and non-degree holder customers in Penang-Malaysia. *International Journal of e-Education, e-Business, e-Management and e-Learning*, 1(2), 103-109. <https://doi.org/10.7763/ijeeee.2011.v1.16>
- Daştan, İ., & Gürler, C. (2016). Factors Affecting the Adoption of Mobile Payment Systems: An Empirical Analysis. *EMAJ: Emerging Markets Journal*, 6(1), 17-24. <https://doi.org/10.5195/emaj.2016.95>
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>
- Gefen, D. K. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly*, 27(1), 51. <https://doi.org/10.2307/30036519>
- Goh, S. W. (2017). *Factors Affecting Adoption of E-Payment among Private University Students in Klang Valley* [Doctoral dissertation, UTAR].
- Guritno, S., & Siringoringo, H. (2013). Perceived Usefulness, Ease of Use, and Attitude Towards Online Shopping Usefulness Towards Online Airlines Ticket Purchase. *Procedia - Social and Behavioral Sciences*, 81, 212-216. <https://doi.org/10.1016/j.sbspro.2013.06.415>
- Junadi, & Sfenrianto. (2015). A Model of Factors Influencing Consumer's Intention To Use E-payment System in Indonesia. *Procedia Computer Science*, 59, 214-220. <https://doi.org/10.1016/j.procs.2015.07.557>
- Kabir, M. A., Saidin, S. Z., & Ahmi, A. (2015, October). Adoption of e-payment systems: a review of literature. In *International Conference on E-Commerce* (pp. 112-120).
- Kabir, M. A., Saidin, S. Z., & Ahmi, A. (2017). Analysis of factors that influence electronic payment adoption. *Journal of Engineering and Applied Sciences*, 12(3), 6560-6568.
- Kasuma, J., Abdul Razak, F. L., Omar, N., Abang Naim, A. S., Sheikh Naimullah, B. S., & Darma, D. C. (2021). Attitude, Perceived Usefulness and Perceived Ease of Use towards Intention to Use M-Commerce: A Case of Grocery Shoppers in Kuching, Sarawak. *Journal of Entrepreneurship and Business*, 8(1), 71-84. <https://doi.org/10.17687/jeb.v8i1.451>
- Kaur, K., & Pathak, A. (2015). E-Payment System on E-Commerce in India. *Karamjeet Kaur International Journal of Engineering Research and Applications*, 5(2), 79-87
- Lau, A. S. M. (2002). Strategies to Motivate Brokers Adopting On-line Trading in Hong Kong Financial Market. *Review of Pacific Basin Financial Markets and Policies*, 05(04), 471-489. <https://doi.org/10.1142/s0219091502000894>
- Liébana-Cabanillas, F., Ramos de Luna, I., & Montoro-Ríos, F. (2017). Intention to use new mobile payment systems: a comparative analysis of SMS and NFC payments. *Economic Research-Ekonomska Istraživanja*, 30(1), 892-910. <https://doi.org/10.1080/1331677x.2017.1305784>

- Mathieson, K. (1991). Predicting User Intentions: Comparing the Technology Acceptance Model with the Theory of Planned Behavior. *Information Systems Research*, 2(3), 173-191. <https://doi.org/10.1287/isre.2.3.173>
- Oney, E., Oksuzoglu Guven, G., & Hussain Rizvi, W. (2017). The determinants of electronic payment systems usage from consumers' perspective. *Economic Research-Ekonomska Istraživanja*, 30(1), 394-415. <https://doi.org/10.1080/1331677x.2017.1305791>
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International journal of electronic commerce*, 7(3), 101-134.
- Ramalingam, K. (2012). Is Malaysia ready for greater adoption of e-payments?. www.theedgemaalaysia.com/highlights/217690-is-malaysia-ready-for-greateradoption-of-e-payments.html
- Rono, E. K. (2014). *The relationship between perceived ease of use, perceived usefulness, behavioural intention to use and acceptance of mobile banking services: the case of commercial banks in Kenya* [Doctoral dissertation, University of Nairobi].
- Roy, S., & Sinha, I. (2014). Determinants of Customers' Acceptance of Electronic Payment System in Indian Banking Sector—A Study. *International Journal of Scientific and Engineering Research*, 5(1), 177-187
- Roy, S., & Sinha, I. (2017). Factors affecting customers' adoption of electronic payment: an empirical analysis. *IOSR Journal of Business and Management*, 19(12), 76-90.
- Suwunniponth, W. (2015). Customers' Intention to Use Electronic Payment System for Purchasing. *International Scholarly and Scientific Research & Innovation* 10(12)
- Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, 46(2), 186-204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
- Wei, C.-F., Chiang, C.-T., Kou, T.-C., & Lee, B. C. Y. (2017). Toward Sustainable Livelihoods: Investigating the Drivers of Purchase Behavior for Green Products. *Business Strategy and the Environment*, 26(5), 626-639. <https://doi.org/10.1002/bse.1942>
- Zhou, T. (2011). The effect of initial trust on user adoption of mobile payment. *Information Development*, 27(4), 290-300. <https://doi.org/10.1177/0266666911424075>