

Payment Gateway Used by MSMEs in Processing Business Transactions

Puji Prabowo and Imanda Dea Sabiella

Entrepreneurship Department, BINUS Business School Undergraduate Program
Bina Nusantara University, Jakarta, Indonesia 11480
puji.prabowo@binus.ac.id, imanda.dea@binus.ac.id

Abstract

The development of the digital world affects the development of business in the financial sector. The payment process is crucial in both large and small businesses. Currently, there are many payment gateway providers that MSMEs can use to process their sales transactions. The purpose of this study is to find out what payment gateways are used by MSMEs and the reasons for using these payment gateways. The research method is 97 MSMEs from various business categories. Data was collected using an online survey. Data analysis is done to find the determining factors through coding and cross-case analysis. The results of this study indicate that there are various variations in the use of payment gateways. Ease of transaction processing and ease of access to transaction data are important factors in choosing a payment gateway. This research is useful for payment gateway service providers to find out the habits and reasons of MSMEs to use payment gateways as sales. Understanding of the use of payment gateways can help providers provide key features and make more precise offer points.

Keywords

MSMEs, payment gateway, transaction, e-business, e-payment

1. Introduction

The role of small business is very important for the economy of a country (Menon and Varadarajan, 1992). Having the ability to develop e-business can be a strength to compete in business (Bharadwaj, 2000). One of the important things in doing business online is payment transactions (Kumar, 2011). Transparency is key in e-commerce (Zhou et al. 2018). Currently there is an e-money innovation to help MSMEs and consumers transact (Gunawan et al. 2019). In m-commerce, its development is influenced by many things, such as the telecommunication industry and payment systems (Hossain et al. 2011).

The pandemic has had an impact on increasing online business activities and consumer behavior (Sardjono et al. 2021). In online business, maintaining consumer trust is very important in the transaction process (Siau and Shen, 2003). Digital payments have several types such as digital wallets, credit cards, digital cash and others that make online business transactions easier. There are also several old payment methods that are still used by businesspeople today, namely cash and bank transfers (Gupta, 2014). The QRIS system is the official QR Code from Bank Indonesia to assist cashless transactions from sellers and customers. This QR code is owned by the seller with a unique code, then the customer can scan it using the mobile app for payment (Lonardi and Legowo, 2021). Information data needs to be kept secure in the online business payment process (Song and Whang, 2000).

Currently in Indonesia there are several types of payments used in e-business, namely, cash, bank transfer, e-wallet, e-commerce, credit card, paylater, and QRIS. This study aims to see the phenomenon of the use of payment gateways in MSMEs. In the midst of increasing online business, it is necessary to know the business landscape about payment transaction methods that are often used today. By knowing this pattern, it can provide an overview for providers and users in the midst of online business development.

2. Literature Review

E-business is a differentiator for business in the midst of competition in the industry (Beheshti and Sangari, 2007). Some indicators of the success of business growth is how to make strategy and planning (Street and Cameron, 2007). One of the organizational abilities to develop is influenced by the competence of the entrepreneur (Man et al. 2002). There is an influence of knowledge and awareness of the owner on the use of e-business, so it needs a deeper approach

and learning in the use and utilization of technology for business development (Chong et al. 2014). The use of integrated e-business will grow the potential for business development (Sanchez et al. 2007). One of the goals in adopting it is to increase engagement with consumers, as well as increase competitiveness in the industry (Harrigan et al. 2011). Small-scale businesses are often the target of crime on the internet. In this case, the company must understand the security system and monitor the running processes to avoid cyber-attack. (Rahman and Lackey, 2013).

In e-business transactions that occur between sellers and customers use an e-payment system to ensure the security and convenience of the buying and selling process (Kabir et al. 2015). Digitalization in the financial sector is an important thing in improving business performance. This can help MSMEs provide affordable facilities, simplify and save operational costs (Tayibnapis, 2018). In addition, online payments help to process transactions in a practical way, save time and reduce other unnecessary costs (Rob & Opara, 2003). The task of online payments is to ensure that the money received by the seller can be properly maintained and can make it easier for customers to send money (Sims and Tikekar, 2001). e-payment is required to be a convenient and secure payment method (Bohle, 2000).

It is necessary to have an online payment gateway that adapts to the point of view and needs of the seller and customer (Anuja Pande et al, 2014). In e-business and e-marketing, building trust from customers is something important (Kocas, 2005). The user's willingness to use electronic payments depends on understanding the risks, including the emergence of existing costs (Ben Arfi et al. 2021). Transaction costs are a consideration for customers and sellers (Chou et al., 2004). Ease of use can increase trust in the financial sector (Flavian and Guinaliu, 2006). With online payments, transactions can be made more secure and protect personal data from the risk of data theft (Wright, 2002).

3. Methodology

The research method used in this study is to use an online survey of MSMEs. Qualitative analysis was conducted to explore the results of the study. Coding data is quantified in order to get numerical data. This data is then used for cross-case analysis with business category variables.

4. Data Collection

The research method is 97 MSMEs from various business categories. Data was collected using an online survey. Data analysis is done to find the determining factors through coding and cross-case analysis. There are two categories that included in this research, they are F&B and Non-F&B.

5. Results and Discussion

This table illustrates some attractive facts about business students' preferable payment gateway alternatives. Generally, there is one payment gateway option that seem to be preferable. Nearly half of the participants are more comfortable to use bank transfer. The utilization of e-Wallet is chosen by nearly one fifth, at around 21.0%, and about 13.4% participants used e-Commerce. According to the comparative data between F&B and non-F&B groups, majority of participants from both F&B and non-F&B are agreeing to use Bank Transfer among all options. F&B group also preferred e-Wallet (21.7%) and QRIS (12.0%). However, non-F&B thought e-Commerce (25.0%), e-Wallet (19.4%), and Cash (11.1%).

Table 1. Document Variables Statistics

	Frequency	Percentage	Percentage (valid)
Bank Transfer	59	64,84	65,56
e-Wallet	25	27,47	27,78
e-Commerce	16	17,58	17,78
QRIS	11	12,09	12,22
Cash	8	8,79	8,89
DOCUMENTS with code(s)	90	98,90	100,00
DOCUMENTS without code(s)	1	1,10	-
ANALYZED DOCUMENTS	91	100,00	-

Table 2. Payment Gateway Analysis

Payment Gateway	F&B	Non F&B	Total
QRIS	12,0%	2,8%	9,2%
e-Wallet	21,7%	19,4%	21,0%
e-Commerce	8,4%	25,0%	13,4%
Bank Transfer	53,0%	41,7%	49,6%
Cash	4,8%	11,1%	6,7%
SUM	100,00	100,00	100,00
N = Documents	67	24	91

Many respondents still choose bank transfer as the current payment method used by MSMEs. They reasoned that it was easier for sellers and customers to check the status of their payments. "Payment via bank transfer is because it is simple and easy to make transactions." In addition, the selection of bank transfers because of its convenience for cash withdrawals, "Transfer. Because it is very easy and can be withdrawn at any time." There are also other opinions from other respondents regarding the number of users on the bank transfer method, "Bank transfers, because they are practical and have many users".

"Payments using the e-wallet method are considered easier and faster," said one respondent. In the e-commerce method, the respondent argues, "I use the e-commerce system to make it easier". For those who use QRIS, the following is the opinion of the respondent, "QRIS because funds come directly in and can be double checked." And there are still some MSMEs that use cash in their business processes. Every business has a payment gateway option that is used based on their needs, the ease of technology and also the number of users. This study confirms previous research that digitalization in the financial sector can help small businesses to improve their business performance (Tayibnapis, 2018).

6. Conclusion

The results of this study indicate that there are various variations in the use of payment gateways. Ease of transaction processing and ease of access to transaction data are important factors in choosing a payment gateway. Payment gateway is one of the important things in the business process. Therefore, a strategy is needed in its use in order to get maximum results. This research is useful for payment gateway service providers to find out the habits and reasons of MSMEs to use payment gateways as sales. Understanding of the use of payment gateways can help providers provide key features and make more precise offer points. The limitation of this research is that it is only looking for data on the use of payment gateways for MSMEs which are included in the early stage. It is necessary to look at MSMEs in various categories and expand their capacity by looking at SMEs.

References

- Anuja Pande et al, / (IJCSIT) International Journal of Computer Science and Information Technologies, Vol. 5 (2), 2014, 2569-2573
- Beheshti, M. & Sangari, E., "The Benefits of E-business Adoption: An Empirical Study of Swedish SMEs" *Service Business*, Vol. 1(3), P. 233-245. (2007)
- Ben Arfi, W., Ben Nasr, I., Khvatova T., and Ben Zaied, Y. "Understanding acceptance of e-Healthcare by IoT natives and IoT immigrants: An integrated model of UTAUT, perceived risk, and financial cost," *Technol. Forecast. Soc. Change*, 2021, DOI: 10.1016/j.techfore.2020.120437.
- Bharadwaj, A.S. A resource-based perspective on information technology capability and firm performance: an empirical investigation, *MIS Quarterly*, Vol. 24 No. 1, pp. 169-96. (2000),
- Bohle, K., Krueger, M., Herrmann, C., Carat, G. and Maghiros, I. "Electronic payment system: strategic and technical issues", available at: <http://ftp.jrc.es/EURdoc/eur19933en.pdf> (accessed October 29, 2009). (2000),

- Chong, A. Y.-L., Ooi, K. -B., Bao, H., & Lin, B. Can e-business adoption be influenced by knowledge management? An empirical analysis of Malaysian SMEs. *Journal of Knowledge Management*, 18(1), 121–136. (2014).
- Chou, Y., Lee, C. and Chung, J. “Understanding M-commerce payment systems through the analytic hierarchy process”, *Journal of Business Research*, Vol. 57 No. 12, pp. 1423-1430. (2004),
- Flavian, C. and Guinaliu, M. “Consumer trust, perceived security and privacy policy: three basic elements of loyalty to a web site”, *Industrial Management and Data Systems*, Vol. 106 No. 5, pp. 601-620. (2006),
- Gunawan, Hendro & Sinaga, Benyamin & Purnomo W.P., Yohanes Sigit. Assessment of the Readiness of Micro, Small and Medium Enterprises in Using E-Money Using the Unified Theory of Acceptance and Use of Technology (UTAUT) Method. *Procedia Computer Science*. 161. 316-323. 10.1016/j.procs.2019.11.129. (2019).
- Gupta, A. E-COMMERCE: ROLE OF E-COMMERCE IN TODAY'S BUSINESS. *International Journal of Computing and Corporate Research*. Volume 4 Issue 1 January 2014.
- Harrigan, P., Ramsey, E., and Ibbotson, P. “Critical factors underpinning the e-CRM activities of SMEs”, *Journal of Marketing Management*, Vol.27, pp.503–529. (2011)
- Hossain, M.S., Muhammad, R., and Amin, K. "Implementation Challenges of Mobile Commerce in Developing Countries-Bangladesh Perspective," presented at International Conference on Computer and Information Technology (ICCIT 2011), Dhaka, Bangladesh, 2011.
- Kabir, Mohammad Auwal, Siti Zabedah Saidin, and Aidi Ahmi. "Adoption of e-payment systems: a review of literature." *International Conference on E-Commerce*. (2015).
- Koças, C. A Model of Internet Pricing Under Price-Comparison Shopping. *International Journal of Electronic Commerce* 10 p111-134, 124p. (2005)
- Kumar, R. "E-Commerce: Living and Working in an Interconnected World" -IRACST- *International Journal of Research in Management & Technology (IJRMT)*, Vol. 1, No.2, December 2011.
- Lonardi, H. and Legowo, N Analysis of Factors Affecting Use Behavior of QRIS Payment System in DKI Jakarta. Vol.12 No.6 (2021), 3709-3728 *Turkish Journal of Computer and Mathematics Education*
- Man, T.W.Y., Lau, T. and Chan, K.F. The competitiveness of small and medium enterprises a conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*. 17 (2), 2002, 123–142.
- Menon, A. and Varadarajan, P.R. A model of marketing knowledge use within firms. *J. Mark.* 56, 53-71. (1992).
- Rahman, S. M., & Lackey, R. E-commerce systems security for small businesses. *International Journal of Network Security & Its Applications*, 5(2), 193–210. (2013).
- Rob, M. A. and Opara, E. U. "Online Credit Card Processing Models: Critical Issues to Consider by Small Merchants," *Human Systems Management* 22(3), pp. 133-142. (2003),
- Sanchez, A. M.; Perez, M. P.; de Luis Carnicer, P. & Jimenez, M. J. V.)” Teleworking and Workplace Flexibility: A Study of Impact on Firm Performance” *Personnel Review*, Vol. 36(1), P. 42-64. (2007)
- Sardjono, Wahyu & Selviyanti, Erna & Mukhlis, M & Tohir, Mohammad. Global issues: utilization of e-commerce and increased use of mobile commerce application as a result of the covid-19 pandemic. *Journal of Physics: Conference Series*. 1832. 012024. 10.1088/1742-6596/1832/1/012024. (2021).
- Siau, K. and Shen, Z. "BUILDING CUSTOMER TRUST IN MOBILE COMMERCE," presented at in *Communications of the ACM.*, 2003.
- Sims, J. and Tikekar, R. "An XML Model for Small Business eCommerce," *Journal of Computing Sciences in Colleges* 16(2), pp. 21-28. (2001),
- Song, I. Y., and Whang, K. Y. Database design for real-world e-commerce systems. *Bulletin of The IEEE Computer Society Technical Committee on Data Engineering* 23, 1 (Mar. 2000).
- Street, C.T and Cameron, A.F. External Relationships and the Small Business: A Review of Small Business Alliance and Network Research, *Journal of Small Business Management*, 45(2), 2007.
- Tayibnapis, A.Z., Wuryaningsih, L.E., and Gora, R. The Development of Digital Economy in Indonesia. *IJMBS* Vol. 8, Issue 3, July - Sept 2018. ISSN: 2230-9519 (Online) | ISSN: 2231-2463 (Print)
- Wright, D. "Comparative Evaluation of Electronic Payment Systems," *INFOR: Information Systems & Operational Research* 40(1), pp. 71-86. (2002),
- Zhou, L., Wang, W., Xu, J., Liu, T., & Gu, J. Perceived Information Transparency in B2C E-Commerce: An Empirical Investigation. *Information & Management*, 55(7), 912-927. (2018). <https://doi.org/10.1016/j.im.2018.04.005>

Biography

Puji Prabowo is a creativepreneur lecturer, and also a sociopreneur who has been working for 10 years. He is also a coach for business incubator at Binus University. He is enthusiastic about the entrepreneurial ecosystem, entrepreneurial skills, innovation, creative ideas, and business development.

Imanda Dea Sabiella is an entrepreneurship lecturer at Binus University. She is a Head of Entrepreneurship Center at Binus University, Bandung. She is enthusiastic in digital marketing, entrepreneurship and ideation.