# Digital Transformation: Optimizing the Use of E-Payment Gateways for MSME Performance

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**Abstract.** The development of the times and the rapid progress of the economy in Indonesia has made the business world currently required to take strategic steps in order to compete with other businesses, especially Micro, Small and Medium Enterprises (MSMEs). The e-payment system makes it possible to provide convenience in transactions rather than using cash. In addition to increasing payment efficiency, increasing customer loyalty and further increasing the effectiveness and efficiency of time. This study aims to analyze the effect of e-payment gateways on the performance of MSMEs in the food and beverage sector in Pangkalpinang City. The method used in this study is a quantitative method with a sample of MSME actors in the food and beverage sector in Pangkalpinang City, totaling 100 respondents. The data analysis tool used in this study used SPSS Version 24 with multiple linear regression tests. Based on the research results, it can be concluded that e-payment has a positive and significant effect on the performance of micro, small and medium enterprises because e-payment activities are able to provide convenience for transactions, increase time efficiency and effectiveness, reduce costs required for various payment documents that are done manually.
**Keywords:** Digital Tranformation, E-Payment, MSME Performance.

## 1. Introduction

The development of the Indonesian era and the rapid development of the economy have forced the business world to take strategic steps to compete with other businesses, especially micro, small and medium enterprises (MSMEs). This is because the MSME business environment is full of uncertainty. MSMEs also play an important role in Indonesia's economic development, both in terms of entrepreneurship and job creation. Electronic payment systems allow for easier transactions than using cash. In addition to increasing payment efficiency, increasing customer loyalty and further increasing the efficiency and effectiveness of time. Parties participating in the event can send or receive money to and from

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other parties anywhere, anytime. Of course, E-Payment can also reduce the fees required for various payment documents that are prepared traditionally. Of course, electronic payments can help reduce the impact of global warming. If there is an electronic payment system, all documents related to payments can be completed and sent electronically via electronic payments.

[1] states that in developing countries, MSMEs are responsible for most of the economic activity both in terms of quantity and employment. The rapid development of MSMEs in Indonesia requires MSMEs to survive and always be ready to compete with other MSMEs. This encourages MSME actors to improve performance for business continuity. Improving business performance is an entrepreneur's effort to continue operating and improve the competitiveness of his company. However, this term is a big problem for entrepreneurs, especially MSME entrepreneurs. MSME actors feel that increasing efficiency requires "special strategies and fundamental changes". Advanced human resources, advanced technology and a conducive environment are required to improve performance. [2] reveals that the current business environment has changed radically, directing each industry to be effective in competing with domestic products. Thus, the industry/business must be able to offer consumers high-quality products at affordable prices. Therefore, every company must have good results.

**Table 1. Number of MSMEs in Pangkalpinang City**

| Type of business | Number of Micro, Small and Medium Enterprises (MSMEs) by type in Pangkalpinang City (Unit) | | |
|:---:|:---:|:---:|:---:|
| | 2018 | 2019 | 2020 |
| Micro | 2725 | 2725 | 16428 |
| Small | 1304 | 1304 | 11051 |
| Middle | 75 | 75 | 719 |
| Total | 4104 | 4104 | 28198 |

Source: BPS.go.id

Based on data from the Central Statistics Agency (BPS) for Pangkapinang City, the number of MSMEs has increased significantly from 2018 to 2020, this shows that many people are contributing as MSME actors. Currently, the MSMEs in the food and beverage industry that are growing rapidly are the MSMEs with the highest national income potential in the economic sector. The cooking industry is a business that goes on forever because it is a basic human need. The food industry category includes snacks, staple foods and beverages. However, MSME actors still face a different situation. more distant issues, both classical and intermediate and advanced. The classic problem is low productivity. This situation is caused by internal problems of SMEs, namely the low quality of personnel in management, organization, technology management and marketing, weak entrepreneurship for small and medium enterprises, and limited access for SMEs to information, technology and markets, as well as other factors of production. Meanwhile, the external problems of SMEs are a less conducive business environment and high transaction costs due to scarcity of raw materialsm [3].

To minimize the classic problems of MSME entrepreneurs, this role requires strategic steps to improve the economy of Pangkalpinang City. One way that can be done is to encourage the growth of SMEs in Pangkalpinang City by using social media and electronic payments, which are expected to have a positive relationship with the performance of SMEs,

especially SMEs in the food and beverage industry. in this sector, because this sector plays an important role in absorbing labor and increasing investment in the economy. Based on the background phenomena above, the formulation of the research problem is as follows: How does the e-payment gateway affect the performance of MSMEs in the food and beverage sector in Pangkalpinang City?

## 2. Literature Review

### 2.1 Theory Perceived Usefulness

According to [4], Theory of perceived usefulness is the perceived usefulness of the extent to which a person believes that using a technology will improve the performance of his work. Perceived usefulness is a level where a person believes that the use of a particular technology will provide benefits or have a positive impact that will be obtained when using that technology.

According to [5], expediency can be divided into several dimensions, namely:
a. Make work easier and more efficient
b. Increased productivity
c. Beneficial
d. Increase effectiveness
e. The development of the performance of a business or job

If the theory of perceived usefulness is related to accounting information system variables and their utilization variables, then if someone feels that the use of accounting information technology and systems will be able to improve their performance, then that person will continue to use the technology.

### 2.2 E-Payment

E-payment is defined as a digital payment instrument that can be represented and can be transferred in electronic form. The e-payment system is carried out by three main users, namely:
1. Clients / Buyers
   Every internet user can be considered as a potential user. Therefore, it is very important to build a mechanism to ensure trust and security in the e-payment transaction process.
2. Merchants/ Sellers
   A seller is a user who sells goods to clients and makes transactions using e-payments. In this case the transaction process for e-payment must be secure so that all users are confident and willing to make transactions.
3. Banks
   Act as a thirdparty intermediary that is usually done by a financial organization to handle, validate and authorize transactions made by buyers and sellers through e-payments.

### 2.3 MSME Performance

According to [6] company performance is something produced by a company in a certain period with reference to established standards. Company performance should be measurable results and describe the empirical condition of a company from various agreed sizes. According to [7] performance is the result of work that has a strong relationship with the organization's strategic goals, customer satisfaction, and contributes to the economy.

### 2.4 Definition of MSMEs

According to [8], Micro, Small and Medium Enterprises are productive business units that stand alone, carried out by individuals or business entities in all economic sectors. In principle, the differences between micro, small, medium and large businesses are based on the initial asset value (excluding land and buildings), average turnover per year, or the number of permanent employees.

Small and medium enterprises have various perspectives or understandings, whether in the general public or in the educational environment, below is the understanding of MSMEs according to experts and existing laws:

1) According to the Ministry of Cooperatives and Small and Medium Enterprises (Menegkop and UMKM) Small and Medium Enterprises is a community activity that refers to the type of community business that has a maximum net worth of IDR 200,000,000 which does not include land and buildings where the business is located and business ownership is owned by individuals or alone.

2) According to the Central Bureau of Statistics (BPS) UMKM based on the quantity of labor. Small businesses are business entities that have a workforce of 5 to 19 people, while medium businesses are business entities that have a workforce of 20 to 99 people.

3) According to the Decree of the Minister of Finance Number 316/KMK.016/1994 dated 27 June 1994 Small business is defined as an individual or business entity that has carried out activities/businesses that have sales/turnover per year as high as IDR 600,000,000 (excluding occupied land and buildings).

4) According to Law no. 20 of 2008 concerning Micro, Small and Medium Enterprises. In chapter 1, article 1, namely:
   a. Micro Enterprises are businesses owned by individuals or individual business entities that meet the criteria for micro-enterprises as stipulated in the law
   b. Small business is a productive economic business and is owned by an individual and is not a subsidiary company that is owned, controlled, or becomes a part, either directly or indirectly, of a medium or large business that meets the criteria for a small business.
   c. Medium Enterprises are businesses run by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or become part of either directly or indirectly with small businesses or large businesses with net worth or annual turnover in accordance with the regulated in law

## 2.5 Roles and Functions of SMEs

MSME is a business activity that is able to create jobs and provide a comprehensive and broad effect on economic growth on society, and can play a role in the process of equity and increase people's income, encourage economic growth, and play a role in realizing national stability. In addition, MSMEs are one of the main pillars of the national economy which must get the main opportunities, support, protection and development as wide as possible as a form of firm alignment with the people's economic business groups, without neglecting the role of Large Enterprises and SOEs.

The function and role of MSMEs is very large in the community's economic activities [9]. Functions and roles include:
   a. Provision of goods and services
   b. Employment
   c. Income distribution
   d. Added value for regional products
   e. Improved standard of living

## 2.6 Research Model

The quality of MSME performance in the industrial sector can be influenced by e-payment gateways. Based on previous studies, this research was conducted to reexamine the problems found in the background, so the model in this study is as follows:
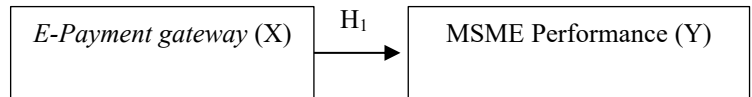
| *E-Payment gateway* (X) | $H_1$ → | MSME Performance (Y) |
|---|---|---|

**Figure 1. Research Model**

Source: Data processed (2023)

Digital payment (E-payment gateway) is an exchange of funds through electronic channels [10]. E-payment gateways require an internet connection to operate similarly to functions used in electronic banking (e-banking) and electronic shopping (e-shopping) environments [11]. People's habit of using digital payments (digital cash) is a good start for fintech adoption [12]. The evolution of current payment methods has been felt by most Indonesian people who have started to become familiar with and have switched to using non-cash digital payments when making transactions, and are slowly leaving the cash payment system. Research conducted [13] applies the E-payment gateway to support the payment system for Small and Medium Enterprises, which results in business expectations, security, performance expectations, social influence, technology acceptance by providing performance results that are useful for all people to know how to use the EDC system machine to support electronic payments.

$H_1$: The E-Payment Gateway has an effect on the performance of MSMEs in the food and beverage sector in Pangkalpinang City.

## 3. Method

The method used in this research is quantitative method. The independent variable in this study is the e-payment gateway. The dependent variable in this study is the performance of SMEs. The population in this study are all MSME actors in the food and beverage sector in Pangkalpinang City. Based on the sampling technique, it was obtained that the minimum number of samples needed in this study was 100.35 respondents and rounded up to 100 respondents. The technique used in this sampling is cluster random sampling in the community who have a role as MSME actors in Pangkalpinang City in the industrial sector.

### 3.1 Instrument Testing Techniques

3.1.1 Validity Test

Validity test is a step in testing carried out on the contents of an instrument, with the aim of measuring the accuracy of the instrument carried out in a study. validity indicates how significantly a test measures what it is supposed to measure. There are two steps that can be taken to obtain a valid measuring instrument, namely: the first step is to determine construct items based on the operational concept of variables and their indicators, so that a measuring instrument is obtained that conforms to the theory. The second step is to analyze item trials by testing the correlation between the score of each item and the total item score [14].

3.1.2 Reliability Test

According to [14] the reliability test is used to measure the accuracy of data on variables that have been measured with validity whether they can be trusted and relied upon or not. To measure reliability by looking at the Cronbach Alpha coefficient. If Cronbach Alpha is acceptable if > 0.6. The closer the Cronbach Alpha is to a value of 1, the higher the level of internal consistency reliability.

### 3.2 Data Analysis Method

#### 3.2.1 Multiple Linear Regression Test

Multiple linear regression tests are used to measure how much influence the independent variable (X) has on the dependent variable (Y). Multiple linear regression uses the following equation model:

$$Y = a + b_1X_1 + b_2X_2 + e$$

## 4. Result And Discussion

### 4.1 Data Instrument Test

#### 4.1.1 Validity Test

The results of the validity test with a significant 5% and with an r table of 0.197 can be said to be valid if the value of r count > r table, which can be known as follows:

**Table 2.  The Results of the Validity Test**

| Variable | Item | R Count | R Table | information |
|---|---|---|---|---|
| E-Payment Gateway | X.1 | 0,718 | 0,197 | Valid |
| | X.2 | 0,738 | 0,197 | Valid |
| | X.3 | 0,822 | 0,197 | Valid |
| | X.4 | 0,836 | 0,197 | Valid |
| | X.5 | 0,681 | 0,197 | Valid |
| | X.6 | 0,604 | 0,197 | Valid |
| | X.7 | 0,470 | 0,197 | Valid |
| | Y.1 | 0,611 | 0,197 | Valid |
| | Y.2 | 0,670 | 0,197 | Valid |
| | Y.3 | 0,577 | 0,197 | Valid |
| MSME Performance | Y.4 | 0,588 | 0,197 | Valid |
| | Y.5 | 0,549 | 0,197 | Valid |
| | Y.6 | 0,463 | 0,197 | Valid |
| | Y.7 | 0,553 | 0,197 | Valid |
| | Y.8 | 0,314 | 0,197 | Valid |

Source: SPSS Output 24 (2023)

Based on the table above, the results of the validity of testing research indicators by asking questions to respondents who get r count > r table, it can be concluded that all indicators are declared valid. Thus, the question of E-Payment Gateway and MSME performance is appropriate to use.

4.1.2 Reliability Test

The results of the reliability test can be said to be reliable if the Cronbach alpha value obtained is > 0.60 which can be seen from the table as follows:

**Table 3.  The Result of the Reliability Test**

| Variable | Item | Cronbach Alpha | Information |
|---|---|---|---|
| E-Payment Gateway | X2 | 0,817 | Reliabel |
| MSME Performance | Y | 0,647 | Reliabel |

Source: SPSS Output 24 (2023)

Based on the table above, the test results show that the e-Payment, and MSME performance variables produce Cronbach alpha values > 0.6, it is concluded that the questionnaire used in this study is a reliable questionnaire.

Multiple linear regression analysis is used to determine the magnitude of the influence of the independent variables on the dependent variable and to determine the direction of the research. The results of multiple linear regression testing in this study are as follows:

**Table 4. Results of Multiple Linear Analysis**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 14.930 | 2.696 | | 5.538 | 0.000 |
| | E-Payment Gateway | 0.239 | 0.111 | 0.244 | 2.151 | 0.034 |

a. Dependent Variable: MSME performance

Source: SPSS Output 24 (2023)

Based on table above it can be seen the value of independent variable in the Unstandardized Coefficient column which is then described by the multiple linear regression equation as follows;

$$Y = 14{,}930 + 0{,}485 + 0{,}239$$

There is a significant effect of e-payment gateway (X) on MSME performance (Y), namely the tcount value of the e-payment gateway variable (X) of t count 2.151 > t table 1.984 with a significance value of 0.034 ($p < 0.05$). From these results, H0 is rejected and Ha is accepted. So it can be concluded that there is a significant influence between e-payment gateways on the performance of MSMEs in the food and beverage sector in the city of Pangkalpinang.

The results of testing the hypothesis are accepted, which means that with the existence of an e-payment gateway as a new means of payment with digital it is able to make it easier for consumers when making transactions, with easier transactions, buying and selling transactions will be more effective and efficient, therefore consumers will also will increase the purchasing power of the desired product. [13] the application of e-payment to support the payment system for small and medium businesses, namely generating business expectations, security, performance expectations is useful for all people to know how to use the EDC system machine that supports electronic payments.

The results of this study are in line with the theory of perceived usefulness, in which this

theory looks at a person's perception through a sense of belief that using a particular system will improve performance. The evolution of the current payment method has also been felt by some people who are starting to become familiar with and switch to using non-cash digital payments so that they are slowly leaving the cash payment system. Digital e-payments have a positive influence on people's consumptive behavior [15], which means that e-payments can increase sales from business actors.

From the results of the study it can be concluded that e-payment has a positive and significant effect on the performance of micro, small and medium enterprises because e-payment activities are able to provide convenience for transactions, increase time efficiency and effectiveness, reduce costs required for various payment documents that are done manually. This of course can make e-payments contribute to reducing the effects of global warming because they are transmitted electronically. By reducing operational costs, the income from business actors will automatically increase.

The research results is in line with the research of [16] which states that e-payment has a positive and significant impact on the financial performance of micro, small and medium enterprises.

## 5. Conclusion And Recommendation

Based on the results of research and discussion that has been described, the researcher concludes that e-payment has a positive and significant effect on the performance of micro, small and medium enterprises because e-payment activities are able to provide convenience for transactions, increase time efficiency and effectiveness, reduce costs required for various payment documents that are done manually. This of course can make e-payments contribute to reducing the effects of global warming because they are transmitted electronically. By reducing operational costs, the income from business actors will automatically increase. Provide readers with the current limitations and future directions on the study. It should be based on the data presented but not necessarily confines to them.

## 6. Acknowledgement

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