

DETERMINANTS OF CUSTOMER'S SPENDING WITH MOBILE PAYMENT AS INTERVENING VARIABLES: CONCEPTUAL PERSPECTIVES

Berlian Karlina

E-mail : berlian.karlina@budiluhur.ac.id
Fakultas Ekonomi dan Bisnis, Universitas Budi Luhur

Anita Wahyu Indrasti

E-mail : anita.wahyu@budiluhur.ac.id
Fakultas Ekonomi dan Bisnis, Universitas Budi Luhur

ABSTRACT

The objective of this research is to develop specific factors that could influence customer's spending with mobile payment as intervening variables to the conceptual perspectives. This paper examines the potential determinants to spending with conceptual perspectives: consumer features, business features, and technology features. Mobile transaction is the intervening variables that may affect the conceptual perspectives to spending. Survey questionnaires will be distributed to about 120 mobile payment users in DKI Jakarta using convenient sampling method. Data collected will be analyzed using regression technique to determine the significant levels of interactions between the dependent, intervening variables, and independent variables. The result of this study could help firms understand the consumer's perspective to spend by using mobile payment as media of transaction. This could also be relevant for Indonesia to face Industry Revolution 4.0. This research would also provide useful data that could help the industry determine consumers' mobile payment needs in the context of Indonesia. The empirical insights from this study would also be useful for theory building.

Keywords : *Mobile Payment; Spending; Consumer Features; Business Features; Technology Features.*

INTRODUCTION

With the advent of fourth generation (4G) mobile communication technologies, mobile commerce has acquired rapid development (Yan Hong and Yang Zhonghua, 2015). The increasing of the user of the internet and the number of mobile applications have changed the behaviour of customer spending. This is proved that technology advancement lead the ability to firms in managing their business operation is much more challenging. Thus, technologies innovation are meaningless if firms do not value these innovations as a way to meet customers' needs. Firms have to follow provide innovation as the growing technology improvement to sustain in mpre competitive market. The opportunities given by the technology advancement for business operation is not only nationally but also globally worldwide. Mobile payment is one factors that currently have a significant increased as the number of users and also transactions not only Indonesia but also overseas. The mobile technology is undeniably an important application for mobile commerce (Hu et al, 2008b). However, the factors which determine mobile payment usage are equally or more important. The understanding of the benefit of mobile payment is essential to be determined by firms to encourage them in creating more innovative products through online transaction.

The electronic payment system is considered as the backbone of e-commerce and one of its most crucial aspects (Bezhovski Zlatko, 2016) . It can be defined as a payment service that utilizes the information and communication technologies including integrated circuit (IC) card, cryptography, and telecommunication networks' (Raja et. al., 2008). In mobile payment, every user able to adopt mobile terminals such as cell phones to access online tranaction to pay products or service. Mobile terminals and networks are the most crucial element in mobile payment for users from the temporal and spatial limitations, and enabled them to conduct payment at anytime from anywhere. In Indonesia, the example of mobile payments that often be used by users are : Ovo, GoPay, Dana, LinkAja, Shope Pay, and Traveloka Pay.

The presence of the mobile payment has changed how business is conducted. This is because offering online transaction through mobile phones has brought about great potential for reaching those who have limited time to shop. Moreover, accessibility to the mobile phone is to both the poor and the rich. According to Lennart and Bjorn (2010), the fast diffusion of mobile money transfer was viewed as a potential key tool for facilitating financial transactions. This indicates that the rapid adoption of mobile phone was seen as a means of uplifting the financial functionality of SMEs.

While there is stupendous growth in mobile payments, a confounding reality is that about 70% of retail transactions by value are still conducted in cash (Vashistha Aditya 2019). This warrants a closer inspection of how people perceive mobile payment systems (benefits, limitations, and barriers) in the context of merchant payments. However, the research on mobile payments examining people's perceptions about its adoption barriers, usability, usefulness, and security risks are scarce. To fill this gap, this research aim to identify the key issues on the determinantion of m-payment from customers' perspective. Mobile payment can be defined as a wireless-based electronic payment for mcommerce to support point-of-sale / pointof- service (POS) payment transactions on user's mobile devices (Gao et al, 2005).

The determinants in this research are classified to three aspects: consumer features, business features, and technology features. Those three conceptual perspectives might influence to the user of mobile payment as the online business transaction. The ability of firms to fill customer expectation through the used of online transaction will create potential benefi for firms. This is because mobile payment might increase the number of

spending for customer because of the easeness, and efficiency.

LITERATURE REVIEW

The proliferation of technology has changed the way business conduct their business operation and business concept. The method of payment moves from traditional to online to make it easier in purchasing. Mobile phones are playing a key role in extending the reach of financial services to poor people in low-resource environments, where access to banks is non-existent due to the prohibitively high cost of setting up traditional brick and mortar banking institutions (Vashistha Aditya 2019). Three conceptual perspectives in this research: consumer feature, business feature, and technology feature are the consumer perspectives that might changed the way people making payment in purchasing.

Consumer Feature

Through mobile payment, consumer feature can be defined as distinctive, singular, typical or special feature or features, which may be used to distinguish a customer or group of customers from any other consumer group of consumers in buying or payment process for products or services. Each customer will have different feature. In this research, the consumer feature categorized into three consumer features that could influence mobile payment usage and affecting the consumer spending among consumers that include price, convenience, and content reliability.

1. Price

Businesses such as retailers will offer low prices to capture higher store traffic while consumers will respond differently indicating varying levels of price consciousness (Choi et al, 2006; Kukar-Kinney, 2007; Tan et al, 2009). Offering with lower price is one of the stratgey to encourage people to buy. The use of mobile payment as platform of transaction, price will be essential for consumers. As the promotion given by mobile payment firms make the price of the product much more cheaper than they paid without the use of online transcation. For example: the mobile payment can be integrated with common price strategies: low price services, promotion of discounted products using m-payment, and mobile pont accumulation services. The lower price provided will encourage more users to use mobile payment as the payment method.

Previous studies have found that relative advantage has positive influence on behavioral intention in using mobile technology and mobile payments in particular as media of transaction (Johnson, et al., 2018). Costs involve the amount of money spent on payment fees and equipment (Hayashi, 2012); cost considerations are known as a barrier in technology adoption overall (Lu et al., 2011). Thus, reasonable fees and charges should be applied in order to capture wider market share of mobile users.

2. Convenience

Convenience refers to for instance flexibility, speed, portability, and ease of use (Hayashi, 2012). Mobile payments enjoy obvious benefits over traditional payment services in terms of convenience, efficiency and ubiquity (Yang, et al., 2012). Eliminating the need of carrying further physical tokens, such as cash or credit cards, and reduce payment time by on average 15 to 30 seconds (Hayashi, 2012). In retail market, consumer

satisfaction will increase when the consumer value increase with higher return on investment (ROI) (Tan et al, 2009).

The advantage of mobile payment is to conduct trading anytime and everywhere will create potential benefit for firm. Consumers with mobile devices can easily transaction only by one click to an application . This system will then be authenticated with the related merchants system for complete transaction process. The possibility of consumer to get their product or services in more efficient will create a customer satisfaction. The literature on satisfaction with technology either directly explores satisfaction determinants (e.g. Meuter et al., 2000) or does it indirectly by identifying the dimensions of product/service quality which have an impact on satisfaction (e.g. Parasuraman et al., 2005; Bauer et al., 2006)

3. Content Reliability

Content reliability in mobile-payment can be defined as the degree to which a person believes that the mobile portal will enhance the quality of products or services provided (Cheong and Park, 2005; Choi et al, 2008; Wu and Wang, 2005). The ease of use also part of content reliability that able to enhance the product or services offered. Ease of use is one of the most important measures since online transactions are often complicated and intimidating to some users (Parasuraman et al., 2005). Thus, the content reliability in m-payment could change the manner of business being conducted and may enable great m-payment usage.

Business Feature

The business feature in mobile payment as media of transaction is the determination on how firms provide sufficient services for users. This services include the before-transaction completed, during transaction, and after-transaction completed. In this research, the business featured classified into three dimensions: visibility, system quality, and customer services.

1. Visibility

Visibility in mobile payment payment can be defined as the degree of representation made possible in the display, site design or visual information provided by the mobile portal (Choi et al, 2008; Kim et al, 2005; Wei and Ozok, 2005). The display on the mobile portal payment might defined the easeness to use the application as media of transaction. The quality of information given on portal is essential to attract more users conducting in mobile payment. Quality is associated with the websites that enable to easily find and access required information (Yoo and Donthu, 2001) or allow conducting transactions with minimum effort.

2. Service Quality

According to Chen & Zhou (2008), service quality on mobile commerce demonstrates user perception towards vendor service level, which includes on-time service, timely response and personalization. With good system of quality services provided, users will use mobile payment as media of online transaction very often. Mobile device become a contactless payment card thus making a new way of payment and to bring convenience with good service quality offered for consumer to make 'wave/tap and go' transaction (Lai & Chuah, 2010).

3. Customer Service

Customer Service can be defined as the degree of assistance provided by a firm in relation to enquires, problems, or feedbacks on usage or transaction process (Choi et al,

2008; Vlachos and Vrechopoulos, 2008). The services before, during, and after-transaction of m-payment need to be considered by firms. Service personalization is important and that it is related in multiple ways to loyalty (Ball et al, 2005).

Technology Feature

The technology feature in mobile payment as media of transaction is the most essential to be provided. A good technology feature will enable information to be process from databases with data mining execution (Beng Tan Chew and C. Eze Uchenna, 2010). The effective mobile payment system give a better better understanding of customer need and wants, and able to lead in mobile payment usage. In this reseach, the technology feature classified in three different features that could influence mobile payment usage include security, and transaction process.

1. Security

Security constitutes a common concern for making online purchases (Szymanski and Hise, 2000). Financial security is important for the users because it will lead to a positive or negative impact on satisfaction. According to Mohd and Osman (2005), the security of a payment method is undoubtedly crucial if the payment method is to gain widespread acceptance. This is because the process of online transaction is rely on the technology security provided. As a whole, security can be view from five perspectives namely confidentiality, authentication, integrity, authorization, non-repudiation, and accessibility (Beng Tan Chew and C. Eze Uchenna, 2010).

2. Transaction Process

The transaction process under the technology feature entails the unambiguous and independent execution of a set of operations on data in a relational database, which treats set of actions as a single event (Choi et al, 2008; Kim et al, 2005). According to Yang et al. (2012), mobile payment is one of the main drivers of mobile commerce, because mobile commerce makes the transactions convenient and feasible. The transaction process is another crucial elements to be considered. As the function of m-payment is efficiency and effectiveness, transaction process could represent tho efficient and effective. If any part of the transaction process fails, the entire transaction fails and all participating resources are rolled back to their previous state (Pete, 2001).

METHODOLOGY

The research method is the organization of research for data collection of research as well as information to answer the problem formulation. According to Sekarang & Bougie (2013: 55) sample is explained as a subgroup of the population. It contains some numbers chosen from it. In this research, the sample is 99 respondents that lived in Jakarta Raya and had experience in using m-payment as media of transaction. Futhermore, convenience sampling technique was used in specifying the sampling with certain criteria was considered

Research Model

According to Sekaran & Bougie (2013: 33): "Reliability is a test of how consistently a measuring instrument measures whatever concept it is measuring. The reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps ti assess the "goodness" of a measure.

Meanwhile, based on Saunders, et al. (2007: 150) "Validity is concerned with whether the findings are really about what they appear to be about. Is the relationship between two variables a causal relationship?"

Research Tools

I This study using a survey method to Obtain primary data. This study uses Partial Least Squares Structural Equation Modeling (PLS-SEM) for the data analysis. A quantitative study is used to identify an association between the variables tested with one independent variables, one dependent variable, and one intervening variable.

C. Research Framework

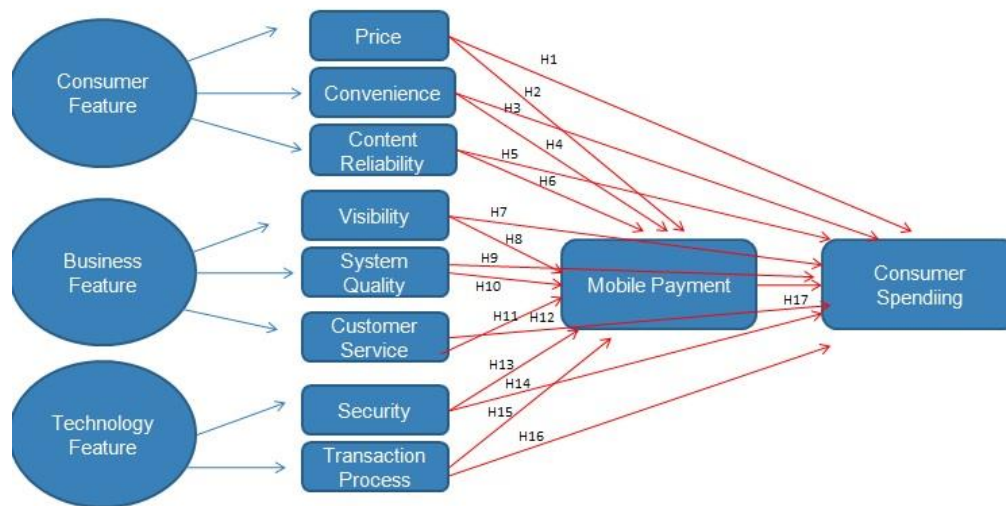


Figure 1

As shown in figure 1 above, there are seventeen hypotheses to be tested in this study with customer spending as dependent variable and mobile payment as intervening variable, and eight independent variables as categorized in three conceptual perspectives.

RESULT

This research used SEM-PLS method to analyze the multivariate models. The model itself consists of three exogenous latent variables called independencies, Skepticism, experience, redflags, internal control and whistleblowing, while the endogenous latent variables items, namely the auditor's fraud detection ability.

Reliability and Validity Test

Reliability of composite value varies between 0 to 1, the higher the reliability of composite showed the higher the degree of reliability of variables. To test the convergent validity, we evaluated the value of Average Variance Extracted (AVE) on each of the latent variables. 0.50 AVE value above shows that on average constructs can account for more than half a variant of the indicators. The reliability and validity test result for this study shown in this table below. According to the table result, all the models meet the reliability and validity test.

	Composite Reliability	Average Variance Extracted (AVE)
Consumer Spending	0.829	0.550
Content Reliability	0.883	0.603
Convenience	0.874	0.699
Customer Service	0.796	0.567
Mobile Payment	0.872	0.631
Price	0.895	0.632
Security	0.849	0.652
Service Quality	0.808	0.584
Transaction Process	0.858	0.674
Visibility	0.872	0.577

Table 1

B. Path Coefficient Test

In this study the structural test models using T test (two-tailed) with a significance level of 10%, then the path coefficient significant when t empirical value is greater than the critical value is 1.65. The results shows that some of the independent variables do not influence directly and indirectly to consumer spending through mobile payment. The red flags show that variables do not influence consumer spending.

	P Values
Content Reliability -> Consumer Spending	0.000
Content Reliability -> Mobile Payment	0.013
Convenience -> Consumer Spending	0.213
Convenience -> Mobile Payment	0.581
Customer Service -> Consumer Spending	0.945
Customer Service -> Mobile Payment	0.001
Mobile Payment -> Consumer Spending	0.546
Price -> Consumer Spending	0.817
Price -> Mobile Payment	0.018
Security -> Consumer Spending	0.176
Security -> Mobile Payment	0.000
Service Quality -> Consumer Spending	0.004
Service Quality -> Mobile Payment	0.000
Transaction Process -> Consumer Spending	0.351
Transaction Process -> Mobile Payment	0.037
Visibility -> Consumer Spending	0.083
Visibility -> Mobile Payment	0.002

Table 2

CONCLUSION

Based on the test results above, content reliability and service quality influences the consumer spending direct and through mobile payment. Customer service, price, security, transaction process, and visibility influence indirectly to consumer spending through mobile payment. Whereas, mobile payment as intervening variable do not influence customer spending

REFERENCES

- Hair, Joseph. F, 2014, "A Primer On Partial Least Squares Structural Equation Modeling (PLS-SEM)". Los Angeles: SAGE
- Beng Tan Chew and . Eze C. Uchenna , 2010. "Determinants of Mobile Payment Usage in Malaysia: A Conceptual Perspective",
IBIMA Publishing Journal of Electronic Banking Systems
<http://www.ibimapublishing.com/journals/JEBS/JEBS.html> Vol. 2010 (2010), Article ID 374494, 9 pages.
- Ngaruiya Bernard, Bosire Mary, Simon M. Kamau, 2014, "Effect of Mobile Money Transactions on Financial Performance of Small and Medium Enterprises in Nakuru Central Business District", Research Journal of Finance and Accounting
www.iiste.org ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online) Vol.5, No.12, 2014
- Trütsch Tobias, 2014, "The Impact of Contactless Payment on Spending", International Journal of Economic Sciences, Vol. III / No. 4 / 2014.
- Ching, A. T. and Hayashi, F. , 2010, "Payment card rewards programs and consumer payment choice", Journal of Banking and Finance, 34(8), 1773-1787.
- Vashistha Aditya 2019, "Examining the Use and Non-Use of Mobile Payment Systems for Merchant Payments in India", COMPASS '19, July 3–5, 2019, Accra, Ghana.
- Lennart, B., & Björn S, 2010, "Mobile Money Transfers and Usage among Micro and Small Businesses in Tanzania". *Implications for Practice*, 1-29..
- Kanyi, W., & Maharaj, M.(2011). Factors influencing successful use of Mobile Technologies to facilitate Ecommerce in small enterprise: The case of Kenya, The African Journal of Information System, 3, 600-623.