

PAPER • OPEN ACCESS

Cashless in Online Transportation Applications for Services Business

To cite this article: A Novitasyari and Widiastuti 2019 *IOP Conf. Ser.: Mater. Sci. Eng.* **662** 022071

View the [article online](#) for updates and enhancements.

Cashless in Online Transportation Applications for Services Business

A Novitasyari^{1*}, N I Widiastuti²

¹Economic and Business Department, Universitas Komputer Indonesia, Indonesia

²Engineering and Computer Science Departement, Universitas Komputer Indonesia, Indonesia

¹ayunovitasyari@mahasiswa.unikom.ac.id, ²nelly.indriani@email.unikom.ac.id

Abstract. The relationship between online transportation applications and cashless payment methods is mutualism. However, that does not mean everything is fine. The purpose of this study is to show that even small entrepreneurs can become entrepreneurs who follow technological developments. This research was conducted to describe the ease of business people in conducting services when transacting with customers using the Cashless payment method in the Online Transportation application. Also, this study reviews the problems that arise from other studies discussing the usefulness of online transportation applications that are increasingly advanced so that it can be used for Cashless payment methods. The research method used was qualitative, namely direct interviews with business people to obtain objective results and supplemented by review literature. The results of this study indicate that, with this online transportation application, it is easier for sellers to make transactions with customers.

1. Introduction

Online transportation is a vehicle that is used as a transfer from one place to another, such as other public vehicles. The fundamental difference between the two is the management carried out by the private sector and the system of use or orders carried out through specific applications. The application will record orders and even track vehicle trips while fulfilling orders. A smartphone becomes a liaison between companies providing systems with vehicle owners and vehicle owners with service users [1].

The development of the internet proliferated and influenced conventional media to transform into online media. In 2011, Nadiem Makarim founded the Gojek company which has excellent benefits for technology development in Indonesia. This system is one of the breakthroughs that bring the behaviour of the people who prioritise practicality. Gojek is an online transportation application that has many benefits that can be obtained, namely the ease and practicality of its use. Provides Not only online transportation but also offers many other information or features, one of the features presented in this application is a feature with a cashless payment system.

The cashless method is a system where all transactions no longer use cash but through electronic media such as debit cards and virtual wallets [2]. William Lorenz in its journal wrote an increase in payment value of 7.4% in 2008 compared to 2007, and the share of debit cards increased to 73.5% from 71.7% in 2007 [3]. Payment through the cashless method is beneficial for those who want all their practical activities. Although some businesses have not been able to use this method, it does not rule out that businesses in Indonesia will soon adopt this cashless payment method. According to Everett Rogers, humans usually need time to adopt technology [4].



Research on non-cash payment methods has been carried out. Immordino and Russo cashless research on payment methods with tax avoidance. The value of avoidance of value-added tax (VAT) [5]. In another study conducted by Lane Langford in *Biometric Technology Today* journal. Japanese technology leader Fujitsu has developed a biometric system that allows people to pay for goods in stores by merely showing their hands at the payment terminal, without the need for cash or cards. The new technology is prepared for 2020 [6]. Bayero researched the relationship between Cashless economic policy and financial inclusion in Nigeria [7]. Other research is also conducted on the quality of online transportation services based on technological aspects [8], or an assessment of customer satisfaction [9] and the mobility of the Brazilian population to determine the right transportation policy [10]. These studies have obtained good results, but an analysis of the effects of online transportation on the ease of business services still needs to be done.

The purpose of this study is to show that even small entrepreneurs can become entrepreneurs who follow technological developments. Both Small and Medium Enterprises can use the Online Transportation application as their business payment method. This payment feature makes it easy for businesses to run and manage their business.

2. Method

The method used in this study was qualitative method. The data used are the results of interviews with several micro and medium entrepreneurs in the city of Bandung. These entrepreneurs have used the cashless payment method in online transportation applications. In this study, the application used was Gojek. This study also used several literary sources that review payment methods, business and services, and online transportation applications. It was used to obtain conclusions based on the stated objectives.

3. Results and Discussion

According to the Law of 2008, explained that the definition of Micro, Small and Medium Enterprises is a productive business owned by an individual and/or individual business entity that meets the criteria of Micro Enterprises as stipulated in this Law. The asset criteria is a maximum of Rp. 50,000,000 - and the turnover criteria is a maximum of Rp. 300,000,000 [11]. The organization used by this businessman is informal. Informal organizations are a collection of two or more people who are involved in an informal activity and common purpose [12]. The researchers interviewed one of the Micro, Small and Medium Entrepreneurs in Bandung who has a beef meatball business. He uses the payment feature in the application available on the online transportation application. These business people take advantage of technological developments that are currently growing rapidly.

Nowadays, the use of cash as a means of payment has gradually diminished. Payments using debit or credit cards are increasingly popular. Many people are beginning to realise that using cashless payments directly gives them comfort compared to having to carry large amounts of cash that are considered impractical. Not only debit or credit cards but also now appear electronic money cards such as e-toll cards, parking cards and so on. In addition, to increasing cashless method users, people also began to show their creativity in utilising this technology as a tool that can provide payment facilities for cashless methods. Starting from the online transportation application, it was developed more broadly until finally, the payment feature appeared with the Cashless method. Aside from being an online transportation application that offers convenience and security guarantees, this application also offers low cost, so many people switch to using this application. Davis (1989) stated in his journal that humans are more easily provoked using new technology if it is felt that this technology has an important role [13]. This application can provide transportation services and payment services. This application is effortless and easy to use by anyone and can be taken wherever they are because they only need a smartphone that can support this application to run. In this study, the cashless payment method has many advantages while Giovanni et al. Found the fact that cashless had a negative impact such as VAT avoidance [5].

In a study conducted by Eric W.K, et al., The method of payment was consumptive, and the psychology of consumption [14]. The conclusion is that the way to pay affects the awareness of

transactions and the lack of sources of money for payments. However, the study also states that the method of payment has no influence on the perception of convenience in paying. This is a little different when viewed from the seller's perception. The results of our interviews with micro and medium traders. They stated that the cashless payment method is convenient. In this case, of course, it is not a credit or debit card that is discussed. However, the payment system is attached to online transportation applications.

Now many companies are competing to make transportation applications based online. One of them is GO-JEK company that provides payment service features that are very practical and can be done anywhere. Gojek company provides online technology-based payment services that can be referred to as GO-PAY. GO-PAY is a virtual wallet to store in GO-JEK Credit that can be used to pay for transactions related to services in the GO-JEK application. Currently, GO-PAY has collaborated with several banks in Indonesia. So that the top-up method is also getting easier. Besides transferring ATMs or banks, it can also be done via SMS banking, internet banking or even directly through GO-JEK drivers. GO-PAY can be a solution when someone is lazy to do transactions with cash. Another benefit is that by using this Cashless method, every transaction that occurs will have trace evidence, each user can very freely track every transaction that has been done and also the user can control each transaction. Moreover, the third benefit is usually in an application that provides payment features without cash; the application will offer promos or discounts that can help save expenses

In the viewpoint of software, quality is done by Shilvia Silalahi et al. They reviewed the GO-JEK application in terms of service quality, information quality, and system. The results they deliver are precisely compensation, trust, and perceived risk, including the lowest criteria [8]. However, this research is trying to see positive things in the GO-PAY cashless payment system. GO-PAY is used as an alternative for MSME entrepreneurs in running their business. One small but often troublesome problem is when making transactions with buyers who need the change. By using GO-PAY the amount of payment is made with the right value. Besides, the benefit of using GO-PAY is because it is very easy to manage all forms of income and expenses. A respondent's businessman conveyed the reason why he used GO-PAY is he was swamped (doing his own business) so he could not manage finances well. As a result, he often mixes capital and profits. The results of the sales made have entered the seller's account, so the seller no longer has to think about separating capital and profits. Sellers feel that with the development of technology, the better if they also take advantage of the features provided by the GO-JEK application, sellers also think that people now prefer to use applications in transactions or buy anything rather than having to leave home to buy something. This pattern of life for people who want to be practical can encourage micro and small businesses to use applications as business supporters. The seller only registers his business with the GO-JEK company, so he is registered in this online application to run his business.

Research conducted by Apriliyana et al. analysed the technological advances in human lifestyles. They state that the relationship between technological progress and the human lifestyle is very close [15]. Technological progress is taking place, so the benefits felt in using GO-PAY are also very pronounced. Another technology that supports the Cashless method is the camera feature for photographing QR-codes available. This makes it easier for users to access the Cashless payment system. Figure 1 is an example of a Scan-QR attached to the seller's wheels used as a trade transaction.



Figure 1. Skewer beef meatballs seller who has used the Cashless payment method

The buyer only needs to use the camera to scan the QR code on the GO-JEK application, and after being successful the buyer can directly make a payment transaction Figure 2. This convenience is due to technology that supports this payment concept.



Figure 2. Example form of QR code

A study conducted by Mar Perez-Sanasgustin et al. analyse the use of QR codes to increase public interest in engagement sites such as museums. The results they obtained turned out to be quite surprising; people turned out to be more interested in getting information directly. However, it also stated that the QR Code is a standard technology for sending digital information needed [16]. In contrast to our findings in interviewing micro business owners. They said that buyers who came to them tackled the use of the QR Code because of the practicality of completing payments.

The QR code method has been investigated to be compared to mobile-based payments such as SMS and NFC from various perspectives. Research conducted by Iviane Ramos de Luna et al. [17] is a review of cellular-based payments depending on the technology used. They are safe mobile payment technology from usability, security, and norms. This shows that cashless payment technology continues to grow. Another point of view was reviewed further by Hiram Ting et al. based on ethnicity [18]. They represent two tribes namely Malay and Chinese. They determine differences in normative subjectivity and security perspectives.

What is different in this study is cashless payments tied to online transportation applications. Transportation that is designed to be attractive. This system originated from online transportation, but its development expanded into services businesses that varied, such as shipping goods, cleaning services and cashless payment features that are popular today. If you enter using the GOJEK application, one of the features, GO-PAY will appear. A menu that can be used as a receive menu, which is to find out how

much money is received, menu history can display the transaction history of the seller or buyer, and so on. It can be shown in Figure 3.

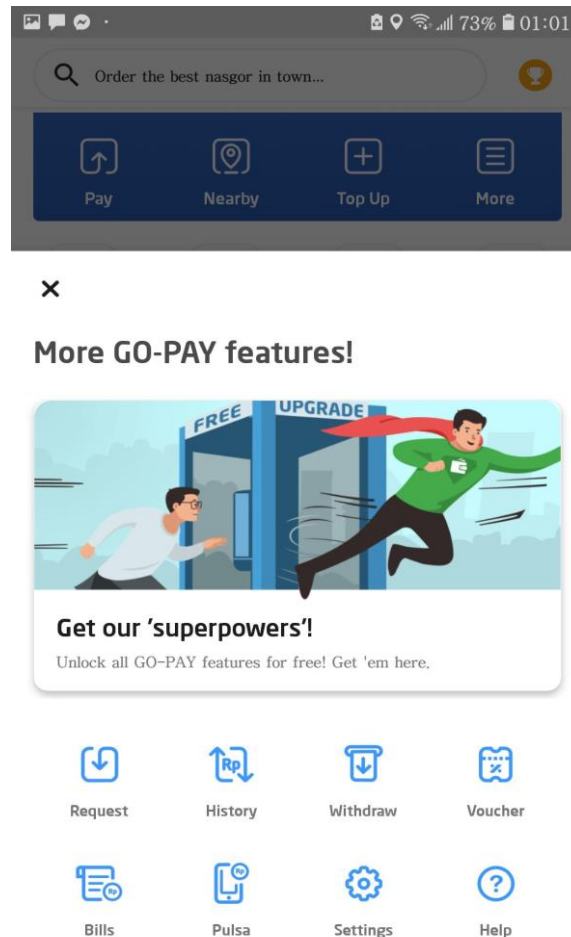


Figure 3. Other features of GO-PAY

Skewer beef meatballs'seller is very benefited from the presence of GO-PAY with this cashless method because according to him non-cash payments are very practical, this is very effective used when sales are crowded, so the seller no longer needs to be confused in terms of returns. The seller is proud to be able to keep up with technological developments. With the GO-PAY application, it is beneficial for traders in their business operations. According to Yeoi Mun Pooi et al. Millennial perspective on cashless methods is also interesting to discuss. In their research, they concluded that this cashless method also participated by Malaysian millennials [19]. While the IDN Times released the Indonesia Millennium Report 2019, millennial Indonesia which uses the cashless method is a thrifty way of life [20].

4. Conclusion

With the application that supports payment with the Cashless method, there are many benefits for both sellers and buyers. Because by using the cashless method it saves energy and also supports the practicality of buying and selling transactions. Although there are still security problems and weak relationships between payment methods and value spent, technological development can not only be felt by business people who are already large, but even small business people can already benefit from

technology that can support their business operations. It is just that the seller and the buyer must be wiser in using GO-PAY. This application can also be enjoyed by all people freely because this application is not a paid application. This cashless payment method in technology-based online applications can be a breakthrough that can meet the transaction needs in this modern human life.

References

- [1] Carroll A and Heiser G 2010 An Analysis of Power Consumption in a Smartphone *USENIX annual technical conference* **14**, 21–21
- [2] Marlinah L 2016 Budayakan Cashless Society Sebagai Kebutuhan *Konferensi Nasional Ilmu Pengetahuan dan Teknologi* **1**, 81–6
- [3] Lorenz W 2009 Moving away from cash *Card Technol. Today* **21**, 12–4
- [4] Rogers E M 1995 *Diffuison of Innovations*
- [5] Immordino G and Russo F F 2018 Cashless payments and tax evasion *Eur. J. Polit. Econ.* **55**, 36–43
- [6] Lane L 2018 Fujitsu: breakthrough heralds ‘cashless society’” *Biometric Technol. Today* **2018** 2
- [7] Bayero M A 2015 Effects of Cashless Economy Policy on Financial Inclusion in Nigeria: An Exploratory Study *Procedia - Soc. Behav. Sci.* **172**, 49–56
- [8] Silalahi S L B, Handayani P W and Munajat Q 2017 Service Quality Analysis for Online Transportation Services: Case Study of GO-JEK *Procedia Comput. Sci.* **124**, 487–95
- [9] Santoso A S and Nelloh L A M 2017 User Satisfaction and Intention to Use Peer-to-Peer Online Transportation: A Replication Study *Procedia Comput. Sci.* **124**, 379–87
- [10] Abreu B R A and Oliveira L K de 2014 The Potential of Response Rate in Online Transportation Surveys *Procedia - Soc. Behav. Sci.* **162**, 34–41
- [11] Undang-Undang N 20 2008 *Government Regulation No. 20/2008*
- [12] Soegoto E 2014 *Entrepreneurship Menjadi Pebisnis Ulung* (Elex Media Komputindo)
- [13] Davis F D 1989 Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology *MIS Q.* **13**, 319
- [14] See-To E W K and Ngai E W T 2019 An empirical study of payment technologies, the psychology of consumption, and spending behavior in a retailing context *Inf. Manag.* **56**, 329–42
- [15] Sakti A D, Widiyanto R K and Nasution N A 2016 Analysis The Effect of Technology Improvement Towards Human Lifestyle (Case Study : Online Ojek) *Global Research on Sustainable Transport and Logistics.* 863–77
- [16] Pérez-Sanagustín M, Parra D, Verdugo R, García-Galleguillos G and Nussbaum M 2016 Using QR codes to increase user engagement in museum-like spaces *Comput. Human Behav.* **60**, 73–85
- [17] de Luna I R, Liébana-Cabanillas F, Sánchez-Fernández J and Muñoz-Leiva F 2018 Mobile payment is not all the same: The adoption of mobile payment systems depending on the technology applied *Technol. Forecast. Soc. Change*, 1–14
- [18] Ting H, Yacob Y, Liew L and Lau W M 2016 Intention to Use Mobile Payment System: A Case of Developing Market by Ethnicity *Procedia - Soc. Behav. Sci.* **224**, 368–75
- [19] Mun Y P, Khalid H and Nadarajah D 2017 Millennials’ Perception on Mobile Payment Services in Malaysia *Procedia Comput. Sci.* **124**, 397–404
- [20] Siregar A 2019 IMR 2019: Millennial Pilih Hidup Cashless