

Brief Implementation and Challenges of a Cashless Payment Method to Facilitate Financial Inclusion

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Abstract. This study focuses on the implementation of a cashless payment method in a canteen at the University of Indonesia (UI). In cooperation with Bank Negara Indonesia, the university introduced a smartcard (TapCash) that acts as an identification card and a digital payment method on or off-campus. Based on structured interviews with tenants and buyers (students) at the canteen in 2018, this paper shows that the implementation of a cashless payment method at this cafeteria has advantages and disadvantages. A total of 50,8% of the respondents was positive about this method of payment, while the rest of the group described negative experiences. Factors such as the simplicity and security of using TapCash, as well as certain technical issues, influenced user experiences.

Keywords: *cashless society, digital finance, electronic payment, financial inclusion*

1 Introduction

In 2010, the Group of 20 (G20) collaborated with the World Bank to initiate financial inclusion to overcome economic problems (e.g., reducing the poverty levels) in developing and emerging countries (G20, 2010). The Consultative Group to Assist the Poor (CGAP) defines digital financial inclusion as “digital access to, and the use of, formal financial services by the excluded and underserved population” (CGAP, 2015). Policymakers and academics are interested in how digital finance and financial inclusion can lower poverty levels and increase economic growth; there are several areas in which digital finance can be utilized more effectively for individuals, businesses, and governments (Ozili, 2018).

Digital finance technology is a breakthrough not only for the financial industry but also for governments. Although there is no standard definition for digital finance, several studies, including a McKinsey Global Institute report, describe it as financial services delivered through mobile phones, personal computers, the internet, or cards linked to a reliable digital payment system (Manyika, Lund, Singer, White, & Berry, 2016).

Financial inclusion through a digital payment system has been achieved across the globe, and it holds many benefits—especially for users. When money is managed digitally, it becomes easier to supervise the integrity of transactions and accounts and move money around, as opposed to merely debiting and crediting accounts (Bayero, 2015). Moreover, digital payment systems help banks to lower their costs by reducing queuing in banking halls, minimizing manual paperwork and documentation, and maintaining fewer branches (Manyika et al., 2016; Saal, Starnes, & Rehmann, 2017). Furthermore, Ozili (2018) notes the following: “For financial and monetary system regulators, digital financial inclusion also helps to reduce the amount of physical cash in circulation and is instrumental in reducing high inflation levels in developing and poor countries” (cf. G20, 2010).

However, digital payment systems also create several problems. User education on these is given by providers of digital financial services; in other words, profit-seeking corporations that run their business based on profitability assessments. In other words, these providers may decide to focus less on the delivery of digital financial services to poor and uneducated communities if the net monetary value of providing these services is very low (Ozili, 2018). A study from the Czech Republic suggests that digital payment systems (or cashless payments) aimed at improving cost-efficiency and directness and reducing transaction time, are flawed (Soukal & Hedvicakova, 2014).

Indonesia’s central bank, Bank Indonesia (BI), has been campaigning for the use of electronic money since 2006. Initially, the bank’s efforts were in support of the redenomination of the rupiah, but these later developed into the Non-Cash National Movement (or the Gerakan Nasional NonTunai) (GNNT), which was launched officially in August 2014 (Segara, 2014). The GNNT aims to encourage citizens to use digital payment systems and minimize the use of banknotes or coins (Jati, 2015; Kemenko Perekonomian, 2015). In support of this, several banks implemented digital payment cards, including e-money, TapCash, and Brizzi.

The use of digital payments in Indonesia has rapidly increased since then; based on data from the BI, e-money transactions grew by 120%. In 2009, e-money transactions were recorded at 48 000 transactions worth Rp1.4 billion per day. In 2010, these increased to 73 000 transactions valued at Rp1.9 billion per day. In 2011

and 2012, transactions had reached 112 000 to the value of Rp2.7 billion and 219 000 to the value of Rp3.9 billion, respectively. By May 2013, the number of e-money instruments alone had increased from 21.9 million in 2012 to 25.3 million (Bhaskoro, 2013). In September 2014, the number of e-money transactions in the country had reached Rp 305.5 billion (Jati, 2015).

These numbers show that the demand for digital payment in card-form is high. Accordingly, the Indonesian government issued policies that support the application of digital payment. Digital payment methods allow individuals to pay for tolls on the road, entrance fees at malls or on campuses, or lunch in the canteen, for example. While research has shown that financial inclusion through digital payment can be implemented at every level, its implementation has not yet been evaluated. This study aims to establish how a cashless payment method is put into effect in a small community, such as a campus. The following objectives have been identified to achieve this: (1) To examine the use of a cashless payment method on campus; and (2) To explore people's awareness and experience of using a cashless payment system.

2. Literature Review

2.1 Financial inclusion

Financial inclusion is the state in which everyone who can use financial services has easy access to a variety of such services—including payments, savings, and insurance—at affordable prices, conveniently, and with respect and dignity (Arun & Kamath, 2015). Recent research indicates that financial inclusion improves individual welfare and is positively affected by legal rights and political stability (Allen, Demirguc-Kunt, Klapper, & Martinez Peria, 2016; Ozili, 2018). In fact, financial inclusion has emerged as key in resolving global issues, particularly in the area of economics. The matter of financial inclusion is urgent because 50% of the world's adult population does not have access to the services of a bank or any other financial organization (Chaia et al., 2009). In light of this, the World Bank has aims to realize universal financial access by 2020 (Arun & Kamath, 2015).

2.2 Cashless payment

Cashless payment is one of the financial innovations that was adopted throughout Indonesia, and it ushered the country into a new era of operating without cash. In a cashless society, consumers can make payments over the Internet, at the vending machine or point of sale by using a mobile device, through a personal digital assistant, or by using smart cards and other electronic payment systems such as debit and credit cards. Governments and commercial entities strongly encourage and support cashless transactions (Khan & Craig-Lees, 2009). There is a correlation between the proportion of electronic transactions in society and the proportion of people who are banked. In Canada, for example, 96% of adults have an account at a formal financial institution. In Nigeria, on the other hand, campaigns to create awareness on the advantages of cashless transactions are core actions of the country's policies as these can help overcome potential market failure. These campaigns will enable providers to market their electronic services to unbanked customers, as well as to those banked customers who do not use their accounts and e-channels (Bayero, 2015; EFIna, 2013).

3. Method

Two canteens on the University of Indonesia campus—those at the Faculty of Engineering and the Vocation Education Program—use TapCash as a payment tool. A total of 179 respondents who use the cafeteria of the Vocation Education Program participated in this study. In order to assess the benefits and the level of awareness of cashless payment methods within a small community, structured interviews were conducted with these respondents. Participants, including sellers and buyers in the cafeteria, were asked to share their opinions and experiences of using digital payment methods in the canteen. They were then requested to write a descriptive essay based on their interviews. The study also included a literature overview of digital payment methods and financial inclusion. According to Martin (1989), an expository essay (also known among teachers as an argumentative essay) is a way of assessing student learning (cf. Chandrasegaran, 2013; Zhao, 2017.) Such an essay requires that a student present and support their point of view with arguments and evidence (Schleppegrell, 2004). Quantitative methods were used to interpret the data from the interviews. First, the data were grouped according to two categories: advantages and disadvantages of using the TapCash payment method in the canteen. The data in each category were then analyzed to establish the participants' experiences and level of awareness about cashless payment methods.

4. Results and Discussion

At present, digital payments are relatively common on the campus of the UI. The university has embraced digital socialization by introducing digital payment options through students' identity cards. These student cards are linked with the smart card TapCash, an initiative by the university and Bank Negara Indonesia to support the cashless movement. Aside from being used as a form of identification, these cards are also used to make payments on and off-campus. Furthermore, they are easy to charge and require no monthly administration fee or minimum balance (Universitas Indonesia, 2014). In addition, TapCash simplifies payment for student activities, including making purchases at the cafeteria, paying for parking on campus, or buying train tickets. Several canteens on the campus have started implementing digital payment systems in order to comply with the university's standards on health, safety, and the environment (the procedure is referred to as K3L in the university's official documents) (Yuliananda, 2017). However, only the two above-mentioned cafeterias use TapCash, and because its implementation resulted in considerable changes for students and traders, this payment method and its implementation necessitate an investigation.



Figure 1: A TapCash student identity card from the University of Indonesia.

Advantages and disadvantages of implementing a digital payment system

In October 2017, 64 freshmen students majoring in Document and Information Management (aged 17–19 years) wrote expository essays about their experiences of using TapCash in the university's Vocational Program canteen.

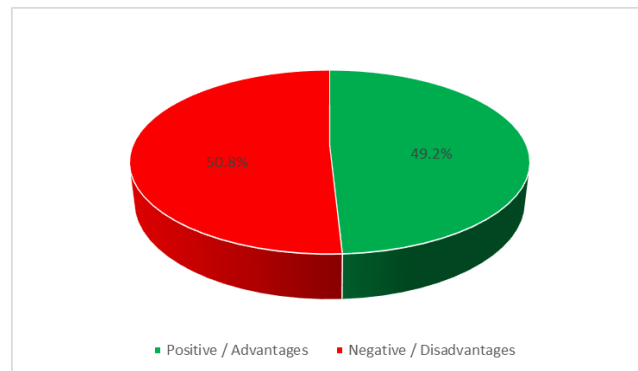


Figure 2: Advantages and disadvantages of using a digital payment method

These essays indicate that their experiences of using TapCash are equally positive and negative. As Figure 2 shows, 49.2% of respondents felt positive about using TapCash, whereas 50.8% of respondents experienced difficulties in using this method of payment. From Figure 3, it can be concluded that the majority of the respondents use TapCash because of its simplicity, while a significant percentage think that TapCash is safer than keeping extra cash in their pockets. Furthermore, the respondents argue that TapCash is practical, easy to use, saves time, and can be used anywhere—even off-campus.

At the same time, other respondents felt strongly that the TapCash system is complicated and often faulty. Significantly, the transactions done through TapCash are untraceable, so neither the tenants nor the traders are able to record any transactions.

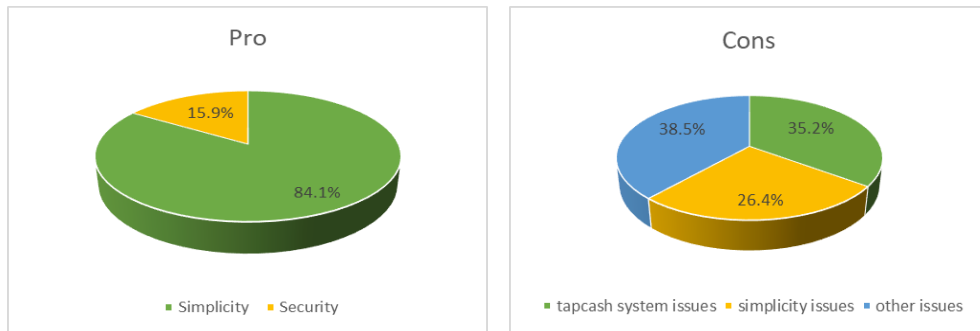


Figure 3: Factors that influence user experiences of TapCash.

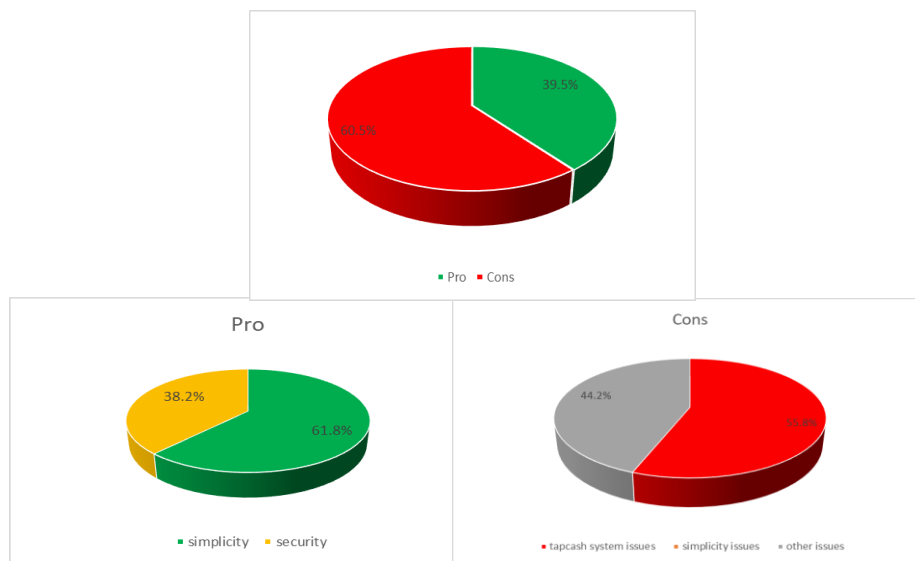


Figure 4: Tenant perspectives on the implementation of Tapcash

A total of 86 respondents have a kiosk in this specific canteen, and the majority of them (60,5%) are negative about the implementation of TapCash. Their reasons vary. Generally, they find the system difficult to use and argue that they still require cash to buy stock or ingredients, because they have to wait a day for balances to be taken out. Still, several respondents argued that TapCash is safer than using banknotes for transactions.

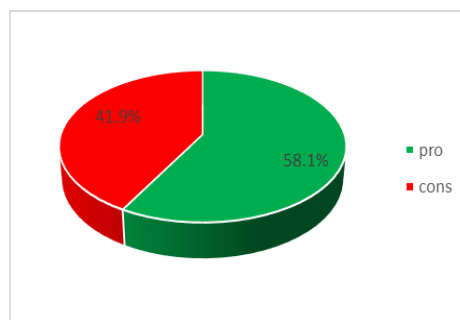


Figure 5: Buyer perspectives on using TapCash

In total, 93 buyers voluntarily participated in this study. The majority of the students (58.1%) indicated that they prefer using TapCash to cash; 41,9% of the participants disagreed. The results in Figures 3 and 5 show that tenants and buyers have different perspectives: the former argues in favor of TapCash, while the latter views it in a negative light.

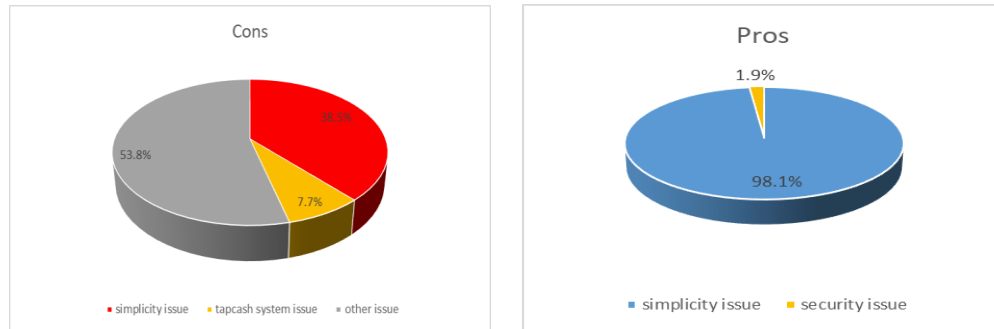


Figure 6: Factors that influence a buyer's perspective on using TapCash

Figure 6 clearly shows that most buyer respondents place a high value on the ease of using TapCash—on and off-campus. Also, although TapCash cannot be deposited in the canteen and the card is easily damaged, these negatives do not deter the students from using TapCash instead of cash.

5. Conclusions

This study is in line with previous research that indicates that the constraints of cashless payment methods are not only technical but also substantial (Bayero, 2015; Sokołowska, 2015; Soukal & Hedvicakova, 2014). The data show that 49.2% of the respondents feel that digital payment methods improved their transactions. However, 50.8% of the participants experienced difficulties in using TapCash. User-awareness of the benefits of cashless payments is, therefore, crucial and should receive the necessary attention. Technical issues should be resolved in cooperation with the bank in order to improve the existing facilities. The study also highlights that the socialization of digital payments is not only the responsibility of the government but also the community.

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