

# The Risks of Embodying “Cashless Society” in Indonesia





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# Introduction

Currently, as digitalisation has inevitably been imposed on all aspects of our lives, it is important to take into account the “cashless society” as a new phenomenon in the economic sector perpetuated by the rapid development of Artificial Intelligence (AI) and the Internet of Things (IoT). Many fintech products and start-ups have begun to dominate the domestic market all around the world, which is indicated by the burgeoning fintech innovations – including digital payment methods (e.g., PayPal, ApplePay, and Venmo). It is therefore not surprising to see that nowadays, three out of every ten transactions are cashless, in contrast with ten years ago, when six in ten predominantly used cash to carry out transactions<sup>1</sup>. It is also predicted that in a decade, the utilisation of cash as a payment method could be as low as one out of ten transactions<sup>2</sup>.

Going cashless could indeed generate numerous benefits for both businesses and consumers in terms of efficiency as the payments are carried out instantly. Digital payments could transfer money instantly, which would obviously consume much more time if the money is transferred using checks – as frequently has been done by businesses. Furthermore, it is often claimed that going cashless could also provide greater security for the consumers as the risks of robbery would decrease due to the cashless payment method, which would reduce the crime rates<sup>3</sup>. The high possibility of cash's demise in the future does, therefore, make sense, and the prevalent payment methods would gradually shift. However, notwithstanding the advantages, the negative impacts of going cashless are also inevitable. In Indonesia, whereas digital payments have gained more popularity, it is still a long way to generate a pure “cashless society” due to some prevalent obstacles. These include, but not limited to, the high illiteracy rate and the prevailing data protection issues in Indonesia. This case study will discuss the risks of embodying a “cashless society” in Indonesia by particularly highlighting the two aforementioned problems of going cashless, which include the perpetuation of financial exclusion and data privacy protection threats. It will also recommend some possible solutions for the government of Indonesia to be taken into account in order to improve Indonesia's preparedness in utilising cashless payments



# The State of “Cashless Society” in Indonesia

Recently, the utilisation of digital payment technology has seemingly become more popular in Indonesia. OVO, Go-Pay, LinkAja, Dana, Jenius, Doku, and T-Cash are a few of the examples of fintech products that have been used widely in Indonesia in the form of a digital wallet. Indonesia has also increased its use of cashless payments as the National Non-Cash Movement (GNNT) was launched by Bank Indonesia in 2014. The movement was aimed to foster the growth of cashless payments among businesses, consumers, and governmental bodies; henceforth, a Less Cash Society (LCS) could eventually be formed<sup>4</sup>. Since 2017, the government has also begun to apply cashless payment methods on highways to achieve the Go Digital Vision 2020<sup>5</sup>. Essentially, both the government and Bank Indonesia have aspired to accelerate the growth of Indonesia's digital economy by urging its citizens to transform into a cashless society gradually<sup>6</sup>. The aspiration is also fuelled by the urge to be more efficient in terms of cash production's cost and time due to the high velocity of money<sup>7</sup>. The government's efforts to digitalising the payment methods have been successful as, according to a report by VISA, Indonesia was second-ranked in Southeast Asia in terms of the citizens' level of preference for digital payments, which accounts for 60% – right below Singapore at 79%<sup>8</sup>. As reflected in the infographics below, the hassle-free nature of cashless payments seemingly becomes one of the main driving factors of most Indonesian people to use them more frequently.



## Top Reasons for Increase in Cashless Payment Usage



**65%**  
More Convenient



**55%**  
Hassle-free



**51%**  
Widely Accepted



**49%**  
Feel more comfortable paying with cashless method

## Top Reasons for Increase in Cashless Payments

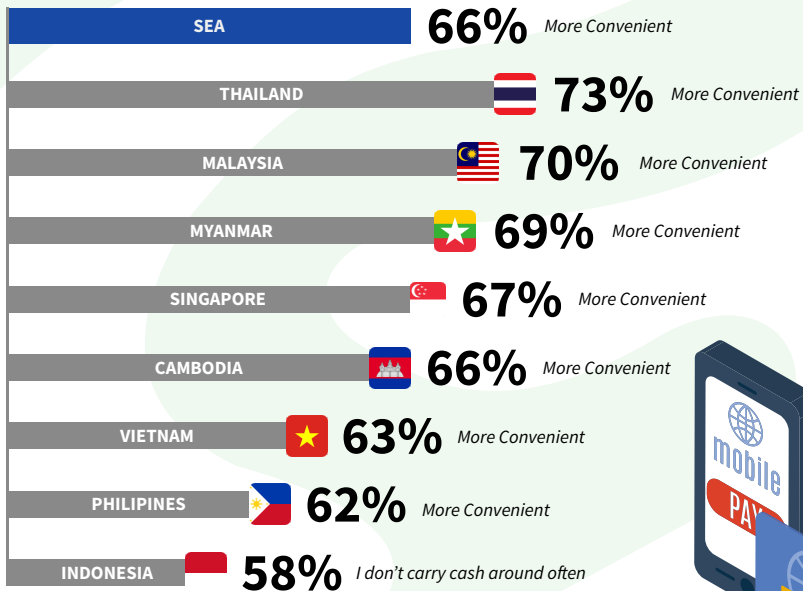


Figure 1. Top Reasons for Increase in Cashless Payments and Their Usage (VISA Report)

In Indonesia, it is not surprising to see the rapid growth of digital payments' utilisation as Indonesia has become one of the countries that have successfully perpetuated the growth of fintech businesses; according to a study, it is approximated that there are 171 million active internet users in the country<sup>9</sup>. Accordingly, the role of the Financial Services Authority (OJK) has, therefore, become crucial in ensuring an effective and safe application of fintech technologies – amidst the rapid development – on contributing to Indonesia's financial stability and growth<sup>10</sup>. Another state financial institution, Bank Indonesia, had examined the proportion of cashless transactions and the amount of available e-cash from 2010 to 2019. As can be seen in the graph below, it was found that the amount of e-money available increased by 31 times from 7.9 million units in 2010 to 25.1 million units on September 2019, whilst the proportion of cashless transactions rose significantly from Rp693,47 billion in 2010 to Rp95,75 trillion on September 2019<sup>11</sup>.

### Amount and Number of Transactions of E-Money

Source : Bank Indonesia, Oct 2019

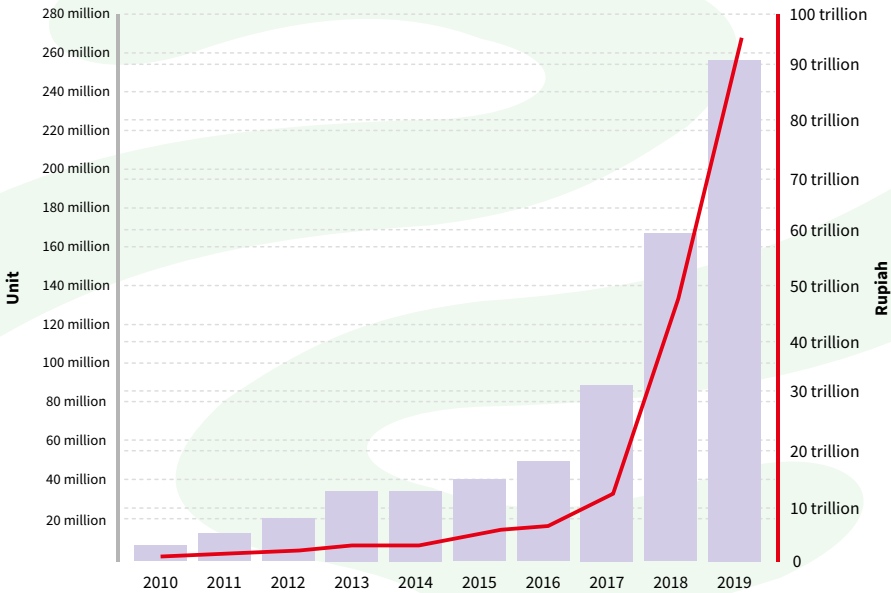


Figure 2. Amount and Transactions of Electronic Money in Indonesia (2010-Sep 2019)  
<https://databoks.katadata.co.id/datapublish/2019/11/07/berapa-transaksi-uang-elektronik-di-indonesia>



The increasing popularity of digital wallet may also be driven by the generous number of cashbacks or discounts given, as what has frequently been done through OVO and Go-Pay to attract more customers to use their offered services. Other aforementioned benefits could indeed be tempting, which makes the use of digital wallet in transactions becoming more appealing. Nonetheless, notwithstanding the possible advantages, there are also numerous risks or drawbacks that should be taken into account as trade-offs for undergoing cashless transactions.



# Threats to Data Privacy & Security

Indeed, going cashless might prevent the increase of financial crime rates at the societal level. Nonetheless, as a trade-off, it could also foster more criminal acts to be carried out in another way round, simultaneously; the number of cybercrimes, surveillance, and censorship may be more prevalent in the future as the users' transactional data are digitally recorded by companies and governments<sup>12</sup>. According to the Association of Indonesian Internet Providers (APJII), the rising digital innovations developed by companies have perpetuated the amount of personal data required to be collected<sup>13</sup>. Henceforth, the risk of data privacy rights being infringed increases subsequently. Fintech industries, with their peer-to-peer lending (P2P) system, are obliged to collect the personal data of their consumers in order to conduct credit scoring, which has often been misused to gain some profits by debt collectors through leveraging the users' personal data. Even worse, the acquired data might be disseminated to the relatives of the debt collectors, which might later be misused to carry out criminal acts<sup>14</sup>.





On the other hand, the Institute for Policy Research and Advocacy (Elsam) also examined the raised concerns over the implementation of the Personal Data Protection Bill in Indonesia as the bill comprises of 30 regulations, which have different principles in terms of personal data protection<sup>15</sup>. Hence, it could eventually lead to the lack of standardisation on each company's terms of service regarding the personal data protection of its customers. As a result, the likelihood of the customers' personal data to be breached burgeons if most people are going cashless – notwithstanding the robust security protection being applied. More importantly, the low awareness of people regarding the importance of personal data protection in the current digital era, as what Rudiantara (the Minister of Communication and Informatics<sup>16</sup>), should also be taken into account to further advocate for the better enactment of the Personal Data Protection Bill.

To raise another urgent issue concerning data privacy protection, various crimes in the form of social engineering have taken place more frequently, largely due to the digitalisation of every aspect of our lives. This type of crime resulted from the lack of individuals' awareness of the significance of protecting their personal data properly. This method of crime is aimed to steal personal information from targeted individuals.

Maia Estianty, an Indonesian public figure, was one of the victims of this kind of crime at the end of 2019. It was stated that when she wanted to order foods via Go-Food, the driver suddenly asked to cancel the order. In order to change the driver, Maia was asked to type a USSD code, when suddenly, all of the data saved in her phone were transferred to the scammer's phone<sup>17</sup>.



Figure 3. Maia Estianty's Instagram Post (@maiaestiantyreal)  
(<https://www.cnnindonesia.com/teknologi/20191230110044-185-460937/membongkar-modus-bobol-gopay-yang-timpa-maia-estianty>)

On the other hand, Aura Kasih, another Indonesian public figure, also had a similar case with Maia Estianty. She lost her IDR 11 milion-worth Go-Pay balance, in which the means of the crime carried out could also be considered as social engineering. This kind of crime has recurrently happened to an enormous number of users who possess some balance in their digital wallet, where they lost their wallet's balance subsequently<sup>18</sup>.

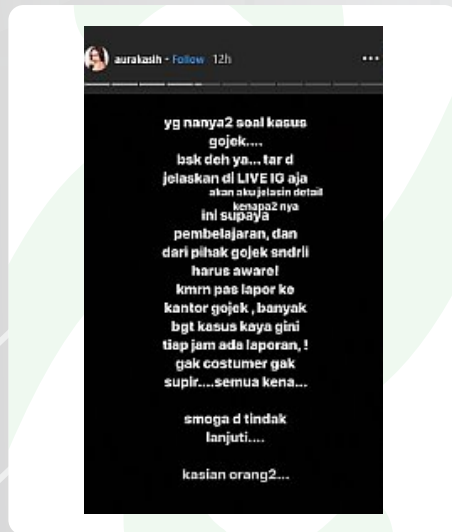


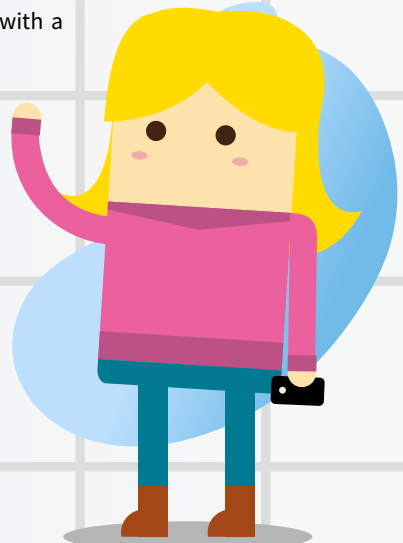
Figure 4. Aura Kasih's Instagram Story (@aurakasih)  
(<https://www.cnnindonesia.com/teknologi/20200123175221-185-468096/kasus-gopay-aura-kasih-dan-maia-estianty-bukan-peretasan>)

Reflecting from those cases, it is, therefore, crucial for the issue of data privacy amidst the cashless payment trend to be taken more seriously as they become more vulnerable to be breached. Even worse, unfortunately, according to the Director of the Communication and Information System Security Research Center (CISSReC), Dr. Pratama Persadha, such cases involving social engineering in Indonesia are predicted to remain high in 2020 as digitalisation remains to be inevitable<sup>19</sup>. Therefore, threats directed to individuals' personal data privacy and security have increasingly become more prevalent, which means that the comprehensive enactment of the Personal Data Protection Bill should be further advocated for – alongside the improvement of the technicalities and awareness on the societal level.

## Digital Divide in Indonesia

In order to going cashless, one must be able to operate technology to access the money saved in the digital wallet or e-payment application. Nonetheless, in Indonesia, digital divide (or digital gap) is still prevalent, especially between the urban and rural areas. To be more specific, the digital divide itself could be defined as the gap occurring between individuals, households, businesses, and geographical areas in terms of the availability of access to information and communication technologies (ICT) to conduct various activities<sup>20</sup>. In order to achieve a Less Cash Society in Indonesia, it is impossible not to take into account the remaining technological discrepancies to be addressed in the first place.

The rapid development of the digital economy sector, which is estimated to achieve US\$130 billion-worth with a total of '1000 technopreneurs' in 2020<sup>21</sup>, has made the cashless phenomenon becoming more feasible and probable to occur. Nonetheless, Indonesia's internet penetration remains in the percentage of 25%, in which 80% of internet users are mainly spread across Sumatra and Java islands<sup>22</sup>, which indicates the uneven distribution of internet infrastructures.



### Access to ICTs in Indonesia

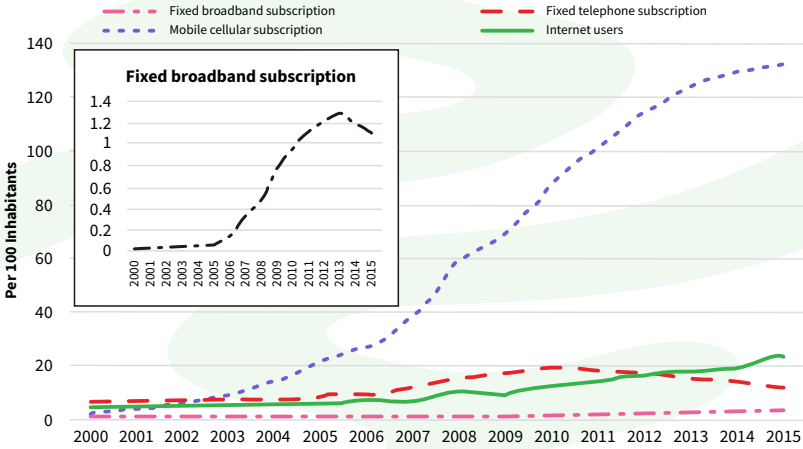



Figure 5.

Source: ITU World Telecommunication/ICT indicators database, and World Bank estimate

The further implications of this divide might revolve around the economic and social landscapes, in which their position within the society will eventually be determined. Henceforth, to embody “cashless society” in Indonesia requires feasible technological access and a high rate of digital literacy among the citizens to alleviate the occurrence of financial exclusion in the future.

## What Can the Government Do to Tackle the Risks?

First, to alleviate the risk posed by going cashless, it is important for the government to enforce the right-based approach to formulate regulations on personal data privacy protection. Currently, the draft of the Personal Data Protection Bill, which supposedly serves as the legal protection for each individual in regards to data privacy, has to be able to strengthen the relevant regulations in responding to the rising concerns over the recurrence of threats posed on personal data privacy and security. Indeed, most businesses have relied upon personal data to develop their services, which therefore burgeons the importance of personal data. However, the cases mentioned above of data breaches in the digital wallet may reduce the trust inculcated among individuals on using cashless payments as they involve the use of personal data to run their services.



In fact, the growing trust of individuals on carrying out transactions using digital wallet may be induced by the acknowledgment of privacy itself as a human right. For example, in Singapore, personal data privacy is deemed a human right. As a result, the amount of business transactions being conducted online has increased due to the burgeoning trust of the people that their privacy will be protected at all costs. The government has not established any standardisation of what data privacy actually means among the 30 different regulations on the draft bill with dispersed interpretations and scopes, which makes them more likely to become ineffective.

Second, before announcing Indonesia's vision of transforming the society into the cashless one, it is better for the government to address the prevalent digital divide in Indonesia in the first place as financial exclusion can be fostered if people in certain areas do not have access to ICTs. Nonetheless, as the Palapa Ring has been initiated by the government to build fibre optics in all regions in Indonesia, it will, therefore, be possible to improve the access to ICTs for people in remote areas, which could, therefore, tighten the pre-existing technological discrepancies. In addition, while the digital economy has started to significantly fuel Indonesia's economic growth, more human resources are therefore needed to fulfil the necessities of digital economy or fintech industries. Nonetheless, the prevailing gaps in telecommunications have hindered the development of qualified human resources for the sector, which could also automatically lower the possibility of embodying cashless society in the near future. At the end of the day, the cashless vision will only result in the financial exclusion of some layers of society. Especially if it is expected to reach its goal shortly, where Indonesia still has a long way to go in terms of its preparedness to develop the digital economy sector.

Lastly, it is also vital for the government to enhance people's awareness regarding the ways to carry out digital transactions safely to prevent the occurrence of cybercrime cases, such as what Maia Estianty and Aura Kasih experienced beforehand. The efforts themselves could be made through education, in which individuals should be able to distinguish between what is considered as scams and what is not. The lack of awareness of the possible crimes conducted in the digital world might enhance the prevalence of those kinds of crimes, which eventually would not reduce the general crime rates at all as the number of cybercrimes increases.

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