A Review of Financial Literacy in Southeast Asian Cognate Countries

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Received: 20-10-2022 | Accepted: 01-02-2023 | Published: 25-07-2023

A cashless society is a collective vision of world citizens to create a payment system that is faster, more flexible, and more automatic. This study aims to formulate findings on publications conducted in 2012-2022, focusing on a cashless society. Using the Systematic Literature Review approach, this study uses 14 main sources from the Scopus database to identify shared understanding, supporting factors, and the impact of a cashless society from the perspective of researchers. This study found that the formation of a cashless society is a solution for efforts to grow the economy and speed up societal transactions. Another benefit is the prevention of criminal acts of corruption, extortion, and fraud, where electronic payments made in a registered manner have suppressed these crimes. The dark side of a cashless society is the potential for privacy violations and paralysis of the economic system caused by internet system failures.

Keywords: Financial literacy; Systematic Literature Review; South East Asia
INTRODUCTION

Payments are the backbone of value exchange in society, reflecting the speed at which goods and services are turned (Arvidsson et al., 2017). The global community, with systematic technological developments, has been encouraged to use new payment methods that are easier and faster. Various financial researchers and practitioners provide a vision of the future regarding the form of society that no longer uses material money as a means of transaction, which has come to be referred to as a "cashless society" (Bátiz-Lazo et al., 2016).

The idea of a cashless society started in the 1950s when in 1954, businesspeople in the United States discussed a vision of a "checkless society" (Bátiz-Lazo et al., 2016). Payment by banknotes in that era was found to be increasingly unsupportive of people's transaction mobility. The transaction behavior of people with a tendency to make transactions faster and higher faces obstacles to the provision of paper-based payment instruments.

Financial technology was widely launched in the world in 2010 when various payment methods began to be used by customers in many countries (Alaeddin et al., 2019). The cashless society is a form of the financial technology revolution, referring to people who make payment transactions with digital cards or electronic gadgets (Balakrishnan & Shuib, 2021a). This society is characterized by the spirit of migrating payments from cash-based to technology-based payments (Supattanakul & Maliwan, 2020). Going further (Fabris, 2019) affirms that a cashless society is a society with a vision of the future willing to replace cash with an equivalent digital payment that is legally recorded in the system.

A cashless society deals with the readiness of users to execute payments on electronically connected digital systems. Cashless payment is no longer oriented towards printing money but rather connects the entire process of exchanging value on money generated by computers, not between carriers, but with other terminology, between users (Kadar et al., 2019). In some countries, this change has presented problems, especially related to internet infrastructure provision and gadget ownership in locations where equitable development has not occurred. This challenge is the main consideration for policymakers to continue to preserve cash payments as the main form of financial transactions.

The idea of a cashless society has received much attention along with the development of digital technology and internet penetration. Various researchers discovered the development of digital payments as a phenomenon of collective adoption in the global community. A study (Yakean, 2020) provides that electronic payments have encouraged the formation of a cashless society. The study (Abdullah et al., 2020; Balakrishnan & Shuib, 2021a; Humbani & Wiese, 2017) shows that a cashless society can be formed if the community can adopt new forms of the latest payment methods.

The development of payment technology has been found as a pre-condition for the formation of a cashless society. Information and communication technology literacy is a catalyst for changes in
people's payment methods towards non-cash, where governments in various countries have begun to reduce the form of printed money (Kadar et al., 2019). On the other hand, the emergence of privately owned crypto-currencies, especially during the global crisis in recent years, has reduced government control over payment method initiatives (Fabris, 2019). This gives rise to broader independence in the cashless society and raises the potential for other, more complex problems.

Furthermore, fraud and systemic failures in the banking system are the main issues in forming a cashless society. Paper-based payment systems have caused many problems were recording at the operational level is done manually and segmented (Bátiz-Lazo et al., 2014). In traditional transactions, people exchange banknotes for goods/services to be rolled back into the supply chain system. These transactions do not involve much of the banking system, so the number of banknotes circulating in the community becomes inaccurate. Attempts to counterfeit banknotes are also classic criminal acts that show the weakness of the paper-based payment system, where people are again victims.

The cashless society and digital payment have attracted researchers to examine the topic from various perspectives (Susanto, Hendrayati, et al., 2022; Susanto, Solikin, et al., 2022). The researchers' study showed diverse findings on antecedents, processes, and impacts on a cashless society. In research with a marketing perspective, researchers found that a cashless society is related to the process of technology adoption; on the other hand, this was found to be different from the findings of a study by social researchers who found that a cashless society was formed with the support of the sociological environment and applicable norms. From another perspective, the cashless society is found as an effort to control the money supply in society that is difficult to realize without the exchange of values as understood in the Social Exchange Theory. The diversity of these findings forms an important gap in research to be studied further.

This study aims to overview the driving factors and challenges in forming a cashless society. Using the Systematic Literature Review approach, it is hoped that the study results provide a formulation of conditions that can be used to evaluate the cashless society in the past and present to provide predictions about future conditions. The study will be divided into 4 (five) parts: the introduction section currently developed and the methods section explaining the approach and procedure used. Furthermore, various study findings are presented in the results section, and the results are formulated in the conclusion section.

RESEARCH METHODS

This study uses a bibliometric approach to determine the number and trends of studies on a Cashless Society. The databases used are Scopus, Science Direct, Emerald, Springer, and Wiley in 2012-2022. This study used the Publish or Perish 8 tool to dig up the database to be processed and mapped on VosViewer to find the clusters and symptoms of the research the researchers had conducted.
The study used Preferred Reporting Items for Systematic Reviews and Meta-Analyses (Pati & Lorusso, 2018) to understand a cashless society’s driving factors and impacts. The database is owned, and then selection and sorting are carried out according to the procedure to obtain several articles that meet the criteria for analysis. The result of this activity is an overview that has been set related to the cashless society.

![Figure 1. Procedure for Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA)](source)

From the procedures carried out, 2,302 metadata were found in the Scopus database related to the cashless society with the publication year 2012-2022. Of these, 206 publications were syntactically consistent with the terminology of the cashless society, so using qualitative analysis, this study obtained 14 publications for structured studies.

RESULT AND DISCUSSION

Bibliometric Analysis

Studies focusing on cashless society studies have been developed since the 1950s when the development of computers and financial business accelerated after world war II. This encourages researchers to look to the future of centralized and globally connected community
payment transactions. The metadata obtained shows that the study of a cashless society over the past ten years has grown exponentially positively. Figure 2 shows the peak of publication growth occurring in 2018-2022. This can be related to the increasingly high trend of digital payments and the Covid-10 pandemic, which has encouraged researchers to examine non-analog life to increase mobility and payment transactions.

![Figure 2. Development of Cashless Society Study 2012-2022](source: Research Data (2022))

![Figure 3. Citation Metrics On Cashless Society Study 2012-2022](source: Research Data (2022))

Publications on the topic of a cashless society can be known as presented in Figure 3, where from 38 metadata found in Publish Perish 8, it has an impact of 275 citations with an average of 34.8 citations per year or equivalent to 7.24 citations per publication. The H-index on this topic was 7, with the average number of authors per article being one person. This shows that the topic of a cashless society has a relatively high appeal and is intertwined with each other.
By utilizing metadata in cashless society studies processed on VosViewer, various study connections were found with various clusters. Figure 4 shows that a cashless society is at least related to community clusters, systems, use, cashless economy, cashless payments, transactions, and cashless policies. This cluster explains that cashless society studies are built on various interconnected conditions and phenomena. The formation of a cashless society on this map is supported and related to a larger system, namely cashless policies in an area, the use of cashless payments, and the adoption of technology by the community.

From the data visualization in Figure 4, it was found that at least 9 clusters of publication networks related to the cashless society. The first cluster has a central point of discussion of society, where the discussion of changes in non-cash payments is linked to community studies. In this cluster, the cashless society is closely related to the information society, organizing, community type, and value conversion. The second cluster's central point is in the "study" terminology. This shows that a cashless society is a research and study topic that researchers continue to develop. This cluster deals with research networks with the terminology of methods, analyses, variables, users, and interests.

Clusters with behavioral intention network points were found to be related to e-wallets, cashless models, convenience, and lifestyle compatibility. This means that a cashless society has been widely studied as a change in people's lifestyles and financial transaction activities. Another cluster has an economic study point of view where a cashless society is closely related to economic growth and capital studies.
Content Analysis

Table 1 shows results data from the PRISMA procedure that shows various findings related to supporting factors, challenges, and forms of the current cashless society.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Focus</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Bátiz-Lazo et al., 2014)</td>
<td>The adoption and establishment of a cashless society in the retail community in the United States with a setting in the 1960s and 1970s.</td>
<td>Descriptive-qualitative</td>
</tr>
<tr>
<td>(Humbani &amp; Wiese, 2017)</td>
<td>Measurement of technology readiness index in mobile payment adoption readiness as part of the cashless society</td>
<td>Quantitative with path analysis</td>
</tr>
<tr>
<td>(Rivera, 2019)</td>
<td>The threat of negative impacts in the form of criminal acts and economic disruptions in the formation of a cashless society</td>
<td>Descriptive-qualitative</td>
</tr>
<tr>
<td>(Alaeddin et al., 2019)</td>
<td>The growth of private currencies and the urgency of establishing a digital central bank in a cashless society</td>
<td>Descriptive-qualitative</td>
</tr>
<tr>
<td>(Alaeddin et al., 2019)</td>
<td>Future forms of corruption in the era of the cashless society</td>
<td>Descriptive-qualitative</td>
</tr>
<tr>
<td>(Priananda et al., 2020)</td>
<td>Readiness of microtransaction actors in the use of non-cash payments</td>
<td>Quantitative with multiple-regression</td>
</tr>
<tr>
<td>(Lai &amp; Liew, 2021)</td>
<td>Integrating gamification in mobile payment systems</td>
<td>PLS-SEM</td>
</tr>
<tr>
<td>(Balakrishnan &amp; Shuib, 2021b)</td>
<td>Model of adoption and readiness of cashless society in Malaysia</td>
<td>PLS-SEM</td>
</tr>
<tr>
<td>(van Klyton et al., 2022)</td>
<td>Value co-creation and co-deconstruction process in mobile banking applications for rural communities in Colombia</td>
<td>Qualitative-ethnography</td>
</tr>
<tr>
<td>(Loh et al., 2022)</td>
<td>Adoption of wearable payments toward a cashless society</td>
<td>PLS-SEM</td>
</tr>
<tr>
<td>(Aboubaker &amp; Mohamed, 2022)</td>
<td>Increased use of card-based payments in retail consumers.</td>
<td>PLS-SEM</td>
</tr>
<tr>
<td>(Mohd Thas Thaker et al., 2022)</td>
<td>Supporting factors for the use of e-wallets in society in the context of a cashless society</td>
<td>PLS-SEM</td>
</tr>
<tr>
<td>(Anaza et al., 2022)</td>
<td>Digital Payment System 2.0 in shaping the cashless society in the future</td>
<td>Descriptive-qualitative</td>
</tr>
<tr>
<td>(Donohue et al., 2020)</td>
<td>Data protection and privacy in a cashless society</td>
<td>Descriptive-qualitative</td>
</tr>
</tbody>
</table>

Source: Research Data (2022)

Based on the data in table 1, various researchers’ understandings of a cashless society are known. Most researchers provide a vision that a cashless society is a view of how people make transactions that are in an integrated system, recorded in a database, and no longer anonymous. This condition is considered ideal for suppressing corruption crimes, especially bribery, illegal levies, and gratuities (Alaeddin et al., 2019; Rivera, 2019). Cash has visibly provided opportunities for various irregularities in its use. Various criminal acts are closely related to anonymous transaction patterns so that the perpetrators freely remove/obscure their identities to remove traces. Bribery and corruption crimes are found in various parts of the world with significant amounts of cash to obscure these illegal transactions from the legitimate banking system. The presence of a cashless society where everyone...
openly accounts for the transactions they carry out in the banking system effectively suppresses corruption crimes.

The realization of a cashless society cannot be separated from the community's readiness to adopt cashless payment technology. A study (Bátiz-Lazo et al., 2014) asserts that the formation of the "electronic payment society" has become the collective vision of the people of the 1960-1970s era regarding the future of cashless money. This thinking is motivated more by efforts to improve economic conditions, where crises and money inflation have threatened communal life, so there is a need for an alternative economic stimulus faster and safer from fraud. The weakness of paper-based money, namely the cost of printing, damage, and potential counterfeiting, has fostered the idea of electronic money, which banks welcome. But on the other hand, politicians at that time considered that the loss of cash from the payment system was a threat to political stability and hegemony in the economic system. This suggests that the migration of financial transactions in the broader electronic banking system provides opposition to the interests of political control in people's lives.

Financial transactions of great magnitude and unable to be controlled by the state's political power are considered capable of threatening the stability of power in the economic system. This is empirically justified where in many borders of the country with large areas, financial transactions can diverge with the use of foreign currency in the country's territory. This raises problems from the perspective of law and state sovereignty. From the same perspective, cashless transactions across countries are a great opportunity for people in a country to migrate using foreign currency and depend on foreign exchange in the future.

Money liberalization has presented private currencies, one of which is cryptocurrencies (Alaeddin et al., 2019). This form of money is recognized as having value and can be transacted in certain communities without much government interference. Nevertheless, the volatility of cryptocurrencies that are present without a solid underlying will cause societal problems. This currency also does not have the function of driving the real sector, so the aspect of its expediency is very limited. Some countries have banned the circulation of cryptocurrencies to protect their national interests.

Studies (Hütten & Thiemann, 2017) reinforce the argument that private money development is influenced by sentiment over the judgment of a particular figure or community. The value of cryptocurrencies has historically been found to be not related to the value of transactions on underlying physical assets but rather to a more subjective view. This is what in various norms of state law is seen as being able to harm its people. In developing countries, private money has been perceived by the public as a means of investment with high risk, so it is less in demand.

Study (Donohue et al., 2020) Providing contemplation that there is a threat to implementing a cashless society. On the one hand, recording all transactions on the electronic system provides the benefits of openness and suppresses corruption. But on the other hand, the threat of loss of privacy and
the potential for digital money recording errors are important issues that the global community considers. In the era of information technology, privacy is the only space users do not want to violate. Policy owners need to consider the importance of safety and comfort in the ownership of a digital asset in implementing a cashless society in their area.

A study by (Anaza et al., 2022) offers a Digital Payment System 2.0 concept that relies on digital wallets, cryptocurrencies, virtual currency, facial recognition, and mobile payments. The DPS 2.0 pillar was developed to create an automated, faster, flexible, and interoperable payment system. The realization of a cashless society in the context of DPS 2.0 is driven by a digital marketplace that encourages people to transact more through this platform. The potential disadvantage of this system is the increase in people's debt due to a pay-later mentality and consumerism.

The shaping factors and drivers of the realization of a cashless society are found in several publications. A study (Lai & Liew, 2021) Provides that the intention to use Gamified Mobile Payment is influenced by perceived convenience and perceived security. In comparison, the study (Balakrishnan & Shuib, 2021a) provides an understanding that the adoption of cashless payments can be influenced by factors of readiness for use, risk and intrinsic motivation that are deeply shaped by factors of ease of use, expediency, optimism, innovation, and awareness. This shows that the adoption of cashless payments as a shaper of a cashless society needs to be driven by literacy and competence in using cashless payment features. This study is also supported by (Loh et al., 2022), where the factors of expediency, ease of use, cost, and risk perception have shaped the adoption of cashless payments.

Based on the study and structured analysis of various publications in selected metadata, this study produced a model formulation and an overview of the supporting factors, impacts, and challenges of cashless society development, as presented in Figure 5. The driving factor for a cashless society is technological readiness, where electronic systems and internet networks are the main pre-requisite in developing a cashless society. Furthermore, consideration of legal, social norms and modernization-oriented societal values is a driving factor for forming a cashless society. This gives an understanding that a country's legal regime needs to provide partiality to advances in payment technology while protecting its country's interests in such activities. Another driving factor, namely the culture and lifestyle of the community, also determines the formation of a cashless society. As a social system, the cashless society is formed on understanding the social culture between individuals in the modern payment community. People's lifestyles also determine the acceleration of the formation of a cashless society.

The impact of a cashless society in this study was found to improve the quality of transactions in the community. A cashless society encourages financial service providers to increase further the service system's speed, security, and convenience. This is an effort to maintain the existence and expansion of market share in the competition. Another impact is economic growth stemming from the
acceleration of financial transactions that occur in the community. The exchange of goods and services as underlying cashless transactions that are accelerating and reaching different geographies is found to have a broad impact on economic growth. The next impact of the formation of a cashless society is the prevention of banking crimes. All transactions recorded and identified can suppress fraud, forgery, and fraud efforts in public finance transactions.

![Figure 5. Drivers and the Impact of a Cashless Society](image)

**CONCLUSION AND RECOMMENDATION**

The development of a cashless society has been motivated by the global growth of the internet and gadget users. The public's need for fast, recorded, and flexible payments encourage the financial and banking industries' provision of cashless payment infrastructure. The study has found that various researchers believe that a cashless society is a collective vision of the world's citizens regarding the future of payment systems. The effectiveness and benefit of forming a cashless society are the speed of economic growth and the decrease in the potential for financial crimes. Paper-based money is considered to provide obstacles in the economy and is used as a vehicle for corruption, illegal levies, and fraud. In forming an effective cashless society, the readiness of individuals to adopt payment technology is found to be the main shaping factor of the cashless society.

This study has provided further research opportunities to test and measure the strength of the driving factors for forming a cashless society through technological readiness, consideration of norms, and aspects of community culture. Similarly, it can be followed up with research on the impact of a cashless society on the banking industry, economic growth, and the prevention of financial crimes. The limitations of this study, in the form of the database, used and the perspective of content analysis can be extended to the focus, method, and formulation of more practical study results.
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