



The role of consumerism in driving inflation: A literature review on the digital economy (2020-2024)

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ABSTRACT

The Use of Digital Technology, Particularly in the Form of E-commerce and E-money, has Transformed the Way Consumers Interact with Markets and Products. This phenomenon has a significant impact on the inflation rate in the digital economy. This article aims to conduct a literature review on the role of consumers, e-commerce, and e-money in influencing inflation in the context of the digital economy. This literature review involves the analysis of various empirical, theoretical, and conceptual studies conducted between 2020-2024 by gathering relevant data from the official websites of Bank Indonesia (BI) and the Central Statistics Agency (BPS). From the research results, it is found that e-money and e-commerce have a significant influence on the inflation rate due to their easy, cheap, fast, and practical nature, which greatly facilitates transactions for the public. However, this triggers an increase in the level of consumerism in society, which impacts inflation. The results of this literature review are expected to provide a better understanding of the dynamics of inflation influenced by consumers in the digital economy.

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1. INTRODUCTION

At the beginning of 2020, it marked the onset of the spread of the Corona virus entering Indonesia, even declared a national non-natural disaster through Presidential Decree (KEPPRES) No. 12 of 2020. Up until now, this outbreak has been plaguing Indonesia for nearly over 4 years. The current situation, based on data from the Ministry of Health, indicates that the situation has improved, but the impact of Covid-19 has not yet fully normalized, considering that the pandemic's effects are not only limited to the health sector but also to the education, social, political sectors, and especially to the country's economic sector. Bank Indonesia notes that the pandemic has caused the country's economy to experience deficits to support funding in the health sector and the provision of assistance to workers during the implementation of restrictions on community activities outside the home (Tirtasari and Fedricson, 2020).

During the Enforcement of Community Activity Restrictions (PPKM) or lockdown to prevent the spread of the Covid-19 pandemic, Bank Indonesia has urged the use of non-cash transactions as a form of mitigating the spread of the Corona virus. Based on official news from Bank Indonesia covered specifically by several television and online media, this appeal is manifested in the form of socialization to the public through cooperation with conventional banks and the Indonesian payment system association (Liputan6.com, 2022).

Although non-cash payments have actually been promoted by Bank Indonesia since 2014 through the National Non-Cash Movement (GNNT) program, it has been more focused on non-cash transactions through digital banking and electronic cards (electronification) aimed at creating a safe, efficient, and smooth payment system (bi.go.id).

Digital economy has made people more consumptive due to easy access to products. Massive technological applications then become triggers for middle-class consumerism in Indonesia because of the ease of non-cash payments at almost every merchant or store. Sinanungan (1995) in his book titled *Money and Banks* stated that one of the causes of inflation is people living beyond their economic means.

In the Big Indonesian Dictionary (KBBI), economics can be defined as the science that studies the principles of production, distribution, and utilization of goods and other valuable assets. Meanwhile, the word digital originates from the Greek word *digitus* which can be interpreted as fingers. If we count the fingers of an adult, they amount to ten (10), or in other words, they have a system that is interconnected with each other, commonly referred to as a database (Hadion Wijoyo, 2020).

Innovative business models in the digital economy are built on software and internet-based technologies such as cloud computing and big data analytics, which are currently managed by startup companies to drive economic growth through the internet. The digital-based economy has birthed various alternative economic access conveniences in the form of applications, including digital transactions. Digital transactions (digital payments) are automatic buying and selling systems that do not involve paper, or cashless payment systems, whether using mobile banking or other online payment systems (Kustoro Budiarto, 2020).

The Financial Services Authority/*Otoritas Jasa Keuangan* (OJK), as the official regulatory institution overseeing banks and financial institutions, describes startup types as being divided into two categories: e-commerce and Financial Technology (FinTech). E-commerce refers to companies that provide online buying and selling platforms, while the term FinTech is more focused on companies innovating in the field of financial services with a modern technological touch. And one of the most widely used parts of FinTech by the public is the digital payment system

Types of digital economies can include e-commerce, e-money, e-payment, and other digital payment system. Meanwhile, the types of digital transactions (e-money) can include (Enung Swarni, 2021): a) E-money (electronic money): Quoted from the official Bank Indonesia website, e-money or electronic money can be defined as an electronic payment tool stored in electronic media or applications before being used for transactions (payments or transfers); b) E-wallet (electronic wallet): A fintech product that provides electronic money storage for users, which can be used for transactions in marketplace applications, merchant apps, etc.; c) Mobile Banking: Mobile banking is a service provided by banks to facilitate their customers in conducting financial transactions online, anytime, anywhere; d) QRIS (Quick Response Code Indonesian Standard): QRIS or Quick Response Indonesian Standard is the unification of various QR codes from various payment system service providers in collaboration with Bank Indonesia, both banks and non-banks; e) Paylater: If broken down, Paylater can mean 'payable later', in the context of financial technology, Paylater is interpreted as 'use first, pay later'.

Consumerism originally was a theory to provide protection to consumers, but in reality, it tends to lead to materialistic issues. As a result, consumerism theory is seen more towards wastefulness, consumption of various products, both goods and services, done excessively, continuously, and no longer considering their utility value, whether they are needs or desires (Muhammad Thohir, et al., 2021).

Consumerism can be defined as the lifestyle of individuals or communities who have a desire to buy or use goods and services that are less or not needed. Buying today is often done excessively as an individual's effort to obtain pleasure or happiness, even though the happiness obtained is only temporary (Mariesa Giswandhani and Amalia Zul Hilmi, 2020).

Digital transaction consumerism is defined as the tendency of people to continuously buy and sell with digital transaction systems without considering the utility value of the product because of the easy access that does not require an authorization process like banking accounts.

Economic digital consumerism is defined as the tendency of people to continuously buy and sell with digital systems without considering the utility value of the product because of the easy access that does not require an authorization process like banking accounts.

Inflation, or in other words, a comprehensive increase in prices. Inflation is the condition of an economy in a country where there is a tendency for prices of goods and services to increase generally over a long period due to the imbalance between the flow of money and goods. Generally, inflation occurs when the amount of money in circulation in society is more than needed (Hermanto, 2022).

Inflation is a complex social phenomenon and a reflection of the interaction between supply and demand. Inflation is influenced by past, present, and future factors. According to Keynesian theory, inflation can be caused by excessive desires of a community that wants to get more available goods and services. Because of the excessive desire to meet needs, demand increases, while supply remains the same, ultimately resulting in price increases (Darmin Nasution, 2023).

Inflation according to Keynesian theory is mentioned to be caused by excessive desires of a community that wants to get more available goods and services. Because of the excessive desire to meet needs, demand increases, while supply remains the same, ultimately resulting in price increases. Inflation can also be caused by transaction tools with credit systems. This obtained credit is used to buy goods and services, so aggregate demand increases, while aggregate supply remains constant. Thus, resulting in price increases. (Agus, 2017).

Data from the Central Statistics Agency indicates that in the second quarter of 2022, it marked one of the highest inflation rates since 2018. The Central Statistics Agency recorded the inflation rate in June 2022 at 4.35% and continued to increase until the beginning of 2024. In this study, the researchers aim to understand how the consumerism behavior of digital transactions affects inflation over the past 5 years, counting from post-Covid-19 pandemic to the first quarter of 2024. The digital transactions referred to are e-money and e-commerce.

2. RESEARCH METHOD

This research falls into the descriptive research. Quantitative descriptive data are numerical data collected that describe a phenomenon, which are then described by linking them to several supporting theories that can lead to conclusions (Tri Andjarwati, et al., 2021).

The data in this study are analyzed using time series techniques. Tri Andjarwati, et al., (2021) time series data are data collected based on a chronological sequence from year to year with fluctuating (non-constant) levels adjusted to the phenomenon being studied. In this study, the researchers collected various data from the official websites of Bank Indonesia (BI) and the Central Statistics Agency/*Badan Pusat Statistik* (BPS) regarding the number of users of digital economy, both those using digital transactions and online shopping users, which were then analyzed to determine the level of consumerism and its impact on inflation in Indonesia. Darmin Nasution (2023) Inflation is a complex social phenomenon and a reflection of the interaction between supply and demand. Inflation is influenced by past, present, and future factors.

3. RESULTS AND DISCUSSIONS

3.1. Result

Table 1. The data on e-commerce and e-money users from 2015 to 2021

Period (Year)	Volume (In Transaction Units)	Nominal (Million IDR)
2015	535,579,528	5,283,017.65
2016	683,133,352	7,063,688.97
2017	943,319,933	12,375,468.72
2018	2,922,698,905	47,198,616.11
2019	5,226,699,919	145,165,467.60
2020	4,625,703,561	204,909,170

Period (Year)	Volume (In Transaction Units)	Nominal (Million IDR)
2021	5,450,400,276	284,689,349.48

Source: Bank Indonesia (bi.go.id)

From 2015 to 2021, there has been a significant increase in the use of digital economy, with a decrease in users only occurring in the early stages of the pandemic in early 2020, followed by a subsequent increase in early 2021, reaching the highest level in the past 5 years (2015-2021).

Table 2. The data on e-commerce and e-money transactions from 2020 to 2022

Year	Transaction (IDR Trillion)
Dec-20	57.94
Jan-21	54.5
Feb-21	49.07
Mar-21	56.26
Apr-21	61.42
May-21	71.03
Jun-21	64.9
Jul-21	67.66
Aug-21	66.51
Sep-21	73.7
Oct-21	69.08
Nov-21	72.53
Dec-21	79.81
Jan-22	72.32
Feb-22	68.29
Mar-22	78.04
Apr-22	89.05
May-22	81.82
Jun-22	85.82
Jul-22	96.74
Aug-22	100
Sep-22	95.55
Oct-22	131.21
Nov-22	132.21
Dec-22	142.9

Source: (bi.go.id)

The increase in the number of e-commerce and e-money users occurred throughout the year 2021 and fluctuated but tended to increase until the end of 2021, reaching a transaction value of up to Rp 79.81 trillion. At the beginning of 2022, the total number of digital economy transaction users decreased again but then rose again and continued to grow until the end of 2022.

Table 3. Nilai Transaksi Digital Tahun 2020-2023

Year	Max Reach. Transaction (IDR Trillion)
2020	22
2021	35
2022	36
2023	38.54

Source: (bi.go.id)

The peak occurred in 2023 when the pandemic situation was declared to be improving. The public, who initially used digital economy as one of the disaster mitigation tools, then considered it as an additional necessity.

Table 4. The data on e-commerce and e-money users for the first quarter of 2024

No	Data Name	Value
1	Indonesia	30,5
2	Meksiko	26,8
3	Thailand	22,9
4	Iran	22,1

No	Data Name	Value
5	Malaysia	21,4
6	Filipina	20,5
7	Peru	19,9
8	India	19,9
9	Israel	17,2
10	Vietnam	16,5

Source: eCommerceDB

One of the survey institutions from Germany, eCommerceDB, conducted a survey in several countries considered to be the most active contributors to the digital economy, and the result shows that Indonesia ranks first as the country with the highest transaction value, followed by Mexico, Thailand, and Iran.

Table 5. The inflation data from 2020 to 2024 (Q1)

No	Period	Inflation Data	No	Period	Inflation Data
1	Maret 2024	3.05 %	27	Januari 2022	2.18 %
2	Februari 2024	2.75 %	28	Desember 2021	1.87 %
3	Januari 2024	2.57 %	29	November 2021	1.75 %
4	Desember 2023	2.61 %	30	Oktober 2021	1.66 %
5	November 2023	2.86 %	31	September 2021	1.6 %
6	Oktober 2023	2.56 %	32	Agustus 2021	1.59 %
7	September 2023	2.28 %	33	Juli 2021	1.52 %
8	Agustus 2023	3.27 %	34	Juni 2021	1.33 %
9	Juli 2023	3.08 %	35	Mei 2021	1.68 %
10	Juni 2023	3.52 %	36	April 2021	1.42 %
11	Mei 2023	4 %	37	Maret 2021	1.37 %
12	April 2023	4.33 %	38	Februari 2021	1.38 %
13	Maret 2023	4.97 %	39	Januari 2021	1.55 %
14	Februari 2023	5.47 %	40	Desember 2020	1.68 %
15	Januari 2023	5.28 %	41	November 2020	1.59 %
16	Desember 2022	5.51 %	42	Oktober 2020	1.44 %
17	November 2022	5.42 %	43	September 2020	1.42 %
18	Oktober 2022	5.71 %	44	Agustus 2020	1.32 %
19	September 2022	5.95 %	45	Juli 2020	1.54 %
20	Agustus 2022	4.69 %	46	Juni 2020	1.96 %
21	Juli 2022	4.94 %	47	Mei 2020	2.19 %
22	Juni 2022	4.35 %	48	April 2020	2.67 %
23	Mei 2022	3.55 %	49	Maret 2020	2.96 %
24	April 2022	3.47 %	50	Februari 2020	2.98 %
25	Maret 2022	2.64 %	51	Januari 2020	2.68 %
26	Februari 2022	2.06 %			

Source: bi.go.id

Table. 6 Inflation Data

Month	Inflation (%)
Jan	2.18
Feb	2.06
Mar	2.64
Apr	3.47
May	3.55
Jun	4.35
Jul	4.94
Aug	4.69
Sep	5.95
sOct	5.71
Nov	5.42
Dec	5.51

Source: (bps.go.id)

Bank Indonesia recorded that the value of electronic money transactions in the third quarter of 2022 increased by 35.79%, and by the end of 2023, it reached around Rp 58 trillion, an increase from

Rp 404 trillion in 2022. This is consistent with the data in the table 5 and table 6, where it can be seen that inflation in 2022 was the highest in the last 5 years (since 2018).

Several digital marketplace platforms offer the convenience of non-cash transactions, which has become a contributing factor to the continued increase in non-cash transaction users during the pandemic. In fact, the pandemic is considered a driver of digitalization, as people spend more time at home during the implementation of the Community Activity Restrictions (PPKM) (Rahmatika Sari, 2021).

3.2 Discussions

Inflation, or in other words, the overall increase in prices, is a condition in a country's economy where there is a tendency for the prices of goods and services to rise generally over a long period due to the imbalance between the flow of money and goods. In general, inflation occurs when the amount of money circulating in society is greater than what is needed. Inflation is a complex social phenomenon and a reflection of the interaction between supply and demand. Inflation is influenced by past, present, and future factors (Darmin Nasution, 2013).

According to Keynesian theory, inflation can occur due to excessive desires of a society wanting to obtain more available goods and services. As the desire to fulfill needs excessively increases, demand increases while supply remains constant, ultimately leading to price increases. Inflation can also be caused by credit-based transaction systems. Credit obtained is used to purchase goods and services, leading to an increase in aggregate demand while aggregate supply remains constant, resulting in price increases (Edwin Dinker, 2011).

In the rapidly advancing era of digitalization, payment systems are shifting from cash to non-cash, as well as credit systems. Initially, people only agreed to conventional credit, then shifted to online credit, commonly known as "paylater," which is now widely accessible as it does not require the authorization process of conventional credit. Consequently, anyone can access it anytime, anywhere (Agus Budi Santosa, 2017).

E-money and e-commerce have a significant impact on the inflation rate due to their ease, affordability, speed, and convenience, making it much easier for people to conduct transactions. This becomes one of the factors contributing to the increase in the amount of money circulating in society and greatly facilitates the occurrence of inflation. This aligns with the research conducted by Eliya, et al (2017) which suggests that the greater the use of digital transactions, the faster the inflation rate. The correlation between digital transaction tools and the speed of money circulation proves a positive relationship.

Eliya et al. (2017) explain that the presence of e-money and e-commerce is also one way to encourage people to be more consumptive because the technological touch in consumerism through e-money and e-commerce provides a new meaning to consumption. Increased levels of consumption continuously can ultimately trigger inflation.

Gasanov, Eyvaz A., et al. (2021) conducted a study titled "Consumer Behavior in the Digital Economy," investigating the relationship consumer behavior in the digital economy. The study found that the role of digital technology, such as e-commerce and digital payments, can shape consumption patterns and influence the prices of goods and services.

4. CONCLUSION

Based on the research findings and data analysis, it can be concluded that digital transaction consumerism is characterized by people's tendency to engage in continuous buying and selling through digital transaction systems without considering the utility value of products due to the easy access provided without requiring authorization processes similar to banking transactions. The presence of e-money and e-commerce is one way to encourage people to be more consumptive. The technological touch in consumerism through e-money and e-commerce provides a new perspective on consumption. Continuous increases in consumption levels can ultimately lead to inflationary pressures.

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