



Digital Payment And Consumption Function Model Of Coastal Communities: A *Maslahah* Perspective

Haris Faulidi Asnawi^{1,*}, Yusuf Asyabri², Agus Purnomo³, Annisa Sayyid⁴, Faqih El Wafa⁵

¹ Faculty of Islamic Economics and Business, UIN Antasari Banjarmasin

² Faculty of Islamic Economics and Business, UIN Antasari Banjarmasin

³ Faculty of Islamic Studies, UNISKA Muhammad Arsyad Al Banjari Banjarmasin

⁴ Faculty of Islamic Economics and Business, UIN Antasari Banjarmasin

⁵ Faculty of Islamic Economics and Business, UIN Antasari Banjarmasin

*Corresponding author. Email: hfaulidi@uin-antasari.ac.id

ABSTRACT

This study examined the consumption function model of coastal communities. It analysed the variation of income allocated to consumption expenditure, *sadaqah*, and savings through digital payments in South Kalimantan Province, Indonesia. We argued that digital technology through digital payments could support the consumption of coastal communities from a *maslahah* perspective through the concept of *sadaqah*. This study used field research and survey methods to collect data. The sample was taken based on quota sampling of as many as 60 respondents who live in coastal areas. The data were analysed using the macro-Keynes consumption function model and the consumption function of the *maslahah* perspective using the double log model of multiple linear regression analysis. The results found that the consumption function model of coastal communities based on the use of digital payments is $C = 539,487 + 0.17 Y$ with $APC = 0.99$, $APS = 0.01$, $MPC = 0.17$, and $MPS = 0.83$.

Meanwhile, the consumption function model based on using digital payments in the *maslahah* perspective yielded the equation $\ln Y = 3,368 + 0,725 \ln X_1 + 0,017 \ln X_2 + 0,064 \ln X_3$. This model showed that digital payments influence the consumption function model of coastal communities, which tend to allocate almost all their income for consumption. From a *maslahah* perspective, the *sadaqah* element also played a role in determining the consumption pattern and income level of coastal communities. This study provides empirical evidence of the consumption function model in Islamic economics in the digital era. It provides an understanding of the role of *sadaqah* and digitalisation in the economy of coastal communities, which can help develop policy directions to reduce economic inequality.

Keywords: *Income, Consumption, Savings, Maslahah, Digitalisation, and Sadaqah.*

1. INTRODUCTION

Today, the tremendous development of technology and the internet has transformed many aspects of daily activities. A new reality has been perceived, including in the economy and business, as introduced by Tapscott [1] as the "Digital Economy". Economy and technology cannot be separated from each other and can synergise in building and changing the paradigm of society to be more advanced [2]. The development of the Industrial Revolution 4.0 and the progress of the times in the era of society 5.0 illustrate that information technology has entered various lines of

people's lives [3–5]. This condition got the trigger, and in recent years, almost all over the world have faced quite tricky problems, namely the outbreak of the COVID-19 virus. This provides a lesson for nearly all aspects of life on how vital information technology is for the convenience and needs of society [6].

In the current era of technological development, people cannot resist the progress of the times. Many people who were once blind to technology are now forced to become literate in information and digitalisation for economic and social purposes [7]. Digitalisation has accelerated changes in almost all circles of society and various economic aspects [8], including buying and selling transactions. Many changes are so rapid from this aspect. For example, in the past, people would make purchases and sales face-to-face. Now, in the era of the Industrial Revolution 4.0, people making goods transactions no longer need to meet but only online through e-commerce [9].

The use of e-commerce in society is increasing. An increasingly good digital payment system also supports this increase. Among the main reasons for people to use digital-based payments are the security and convenience provided, which affects changes in people's consumption. Today's changes in people's consumption encourage increased consumption in the non-food sector and digital payment systems such as e-money and e-wallets. This is expected to accelerate the development of economic and financial instruments in Indonesia.

However, the development of information technology is also a challenge, especially related to the readiness of society and human resources. Digitalisation or information technology knowledge has not been evenly distributed throughout the community. Technology is more quickly delivered to urban communities than rural communities, and coastal communities are often forgotten. Rural, inland, and coastal communities tend not to be too concerned about these technological advances. However, if these communities are left behind, it is a concern for local and even central governments to increase literacy related to digitalisation to enable these communities to face the challenges and opportunities offered through digitalisation so that the community is ready and able to adapt to the industrial 4.0 era [10] entirely.

Adaptation to technological advances is required in coastal communities where economic growth is relatively slow. Preparing communities and human resources for knowledge of this technology can accelerate regional economic and financial activities to increase economic growth. In addition, the acceleration of development can also be carried out, which, in the end, is for the community's welfare. However, the fact is that there are still many coastal communities that are not technologically literate, including those in South Kalimantan, Indonesia. This is because of the high poverty rate in coastal areas, especially coastal areas.

In coastal areas of South Kalimantan, for example, Kotabaru Regency, the gini ratio value has increased in 2021, which is 0.306 higher than in 2020, while for Tanah Bumbu Regency, the gini ratio value for 2021 is 0.288 lower than in 2020. Based on the condition of the two regencies, where most people live in coastal areas, an income gap causes inequality. This gap affects the development of society and the success of increasing people's consumption in various aspects of the economy, including the digital economy in the payment sector. In 2022, the use of digital payment systems in this province was 244.72 thousand QRIS merchants with a nominal transaction of 1.42 trillion rupiah [11]. This number indicates that economic activities are carried out digitally, including consumption, savings, and social-religious activities.

Consumption of social and religious activities has significant relevance for the coastal communities of South Kalimantan, the majority of whom are Muslim. The spiritual aspect expected to impact the benefit of the community can be realised quite easily by using technology. The role of *maslahah* as a religious aspect is expected to add blessings to predominantly Muslim people. Blessings for Muslims are a means to increase faith and devotion to Allah. In Islamic economics, those with more income than they need will seek blessings to strengthen their faith and piety while sharing with those in need. Digitalisation is one way to increase *maslahah* and facilitate these social consumption activities. Increasing *maslahah* becomes more accessible by using digital payments in every transaction. User-friendly facilities and features increase the use of digital payments [12].

The study of consumption and digitalisation has been explored in many studies. Cochoy et al. [7,13] and Ryyänen and Hyyryläinen [14] revealed significant changes in consumer behaviour due to digitalisation. Lubis [12] and Syamsuri et al. [15] mention that digitalisation has affected people's consumptive culture. Other studies analysed its impact and influence on the economy. Aleksandrova et al. [16], Solomon and van Klyton [17], Pradhan et al. [18], and Raeskyesa et al. [19], for example, discuss that digitalisation is essential today, not only because of its technology but also considering its impact and influence on economic growth. Other studies suggest that digitalisation can also provide alternatives to improve efficiency [20,21], open up opportunities [20], and facilitate comparison of household consumption products [7]. On the consumption side, Sheth's research [22] confirms that people's consumption plays a

vital role in shaping demand for goods and services. An increase in household consumption will be affected by the rise in income if consumption has not reached a saturation point [23]. Chen et al. [24], Apeti [25], and Li et al. [26] analysed the relationship between digital finance and household consumption. From an Islamic economic perspective, Abdullahi [27] and Shaikh et al. [28] underline that conceptually, Islamic economics and finance play a role in influencing consumption patterns, especially through the concept of *zakah*. These studies show that digitalisation and the concept of *zakah* in Islamic economics are related to people's consumption patterns and consumer behaviour. People's consumption can reduce income inequality because people's consumption is influenced by the income generated. However, to date, no study has examined the consumption function model of the community, especially coastal communities that are economically marginalised with a high Gini ratio and relatively slow economic growth. This study also models the consumption function from a *maslahah* perspective through the concept of *sadaqah*, which most studies related to consumption are associated with the concept of *zakah*. We argue that digital technology through digital payments can support the consumption of coastal communities from a *maslahah* perspective through the concept of *sadaqah*.

2. LITERATURE REVIEW

2.1. Consumption Theory

Consumption refers to a person's behaviour in using goods and services to meet their needs. Consumption expenditure consists of government and household/community consumption. However, for this discussion, the focus is only on household consumption expenditure. Household consumption expenditure shows the value incurred by households to buy various needs within a certain period. In macroeconomic analysis, this is commonly referred to as household consumption.

Rahardja and Manurung [29] outlined the consumption theory developed by John Maynard Keynes. This theory is known as the Keynesian consumption model. According to Keynes, current consumption is influenced by current disposable income; therefore, the function $C = f(Y)$ applies. In this equation, income affects consumption, but there is a minimum consumption threshold that does not depend on income level. This is known as autonomous consumption. Even if the income level is zero, the consumption level must still be met. If disposable income increases, then consumption will also increase. However, the rise in consumption is not proportional to the increase in disposable income; hence, the following equation applies to $C = a + bY_d$. Here, C represents consumption, a means autonomous consumption, b represents the marginal propensity to consume (MPC) ($0 \leq b \leq 1$), and Y_d represents disposable income.

Furthermore, Rahardja and Manurung [29] explain the various factors influencing household consumption expenditure. These factors include household income, wealth, the amount of durable consumer goods available in the community, interest rates, future estimates, government policies to reduce income inequality, population size and composition (age, education, and area of residence), and socio-cultural factors.

2.2. Consumption from a Maslahah Perspective

Consumption is the most important economic activity among production and distribution activities. Consumption is built on two things, namely, need and utility. In Islamic economics, consumption is defined as using good commodities away from something forbidden [30]. The characteristics of need and utility are strictly regulated in Islamic economics.

There is a fundamental difference between mainstream consumption theory and consumption theory in Islam. The main objective of consumption in mainstream economics is to obtain high satisfaction (utility) because a high level of utility is closely related to allocating high income. In contrast to consumption in Islam, which is guided by Islamic teachings, the purpose of Islamic consumption considers *maslahah* rather than utility [31]. The content of *maslahah* consists of benefits and blessings, so consumption in Islam must weigh the benefits and blessings resulting from these consumption activities, not only seeking the highest satisfaction (utility) [30]. In addition, on the blessing side, a Muslim must consume *halal* and *thayyib* (good) goods as a form of compliance of a servant to the rules of his Lord [31]. *Maslahah* is also identical to the difference between needs and desires; the fulfilment of needs takes precedence over desires. It is not that Islam prohibits fulfilling desires, but Islam has signs in consumption that if these signs are implemented, *maslahah* will be achieved. Even after the achievement of *maslahah*, the utility will be fulfilled [30]. In the *maslahah* theory, there is also the principle of sufficiency, meaning that a Muslim buys an item to meet his

minimum needs, not excessive and unselfish and still pays attention to the needs of others and the availability of goods in the market at that time [30].

Intertemporal consumption in Islam is explained through the Prophet Muhammad's hadith, which states that the ownership of one's wealth and income is limited to what is consumed, used, worn, discarded, and donated for charity, whose reward is kept for oneself (H.R. Muslim and Ahmad). The following equation can represent this concept: $Y = (C + Infaq) + S$, $Y = FS + S$, where FS (Final Spending) indicates the sum of consumption expenditure for consumptive purposes and expenditure on infaq and *sadaqah*. Therefore, final spending signifies the final expenditure of a Muslim consumer [32].

2.3. Consumption and Digital Finance

Digital finance can affect household consumption. For lower middle-class households, the digital transformation in finance can boost family consumption. This increase in consumption is mainly due to increased accessibility to financial services, increased payment convenience, and ease of credit facilitated by digital finance [26]. Li et al. found that digital finance mainly drives routine household expenditures rather than non-routine expenditures, indicating a specific influence on consumption structure [26].

Furthermore, inclusive digital financial services will promote the development of household consumption in areas away from urban areas, such as rural and coastal areas. This indicates that inclusive digital finance can influence consumption structures in different environments. Inclusive digital finance is vital in high-quality consumer consumption and economic development. The presence of inclusive digital finance can increase consumer consumption. This indicates a positive correlation between digital inclusive finance and consumer consumption. This relationship is supported by evidence showing that a 1% increase in digital financial participation rate will increase household service consumption by 1.514% [33].

3. RESEARCH METHOD

3.1. The Types of Research

This research utilised field research using quantitative analysis through statistical procedures. The study was conducted in South Kalimantan Province, Indonesia, particularly in coastal areas. The data source used was primary data from interviews with coastal communities in research locations determined in this study.

3.2. Operational Definition

3.2.1. Income:

The income referred to in this study is the gross income generated by the community in the coastal area of South Kalimantan (Tanah Laut, Tanah Bumbu, and Kotabaru) in 1 month.

3.2.2. Consumption:

Consumption referred to in this study is food and non-food expenditure made by coastal communities in 1 month using digital payments.

3.2.3. Savings:

Savings in this study are a form of money investment in financial institutions made by coastal communities in 1 month.

3.2.4. Digital Payment:

Digital payment in this research is a form of consumption activities of coastal communities using their expenses through digital payments in 1 month.

3.2.5. Sadaqah:

Sadaqah, referred to in this study, is a form of property or non-wealth issued by coastal communities in 1 month outside of *zakah*, which aims to benefit the public.

3.3. Population and Sample

The population in this study was people who live in the coastal areas of South Kalimantan Province, Indonesia. Samples were selected based on area sampling due to the condition of South Kalimantan Province, which consists of 13 regencies/cities, so it must be determined which will be sampled [34]. The selection of sampling areas in this study that will be tested is Kotabaru, Tanah Bumbu, and Tanah Laut Regencies from 13 regencies/cities in South Kalimantan Province. The number of respondents was then drawn through a sample with a quota sampling technique of 60 coastal community respondents divided into three regencies in South Kalimantan Province.

3.4. Data Retrieval and Analysis Techniques

The data collection techniques used were structured interviews and surveys, which were then analysed using data analysis, namely:

3.4.1. Consumption Function

The consumption function formed in this study is $C = a + bY_d$, where C = consumption, a = autonomous consumption, b = Marginal Propensity to Consume (MPC), and Y_d = disposable income.

3.4.2. Marginal Propensity to Consume (MPC)

The MPC approach generally stated that if the MPC were between 0.5-1, most of the income increase, i.e. >50%, would be allocated to increase consumption.

3.4.3. Marginal Propensity to Save (MPS)

The MPS formulation was used to see the extent to which coastal communities save, with the formulation formed being $MPS = 1 - MPC$.

3.4.4. Community Income

This income was formulated to determine the extent to which community income was allocated through consumption expenditure, *sadaqah*, and savings through digital payments. The results obtained, multiple linear regression, were analysed with the double log model.

The basic model formed in this study was $Y = C + S + Saving$, where C is people’s consumption, S is *sadaqah*. Variable S is the perspective of *masalah* that can be seen at the macro level in this study. Therefore, the regression model that can be formed using the double log model is the equation $LnY = \beta_0 + \beta_1 LnX_1 + \beta_2 LnX_2 + \beta_3 LnX_3 + \epsilon$.

4. RESULTS AND DISCUSSION

4.1. General Description

An overview based on the identity of coastal community respondents can be seen as follows:

4.1.1. Gender

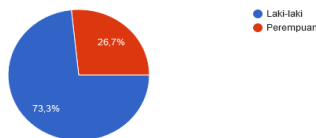


Figure 1 Gender.

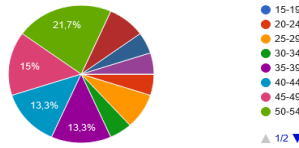


Figure 2 Age of Respondents.

Based on Figure 1, 73.3% (44 respondents) are male, and the remaining 26.7% (16) are female. These results were taken from districts spread across three regencies: Tanah Laut, Tanah Bumbu, and Kotabaru. Figure 2 shows that the age of the most significant respondents in the range of 21.7% is 50-54 or 13 respondents. The lowest age, with a percentage of 5%, is vulnerable 30-34, 20-24, 65-69, and 60-64 years.

4.1.2. Education and Employment

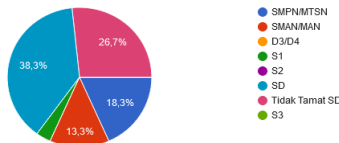


Figure 3 Education Level.

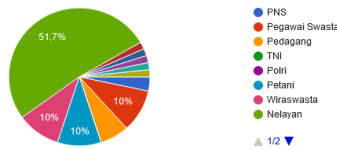


Figure 4 The Type of Work.

Based on the respondents' data, the level of education taken by respondents, as shown in Figure 3, is 38.3% or 23 respondents, and 26.7% or 16 respondents are not finishing elementary school. The level of junior high school education or equivalent is 18.3% or 11 respondents, while the level of high school education is 13.3% or 8 respondents. The remaining 3.3% or 2 people have a higher education (bachelor's degree).

Figure 4 shows that the respondents' employment status for the head of the family is 51.7% or 31 respondents of coastal communities work as fishermen, 10% or 6 respondents work as entrepreneurs, farmers, and private employees. At the same time, 6.7% or 4 people work as traders, and the rest work as village heads, civil servants, labourers, and taking care of households.

4.2. Research Result

4.2.1. Coastal Community Income

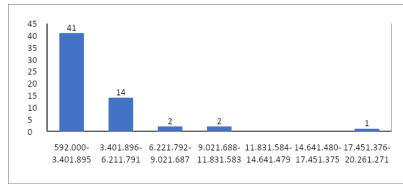


Figure 5 Community Income.

Figure 5 shows that the highest income interval of coastal communities for 1 month is in the range of Rp 592,000-Rp 3,401,895 with 41 respondents, and the lowest income interval is in the range of Rp 17,451,376-Rp 20,261,271 as many as 1 respondent.

4.2.2. Expenditure

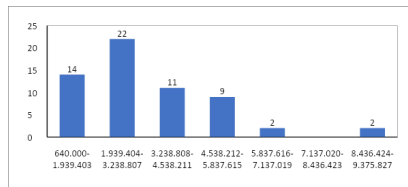


Figure 6 Community Expenditures.

The results of the survey show from Figure 6 that the range of expenditure of coastal communities is most significant in the interval of Rp 1,939,404-Rp 3,238,807 for as many as 22 respondents. In comparison, the lowest respondent expenditure is in the interval range of Rp 5,837,616- Rp 7,137,019 and Rp 8,436,424 - Rp 9,375,827 for each respondent.

4.2.3. The Most Frequently Used Digital Payments

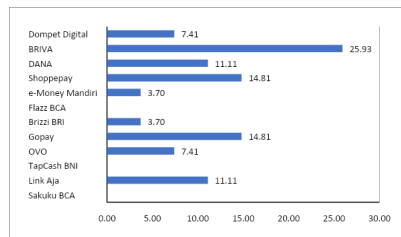


Figure 7 Most Frequently Used Digital Payments.

Figure 7 shows that the most frequently used digital payment by coastal communities is BRIVA, with a percentage of 25.93%. Next are ShoopePay and GoPay, with 14.81% of each use. Meanwhile, DANA and Link Aja are ranked third most, with percentage of 11.11%.

4.2.4. The Types of Household Expenditures in the Use of Digital Payments

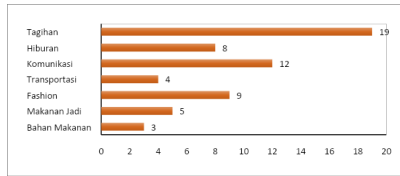


Figure 8 The Types of Household Expenditures in the Use of Digital Payments.

4.2.5. Consumption Function Model Using Digital Payments

Table 1. Consumption Function Model of Coastal Communities Using Digital Payments

No.	1 Month Income (X)	1 Month Expenditure (Y)	X ²	Y ²	XY
1	2000000	1002400	4,000,000,000,000	1,004,805,760,000	2,004,800,000,000
2	480000	605800	230,400,000,000	366,993,640,000	290,784,000,000
3	800000	385000	640,000,000,000	148,225,000,000	308,000,000,000
4	4000000	1181200	16,000,000,000,000	1,395,233,440,000	4,724,800,000,000
5	2000000	508000	4,000,000,000,000	258,064,000,000	1,016,000,000,000
6	400000	1257800	160,000,000,000	1,582,060,840,000	503,120,000,000
7	560000	739600	313,600,000,000	547,008,160,000	414,176,000,000
8	800000	754800	640,000,000,000	569,723,040,000	603,840,000,000
9	240000	317700	57,600,000,000	100,933,290,000	76,248,000,000
10	400000	600120	160,000,000,000	360,144,014,400	240,048,000,000
11	280000	1059468	78,400,000,000	1,122,472,443,024	296,651,040,000
12	800000	830400	640,000,000,000	689,564,160,000	664,320,000,000
13	720000	985200	518,400,000,000	970,619,040,000	709,344,000,000
14	640000	704400	409,600,000,000	496,179,360,000	450,816,000,000
15	800000	846400	640,000,000,000	716,392,960,000	677,120,000,000
16	720000	503600	518,400,000,000	253,612,960,000	362,592,000,000
17	160000	378000	25,600,000,000	142,884,000,000	60,480,000,000
18	400000	322600	160,000,000,000	104,070,760,000	129,040,000,000
19	720000	497800	518,400,000,000	247,804,840,000	358,416,000,000
20	560000	627400	313,600,000,000	393,630,760,000	351,344,000,000
21	320000	431800	102,400,000,000	186,451,240,000	138,176,000,000
22	640000	504800	409,600,000,000	254,823,040,000	323,072,000,000
23	240000	260400	57,600,000,000	67,808,160,000	62,496,000,000
24	480000	448600	230,400,000,000	201,241,960,000	215,328,000,000
25	160000	921804.8	25,600,000,000	849,724,089,303	147,488,768,000
26	800000	777200	640,000,000,000	604,039,840,000	621,760,000,000
27	1600000	1086400	2,560,000,000,000	1,180,264,960,000	1,738,240,000,000
28	240000	315000	57,600,000,000	99,225,000,000	75,600,000,000
29	118400	676200	14,018,560,000	457,246,440,000	80,062,080,000
30	880000	1113000	774,400,000,000	1,238,769,000,000	979,440,000,000
31	400000	1923000	160,000,000,000	3,697,929,000,000	769,200,000,000
32	400000	1844600	160,000,000,000	3,402,549,160,000	737,840,000,000
33	240000	500400	57,600,000,000	250,400,160,000	120,096,000,000
34	800000	1039000	640,000,000,000	1,079,521,000,000	831,200,000,000
35	800000	1039800	640,000,000,000	1,081,184,040,000	831,840,000,000
36	560000	573600	313,600,000,000	329,016,960,000	321,216,000,000
37	400000	418800	160,000,000,000	175,393,440,000	167,520,000,000
38	320000	390600	102,400,000,000	152,568,360,000	124,992,000,000
39	320000	597200	102,400,000,000	356,647,840,000	191,104,000,000
40	800000	842400	640,000,000,000	709,637,760,000	673,920,000,000
41	480000	553200	230,400,000,000	306,030,240,000	265,536,000,000
42	400000	949400	160,000,000,000	901,360,360,000	379,760,000,000
43	480000	782200	230,400,000,000	611,836,840,000	375,456,000,000
44	280000	196900	78,400,000,000	38,769,610,000	55,132,000,000
45	360000	285300	129,600,000,000	81,396,090,000	102,708,000,000

46	320000	547200	102,400,000,000	299,427,840,000	175,104,000,000
47	800000	829200	640,000,000,000	687,572,640,000	663,360,000,000
48	560000	338000	313,600,000,000	114,244,000,000	189,280,000,000
49	1400000	586400	1,960,000,000,000	343,864,960,000	820,960,000,000
50	600000	429000	360,000,000,000	184,041,000,000	257,400,000,000
51	640000	497400	409,600,000,000	247,406,760,000	318,336,000,000
52	200000	128000	40,000,000,000	16,384,000,000	25,600,000,000
53	1200000	661600	1,440,000,000,000	437,714,560,000	793,920,000,000
54	520000	261500	270,400,000,000	68,382,250,000	135,980,000,000
55	400000	275000	160,000,000,000	75,625,000,000	110,000,000,000
56	560000	292700	313,600,000,000	85,673,290,000	163,912,000,000
57	360000	291300	129,600,000,000	84,855,690,000	104,868,000,000
58	600000	451000	360,000,000,000	203,401,000,000	270,600,000,000
59	640000	439900	409,600,000,000	193,512,010,000	281,536,000,000
60	680000	568900	462,400,000,000	323,647,210,000	386,852,000,000
Amount	39,478,400	39,176,393	46,071,618,560,000	33,150,009,266,727	29,268,829,888,000
Average	657,973.33	652,939.88			
APC	0.99	APS	0.01		
MPC (b)	0.17	MPS	0.83		

Based on Table 1, the average income of coastal communities is IDR 657,973.33, with an average expenditure through digital payments of IDR 652,939.00. The average Propensity to Consume (APC) is 0.99 while the Average Propensity to Save (APS) is 0.01, meaning the average tendency to consume coastal communities is very high. In contrast, the average tendency to save is low. From these results, there was potential for people to use digital payments as a form of convenience and security during transactions by looking at the APC and APS values. Therefore, it is necessary to increase literacy among people who have not used transactions through digital payments. The survey results also showed that, for some of the expenditures made by coastal communities, only 20% were utilised through digital payments, so the value of MPC was only 0.17.

The following equation is used for the Keynesian consumption model: $C = C_0 + C_Y$ or $C = a + bY$. The following results model the consumption function of coastal communities:

Consumption Function = $C = 539,487 + 0.17 Y$

Savings Function = $- 539,487 + 0.83 Y$

Value of Marginal Propensity to Consume = 0.17

The value of Marginal Propensity to Save = 0.83.

Based on these results, the MPC value was 0.17, which means that every increase in disposable income by Rp 1 will increase consumption by 0.17. Meanwhile, the MPS value of 0.83 means that every additional Rp 1 will increase the savings by 0.83. In macro terms, the assumption can be explained as follows: if the income of coastal communities has increased, their consumption will also increase. However, the increase in consumption was a smaller proportion than the increase in revenue. Meanwhile, the APC results showed a more excellent value when compared with MPC. Some literature [29] explains that MPC is used to analyse consumption behaviour in the short term while APC is used to explore in the long term. This meant that people’s consumption was low in the short term, but in the long term, it was predicted that people’s consumption would be high along with the income earned. This indicated that the role of consumption through digital payments needs to be increased to improve people’s consumption, the economy, and financial inclusion nationally.

Furthermore, the MPS value, which is 0.83, indicates that in the short term, the income of coastal communities is mainly used for savings. The condition of the APC value in the long term was predicted to be lower with a value of 0.01. This indicated that consumption through digital payments had a positive effect due to the high MPS value. This was confirmed by the condition of coastal communities far from the market so that more income is used for savings.

Then, multiple linear regression results with a double log model will present the analysis of variations in income that can be allocated to consumption, sadaqah, and savings through digital payments.

Table 2. Multiple Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.770 ^a	.593	.571	.41905

a. Predictors: (Constant), LnS, LnZIS, LnC

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.301	3	4.767	27.147	.000 ^b
	Residuals	9.834	56	.176		
	Total	24.135	59			

a. Dependent Variable: LnY

b. Predictors: (Constant), LnSaving, LnS, LnC

Coefficients^a

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.368	1.698		1.984	.052
	LnC	.725	.116	.607	6.245	.000
	LnS	.017	.012	.123	1.371	.176
	LnSaving	.064	.009	.693	7.460	.000

a. Dependent Variable: LnY

Source: Data processed using SPSS version 26

Based on the multiple linear regression results, the regression equation model using the double log model is as follows: $LnY = 3,368 + 0,725 LnX_1 + 0,017 LnX_2 + 0,064 LnX_3$

Interpretation of the analysis results:

- $Ln X_1$ = people's consumption through digital payments has a coefficient value of 0.725% and is positive, which indicates that people's consumption has a unidirectional relationship with income; thus, a 1% increase in people's consumption will cause an increase in public income of 0.725%.
- $Ln X_2$ = community *sadaqah* generated by digital payments has a coefficient value of 0.017% and a positive sign indicating that *sadaqah* has a unidirectional and positive relationship with income. This means that an increase in *sadaqah* made by coastal communities in carrying out *maslahah* activities through digital payments by 1% can increase community income by 0.017%.
- $Ln X_3$ = community savings made by coastal communities has a coefficient value of 0.064% and a positive sign, which indicates that community savings have a unidirectional and positive relationship with income. This means that an increase in *sadaqah* made by coastal communities in performing *maslahah* activities through digital payments by 1% can increase community income by 0.064%.

The results also showed that the coefficient value of *sadaqah* with the value of *maslahah* was only 0.017, indicating the low value of coastal communities' concern for *maslahah* to seek blessings. Charitable giving in society is influenced by various factors, including religious involvement, economic conditions, individual characteristics, and social influences [35–39]. Concern for *maslahah*, in this case blessings, is part of religious involvement in community consumption. *Sadaqah*, as well as *zakah* in the Islamic consumption function, can affect income. Through *zakah* and *sadaqah*, people's consumption will increase and affect income. The consumption function in Islamic economics integrates the consumption concept with Islamic principles, including allocating income for *zakah*, *sadaqah*, and ethical consumption practices [40–42]. The *maslahah*-based consumption function through *zakah* and *sadaqah* is essential as a demand-forming element for goods and services [22]. However, it takes a larger amount of *sadaqah* transfer than *zakah* to generate a higher marginal propensity, as also expressed by Iqbal [40].

Furthermore, based on the use of digital payment, this model explains that the consumption pattern of coastal communities is still low. The low use of digital payment contributed to the formation of a consumption function that

was also low. This model confirms the research of Chen et al. [24], Apeti [25], and Li et al. [26], which mention the relationship between digital finance and household consumption. Consumption through digital finance can increase household consumption and further increase people's income. Increased consumption through digital payments also has implications for increasing people's final spending through *sadaqah*. This increase in income from increased consumption plays an important role in economic growth - as explained by Aleksandrova et al. [16], Solomon and van Klyton [17], Pradhan et al. [18], and Raeskyesa et al. [19] - especially in coastal areas. Economic growth from people's consumption can reduce income inequality, as the income generated influences people's consumption.

Overall, digital technology through digital payments could support the consumption of coastal communities from a *maslahah* perspective through the concept of *sadaqah*. Islamic economic principles, including *zakah* and *sadaqah*, can be used to promote economic growth and development. By addressing income redistribution, increasing aggregate demand, and digitising consumption, *zakah* and *sadaqah* can become growth factors within the Islamic framework in the digital era.

5. CONCLUSION

The use of digital payments influences the consumption function model of coastal communities. Coastal communities allocated almost all their income to consumption, and only a small portion was used as savings. From the perspective of *maslahah*, the *sadaqah* factor also shaped the consumption patterns and income of coastal communities. The model formed was $C = 539,487 + 0.17 Y$ with the value of $APC = 0.99$, $APS = 0.01$, $MPC = 0.17$, and $MPS = 0.83$. Meanwhile, the consumption function model based on using digital payments from a *maslahah* perspective yielded the equation $\text{Ln}Y = 3,368 + 0,725 \text{ Ln}X_1 + 0,017 \text{ Ln}X_2 + 0,064 \text{ Ln}X_3$.

This research contributes to existing knowledge by presenting empirical evidence that supports previous studies on the role of consumption in the context of Islamic economics in the digital era. In addition, this study also provides an understanding of how coastal communities distribute their income through digital payment methods for consumption by considering *maslahah* aspects. This understanding can serve as input for the government and relevant stakeholders in formulating effective policies to reduce economic inequality. It is important to note that this study only focuses on macro-level issues related to the *sadaqah* variable; therefore, further investigation is needed from a more comprehensive and *maslahah*-orientated micro-perspective.

AUTHORS CONTRIBUTIONS

Authors 1, 2, 3, 4, and 5 contributed to the research design and implementation, the analysis of the results, and the writing of the manuscript.

ACKNOWLEDGMENTS

Concerning the publication of this paper, the authors declare no conflict of interest. The authors thank the anonymous reviewers for their insightful comments and ideas. UIN Antasari partly funded research support.

REFERENCES

- [1] D. Tapscott, *The Digital Economy: Promise and Peril in the Age of Networked Intelligence*, McGraw-Hill, New York, 1994.
- [2] A. Majir, I. Nasar, Pengaruh e-Commerce Era Industri 4.0 dan Kesiapan Menyambut Revolusi Society 5.0, *Sebatik* 25 (2021) 530–536. DOI: <https://doi.org/10.46984/sebatik.v25i2.1574>.
- [3] A.G. Pereira, T.M. Lima, F. Charrua-Santos, Industry 4.0 and Society 5.0: Opportunities and Threats, *International Journal of Recent Technology and Engineering (IJRTE)* 8 (2020) 3305–3308. DOI: <https://doi.org/10.35940/ijrte.D8764.018520>.
- [4] L.D. Xu, E.L. Xu, L. Li, Industry 4.0: State of the Art and Future Trends, *International Journal of Production Research* 56 (2018) 2941–2962. DOI: <https://doi.org/10.1080/00207543.2018.1444806>.
- [5] G. Zamfir, Learning Paradigms in e-Society, *Informatica Economica* 17 (2013) 99–113. DOI: <https://doi.org/10.12948/issn14531305/17.3.2013.09>.
- [6] R. Komalasari, Manfaat Teknologi Informasi dan Komunikasi di Masa Pandemi Covid 19, *TEMATIK* 7 (2020) 38–50. DOI: <https://doi.org/10.38204/tematik.v7i1.369>.

- [7] F. Cochoy, C. Licoppe, M.P. McIntyre, N. Sörum, Digitalizing Consumer Society: Equipment and Devices of Digital Consumption, *Journal of Cultural Economy* 13 (2020) 1–11. DOI: <https://doi.org/10.1080/17530350.2019.1702576>.
- [8] M.A. Afonasyova, E.E. Panfilova, M.A. Galichkina, B. Ślusarczyk, Digitalization in Economy and Innovation: The Effect on Social and Economic Processes, *Polish Journal of Management Studies* 19 (2019) 22–32. DOI: <https://doi.org/10.17512/pjms.2019.19.2.02>.
- [9] F. Aulady, M. Legowo, Pola Adaptasi Masyarakat Desa Winong Menghadapi Digitalisasi Kegiatan Ekonomi Pasca Pandemi Covid-19, *Responsive: Jurnal Pemikiran dan Penelitian Administrasi, Sosial, Humaniora dan Kebijakan Publik* 5 (2022) 81–88. DOI: <https://doi.org/10.24198/responsive.v5i2.42344>.
- [10] H.S. Wibowo, Penguatan Literasi Digital: Menguasai Dunia Literasi di Era Digitalisasi, *Tiram Media*, 2023.
- [11] Tim Penyusun, Laporan Perekonomian Provinsi Kalimantan Selatan, Kantor Perwakilan Bank Indonesia Provinsi Kalimantan Selatan, Banjarmasin, 2023. <https://www.bi.go.id/>.
- [12] R.H. Lubis, Penggunaan Dompot Digital dan Wallet Terhadap Budaya Konsumtif pada Masyarakat di Kota Tangerang Serta Pandangan Syariah Tentang Etika Konsumsi, *Al-Tasyree: Jurnal Bisnis, Keuangan Dan Ekonomi Syariah* 14 (2022) 1–10. DOI: <https://doi.org/10.59833/altasyree.v14i01.710>.
- [13] F. Cochoy, J. Hagberg, M.P. McIntyre, N. Sörum, eds., *Digitalizing Consumption: How Devices Shape Consumer Culture*, 1st ed., Routledge, London, 2017. DOI: <https://doi.org/10.4324/9781315647883>.
- [14] T.T. Rynänen, T.T. Hyryläinen, Digitalisation of Consumption and Digital Humanities: Development Trajectories and Challenges for the Future, in: E. Mäkelä, M. Tolonen, J. Tuominen (Eds.), *Proceedings of the Digital Humanities in the Nordic Countries 3rd Conference*, University of Helsinki, Helsinki, Finland, 2018: pp. 363–371. <http://ceur-ws.org/Vol-2084/>.
- [15] S. Syamsuri, M. Farizi, H. Khotimah, Digitalization of the Economy and the Cultural Impact of Consumption in Modern Society: A Review from Al-Syaibanī's Perspective, *Dinar: Jurnal Ekonomi Dan Keuangan Islam* 9 (2022) 145–158. DOI: <https://doi.org/10.21107/dinar.v9i2.17918>.
- [16] A. Aleksandrova, Y. Truntsevsky, M. Polutova, Digitalization and Its Impact on Economic Growth, *Brazilian Journal of Political Economy* 42 (2022) 424–441. DOI: <https://doi.org/10.1590/0101-31572022-3306>.
- [17] E.M. Solomon, A. van Klyton, The Impact of Digital Technology Usage on Economic Growth in Africa, *Utilities Policy* 67 (2020) 101104. DOI: <https://doi.org/10.1016/j.jup.2020.101104>.
- [18] R.P. Pradhan, M.B. Arvin, M. Nair, S.E. Bennett, S. Bahmani, Short-term and Long-term Dynamics of Venture Capital and Economic Growth in a Digital Economy: A Study of European Countries, *Technology in Society* 57 (2019) 125–134. DOI: <https://doi.org/10.1016/j.techsoc.2018.11.002>.
- [19] D.G.S. Raeskyesa, E.N. Lukas, Does Digitalization Increase Economic Growth? Evidence from ASEAN8 Countries, *Jurnal Ekonomi Indonesia* 8 (2019) 267–278. <https://jurnal.isei.or.id/index.php/isei/article/view/33> (accessed February 3, 2023).
- [20] J. Björkdahl, Strategies for Digitalization in Manufacturing Firms, *California Management Review* 62 (2020) 17–36. DOI: <https://doi.org/10.1177/0008125620920349>.
- [21] I. Arenkov, M. Tsenzharik, M. Vetrova, Digital Technologies in Supply Chain Management, in: I.V. Ilin (Ed.), *Proceedings of the International Conference on Digital Technologies in Logistics and Infrastructure (ICDTLI 2019)*, Atlantis Press, 2019: pp. 448–453. DOI: <https://doi.org/10.2991/icdtli-19.2019.78>.
- [22] J. Sheth, Impact of Covid-19 on Consumer Behavior: Will the Old Habits Return or Die?, *Journal of Business Research* 117 (2020) 280–283. DOI: <https://doi.org/10.1016/j.jbusres.2020.05.059>.
- [23] E. Kubicová, Z. Kádeková, N. Turčeková, P. Bielik, Consumption of Food in Relation to Income and Saturation Limit of Slovak Households, *Agricultural Economics (Zemědělská Ekonomika)* 65 (2019) 560–568. DOI: <https://doi.org/10.17221/94/2019-AGRICECON>.
- [24] Z. Chen, X. Li, J. Zhang, X. Xia, Does Digital Finance Alleviate Household Consumption Inequality? Evidence from China, *Finance Research Letters* 60 (2024) 104844. DOI: <https://doi.org/10.1016/j.frl.2023.104844>.
- [25] A.E. Apeti, Household Welfare in the Digital Age: Assessing the Effect of Mobile Money on Household Consumption Volatility in Developing Countries, *World Development* 161 (2023) 106110. DOI: <https://doi.org/10.1016/j.worlddev.2022.106110>.

- [26] J. Li, Y. Wu, J.J. Xiao, The Impact of Digital Finance on Household Consumption: Evidence from China, *Economic Modelling* 86 (2020) 317–326. DOI: <https://doi.org/10.1016/j.econmod.2019.09.027>.
- [27] S.I. Abdullahi, Zakah As Tool for Social Cause Marketing and Corporate Charity: A Conceptual Study, *Journal of Islamic Marketing* 10 (2019) 191–207. DOI: <https://doi.org/10.1108/JIMA-03-2017-0025>.
- [28] S.A. Shaikh, M.A. Ismail, A.G. Ismail, S. Shahimi, M.H. Mohd. Shafiai, Towards an Integrative Framework for Understanding Muslim Consumption Behaviour, *Humanomics* 33 (2017) 133–149. DOI: <https://doi.org/10.1108/H-01-2017-0005>.
- [29] P. Rahardja, M. Manurung, Pengantar Ilmu Ekonomi: Mikroekonomi dan Makroekonomi, Fakultas Ekonomi Universitas Indonesia, Jakarta, 2008.
- [30] Pusat Pengkajian dan Pengembangan Ekonomi Islam (P3EI) UII - BI, *Ekonomi Islam*, 8th ed., Rajawali Pers, Jakarta, 2019.
- [31] FORDEBI, ADESy, *Ekonomi dan Bisnis Islam: Seri Konsep dan Aplikasi Ekonomi dan Bisnis Islam*, 1st ed., Rajawali Pers, Jakarta, 2016.
- [32] A.A. Karim, *Ekonomi Mikro Islami*, 6th ed., Rajawali Pers, Jakarta, 2022.
- [33] J. Dong, X. Zang, Digital Finance's Impact on Household Service Consumption—The Perspective of Heterogeneous Consumers, *Applied Economics* (2023) 1–16. DOI: <https://doi.org/10.1080/00036846.2023.2277691>.
- [34] D. Stockemer, *Quantitative Methods for the Social Sciences: A Practical Introduction with Examples in SPSS and Stata*, Springer International Publishing, Cham, 2019. DOI: <https://doi.org/10.1007/978-3-319-99118-4>.
- [35] Y. Chetoui, H. Satt, H. Lebdaoui, M. Baijou, S. Dassouli, S. Katona, Antecedents of Giving Charitable Donations (Sadaqah) During the COVID-19 Pandemic: Does Islamic Religiosity Matter?, *Journal of Islamic Marketing* 14 (2022) 1169–1187. DOI: <https://doi.org/10.1108/JIMA-09-2021-0296>.
- [36] F. Xie, Y. Lu, Y. Zhang, Does Religious Belief Affect Volunteering and Donating Behavior of Chinese College Students?, *Religions* 11 (2020) 403. DOI: <https://doi.org/10.3390/rel11080403>.
- [37] M. Sanders, Social Influences on Charitable Giving in the Workplace, *Journal of Behavioral and Experimental Economics* 66 (2017) 129–136. DOI: <https://doi.org/10.1016/j.socec.2015.12.004>.
- [38] M.N. Mohd Arshad, Determinants of Charitable Giving in Malaysia, *Humanomics* 32 (2016) 459–473. DOI: <https://doi.org/10.1108/H-01-2016-0007>.
- [39] D.K. Peterson, Y. Su, Relationship Between Corporate Foundation Giving and the Economic Cycle for Consumer- and Industrial-Oriented Firms, *Business & Society* 56 (2015) 1169–1194. DOI: <https://doi.org/10.1177/0007650315608148>.
- [40] M. Iqbal, Zakah, Moderation and Aggregate Consumption in An Islamic Economy, *Journal of Research in Islamic Economics* 3 (1985) 45–61.
- [41] M.F. Khan, Macro Consumption Function in an Islamic Framework, in: *Contributions to Islamic Economic Theory: A Study in Social Economics*, Palgrave Macmillan UK, London, 1986: pp. 140–165. DOI: https://doi.org/10.1007/978-1-349-07728-1_11.
- [42] S.I. Mahdi, Consumption Function in Islamic Economics, *American Journal of Islam and Society* 1 (1984) 133–136. DOI: <https://doi.org/10.35632/ajis.v1i2.2803>.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

