Digital Marketing in Encouraging Economic Growth and Domestic Consumption in Indonesia

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Abstract

This study looks at digital marketing in general by investigating internet users as representatives of internet users who are segments in digital marketing, consumption which shows domestic demand as a result of the marketing mix, and economic growth as an indicator of national production.The World Bank has provided this data as a secondary source. For the years 2000 to 2020, the following variables will be analyzed using two different time series models. The country's GDP is used as a measure of economic growth in this study. Internet users (IU) and consumption (CO) respectively are the dependent and independent variables of this study because they serve as indicators of how these two variables are related in the long and short term to economic growth. There is an influence between internet users, economic growth, and consumption so digital marketing has a significant impact on consumption and economic growth in Indonesia. This is shown by the direct influence of internet users, economic growth, and consumption on internet literacy in Indonesia.

Keywords: Digital Marketing, Economic Growth, Domestic Consumption, Indonesia

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Introduction

A sound digital marketing strategy helps SMEs enter the market and grow, foster competition and innovation, stimulate long-term economic growth, and enable consumers and businesses to benefit from a greater choice of prices, products, quality, and services. Digital marketing can make it easier and cheaper to personalize SME business processes. Tailoring your business processes can play an important role in helping entrepreneurs launch their businesses and achieve sustainable growth (Widarni & Bawono, 2022 ; Murniati, 2021).

Digital marketing and social media can help SMEs successfully develop bespoke products, unlock potential demand for their products and services, and stay strong in the face of economic turmoil. Digitization has made markets more accessible to everyone and accelerated product development. In addition, it has encouraged innovation and competition. This shows that digital technology is very important in helping SMEs in developing countries to overcome growth barriers and therefore plays an important role in the economic growth of these countries.However, it is clear that there is still significant scope for many SMEs around the world to benefit from the increased personalization made possible by digital marketing and social media. This shows that there are still many SMEs that still benefit from the launch of digital technology (Bawono, 2021; Astuti & Prabowo, 2021).

Indonesia is a country with MSMEs as the backbone of the national economy. Where the role of MSMEs supports most of the Indonesian economy. Digital marketing not only helps MSMEs in Indonesia but also big companies in Indonesia. The growing personalization market will create significant growth opportunities for SMEs, but it is imperative that they have the tools to take advantage of these opportunities. In fact, the demand for personalization is increasing so rapidly that a personalized customer experience and connecting with the right customer is almost a requirement for success. SMBs are naturally well placed to provide an optimal customer experience. However, digital marketing can help them increase personalization and connect with their audience, which will be increasingly important in starting new businesses and achieving sustainable growth (Bawono, 2020 ; Puspaningtyas & Harnani, 2021).

Digital transformation is not only based on corporate responsibility. By increasing digital access and skills, governments and platforms can help spread and scale the benefits of this transformation to the wider SME community. Digital marketing agencies and online marketing have enabled SMEs to develop their digital skills and access tools that previously required a high level of technical knowledge. As a result, companies can find the right skills and reduce the initial costs of training specialized staff. Online marketing agencies should continue to work on developing platforms for companies that are accessible to everyone. Public policy must be flexible, adaptable, and not too prescriptive. Providing more entrepreneurs and SMEs with digital tools to personalize their business and thereby facilitate important economic benefits (Chapuzet & Bawono, 2021). This study looks at digital marketing in general by investigating internet users as representatives of internet users who are segments in digital marketing, consumption which shows domestic demand as a result of the marketing mix, and economic growth as an indicator of national production.

Research Method

The World Bank has provided this data as a secondary source. For the years 2000 to 2020, the following variables will be analyzed using two different time series models. The country's GDP is used as a measure of economic growth in this study. Internet users (IU) and consumption (CO) respectively are the dependent and independent variables of this study because they serve as indicators of how these

two variables are related in the long and short term to economic growth. We use the following econometric model:

$IU_t = \beta_0 + \beta_1 IU_{t-1} + \beta_2 IU_{t-2} + \beta_3 EG_{t-1} + \beta_5 EG_{t-2} + \beta_6 CO_{t-1} + \beta_7 CO_{t-2} + e_t$

Where,

IU : Internet users

EG : Economic growth

CO : Consumption

e : Error term

t : Time series

Dynamic ARDL was used in this work. When the independent variables undergo a shock, the ARDL model may be used to analyze, simulate, and forecast it, according to Khan et al.(2020). ARDL simulation models may be employed if there is a cointegration connection between study variables.

Result and Discussion

Table 1 shows descriptive statistics based on the variables in the research.

Table 1. Descriptive statistics

	EG	CO	IU
Mean	4.911670	4.395905	15.71542
Median	5.033069	4.798478	10.92000
Maximum	6.345022	6.282887	53.72649
Minimum	-2.069543	-2.098435	0.925564
Std. Dev.	1.731411	1.719162	15.72629
Skewness	-3.271964	-2.742033	1.175384
Kurtosis	13.97019	11.01007	3.258531
Jarque-Bera	142.7721	82.45661	4.893832
Probability	0.000000	0.000000	0.086560
Sum	103.1451	92.31400	330.0239
Sum Sq. Dev.	59.95569	59.11035	4946.321
Observations	21	21	21

The results of descriptive statistics are expressed in terms of mean, min, max, and Std Dev. EG Mean 4,911, EG Min -2,069, EG Max 6,345, EG Std Dev 1,731. CO Mean 4,395, CO Min -2,098, CO Max 6,282, CO Std Dev 1,719. IU Mean 15,715, IU min 0.925, IU max 53,726, IU Std Dev 15,726. EG is Indonesia's economic growth, CO is consumption per percentage of GDP, and IU is the number of internet users per percentage of the population in Indonesia in Indonesia.

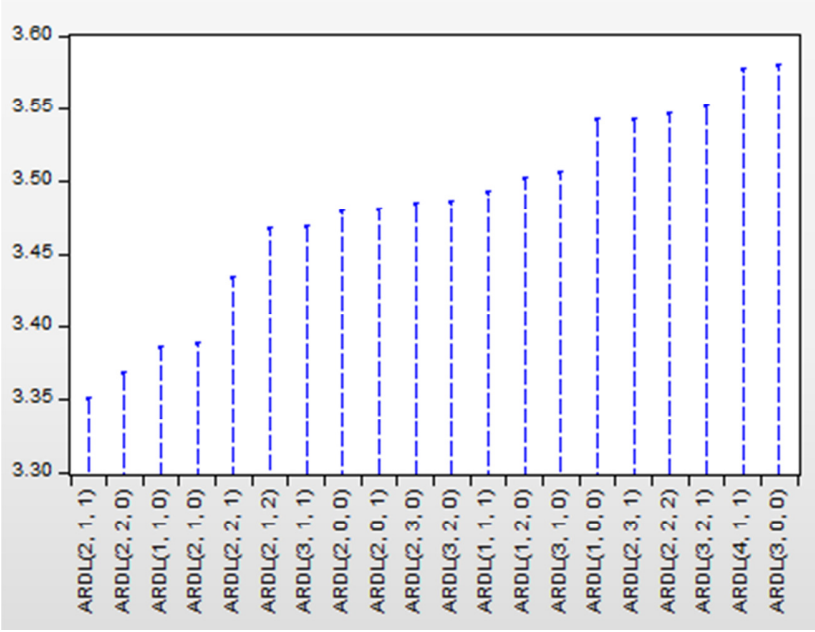
Before using the ARDL model to forecast the value, a stationary test should be performed. Augmented Dickey-Fuller (ADF) may detect whether a series is stationary by studying the error component, which includes any risk of autocorrelation if the series is not stationary. The results are as follows:

Table 2. Unit Root Test on IU, EG, and CO data

Variable	Unit Root	Include in the examination Equation	Statistics for the ADF Test	5% Critical Value	Description
Internet user (IU)	Level	Intercept	6.626153	1.0000	
	First Diff	Intercept	-0.254496	0.9143	
	Second Diff	Intercept	-7.999192	0.0000	Stationer
Economic Growth (EG)	Level	Intercept	-0.527808	0.8660	
	First Diff	Intercept	-1.929268	0.3129	
	Second Diff	Intercept	-3.319458	0.0293	Stationer
Consumption (CO)	Level	Intercept	-1.838596	0.3523	
	First Diff	Intercept	-1.811369	0.3640	
	Second Diff	Intercept	-3.197277	0.0371	Stationer

IU, EG, and CO data are both stationary at the second difference. This is indicated by the Augmented Dickey-Fuller Test, with a value of -7.999192 and a probability of 0.0000, because the probability is less than 5%, in this case, the IU data shows stationary in the second difference. The same thing happened to the stationary EG and CO data on the second difference from the original data.

Picture 1. Optimum Lag Test



To identify which lag is acceptable for use in the next test, optimal lag testing is done; as indicated in the diagram above, 2,1,1 lag is the most suggested.

Tabel 4. ARDL bounds test

Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	7.953112	10%	2.63	3.35
k	2	5%	3.1	3.87
		2.5%	3.55	4.38
		1%	4.13	5

The value of the F-statistic model of 7.953112 is greater than the upper limit value at the 5% level, even greater than the upper limit value at the 2.5 percent and 1 percent level, according to the results of the Limit Test of the ARDL model in Table 4. This shows that the three factors studied in this study, namely internet users, economic growth, and consumption are cointegrated over time, or the three variables move in the same direction.

Tabel 5. ARDL analysis results

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
IU(-1)	0.757502	0.247448	3.061254	0.0099
IU(-2)	0.579726	0.303526	1.909972	0.0803
EG	0.996695	0.331057	3.010645	0.0108
EG(-1)	-0.716790	0.388616	-1.844466	0.0899
CO	-0.302567	0.342351	-0.883793	0.3942
CO(-1)	-0.629789	0.509202	-1.236816	0.2398
C	2.519171	2.685005	0.938237	0.3666
R-squared	0.997104	Mean dependent var		17.21472
Adjusted R-squared	0.995656	S.D. dependent var		15.80659
S.E. of regression	1.041760	Akaike info criterion		3.197009
Sum squared resid	13.02316	Schwarz criterion		3.544961
Log likelihood	-23.37159	Hannan-Quinn criter.		3.255897
F-statistic	688.6572	Durbin-Watson stat		2.071292
Prob(F-statistic)	0.000000			

The adjusted R-squared and R-squared values of the adjusted ARDL model varied between 0.995 and 0.997. The Adjusted R-squared value of 0.995 implies that each independent variable in the ARDL model, namely economic growth and consumption, can explain 95.5 percent of the variation in the dependent variable of internet users. This shows that the research model is very good for research. Judging from the ARDL estimation results, the IU variable (-1) has a coefficient value of 0.757 which indicates that the internet user factor in the previous year is also a factor that affects internet users. For example, a growth rate of 1% of internet users in the previous year would result in an increase in

Indonesian internet users by 75.7 percent. The value of the CO coefficient (-1) is -0.30 which means an increase of 1 percent will decrease by 30%.

Conclusion

There is an influence between internet users, economic growth, and consumption so digital marketing has a significant impact on consumption and economic growth in Indonesia. This is shown by the direct influence of internet users, economic growth, and consumption on internet literacy in Indonesia.

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