

FINANCE | RESEARCH ARTICLE

The Influence of The Digital Economy on The Competitiveness of The Coffee Industry in Binjai: A Sharia Economic Perspective

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ARTICLE HISTORY

Received: February 27, 2025

Revised: June 14, 2025

Accepted: November 27, 2025

DOI

<https://doi.org/10.52970/grfm.v6i1.1137>

ABSTRACT

This study aims to find out how the influence of the digital economy on the competitiveness of the coffee industry in the city of Binjai is reviewed through the sharia economy. The method used in this study is quantitative. The population in this study is coffee industry business actors in the city of Binjai who have used the digital economy in carrying out their business activities, which amounted to 79 people. The research sample amounted to 51 people with a sampling technique, namely purposive sampling. Data collection techniques are literature studies and questionnaires, and documentation. The data analysis techniques used were descriptive analysis, validity test, classical assumption test, simple linear regression analysis, and hypothesis test. The results of the study show that the digital economy has a significant effect on the competitiveness of the coffee industry in the city of Binjai, or Ha. This is evidenced by a simple linear regression equation, namely $DS = 1.064 + 0.322X + e$. The results of the t-test showed a tcal value of 4.248 > ttable of 1.677 and a significance of $0.000 < 0.05$. Then, based on the results of the determination coefficient test, the R-squared value was obtained as 0.721, or 72.1%, while the other 27.9% was influenced by other factors that were not studied in this research. Reviewed according to Sharia economics, most of the coffee industry business actors in the city of Binjai have implemented the business pillars taught in Islam, namely the existence of a party between the seller and the buyer, the existence of a sighth or contract, the subject of the contract, and the purpose of the sales contract do not deviate. The implications of the study show that the digital economy makes business processes more efficient by reducing time and costs. The research also found that the digital economy has a positive impact on the competitiveness of the coffee business.

Keywords: Digital Economy, Competitiveness, Coffee Industry, Islamic Economy.

JEL Code: O33, L66, L25, Z12

I. Introduction

Information technology development in the era of the Fourth Industrial Revolution significantly impacts the global economy, including Indonesia. Digital transformation has given rise to new business models that are more dynamic, efficient, and innovation-driven, gradually shifting conventional economic practices. This phenomenon is known as the digital economy, which is an economic system that relies on information and communication technology in creating, exchanging, and distributing economic value



through the internet (Taufiq et al., 2023). The increasingly rapid technological advancements are also shaping a new economic ecosystem that allows business owners to control economic activities solely through digital devices such as smartphones. The digital economy has created breakthroughs in business interactions, both between businesses (business-to-business, B2B) and between businesses and consumers (business-to-consumer, B2C). Space and time no longer limit economic activity, as nearly all business transactions, promotions, and communications take place online (Asofa et al., 2024).

Indonesia itself has experienced significant growth in digital economic development. The E-Conomy SEA (2024) report shows that in 2024, Indonesia's digital economy growth reached 59%, making it the world's leading country in the use of e-commerce services for product purchases. The data confirms that the consumption behavior of Indonesian society has shifted towards digital, in line with the increasing number of national internet users. Easy internet access encourages people to make online transactions without needing physical facilities like shops or shophouses. Sellers can reach a wider market with more efficient capital, while buyers gain convenience in transacting from anywhere. However, this development also presents new challenges, namely the increasing intensity of business competition in the digital realm. To survive in such situations, business owners need to master digital marketing strategies and innovation management to strengthen their competitiveness (Giri et al., 2023).

The digital economy is believed to be capable of addressing the challenges of national economic development, which is still unstable. The Indonesian government is committed to building a community-based economy by promoting the growth of the entrepreneurial sector and MSMEs (Micro, Small, and Medium Enterprises). The increase in the number of business owners is expected to strengthen the foundation of the national economy and create new jobs. In this context, competitiveness becomes a key indicator of economic success, namely the ability of individuals or business entities to grow and develop amidst intense competition (Mudjiyanti et al., 2021). Business competition is an unavoidable phenomenon in the modern business world. When conducted healthily, competition can foster innovation and improve efficiency. However, if done unethically, competition can lead to inequality and harm other parties. From an Islamic point of view, business must be based on moral and ethical principles. Islam encourages its followers to compete in goodness, as Allah says in Surah Al-Baqarah, verse 148:

وَلِكُلِّ وُجْهَةٍ هُوَ مُوَلِّئُهَا فَاسْتَبِقُوا الْحَيْرَاتِ ۚ إِنَّ مَا تَكُونُوا يَأْتِ بِكُمْ اللَّهُ جَمِيعًا ۗ إِنَّ اللَّهَ عَلَىٰ كُلِّ شَيْءٍ قَدِيرٌ

Mean: "and for every nation there is a direction to which it turns. So, race towards goodness. Wherever you are, Allah will surely gather you all. Indeed, Allah is All-Powerful over all things."

The verse affirms that in striving, Muslims are permitted to compete as long as they remain within the framework of goodness and do not harm others. The principle of fastabiqul khairat serves as the foundation for Muslim business owners in building ethical business practices that are just, honest, and responsible. Thus, competition in business should not solely aim at pursuing material profit but also at obtaining blessings and mutual benefit (Mukti, 2022). In the context of globalization and free trade, the role of the private sector, especially MSMEs, is becoming increasingly important in strengthening the national economic structure. One of the fastest-growing sectors in the digital age is the coffee industry. Binjai City, as one of the areas with excellent potential in trade and services, shows significant growth in the coffee MSME sector. Based on data from the Binjai City Trade and Industry Office (2024), coffee businesses are the most popular type of business among the public. Data from the Central Statistics Agency of North Sumatra Province also shows that the coffee industry falls under the food and beverage (F&B) category, which has great prospects, considering that coffee products are popular with all groups and have a wide market, both online and offline (BPS, 2023). Based on this phenomenon, it feels important to conduct this research, considering that the development of the digital economy provides both opportunities and challenges for coffee MSME actors in Binjai City in improving business competitiveness. However, on the other hand, the application of Sharia economic principles is important to ensure that competition remains healthy and ethical according to Sharia in quantitative

transactions, through a resource person who owns a coffee industry in Binjai City. Therefore, this research was conducted under the title, "The Influence of the Digital Economy on the Competitiveness of the Coffee Industry in Binjai: A Sharia Economic Perspective."

II. Literature Review and Hypothesis Development

2.1. Digital Economy

The term "digital economy" was introduced by Don Tapscott in 1995 in his book titled "The Digital Economy: Promise and Peril In The Age Of Networked Intelligence." The digital economy is economic activity based on internet digital technology. The digital economy is also referred to as the internet economy, web economy, digital-based economy, new knowledge economy, or new economy. The definition of the digital economy focuses more on the buying and selling process, transactions, and markets that occur in cyberspace/the internet. The digital economy is a complex economic system and a newly emerging phenomenon related to microeconomic, macroeconomic, and organizational and administrative theory aspects. The digital economy is an economic advancement that uses digital technology as its primary function in conducting electronic transactions, which are carried out using a network. According to Don Tapscott, the digital economy is a sociopolitical system with economic characteristics within an intelligent space, encompassing information, access to information instruments, information capacity, and information processing.

Another concept of the digital economy is the digitalization of ICT infrastructure and information. This concept emphasizes the implications of global communication and information technology in both the economic and internet sectors. This concept explains the relationship between innovation cycles and technological development and its impact on both macro- and microeconomics. The digital economy is defined as the economic sector consisting of a large number of goods and services whose development, production, and sale depend on digital technology. According to Sunarta (2023), there are three basic aspects in forming a digital economy in emerging markets, namely:

- a. Internet Access: Internet access is the most fundamental element in conducting digital economic activities. This internet access serves as the link between businesses, governments, and society. The impact of internet access is the creation of digital services connected to the community and data.
- b. Transactional access: Transactional access makes a product or service enjoyable and consumable by the public. In this growing market, it's becoming quite complex to support the sustainability of transaction accessibility. Access to this transaction has two benefits: it opens up opportunities for new types of businesses and provides the ability to manage the effects of economic shocks.
- c. Entrepreneurship: Entrepreneurship plays an important role in the development of digital technology systems among entrepreneurs. Entrepreneurs have a function in ensuring that the value created can be preserved for the country and society. In creating digital economic success in a country, a financial technology transition in the form of new finance is necessary.

Based on the definition above, the researcher concludes that the digital economy can be defined as human activities related to production, consumption, and distribution carried out solely using fingers. We can conclude that with the digital economy, people no longer need to visit malls and markets to meet their needs.

2.2. Advantages and Disadvantages of the Digital Economy

E-entrepreneurship, or technology-based entrepreneurship, has many advantages in terms of efficiency during business operations. The role of the internet in e-entrepreneurship makes businesses more innovative and creative, especially in product marketing through e-commerce. Additionally, the role of social

media platforms like Instagram and Facebook can serve as a marketing stimulus for businesses. Another advantage of social media's role is that entrepreneurs can directly respond to criticism and suggestions regarding the products they market, making evaluation easier (Wahid et al., 2023).

2.3. Digital Economy in the Islamic

Perspective Islamic economics does not overlook the pillars of contracts in conducting economic activities. This serves as the legal basis for sellers to gain the trust of buyers. In other words:

1. The presence of parties in the contract. Sellers and buyers, according to their respective roles to whom the seller sells the products or services provided.
2. *Shighah* or *ijab qobul*. The agreement between the seller and the buyer is with the terms and conditions set by the seller and agreed upon by the buyer.
3. The subject of the contract. The goods are sold by the seller to the buyer, and the goods sold must be perfect in meaning and free from all defects.
4. The purpose of the contract is for the seller to sell to the buyer in a manner that does not deviate from the applicable Islamic principles, namely, not selling goods that are not intended for sale according to the recommended Islamic law.

From these characteristics, it can be seen that what distinguishes online businesses from offline businesses is the transaction process (*akad*) and the main medium in that process. The contract is an essential element in a business. Generally, business in Islam explains the existence of physical transactions, either by presenting the item during the transaction or without presenting the ordered item, but with the condition that the item's characteristics must be stated concretely, whether delivered immediately or delivered later within a certain timeframe, such as in *as-salam* and *al-istishna* transactions (Maulana et al., 2023). Digital commerce means conducting the buying and selling process through online media, so even though the transaction cannot be done directly or in writing, there is an agreement that the consumer has read and accepted the contract. The agreed-upon terms are called "signs" and must be well understood by both producers and consumers when transacting online. Most scholars agree that forms of contracts other than verbal, offer, and acceptance occur in written form and through actions (*mu'ata*), where consumers and producers do not offer or accept. Problems are unavoidable for Muslims when making online transactions through e-commerce. However, many Muslims still do not know how to run a digital economy (Ardi et al., 2023).

In Islam, for business activities to generate profits that benefit both the business owner and the surrounding environment, business practices must adhere to fundamental principles that reflect noble universal values (Waqqosh et al., 2023). There are five basic principles that need to be considered in economic activities according to Islamic economics (Ardi et al., 2023). The first principle is Tawhid, which emphasizes that Allah is the owner of everything that exists. All business practices must be based on worshipping Him. The second principle is Justice, where everyone has an equal standing before Allah and must act fairly in all matters, especially in business. The third principle is the Principle of Prophethood, which emphasises the example of Prophet Muhammad in business conduct. Fourth is the Principle of the Caliph, which emphasises that humans are leaders in this world, given the ability by Allah to care for resources. Finally, the Principle of Ma'ad teaches that humans were created to work and strive in this world, as a field to gain goodness and reward in the hereafter. Each of these principles guides business owners to remain committed to moral values in running their businesses. For the digital economy to be sustainable within the context of Sharia law, it is important for stakeholders, including entrepreneurs, regulators, scholars, and the public, to better understand how Islamic values and principles can be reflected in digital economic practices.

The digital economy, commonly known as the Internet economy, has become a rapidly growing trend worldwide. In the digital economy, information and communication technology (ICT) is used as the

primary tool for conducting business, communicating, and transacting. Through online platforms, entrepreneurs can effectively and quickly market their products and services to consumers in various parts of the world. Although the digital economy offers great opportunities to expand markets and improve efficiency, its impact must also be considered within the framework of Sharia values and principles. The Sharia perspective in economics refers to the Islamic concept of justice, harmony, sustainability, and integrity, which influences economic thinking and practices. In the context of the digital economy, the question is how to ensure business compliance and operation within the framework of the unique values of Islamic law. For example, transparency, feasibility, fairness, and the prohibition of profiteering (riba) and speculation (maisir) are important principles that must be considered in the digital economy.

2.4. Competitiveness

The discussion of the concept of competitiveness cannot be separated from the evolution of the theory of competitiveness itself. Initially, competitiveness theory specifically addressed a company's ability to survive in a dynamic market. From competitiveness theory at the company level within a country, it then evolved into the concept of competitiveness between countries (Nurani et al., 2021). Essentially, every company competing in an industrial environment desire to be superior to its competitors. Generally, companies explicitly implement this competitive strategy through the activities of various functional departments within the company. High competitiveness is essential to compete in the global market, such as with the implementation of the ASEAN Economic Community. Improving competitiveness is certainly not an easy task, but it is also not an impossible one. One solution that can be implemented is to involve information technology, which is developing so rapidly at present. E-commerce, a product of information technology, can be utilized to create a competitive advantage, particularly in promoting and selling products or services (Riadi et al., 2023).

2.5. Factors Influencing Business Competitiveness

According to Kennedy and Harrison (1998), competitiveness is influenced by the following factors:

- a. Technology. Competitive resources consist of purchased inputs, product differentiation, product economics, and external factors. Each of these factors affects the company's costs and the extent to which it can differentiate its products. Productivity-enhancing technologies enable companies to lower production costs.
- b. Input costs. Costs are also influenced by the price, quality, and availability of purchased inputs. To gain a competitive advantage, companies must lower their input costs relative to those of their competitors.
- c. Economic production. Company efficiency increases when its output is adjusted to lower average production costs. The size of the company's increase reduces total costs through greater division of labor, thereby increasing product quality competitiveness, and company differentiation refers to the extent to which competing products substitute for each other in consumption. A company's ability to differentiate itself from its competitors is called company differentiation.
- d. Advertising and promotion. Successful advertising strategies set barriers to market entry and create brand loyalty. This loyalty is based on the customer's perception that the preferred product delivers greater value relative to close substitutes.
- e. External factors. Various government policies can affect the competitiveness of industries in both the domestic and international markets. Lower input prices lead to lower downstream costs and increased competitiveness relative to foreign competitors.

To be able to compete, every business owner must have the ability to self-assess. Internal factors inform the strengths a company possesses. These internal factors must be identified to determine which are strengths that can be leveraged for competitive advantage and which are still weaknesses that require strategies to minimize and turn into strengths. External factors indicate opportunities and threats from the macro environment. Every business owner must possess knowledge of external environmental factors to create opportunities for business advancement and gain a competitive edge in pursuing those opportunities. To minimize threats, every business owner is required to have a strategy for how high-risk threats can be minimized (Adim et al., 2023).

2.6. Research Hypothesis

Based on the theory outlined above, the researcher proposes the following research hypothesis for this study:

Ha: There is an influence of the digital economy on competitiveness in the coffee industry in Binjai City.

Ho: There is no influence of the digital economy on competitiveness in the coffee industry in Binjai City.

III. Research Method

This research is field research with a quantitative descriptive approach. This research was conducted on coffee MSME business owners in Binjai City. The population in this study consisted of coffee MSME business owners in Binjai City, totalling 79 businesses (based on data from the Binjai City Department of Industry and Trade, 2024). Meanwhile, to determine the selection of respondents or samples, the researcher used the purposive sampling technique. Purposive sampling is a technique for determining samples based on specific considerations. The reasons for selecting the sample were the coffee MSME business owners in Binjai City, and the respondents had implemented the digital economy in their business activities, totalling 51 research samples. To collect data for this study, the author used two types of data. Namely, primary data and secondary data. The primary data source is data obtained from the distribution of questionnaires from the source. In this study, the primary data source was obtained from coffee UMKM industry players in Binjai City. The secondary data source is data that does not directly provide data to the data collector. In this study, secondary data sources can be obtained from books, journals, theses, articles, e-books, and other sources related to this research.

The data collection techniques used in this study are literature review and questionnaires. The literature review data collection technique was obtained by conducting a review of books, literature, notes, and reports related to the problem being addressed. The data taken by the author in this literature method came from journals related to the title researched by the author, literature books, and similar studies. Data collection techniques using questionnaires, according to Wiratna Sujarweni (2021), are data collection techniques carried out by providing a set of written questions or statements to respondents for them to answer. This research uses simple regression analysis, which is conducted by analyzing a problem and then expressing it statistically using SPSS 24 statistical tests. This analysis is performed using the simple regression analysis technique to process and discuss the data obtained and to test the proposed hypotheses. Regression analysis techniques were chosen in this study because simple regression analysis techniques can directly conclude about one dependent variable (Y) and one independent variable (X). The regression equation formula used is as follows.

$$Y = \beta_0 + \beta X + e$$

Explanation:

Y = Competitiveness

X = Digital Economy

- β_0 = Constant
- β_1 = Regression coefficient for the independent variable
- e = Error

3.1. Research Framework

This research examines the impact of the digital economy on the competitiveness of the coffee industry in Binjai City (Sharia Economic Review). The theoretical framework of this research can be described as follows:

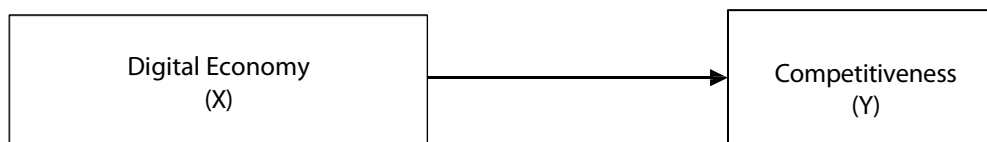


Figure 1. Research Framework

IV. Result and Discussion

4.1. Statistical Result

a. Descriptive Test

Although the information gained from research can be precisely and completely comprehended, additional data processing is required. To ascertain whether or not there is a relationship between variables, this study employs multiple linear analysis and descriptive data analysis. Statistics are used in the processing of the acquired data in line with the quantitative form of the data. To examine the data, the researcher employed SPSS 24.

Table 1. Descriptive Test Results

Descriptive Statistics							
	N	Range	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Digital Economy	51	13	.10	.23	16.59	.329	3.603

As can be seen from the above table, competitiveness measured using the digital economy can increase producers' competitiveness by 3,603 with each increase. The average taste value is 16.59, and the standard deviation of the digital economy is 3.603, indicating that the distribution of data varies because the standard deviation value is higher than the average value. The minimum value is 0.10, and the maximum value is 0.23.

b. Validity Test

The calculated value was compared to the degree of freedom (df) = n-2 table, where n is the number of samples, to perform the validity test. The data is considered legitimate if the computation exceeds the table. Item analysis was used to conduct the validity test in this investigation. Conditions for making decisions:

The query item is legitimate if $r_{count} > r_{table}$.

Should r_{count} be less than r_{table} , the question item is deemed invalid.

Condition r_{table} : $df = n - 2 = 51 - 2 = 49$ (0.232). The following is a table of validity test results.

Table 1. Validity Test Output Results

Variabel	Indicator	R Count	R Table	Sig. Value	Information
Digital Economy (X1)	X1.P1	0,818	0.232	0,000	Valid
	X1.P2	0,858		0,000	
	X1.P3	0,885		0,000	
	X1.P4	0,873		0,000	
	X1.P5	0,829		0,000	
Competitiveness (Y)	Y.P1	0,889	0.150	0,000	
	Y.P2	0,855		0,000	
	Y.P3	0,875		0,000	
	Y.P4	0,893		0,000	
	Y.P5	0,848		0,000	

According to Table 1's validity test results for the consumer satisfaction variable, each of these variables uses an indicator or questionnaire with a value of $0.000 < 0.05$, and each calculation's value is greater than the table's value of 0.150, indicating that it is legitimate for use as a data collection tool in the study.

c. Reliability Test

The reality test is a value that displays a measurement instrument in assessing existing symptoms. The dependability test employed in this study is the Alpha Cronbach approach. If an instrument's reliability coefficient is higher than 0.6, it is considered dependable. Decision-making in this test is based on the idea that if the Alpha value is higher than the r-table, the items used in the questionnaire are deemed reliable or consistent; conversely, if the Alpha value is higher than the r-table, the items used are deemed unreliable or inconsistent. Reliability of a variable is defined as follows:

Alpha cronbach result > 0.6 = reliable

Alpha cronbach result < 0.6 = unreliable

After collecting data and testing the validity of the data, reliability testing was carried out as follows.

Table 2. Research Variable Reliability Test

Reliability Statistics		
Variabel	Cronbach's Alpha	N of Items
Digital Economy	.789	5

With a Cronbach's Alpha value of $0.789 > 0.60$ on variable X in Table 2, it can be said that all of the questionnaires used to measure the digital economy variables in the city of Binjai's coffee sector are deemed trustworthy or credible.

d. Normality Test

Finding out if the residual variable or perturbator in the regression model has a normal distribution is the goal of the normality test, according to Ghozali. To ascertain if the data is normally distributed, a one-sample Kolmogorov-Smirnov test on the residual equation under the test circumstances may be employed. If the probability value is more than 0.05, the data is regularly dispersed; if it is less than 0.05, the data is irregularly distributed. The following are the results of the normality test, which was conducted using SPSS 24.

Table 3. Results of the Output of the Normality Test

One-Sample Kolmogorov-Smirnov Test	
	Digital Economy
Kolmogorov-Smirnov Z	1.574
Asymp. Sig. (2-tailed)	.014
a. Test distribution is Normal.	

Table 3 above illustrates that the digital economy variable's Kolmogorov-Smirnov value has a magnitude of 1,574. Next, examine the asymptotic value. When the sig. The taste variable is 0.14, which is higher than 0.05; the residual data is normally distributed and usable.

e. Multicolonality Test

Additional measures of multicolonality include the opponent variance inflation factor (FIV) and the tolerance value. The multicolonality test results for this study are as follows.

Table 4. Multicolonality Test Output Results

Coefficients ^a			
Model	Collinearity Statistics		
	Tolerance		VIF
	(Constant)		
	Ekonomi Digital	.434	2.305

a. Dependent Variable: Daya Saing

Based on the Multicollinearity test in Table 4 above, it is clear that the VIF value for the digital economy variable is 2,305, which is less than 10, implying that the regression model for variable x does not have a multicollinearity problem.

f. Multiple Regression Test

Multiple regression analysis is used to forecast the impact of two or more factors (independent variables) on a criteria variable (bound variable), as well as to demonstrate whether or not there is a functional link between two independent variables (X) or dependent variables.

$$DS = a + \beta X + e$$

Information:

- Y = Daya Saing
- A = constant
- β_0 = Regression constant
- β = Caffeine Regression
- X = Digital Economy
- e = standard estimation error

Table 5. Simple Regression Test Output Results

Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	1.064	1.166	.348
	Digital Economy	.322	.076	.316

a. Dependent Variable: Daya Saing

Based on Table 5, a constant value of 1.064 and a digital economy regression coefficient value of 0.322 were obtained. So, the regression equation is obtained as follows:

$$DS = 1.064 + 0.322X + e$$

- a. Since the constant value of 1,064 is positive, a rise in the independent variable will have an impact on or raise the level of competition in the city of Binjai's coffee market.
- b. The digital economy variables have a positive regression coefficient of $0.322 > 0.05$. This indicates that the competitiveness value of the coffee sector producers in the city of Binjai rises by 0.322 for every unit of digital economic value added.

g. Test T (partial)

To put it simply, the t-test shows how much each independent or explanatory variable adds to the variance of the dependent variable. H_0 is accepted, and H_a is rejected in the hypothesis test that employs this two-tailed test if the computed price falls within the range of receiving H_0 or between the t-table values. Therefore, H_0 is approved if the cost of the tcount is less than or equal to the cost of the table. Since the price of tcal is absolute, it cannot be represented by (+) or (-). The following is the policy for making decisions:

H_0 : The independent variable has no individual influence on the dependent or bound variable if $b_1 = 0$, and if the probability value is greater than 0.05, then H_0 is accepted or H_a is rejected.

H_a : $b \neq 0$, if the probability value is less than 0.05, then H_0 is rejected or H_a is accepted, which means that the independent or dependent variable has an individual influence on the dependent or bound variable. Conversely, if the probability value is less than 0.05, then H_0 is rejected, or H_a is accepted, indicating that the independent or dependent variable has an individual influence on the dependent or bound variable.

The formula for finding the t-value of the table is as follows:

$$T \text{ Table} = n - 2$$

$$T \text{ Table} = 51 - 2$$

$$= 49 (1,677)$$

Table 6. T Test Output Results

Model		t	Sig.
1	(Constant)	.492	.624
	Digital Economy	4.248	.000
a. Dependent Variable: Daya Saing			

Source: Primary data processed, 2025

According to Table 6. With a tcal value of 4.248 > a ttable of 1.677 and a significance level of 0.000 < 0.05, the findings of the statistical test t, as described above, indicate that the impact of the digital economy on competitiveness was found. These findings led to the acceptance of H_a and the rejection of H_0 , as the latter was not demonstrated to be true.

h. Test F (Simultaneous)

The alternative hypothesis, which maintains that all independent factors concurrently and significantly impact the dependent variables, is accepted when testing the hypothesis using the F statistic if the significant value of $F < 0.05$. The value of the F table is calculated using the formula below:

$$N = df - 2$$

$$51 = 2 - 2$$

$$= 47 (3.20)$$

Table 7. Test Output Results F

ANOVA ^b		
Model	F	Sig.
1 Regression	99,979	.000 ^a
a. Predictors: (Constant), Ekonomi Digital		
b. Dependent Variable: Daya Saing		

Source: Primary data, 2024

The results of the first model F test in Table 7 show that the Fcal value of 99.979 is more than the ftable value of 3.20 at a significance level of 0.000 or less than 0.05. This suggests that digital economic issues simultaneously have a big influence on competitiveness.

i. Coefficient of Determination (R^2)

The determination coefficient, in essence, R^2 quantifies the extent to which the model can account for the volatility of bound variables (competitiveness) or dependent variables (digital economy). The coefficient value of determination has a range of 0 to 1. The ability of independent variables to explain the variation of dependent variables is severely constrained when the R^2 value is low. A score close to one means that the independent variables supply almost all of the information needed to predict the variance of the dependent variable.

Table 8. R² Test Output Results

Model Summary			
Model	R	R Square	Adjusted R Square
1	.849 ^a	.721	.714

a. Predictors: (Constant), Ekonomi Digital

Source: Primary data processed, 2025

The R Square value is 0.721, which is derived from the findings in Table 8 above. This indicates that while other factors outside the model and not detectable in this analysis account for 27.9% of the variance in competitiveness, digital economic variables account for 72.1% of the total.

4.2. Discussion

Based on the results of the research analysis using statistical methods, it can be concluded that there is an influence between the independent variable, namely the digital economy, and the dependent variable, namely the competitiveness among producers in the coffee industry in Binjai City. This study involved 51 respondents who are coffee industry producers in Binjai City. Then, to test the overall statistical calculations, computer-aided tools were used through the SPSS version 24 program. Based on the research results obtained, the simple linear regression equation is $DS = 1.064 + 0.322X + e$. The t-test results show that the calculated t-value is $4.248 >$ the table t-value of 1.677, and the significance is $0.000 < 0.05$, which means that the digital economy significantly affects the competitiveness of the coffee industry in Binjai City, or H_a is accepted. Based on the correlation coefficient test results, the R value is 0.849, indicating a moderate level of relationship or correlation between the digital economy variable and the competitiveness variable. Based on the determination coefficient test results, the R-squared value is 0.721, or 72.1%. This means that the digital economy influences the competitiveness of the coffee industry in Binjai City by 72.1%, while the remaining 27.9% is influenced by other factors not examined in this study.

In line with the research findings, from an Islamic economic perspective, the majority of coffee industry entrepreneurs in Binjai City have already implemented the basic principles of doing business in Islam in their operations, namely the principles of monotheism, justice, prophethood, caliphate, and the afterlife. These principles are applied in business by informing consumers about the actual condition of the products, providing equal service to all consumers, setting product prices that match the product quality, being wise and professional in their work, being communicative, utilizing technology in their business activities to compete, and conducting reasonable promotions without exaggeration. The research results are also in line with the study by Pasaribu (2021), which states that online media marketing based on applications has an impact on business competitiveness. However, the research results contradict the study conducted by Effendi & Nasution (2022), which explains that the digital economy provides increasingly widespread competitiveness with increasingly varied demands. The comparison concludes that the digital economy is a global impact of information and communication technology (ICT) globalization, not only related to the internet but also connected to the economic field.

The digital economy is the interaction between innovation, development, and technological progress, impacting both macro- and microeconomics. The implications of the study results for the economy

are that the digital economy allows business processes to run more efficiently by reducing the time and costs required to carry out daily operations. Using the internet to manage trade or using artificial intelligence to speed up business processes will reduce existing competitiveness. The research results also show that the digital economy has a positive relationship with competitive output in the coffee industry. The research findings align with the theory of the digital economy presented by Don Tapscott (Nasution et al., 2020), which states that the digital economy is a sociopolitical system with economic characteristics within an intelligent space, encompassing information, access to information instruments, information capacity, and information processing. Therefore, it is recommended that coffee shops supplement their business with diverse e-commerce facilities and online services with a fast internet connection. Fast internet access attracts many customers, especially students. Customers will be comfortable if the place and sales procedures are also comfortable and if the food and drinks served are appetizing. An increase in the number of customers will increase sales. Increased sales will enhance competitiveness in a rapidly evolving market.

The research findings also significantly improved economic policies and practices in Indonesia. According to Tapscott's (1998) study (in Nasution et al., 2020), the economic and socio-political system is characterized as an intelligent space that includes information, various tools for accessing it, and the ability to process and communicate. The main components of the digital economy were first identified in the technology industry, e-commerce activities between businesses and consumers, the distribution of digital products and services, and sales support, particularly through internet-based systems and services. E-commerce, fintech, and other technology sectors have become key elements in supporting the digital economy ecosystem (Dasi et al., 2025). The development of this sector not only opens up new job opportunities but also expands public access to financial services, education, and global markets (Sitriani et al., 2025). The Coordinating Ministry for Economic Affairs stated that the impact of the digital economy on economic growth in Indonesia is still under research. However, based on previous literature studies, the digital economy has the potential to have a positive impact on the economy, including by increasing productivity and efficiency, creating new job opportunities, strengthening the competitiveness of Indonesian products and services, and accelerating the distribution process of goods and services (Sandika et al., 2023).

A positive and significant relationship between digital economy variables and competitiveness makes a significant contribution to economic growth. Therefore, the digital economy is one of the important aspects considered by the government. The government needs to encourage these digital economy platforms to sell products derived from those produced by MSMEs so that the added value generated can be felt by MSMEs and Indonesian society in general. The positive and significant influence of digital economy variables on competitiveness indicates that many producers and consumers are already utilizing financial technology today (Tanjung et al., 2023). This study has several limitations that need to be considered for future research. This research only involved 51 respondents who are coffee industry players in Binjai City. This limited quantity and scope may not fully represent the conditions of the coffee industry in other regions or other business sectors. Therefore, the results of this study cannot be widely generalized beyond the context of the research area. This research only focuses on one independent variable, the digital economy, in relation to business competitiveness. However, based on the results of the determination test, there are still 27.9% of other factors that also influence competitiveness but have not been studied, such as product innovation, human resource quality, marketing strategy, and business environment factors. The analysis used in this study is simple linear regression with the assistance of SPSS version 24 software. While this method can indeed describe the relationship between two variables, it is not yet capable of capturing more complex relationships or mediating and moderating variables that may also play a role in influencing competitiveness. The instruments used to measure digital economic variables and competitiveness are based on respondents' perceptions, so there is a possibility of subjectivity in the answers. This can affect the accuracy of the research results.

V. Conclusion

This research concludes that the digital economy significantly impacts the competitiveness of the coffee industry in Binjai City. The growth of the digital economy facilitates marketing and sales in accordance with Islamic principles. Business actors are advised to make more intensive use of the internet and learn new things related to the digital economy to stay competitive.

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