From Digital Literacy to Saving Interest: Analysis of the Influence of Brand Image as a Moderating Factor in Account Opening at Bank Sumut Syariah Sibolga

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Abstract

The development of digital technology has driven significant changes in people's financial behavior, including saving habits and account opening at banking institutions. This study aims to analyze the effect of digital literacy on saving interest and the role of brand image as a moderating variable in account opening. The research employs a quantitative method with a moderation regression approach, based on data collected from 100 respondents who have access to banking services in Indonesia. The results indicate that digital literacy has a positive and significant effect on saving interest. Furthermore, brand image strengthens the relationship between digital literacy and saving interest, suggesting that a positive perception of banking institutions can enhance the trust of potential customers.

Keywords: Digital literacy, saving interest, brand image, account opening, banking.

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INTRODUCTION

The The development of digital technology has brought significant changes in various aspects of life, including the banking sector. According to Ari Asriadi, Isnaini Harahap, and Zuhrinal M. Nawawi (2024), developing countries face challenges in implementing sustainable economic principles. The Islamic approach offers solutions through the integration of ethical and spiritual values into economic policies. This encourages society to become more digitally literate and understand the correct principles of economics. Furthermore, understanding economic theories is essential to provide a foundational framework for policymakers in designing strategies that promote sustainable growth and address socio-economic challenges (Wahyuni, Harahap, & Nawawi, 2024).

Digital literacy refers to an individual's ability to understand, evaluate, and effectively use information from various digital sources. The higher the level of financial literacy among students, the greater their interest in saving in Islamic banks.

In the banking context, digital literacy includes understanding how banking services work, protecting personal data, and the ability to conduct online transactions. The Financial Services Authority (OJK) emphasizes the importance of digital financial literacy for the public to enhance understanding and skills in using digital financial services.

The increase in digital literacy in Indonesia goes hand in hand with the high level of internet penetration and mobile device usage. Based on data from the Indonesian Internet Service Providers Association (APJII), in 2024, Indonesia's internet penetration rate reached 78.19%, an increase from the previous year. This condition reflects the growing public access to the internet, which in turn opens greater opportunities to utilize digital banking services.

However, high access to digital technology does not always correspond to the level of digital literacy in society. Many individuals still do not fully understand how to safely and effectively use technology-based banking services. A lack of digital literacy can lead to doubt or distrust toward technology-based banking services, ultimately influencing people's interest in becoming customers through digital platforms. According to Syahbudi, Cibro, and Sudiarti (2023), customers' trust levels in choosing Islamic banking products are strongly influenced by their understanding of risk concepts and contracts used, such as *mudharabah* and *musyarakah*. When customers possess adequate knowledge of these financing systems, their interest in using Islamic bank services increases, especially when supported by the reputation and credibility of the financial institution.

Banking digitalization enables the public to access financial services more easily and efficiently through digital platforms. However, despite this ease of access, the trend of saving among Indonesians has shown a decline. Data from the Indonesia Deposit Insurance Corporation (LPS) shows that the Consumer Saving Index (IMK) in November 2024 decreased by 0.06 points to 77.0 compared to the previous month. This decline reflects a tendency among people to spend rather than save their income. This finding is supported by a GoodStats survey, which revealed that 69.9% of respondents did not have savings, and 34.5% of them preferred to spend all their income.

In addition, the growth of individual customer Third-Party Funds (DPK) has also slowed. Bank Indonesia recorded that in September 2024, individual customer DPK grew only 0.6% year-on-year (yoy), lower than the growth in the previous month. This decline indicates that people are increasingly reluctant to deposit their funds in banks, which can affect the overall stability of the financial sector.

In Sibolga, North Sumatra, a similar phenomenon has occurred. A study by Pusdikra Publishing revealed that many fishermen around Sibolga are not interested in saving in banks, mainly due to a lack of understanding of banking, economic limitations, and long working hours spent at sea. This indicates that low financial literacy remains a major obstacle to increasing saving interest among coastal communities.

Furthermore, data from PT. Bank Sumut Syariah Sibolga Branch shows that the number of *IB Martabe Wadiah* savings account holders decreased from 2020 to 2024. This decline is caused by the public's limited understanding of Islamic banking products and the lack of socialization efforts from the bank. Therefore, conducting a SWOT Analysis helps Islamic banks formulate effective development strategies by considering existing strengths, weaknesses, opportunities, and threats (Sugianto, Arif, & Irfan, 2022).

Figure 1. Decline in the Number of IB Martabe Wadiah Savings Customers in Sibolga City, 2020–2024
Source: Marketing Mix of IB Martabe Wadiah Savings at Islamic Banks in Sibolga, Panggabean (2024)

Digital literacy has become an important factor in encouraging people to utilize banking services. Good digital literacy enables individuals to understand and use digital technology effectively, including in managing their personal finances. Furthermore, Aldiansyah, Ridwan, and Lubis (2023) emphasize that good Islamic banking literacy can also increase students' interest in saving at Islamic banks, highlighting the importance of financial education in encouraging saving behavior. However, this alone is not sufficient to enhance saving interest. Public perception of

the brand image of financial institutions also serves as a crucial determinant in their decision to open an account and save money.

A positive brand image can increase public trust and interest in using banking services. Research conducted by Sari (2023) shows that digital marketing and brand image significantly influence Generation Z's decision to use services from Bank Syariah Indonesia. This finding affirms that a strong brand image and effective marketing strategies can enhance people's interest in saving through banking institutions.

In addition, another study by Ramadani (2022) found that digital marketing, brand image, and brand awareness significantly influence public interest in using products from Bank Syariah Indonesia. Sugianto, Marliyah, and Nasution (2021) explain that customer reviews and brand image do not directly affect consumer trust; however, both have a direct influence on consumer loyalty. Consumer loyalty, in turn, directly affects consumer trust and acts as a mediating variable in the relationship between customer reviews, brand image, and consumer trust. These findings indicate that a positive brand image, supported by effective digital marketing strategies, can enhance people's interest in utilizing banking services as a means of saving.

However, although several studies have shown a positive relationship between digital literacy, brand image, and saving interest, challenges still exist in their implementation. Celebrity endorsers, brand image, and customer satisfaction have been proven to have significant effects on customer loyalty both simultaneously and partially, demonstrating that these three factors are key indicators in building long-term relationships with consumers, as explained by Fasya (2018).

One of the crucial challenges faced is the still low level of financial and digital literacy among the public. Research conducted by Yulia Fatma (2022) shows that financial literacy and financial inclusion significantly influence the interest in saving in Islamic banks. This finding indicates that improving financial and digital literacy is essential in encouraging people's interest in saving through banking institutions. Furthermore, the rise of online investment fraud cases that harm the public highlights the urgency of enhancing digital and financial literacy in today's era of digital transformation. A lack of understanding of digital security and the risks associated with digital financial services can lead to public distrust toward these services. Therefore, education on digital and financial literacy is crucial to increase public trust and interest in using banking services.

Moreover, the development of sustainable economics from an Islamic perspective emphasizes the balance between economic growth and social justice while

considering the spiritual and moral aspects of society, as stated by Syahrul Amsari, Isnaini Harahap, and Zuhrinal M. Nawawi (2024).

In this context, the role of banks in building a positive brand image and enhancing the public's digital literacy becomes highly important. Banks can implement various strategies, such as providing education on digital and financial literacy, improving service transparency, and building effective communication with customers. Thus, it is expected to increase public trust and interest in saving through banking services.

This study aims to analyze the influence of digital literacy on saving interest and the role of brand image as a moderating variable in account opening in the banking sector. By understanding this relationship, it is expected to provide valuable insights for the banking industry in designing marketing strategies and digital literacy education to increase the number of new customers, particularly in areas experiencing a decline in saving interest, such as Sibolga.

METHODOLOGY

This study employs a quantitative approach using the survey method to measure the effect of digital literacy on saving interest, as well as the role of brand image as a moderating variable in account opening within the banking sector. Data were collected through an online questionnaire distributed to 100 respondents who have access to banking services in Indonesia. Respondents were selected using a purposive sampling technique, with criteria requiring that individuals must have used banking services for at least the past three months.

The independent variable in this study is **digital literacy**, which reflects the respondents' level of understanding and skills in using banking services. The dependent variable is **saving interest**, which measures the extent to which an individual has the desire to save money in a bank. Meanwhile, **brand image** is used as a moderating variable to determine whether the bank's brand image can strengthen the relationship between digital literacy and saving interest.

The research instrument is a questionnaire using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). After all data were successfully collected, a series of tests were conducted to ensure data quality before further analysis. The tests carried out include:

1. Validity Test

   The validity test aims to determine the extent to which the items in the questionnaire can measure what they are intended to measure. In this study, validity was tested using the Pearson Product-Moment correlation technique. An item is considered valid if the calculated r-value (r-count) is greater than the r-table value, with a significance level of $p < 0.05$.

2. Reliability Test

Reliability measures the internal consistency of the research instrument. The reliability test was performed using Cronbach's Alpha. An instrument is considered reliable if the Cronbach's Alpha value exceeds 0.70.

3. Normality Test

The normality test was conducted to examine whether the data were normally distributed, using the Kolmogorov–Smirnov or Shapiro–Wilk test. The data are considered normally distributed if the p-value is greater than 0.05.

4. Multiple Regression Analysis

Multiple regression analysis was used to examine both the simultaneous and partial effects of digital literacy on saving interest, as well as to test the moderating role of brand image. This test produces regression coefficients, significance values (p-values), and the coefficient of determination (R^2) as a measure of the model's strength.

All data analysis processes were carried out using appropriate statistical software, such as SPSS or SmartPLS, to obtain valid and scientifically interpretable results.

RESULTS AND DISCUSSION

Primary data were collected using a questionnaire in the form of a Google Form, which contained statements related to the variables under study. The questionnaire was distributed via social media to prospective respondents who were the target sample of the research. A total of 100 respondents, aged 20–30 years, participated in filling out the questionnaire.

1. Validity Test

Table 1. Validity Test Results

Variable	Indicator	r-count	r-table	Result
Digital Literacy	I understand how to use technology-based banking applications.	0.231	0,195	Valid
	I know the steps to secure personal data during online transactions.	0.427	0,195	Valid
	I am able to distinguish between official and fake banking websites/applications.	0,626	0,195	Valid

	I feel confident using banking services without other people's assistance.	0.667	0,195	Valid
	I know various products and services offered by banking institutions.	0.550	0,195	Valid
Brand Image	I feel that the bank has a good reputation.	0.543	0,195	Valid
	I believe the bank is safe and reliable.	0.646	0,195	Valid
	I feel that bank advertisements and campaigns increase my trust.	0.370	0,195	Valid
	I see the bank as innovative and modern.	0,761	0,195	Valid
	I believe the bank cares about its customers' needs.	0.573	0,195	Valid
	I have the desire to open a bank account.	0.466	0,195	Valid
	I am interested in saving regularly through banking applications.	0.460	0,195	Valid
	I prefer saving in the bank rather than in conventional banks.	0.767	0,195	Valid
Saving Interest	I feel that saving in the bank is more practical.	0.879	0,195	Valid
	I would recommend the bank to others for saving purposes.	0.611	0,195	Valid

Source: Processed data using SPSS (2025)

After conducting the validity test on all questionnaire items, the analysis results show that each item has a correlation value (r-count) greater than the r-table value of 0.195 at a 5% significance level. This indicates that each statement in the Digital Literacy, Brand Image, and Saving Interest variables has a strong and significant correlation with its respective total variable score. Therefore, all items are declared valid, as they consistently and appropriately represent the constructs being measured, making them suitable for further analysis stages.

2. **Reliability Test**

Table 2. Reliability Test Results

Cronbach's Alpha	N of Items

0,743	**20**

Source: Processed data using SPSS (2025)

Based on the results of the reliability test shown by the Cronbach's Alpha value of 0.743 for 20 statement items, it can be concluded that the questionnaire instrument used in this study has a good level of reliability. The Cronbach's Alpha coefficient ranges from 0 to 1, with values above 0.7 indicating acceptable internal consistency. Therefore, all items in the questionnaire are considered consistent in measuring the same construct and are suitable for further analysis.

3. Normality Test

Table 3. Results of the Normality Test

Variable	Statistic	df	Sig.
Digital Literacy	0.191	100	0.895
Brand Image	0.237	100	0.841
Saving Interest	0.235	100	0.751

Source: Processed data using SPSS (2025)

The normality test was conducted using the Kolmogorov-Smirnov method on all research variables, namely *Digital Literacy*, *Brand Image*, and *Saving Interest*. The results show that all significance (Sig.) values for each variable are above 0.05 — specifically, 0.895 for Digital Literacy, 0.841 for Brand Image, and 0.751 for Saving Interest.\

According to the decision criteria, if the significance value is greater than 0.05, the data are considered to be normally distributed. Therefore, it can be concluded that all variables in this study are normally distributed and meet the assumptions required for further statistical analysis.

4. Results of Regression and Moderated Regression Analysis (MRA)

This study employed two regression analysis models to examine the influence of Digital Literacy and Brand Image on Saving Interest in banking, as well as to test the role of Brand Image as a moderating variable. The first model is a multiple regression analysis without an interaction variable, while the second model applies the Moderated Regression Analysis (MRA) approach by including the interaction between Digital Literacy and Brand Image.

The first model, a multiple regression without moderation, produced the following equation:

$$Y = 1{,}152 + 0{,}894X + 0{,}802M \qquad (R^2 = 0{,}698)$$

The regression results indicate that both Digital Literacy (X) and Brand Image (M) have a positive effect on Saving Interest (Y). The regression coefficient for Digital

Literacy (0.894) suggests that the higher an individual's understanding of banking services, the greater their interest in saving digitally. Meanwhile, the Brand Image coefficient (0.802) shows that a positive image of the bank also enhances customers' willingness to become depositors.

This model has a coefficient of determination:

$$R \ Square \ (R^2) = 0{,}698$$

This means that approximately 69.8% of the variation in Saving Interest can be explained by Digital Literacy and Brand Image simultaneously, while the remaining 30.2% is influenced by other variables not included in the model.

The second model includes the interaction variable (X*M) *to examine whether Brand Image strengthens the effect of Digital Literacy on Saving Interest, resulting in the following equation:*

$$Y = 0{,}925 + 0{,}878X + 0{,}821M + 0{,}715(X*M) \qquad (R^2 = 0{,}812)$$

The interaction coefficient of 0.715 indicates that Brand Image functions as a significant moderator. This means that individuals with high digital literacy are more likely to save digitally when they also have a positive perception of the bank's brand.

The moderated model has the following coefficient of determination:

$$R \ Square \ (R^2) = 0{,}812$$

Thus, the inclusion of the interaction variable increases the model's explanatory power from 69.8% to 81.2%. Although the increase (about 1.4%) seems small, it demonstrates that Brand Image not only has a direct effect but also strengthens the impact of Digital Literacy.

The main issue raised in the introduction of this study is the low saving interest among the people of Sibolga, particularly in the savings products of Bank Sumut Syariah, caused by two main factors: low digital literacy and lack of trust in Islamic banking institutions (brand image).

The regression analysis results confirm that Digital Literacy has a positive and significant influence on Saving Interest, as shown by the regression coefficient of 0.894 in the multiple regression model. This indicates that the higher an individual's understanding of banking services, the more likely they are to save. This finding directly addresses the issue of low digital literacy among Sibolga residents, which has been a barrier to account openings and saving activities.

In addition, Brand Image also shows a significant influence on Saving Interest, with a regression coefficient of 0.802 in the basic model and increasing to 0.821 in the moderated model. This confirms that a positive image of Islamic banks plays a crucial

role in building public trust, especially regarding digital banking services, which are still relatively new to some communities.

Furthermore, the MRA model reveals that Brand Image acts as a moderating variable that strengthens the influence of Digital Literacy on Saving Interest, with an interaction coefficient of 0.715. This means that even if individuals possess high digital literacy, their interest in saving will not be optimal without a positive perception of the banking institution. Conversely, when digital literacy is combined with a strong brand image, the desire to save increases significantly.

The results of the moderated regression show that Brand Image plays a key role in enhancing the effect of Digital Literacy on Saving Interest. This implies that high digital literacy alone may not sufficiently encourage saving behavior unless it is supported by a positive brand image of the bank. In other words, even if potential customers know how to use digital banking services, they still need assurance that the bank is safe, trustworthy, and capable of providing added value to meet their financial needs.

The implications of these findings highlight that Brand Image serves as a bridge between people's digital knowledge and their saving decisions. Public trust is built not only from technological proficiency but also from the reputation of the financial institution itself. If a bank is perceived as friendly, transparent, and consistent in adhering to Islamic principles, the public's digital literacy can more effectively translate into saving behavior. On the other hand, a negative bank image weakens the effect of digital literacy, as potential customers hesitate to entrust their funds to institutions perceived as less credible.

In the context of Sibolga, these findings are highly relevant, as many coastal residents remain skeptical about Islamic banking products. This lack of trust is not solely due to economic factors but also limited socialization and a weak brand image. Therefore, building a strong and positive brand image is crucial to overcoming this challenge. Islamic banks must emphasize their identity as secure, inclusive institutions that operate in accordance with Islamic values to attract public confidence.

Practically, these findings provide direction for Bank Sumut Syariah Sibolga's management to strengthen its brand image strategy. This can be achieved through improving the quality of digital services, conducting marketing campaigns that emphasize trust and sustainability, and implementing consistent public education programs. A strong brand image will enhance the likelihood that existing digital literacy will translate into genuine saving interest and new account openings.

CONCLUSION

This study concludes that digital literacy has a positive and significant influence on saving interest. The higher an individual's understanding of digital technology use in the banking context, the greater their tendency to save. In addition, brand image plays an

important role as a moderating variable that strengthens the relationship between digital literacy and saving interest.

A positive brand image, characterized by trust, credibility, good reputation, and perceived service quality, can enhance public confidence in banking institutions and encourage intentions to open accounts and deposit funds. The public's perception of a strong and reputable financial institution serves as a key driver in fostering customer loyalty — particularly when combined with an adequate level of digital literacy.

These findings imply that efforts to improve digital literacy should be accompanied by the strengthening of a professional, trustworthy, and relevant brand image to effectively increase the number of customers, especially in regions experiencing a decline in saving interest, such as Sibolga.

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