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Analysis of Individual Risk Management Strategies in Financial Management in the Digital Era in Langsa City

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Abstract
This study aims to determine the effect of risk management strategies on individual financial management in the digital era, using a case study of the Meurandeh Dayah Village community in Langsa City. This study used a descriptive quantitative approach by distributing questionnaires to 93 respondents. Data analysis techniques used included validity and reliability tests, descriptive statistics, and simple linear regression using SPSS 19. The results showed that the implemented risk management strategies were in the good category and had a very strong influence on individual financial management. This finding indicates that the better a person's strategy in identifying and managing risks, the more effective their ability to manage personal finances. This study emphasizes the importance of consistently implementing risk management strategies as an effort to face financial challenges in the digital era.

Keywords: Risk Management, Financial Management, Individual Strategy.

1. INTRODUCTION

The development of digital technology has revolutionized the way individuals manage their finances. The emergence of various technology-based financial services, such as mobile banking, digital wallets, online investment platforms, and other fintech applications, has significantly facilitated daily financial activities. However, behind this convenience, new risks have emerged, such as online fraud, illegal investments, and high-interest online loans. This phenomenon highlights the financial vulnerability of the public, especially those who lack strategic understanding of how to deal with these risks.

According to data from the Financial Services Authority (2024), public losses due to illegal investments reached over IDR 130 trillion. This indicates that while technology offers numerous benefits, the public is not yet fully prepared in terms of financial literacy and risk management strategies. This gap highlights the need to understand and implement sound risk management strategies to address financial challenges in the digital age.

In this context, individual risk management strategies are crucial. Individuals must be able to systematically recognize, measure, and control financial risks to make informed financial decisions. Previous research conducted by Zahrina Fajrina, Farah Margaretha Loan, and Yosephina Endang Purba (2022), entitled "A Study of Individual Financial Management Moderated by Financial Risk Tolerance among Employees in Greater Jakarta," illustrates this. This research uses a quantitative method with a *Structural Equation Modeling (SEM*) approach using Amos 21. The research sample consisted of 440 respondents who were workers in the Jabodetabek area. The results of the study showed that financial knowledge had a significant positive influence on finance management.

The community in Meurandeh Dayah Village, Langsa City, still faces serious challenges. Many of them don't understand the difference between legal and illegal investments. Lack of financial literacy and a lack of awareness of digital risks leave them vulnerable to losses.

This study aims to fill a gap in the literature by analyzing the extent to which communities implement risk management strategies in managing their finances in the digital era and examining the relationship between these strategies. It is hoped that the results of this study will provide practical and academic contributions to building financial awareness and skills in local communities to effectively address digital financial risks.

2. RESEARCH METHOD

2.1 Research Framework

This type of research was descriptive research. Quantitative data is data numbers and can be analyzed statistically. In this study, quantitative data was obtained from the results of questionnaire which given to the Meurandeh Dayah Village Community regarding strategies management risks in financial management.

Data collection techniques in this study included observation, questionnaire distribution, and documentation. The sample used was respondents from Langsa City, specifically Meurandeh Dayah Village, Langsa Lama District. To determine the total sample size, the author used the Slovin formula. The sample size was rounded up to 93 respondents to facilitate the research.

The total respondent was 93 respondents, the respondents who in male was 51 respondents (55%), while female respondent was 42 respondents (45%), this data showed almost the same number of male and female

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means that both male and female have a strategy management risk in managing finances which is very important.

Table 1. The characteristics based on age

Ages	Frequency	Percentage
< 20 years old	13	14%
> 40 years old	7	8%
20 - 30 years old	41	44%
31 - 40 years old	32	34%
Total	**93**	**100%**

Table 2. The characteristics of respondents based on the last education

Last Education	Frequency	Percentage
Diploma	23	25%
Bachelor	31	33%
Senior High School	39	42%
Total	**93**	**100%**

Based on the data above 93 respondent those who filled out this questionnaire, who are senior high school graduates is the most, namely 39 people (42%), and those who are diploma graduates are 23 people (25%), and finally those who are bachelor graduates are 31 people (33%).

Table 3. the characteristics of respondents based on the profession

Profession	Frequency	Percentage
Housewives	17	18%
Employees	21	23%
Students/Collegian	27	29%
Entrepreneurs	28	30%
Total	**93**	**100%**

Based on the data above of 93 respondents who filled out this questionnaire, the largest number were entrepreneurs, namely 28 people (30%), then students/collegian students as many as 27 people (29%), then respondents who were employees There were 21 people (23%) in the public/private sector, followed by 17 housewives (18%).

This research, used several data analysis techniques to get results relevant and appropriate to the research objectives, the analysis techniques used which includes validity testing and reliability to test the validity of the data, descriptive statistical analysis, and simple linear regression to test the relationship between risk management strategies and financial management. The technique of data analysis used SPSS 19 software. In addition, the data analysis technique also uses descriptive statistics, which is an analysis technique used to describe the characteristics of data obtained from research results without generalizing or drawing inferential conclusions. The purpose of using descriptive statistics is to provide a general overview of data distribution, central tendencies, and data distribution.

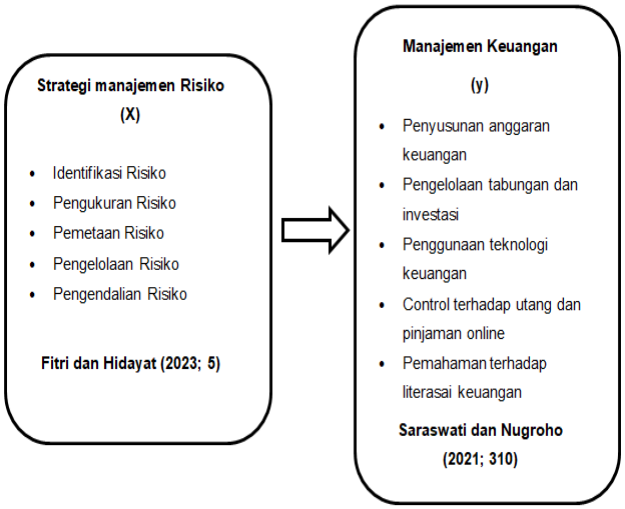

Figure 1. Framework of thought
Source: Fitri dan Hidayat (2023) and Saraswati and Nugroho (2021)

In hypothesis testing If Sig. value < 0.05, or when market t count > t table, then H_0 is rejected and H_1 is accepted, meaning independent variables have a significant effect on Financial Management. If Sig. value > 0.05, or if the calculated t value < t table then H_0 is accepted and H_1 rejected, meaning independent variables no significant effect towards Management Finance.

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3. RESULT AND DISCUSSION

3.1. Data Testing Result

3.1.1 Validity Test

Based on the results of the validity test on risk management strategies using Pearson product moment correlation analysis, all items statement the calculated r count bigger from r table and values significance (sig.2-tailed) of 0,000 which means <0.05. The r table obtained was 0.203 at a significance level of 5%.

Table 4. Results of the validity test of the Risk Management Strategy variable

Statement	r Value	r Table	P Sig	Information
p1	0,647	0,203	0	Valid
p2	0,736	0,203	0	Valid
p3	0,773	0,203	0	Valid
p4	0,638	0,203	0	Valid
p5	0,496	0,203	0	Valid
p6	0,583	0,203	0	Valid
p7	0,606	0,203	0	Valid
p8	0,628	0,203	0	Valid
p9	0,746	0,203	0	Valid
p10	0,624	0,203	0	Valid

Based on the results of the validity test on the financial management indicators, the data is declared valid, because based on table 4.5 all item statement shows the calculated r value bigger from r table and value significance (sig.2-tailed) of 0.000, which means <0.05. The r table obtained was 0.203 at a significance level of 5%.

Table 5. Results of the validity test of the Financial Management variable

Statement	r Count	r Table	P sig	Information
p11	0,616	0,203	0	Valid
p12	0,728	0,203	0	Valid
p13	0,519	0,203	0	Valid
p14	0,734	0,203	0	Valid
p15	0,659	0,203	0	Valid
p16	0,635	0,203	0	Valid
p17	0,522	0,203	0	Valid
p18	0,675	0,203	0	Valid
p19	0,719	0,203	0	Valid
p20	0,719	0,203	0	Valid

3.1.2 Reliability Test

Based on test results reliability of the research instrument, it is known that in the Strategy Risk management has a Cronbach's alpha value of 0.848, and financial management has a Cronbach's alpha of 0.848, both of which are higher than the minimum threshold of 0.6, which is the standard for instrument feasibility. Thus, it can be concluded that all items in both variables are stated to be reliable, meaning they are consistent and can be trusted in measuring each variable studied.

Table 6. Reliability Test Result

No	Indicator	Pearson Correlation	Conditions	Information
1	Risk Management Strategy	0,848	0,6	Reliable
2	Financial management	0,848	0,6	Reliable

3.1.3 Linear Regression Analysis

Table 7. Linear regression test results

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	5.845	2.465		2.371	.020
	Risk management strategy	.857	.059	.825	14.518	.000

Based on output above, then can be modeled regression equation as following:

Y = 5.845+ 0.857X

Based on the results of the linear regression analysis, the constant value (a) was obtained as 5.845. This indicates that if there is no influence from the Risk Management Strategy variable (X), then the value of Financial Management (Y) is 5.845. In addition, the regression coefficient (b) of 0.857 indicates that every one unit increase in the Risk Management Strategy will increase Financial Management by 0.857 units. The significance value (sig.) of 0.000 which is smaller than 0.05 also indicates that the Risk Management Strategy variable has a significant influence on the Financial Management variable.

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3.1.4 Partial Significance Test (t-Test)

Based on Partial Significance Test (t-Test) results output, calculated t-value > t table, which is equal to 2,371> 1,986, and level of significance of 0.02 < 0.05. This is show that in a way partial, Management Strategy Risk has an influence which is significant to Management Finance. Based on the results then H_0 is rejected and H1 accepted.

3.1.5 Coefficient of Determination (R^2)

Table 8. Coefficient of Determination

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825[a]	.680	.677	3.351

Source: SPSS data processing results (2025)

Based on the results Model table Summary, it is known that R^2= 0.680, it can be explained that 68% of the variation in financial management can be influenced by risk management strategies and the remainder (32%) is explained by other factors outside the model.

3.2 Discussion

Based on the discussion above, it is clear that risk management strategies have an impact on financial management, with a regression coefficient value of 0.857, which is included in the "very strong" category. Thus, risk management strategies have a very strong impact on financial management in the Meurandeh Dayah village community. Overall, the Meurandeh Dayah village community has implemented risk management strategies in the very good category and has relatively good financial management. The influence between the two variables is also very strong and significant. This means that the better individuals implement risk management strategies, the more effective they are in managing their finances in the digital era.

The descriptive statistical analysis results indicate that risk management and financial management strategies are in the "Good" category, consistent with the linear regression findings, which indicate a very strong and significant influence between the two, with a regression coefficient of 0.857 and an R^2 of 0.680. This means that a high average score on the risk management strategy indicator not only reflects an individual's awareness of financial risks but also directly contributes to the effectiveness of their financial management. These findings support the research findings of Zahrina Fajrina et al. (2022) which state that knowledge and risk tolerance play an important role in making wise financial decisions.

The findings of this study demonstrate that the integration of Artificial Intelligence (AI) within the *My Finance* Personal Finance Management System (PFMS) plays a transformative role in enhancing students' financial literacy and behavior. This aligns with the broader paradigm shift in financial education, where technology serves as a bridge between theoretical understanding and practical financial application (Hidajat & Kusuma, 2021). The data indicate that AI-supported tools not only strengthen students' ability to manage personal budgets but also improve financial awareness and self-discipline in the long term.

Behavioral improvements such as more structured budgeting, reduced impulsive spending, and better prioritization of essential needs suggest that *My Finance* promotes experiential financial learning. Students gain knowledge not solely from instruction but through direct interaction with AI-based feedback systems capable of analyzing spending patterns and generating personalized financial advice. This finding corresponds with (Zhang, Li, and Wang 2022), who found that AI-driven learning environments enhance motivation and self-regulated behavior through adaptive, real-time feedback mechanisms. Hence, AI applications such as *My Finance* can translate abstract financial theories into daily behavioral competencies.

From a psychological standpoint, this research highlights a notable attitudinal shift toward financial responsibility. Students began to demonstrate more prudent consumption, a greater tendency to save, and early participation in micro-investment practices. These behavioral transformations affirm (Susanti, Mulyani, and Putri 2022), who emphasized that technology-based financial literacy education fosters accountability and self-control in decision-making. In this context, AI functions not only as an analytical tool but also as a *behavioral catalyst* that nurtures rational and ethical financial behavior.

Nevertheless, several limitations were observed. Some students exhibited inconsistent engagement with the application, particularly when financial stress decreased. Others faced challenges in utilizing advanced features such as AI-based consultations and investment simulations. This supports (Lee and Kim 2023), who argue that digital trust and ethical literacy are fundamental for sustained engagement with AI-driven finance systems. Accordingly, universities should integrate modules on *AI literacy* and *digital ethics* within their financial education programs to encourage responsible and informed technology use.

The study also offers implications for students from lower-income backgrounds, especially KIP scholarship recipients, who often experience financial vulnerability. The use of *My Finance* significantly improved their ability to manage limited educational funds, contributing to greater financial stability. This finding corroborates (Ratnasari, Prasetyo, and Nurfadillah, 2025), who found that financial literacy positively correlates with financial

resilience among Indonesian students. Integrating AI-based PFMS tools into financial aid programs could thus enhance both academic persistence and financial well-being.

Complementing these findings, (Mbatane and Kekana, 2024) observed that students who possess a better understanding of digital financial products, risk control, and consumer rights are more likely to engage with FinTech services. Similarly, (Rasyid, Goso, and Ikbal, 2025) reported that both financial literacy and financial technology simultaneously influence students' financial behavior, confirming the intertwined relationship between knowledge, technology, and behavioral outcomes. Moreover, (Ratnasari, Nurjannah, and Karoma, 2025) highlighted that digital tools such as mobile banking and digital wallets significantly improve students' financial tracking and budgeting efficiency, though demographic factors such as gender and age had minimal influence.

Finally, (Ahamed, 2025) emphasized that many consumers still fail to fully control their financial health due to the lack of intelligent tools capable of simplifying and personalizing the financial management process. In this regard, *My Finance* as an AI-based PFMS demonstrates potential in addressing this technological gap by offering an interactive, user-centered approach to financial education and empowerment.

4. CONCLUSION

Based on the results of the descriptive statistical analysis, the average value for the risk management strategy and financial management variables is above 4.00. Referring to the interval scale used in this study, this value falls into the category "Good" This means that, in general, the Meurandeh Dayah Village community has implemented risk management strategies and managed their personal finances well. Respondents demonstrated positive understanding and practices in risk identification, financial management, technology use, and financial literacy. Based on the results of a simple linear regression test, it shows that risk management strategies have a very strong influence on financial management. This is indicated by a regression coefficient of 0.857 and a coefficient of determination (R^2) of 0.680, or 68%. This means that most of the variation in financial management can be explained by the risk management strategies implemented by individuals. In other words, the better the strategy implemented by an individual, the higher the effectiveness of their financial management. This result is included in the "Very Good" category based on the correlation coefficient interpretation guidelines

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