

The Importance of Financial Literacy to Non-Finance Managers of Healthcare Institutes in Malaysia

*Mohd Hafiz Bakar¹, Siti Norbaya Yahaya²

¹Faculty of Business and Management, Universiti Teknologi, MARA, Malaysia

²Faculty of Technology Management and Technopreneurship, Universiti Teknikal Malaysia Melaka, Malaysia

E-mail: *hafizbakar@uitm.edu.my

Corresponding Author: Mohd Hafiz Bakar

Abstract: Financial literacy among non-finance managers is crucial for the operational success and sustainability of healthcare institutes. This research explores the significance of financial literacy for non-finance managers at various hospitals in Klang Valley, emphasizing its impact on informed decision-making and efficient resource management. The study investigates the current financial literacy levels among non-finance managers, identifies gaps and proposes strategies to enhance their financial competencies. Using a comprehensive approach, including situational analysis and empirical data collection, the research aims to demonstrate how improved financial literacy can lead to better financial management, ultimately contributing to the hospital's competitive edge and long-term viability. This study's data were based on the questionnaires adapted from several previous studies, including Bongomin et al. (2018) and Al-Rahhaleh et al. (2023). The findings suggest that enhancing financial literacy among non-finance managers is essential for achieving financial stability and effective healthcare service delivery, thereby underscoring the need for targeted financial training programs in the healthcare sector.

Keywords: *Financial literacy, Non-Finance Managers, Healthcare Institutes*

1. Introduction

The significance of financial literacy among non-finance managers is crucial for the overall success and sustainability of the Healthcare Industry. Financial literacy empowers non-finance managers to comprehend and interpret financial data, facilitating more informed decision-making. In private hospitals, staying competitive and delivering high-quality healthcare services relies on the financial expertise of all managerial staff, not solely those in finance. Grasping financial principles assists non-finance managers in contributing effectively to budgeting, resource management and strategic planning, ensuring the smooth operation of hospital services. The contributions of various individuals within an organization, including non-finance managers, are vital in attaining and upholding good operational standards. By providing non-finance managers with financial literacy, hospitals can navigate the intricate healthcare landscape more effectively, invest in advanced technology and equipment, attract and retain skilled healthcare professionals, and expand their facilities, ultimately enhancing their ability to provide quality care. Financial literacy is crucial for managers in many industries, including healthcare, manufacturing, banking, and others. Organizations can greatly benefit from having a basic understanding of financial concepts and making informed decisions regarding their financial aspects.

The ability of non-finance managers to make informed decisions based on financial analysis is crucial for achieving long-term sustainability and success in a healthcare setting. This involves not only understanding the financial data but also applying this knowledge to strategic planning and daily operations. By doing so, non-finance managers can contribute to the hospital's financial stability, helping to ensure that it can continue to provide high-quality care to patients. As such, enhancing financial literacy for non-finance managers is a critical investment that hospitals must make to ensure their sustainability and effectiveness in delivering healthcare services.

The importance of financial literacy among non-finance managers in hospitals cannot be overstated. Their decisions encompass managing budgets, controlling costs, evaluating financial risks, and optimizing revenue generation. For non-finance managers to make effective decisions, their understanding of financial concepts and their ability to interpret financial information are essential. These elements of financial literacy empower non-finance managers to contribute significantly to the hospital's financial health. By understanding and applying financial concepts, they can make strategic decisions that align with the hospital's financial goals, thus driving the organization towards long-term sustainability and success.

In recent years, the number of private hospitals has significantly increased in the healthcare industry. To stay competitive and profitable, these hospitals must ensure effective financial management. Financial literacy is vital for improving financial management behavior (Sriyono & Rif'ah, 2022), enabling individuals to make informed decisions about financial matters and manage their finances more effectively. Despite its importance, non-finance managers in hospitals often lack the necessary financial knowledge and skills to contribute effectively to financial management (Naranjee et. al, 2019).

Due to the background of all non-finance managers at Healthcare Institutes, who lack formal financial education, there is a deficiency in financial literacy that hampers decision-making and operational efficiency. Jusoh and Abd Talib (2018) noted moderate financial management skills, emphasizing the importance of enhancing financial literacy in managerial roles. Additionally, the financial attitudes and behaviors of non-finance managers play a crucial role. Siswanti and Halida (2020) highlighted the impact of financial knowledge and attitudes on financial management behaviour, indicating the significance of cognitive and affective aspects in improving financial literacy among managers.

Additionally, the financial attitudes and behaviors of non-finance managers play a crucial role. Siswanti and Halida (2020) highlighted the impact of financial knowledge and attitudes on financial management behavior, indicating the significance of cognitive and affective aspects in improving financial literacy among managers. Moreover, the educational healthcare background of non-finance managers raises issues regarding the role of attitude in financial management. Siswanti and Halida (2020) pointed out that attitude influences how individuals handle financial responsibilities, suggesting that enhancing self-regulation could improve financial literacy and decision-making in a healthcare context.

Healthcare privatization in Malaysia is primarily driven by powerful interest groups that are seeking profits rather than real concerns for allocative efficiency. As private healthcare expenditures have risen faster than government expenditures, public funds have also been used to purchase private services from public hospitals since 1982 (Rasiah et al., 2009). A part of that is that financial literacy is a critical component of entrepreneurship and small business ownership, highlighting its multifaceted significance. As a result of financial literacy, individuals can make informed financial decisions, enabling them to effectively manage their finances, including budgeting, savings, expense control, debt management, and participation in the financial markets (Lyn & Sahid, 2021). It provides individuals with a better understanding of financial concepts, asset management, inflation, investments, cash flow, and risk analysis, which makes it easier for financial businesses to make informed decisions regarding saving, planning, risk management, and navigating the financial landscape.

Reuter et al. (2022) demonstrated the importance of promoting financial literacy for economic well-being and success, as it may lead to poor investment and savings decisions, restricted access to finance, and increased market failures. Furthermore, financial literacy is essential to achieving better financial outcomes, greater well-being, and increased economic stability and growth (Zait & Berteau, 2015). Collectively, these findings underscore the critical role that financial literacy plays in enhancing economic prosperity and individual and societal well-being (Plakalović, 2015).

In many organizations, non-finance managers make budget decisions, allocate resources, and influence financial outcomes in various ways. Therefore, equipping them with financial knowledge can lead to more informed decision-making and potentially better financial results for the organization. Therefore, this research will also be of great significance to the Malaysian government indirectly because, as the organization employs the best strategies to increase financial literacy among non-financial managers, it will lead to better financial planning, management, and reporting, which can be critical for public transparency and accountability in healthcare services.

The significance of the study on financial literacy among non-finance managers in private hospitals is vital for the healthcare sector. It can assist in hiring capable managers with a strong understanding of financial concepts. These managers are better equipped to make well-informed decisions, potentially increasing profitability. Efficient financial management can also elevate the hospital's standing, build investor trust, and enhance credit terms, all beneficial in the competitive healthcare field, especially in private healthcare. Moreover, improved

financial literacy among non-finance managers can lead to better budgeting, cost control, and resource allocation within the Healthcare Institutes. This can result in more efficient operations, higher quality patient care, and ultimately, improved patient outcomes. By investing in financial education for non-finance managers, Healthcare Institute can foster a culture of financial responsibility and accountability, ultimately driving long-term success and sustainability in the healthcare industry.

Next, the paper discusses the literature review on financial literacy in healthcare, followed by the methodology used for data collection and analysis, and concludes with results and discussion on findings and implications.

2. Literature Review

Financial Literacy

Throughout research on financial literacy, it has been recognized that it is a multifaceted concept that encompasses understanding, knowledge, confidence, and practical application of financial concepts. According to a study conducted by Andarsari and Ningtyas (2019), early financial education improves children's decision-making skills. Moreover, Eniola and Entebang (2017) emphasized the important role early financial education plays in a company's performance and survival. In order to improve financial literacy among managers, Abousaidi et al. (2021) identified a number of factors, including education and managerial record, which are crucial.

According to James et al. (2012) and Sugiyanto et al. (2019), financial literacy contributes to better decision-making and improved financial well-being, while studies conducted in Malaysia and Bosnia and Herzegovina have revealed alarming gaps in financial literacy among medical practitioners and managers of small and medium enterprises (SMEs). Nawaz (2015) emphasized that finance has a crucial role to play in business success and emphasized the importance of learning financial terms for managers who are not financial experts. Furthermore, in addition to highlighting the positive effects of financial ignorance on the profitability of businesses and the value of shareholders, Nawaz (2015) encouraged non-financial professionals to gain a better understanding of finance. Numerous studies have explored the financial literacy of private hospitals, emphasizing its impact on importance to the healthcare sector. Factors such as reimbursement policies, patient volumes, and cost control strategies significantly affect financial outcomes (Cerullo et al., 2022). As argued by Brannagan (2012), a hospital's capacity to generate revenue, manage expenses, and achieve profitability is crucial. Distinct challenges encountered by private hospitals, such as escalating healthcare costs, competition, and technological advancements, underscore the significance of effective financial management (Al Rahhaleh et al., 2023). Hospital administrators must grasp financial statements, budgeting, and cost control, even without a finance background, to positively influence hospitals to know the importance and significance (Al Rahhaleh et al., 2023). Managers with enhanced financial literacy were observed to be more proficient in budget management, cost control, and strategic financial decision-making, ultimately enhancing hospital performance.

Financial Knowledge

According to Andarsari and Ningtyas (2019), financial knowledge is correlated with better financial behaviour in the areas of budgeting, saving, expense management, debt management, and stock market participation. The study by Eniola and Entebang (2017) extended this perspective by demonstrating that financial knowledge, along with financial awareness and attitude, positively affects the performance of business owners and managers. A higher level of financial knowledge is associated with a deeper understanding of complex financial concepts and sound decision-making, according to Potrich et al. (2016).

Higher financial knowledge and skills leading to better financial decisions are linked in Bongomin et al. (2018). In contrast, Anthony and Sabri (2015) found that Malaysian medical practitioners lack financial knowledge, which leads to inadequate financial literacy. In a related note, the importance of understanding financial issues for non-financial managers is underscored, suggesting that basic financial literacy plays a key role in success.

Financial attitude

Financial attitude plays an important role in financial literacy. According to Eniola and Entebang (2017), possessing financial skills alone is not sufficient to prevent financial problems, as a positive financial attitude, long-term thinking, and resistance to temptation are most important. In these circumstances, attitudes play a

critical role in determining the success of small and medium-sized businesses. In a related vein, Abousaidi et al. (2021) claimed that managers in specialized fields may lack adequate financial attitudes due to their lack of financial literacy.

Consequently, improving financial skills is essential for enhancing attitudes, as Veira et al. (2020) indicate a close correlation between financial attitudes and individual financial behaviour. The findings of the Jusoh and Abd Talib (2018) study indicated a positive relationship between financial attitude and financial literacy among micro-entrepreneurs, with higher levels of financial literacy associated with more positive attitudes towards money. A positive attitude towards finance is essential to achieving greater financial literacy, according to Rahman et al.'s (2021) research.

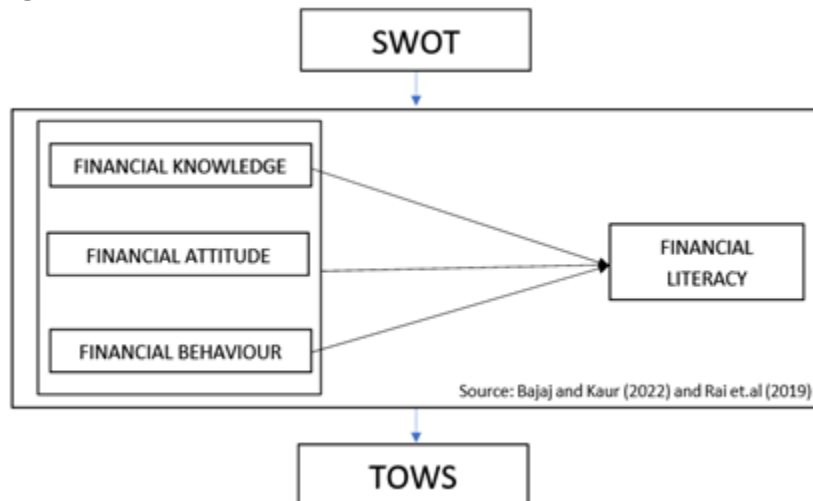
The study by Lyn and Sahid (2021) emphasized the importance of financial attitudes in influencing financial literacy among rural communities, whereas the study by Reuter et al. (2022) emphasized that financial attitudes should be considered core competencies to measure financial literacy. Across diverse contexts and populations, these studies illustrate the importance of financial attitude in shaping financial literacy and behaviour.

Financial Behavior

According to Bongomin et.al (2018), financial behaviors are influenced by peers, school, family, and media, with family being the main socializing agent. It has been consistently demonstrated that increased financial literacy positively impacts financial behaviour, including budgeting, saving, debt management, and stock market participation (Andarsari and Ningtyas, 2019; Boon et al., 2011). Financial behaviour is considered one of the most pivotal aspects of financial literacy.

Studies have shown that managers' financial literacy is influenced by various factors, including their education, managerial experience, and financial literacy courses. Thus, specialized training is required. Research conducted by Siswanti and Halida (2020) indicated that financial knowledge, financial attitude, self-control, and financial management behaviour are interconnected and have a significant impact on financial behaviour. It has consistently been demonstrated in the literature that individuals who possess higher levels of financial literacy exhibit better financial practices, such as budgeting and saving (Lyn & Sahid, 2021; Oppong et al., 2023). The academic construct of this research and review of the literature suggests the relationship between the influenced strategies and financial literacy.

Figure 1: Research Framework



3. Methodology

This research adopted primary data sources, which are data sources that provide first-hand information and were obtained through a survey of respondents from non-finance managers of various Healthcare Institutes.

Moreover, information was also obtained through an interview session with the in-charge personnel from the Finance Department and Human Resource Department of the organization to get a clear picture of the matters investigated.

Based on the obtained data, correlational analysis and multiple regression analysis were performed to understand relationships between variables. This research also applied strategic tools to formulate a strategy and recommendations. These strategic tools helped in answering the research questions. A SWOT analysis is a simple but widely used tool that aids in understanding the strengths, weaknesses, opportunities, and threats involved in this research. To apply the SWOT analysis, we obtained information from the management of the Healthcare Institute and verified the pre-SWOT analysis. Furthermore, the TOWS matrix was used to identify relationship threats, opportunities, weaknesses, and strengths. TOWS matrix will generate strategies based on the combination of strengths and opportunities (SO), strengths and threats (ST), weaknesses and opportunities (WO), and weaknesses and threats (WT) of the Healthcare Institute.

The sample size for this survey was 105 non-finance managers from various Healthcare institutes. To maintain the privacy of the Healthcare Institute, this research did not reveal the names of Hospitals. By using Krejcie and Morgan's (1970) formula, a total number of 83 respondents was determined. This means at least 83 or more measurements or surveys were needed to have a confidence level of 95% and a real value within $\pm 5\%$ of the measured or surveyed value. The questionnaire was distributed to the non-finance managers who were under active employment status by the time of the study.

There is are total of 27 questions in the questionnaire analyzed for descriptive analysis using Statistical Package for the Social Sciences (SPSS) software. Those questions using a 5-point Likert scale were set based on research variables. All questions were set as compulsory for the respondents to answer before moving to the next section to ensure 100% of usable answers could be obtained from the respondents.

4. Findings and Results

Performing reliability analysis in this research is crucial to assess the relationship between items in the questionnaire, including the independent and dependent variables. Cronbach's alpha is utilized to evaluate repeatability and internal consistency of each item. The reliability coefficient of Cronbach's alpha ranges from 0 to 1; the closer the value is to 1, the higher the internal consistency of the item in the scale.

Table 1 shows that all variables have a Cronbach's alpha value ranging from 0.7 to 1.0, indicating excellent data proximity to 1. The independent variable, Financial Attitude, exhibits the lowest Cronbach's alpha at 0.791. Nonetheless, as per Schmitt's (1996) research, a Cronbach's alpha exceeding 0.7 suggests a high level of internal reliability for an instrument. Azib et al. (2022) reported a reliability test result of 0.942 for financial literacy, while the current data reveals a Cronbach's alpha of 0.932, which is fairly similar. Furthermore, the highest score recorded in this test is for Financial Knowledge at 0.958, indicating strong internal reliability. This result aligns closely with the study conducted by Siswanti and Halida (2020), where the value was 0.943. Therefore, the items utilized to assess the variable demonstrate consistency and reliability, underscoring the quality of the measurement.

Table 1: Cronbach's Alpha Test on All Variables

Variables	Set of Items	Cronbach's Alpha
Financial Knowledge (IV)	9	0.958
Financial Attitude (IV)	5	0.791
Financial Behavior (IV)	8	0.817
Financial Literacy (DV)	5	0.932
Overall	27	0.875

Table 2 consists of the mean and standard deviation of the dependent and independent variables and the ranking score based on the mean values. Financial Attitude, the highest ranking, has a mean score of 3.813 (SD = 0.952), indicating a less favorable attitude towards financial matters in general. There is less variability in financial attitude compared to knowledge, implying scope for interventions to yield uniformly positive impacts.

Financial Knowledge ranked third, with a mean score of 3.079 (SD = 1.257), indicating significant variability among participants. This suggests a need for targeted educational interventions to address knowledge gaps. Financial Knowledge emerges as a key factor influencing financial literacy. Financial Behaviour, the second-ranking variable, has a mean score of 3.514 (SD = 1.188). Participants exhibited behaviors suggesting higher engagement than attitudes but lower than their knowledge levels, reflecting diverse financial management approaches. The mean score for Financial Literacy, the dependent variable influenced by financial knowledge, attitude, and behaviour, is 3.509 (SD = 1.040). Variability in participants' literacy levels underscores differences in these contributing factors.

Table 2: Mean and Standard Deviation Variables

Variables	Rank	Mean	Std. Deviation
Financial Knowledge	3	3.079	1.257
Financial Attitude	1	3.813	0.952
Financial Behavior	2	3.514	1.188
Financial Literacy (DV)		3.509	1.040

Table 3 shows respondents' self-reported financial knowledge and abilities in detail. Firstly, they were most confident in understanding simple financial terms and planning financial activities such as budgeting, investing, and forecasting, scoring 3.667 and 3.533, respectively. However, confidence levels varied, with a standard deviation of 1.039 and 1.173, respectively. Respondents also felt moderately capable in managing financial risk, scoring 3.089 on average. While they generally think they can handle financial risk, confidence levels varied, with a standard deviation of 1.196. The lowest confidence levels were in financial performance analysis based on reports and the receiving of adequate financial training from the organization, with a mean score of 2.944 and 2.656, respectively. This implies low confidence in analyzing financial performance and insufficient financial training from the company, although with variability (standard deviation of 1.327 and 1.351, respectively).

Table 3: Mean and Standard Deviation for Financial Knowledge

No	Statement	Mean	Std. Deviation	Rank
FK1	I can plan financial activities such as budgeting, investing, and financial forecasting.	3.533	1.173	2
FK2	I can manage financial risk.	3.089	1.196	3
FK3	I understand simple financial terms easily	3.667	1.039	1
FK4	I am capable of preparing monthly financial reports accurately and efficiently.	3.089	1.312	4
FK5	I can perform financial performance analysis based on the financial report.	2.944	1.327	8
FK6	I have received adequate financial training from the organization.	2.656	1.351	9
FK7	I am familiar with the necessary documents, system and data required to prepare the financial report	3.022	1.315	7
FK8	I can calculate the profit and loss of the project.	3.078	1.292	6
FK9	I have the knowledge and skills to perform basic financial tasks	3.089	1.312	5

Table 4 provides insights into respondents' financial attitudes. Respondents had demonstrated a relatively positive attitude towards saving money, achieving a mean score of 4.056. This suggests a generally positive attitude towards saving money, though there was variability in this mindset, as seen in the standard deviation of 0.693. Respondents showed the lowest interest in financial news and matters, scoring a mean of 3.433. This implies a generally unfavorable attitude towards staying informed about financial news. However, there was some variability in this attitude, as indicated by the standard deviation of 1.209. In summary, the data indicated that respondents generally hold positive attitudes towards saving money, responsible spending, and staying informed about financial news. However, variations in these attitudes may mirror differences in respondents' financial behaviors and practices.

Table 4: Mean and Standard Deviation for Financial Attitude

No	Statement	Mean	Std. Deviation	Rank (Based on mean)
FA1	I have a positive attitude towards saving money	4.056	0.693	1
FA2	I have a responsible attitude towards spending money.	3.967	0.827	2
FA3	Saving money comes easily to me.	3.644	1.202	4
FA4	I am always organized when it comes to managing money.	3.967	0.827	3
FA5	I am always interested in financial news and matters.	3.433	1.209	5

Table 5 outlines respondents' financial behaviors. Individuals mostly look to save money, scoring 4.122, showing a preference. There is some variance in this trend, evident from the standard deviation of 0.934. Regarding expense tracking, respondents had an average score of 3.422, implying a general tendency to monitor spending. Nonetheless, there is diversity in this practice, as shown by the standard deviation of 1.289. Likewise, for creating a monthly personal budget, respondents achieved an average score of 3.456. This demonstrates a general inclination towards budgeting, with variability illustrated through the standard deviation of 1.359. In addition, respondents uncommonly seek financial guidance from banks and friends and family, scoring an average of 2.589 and 3.022, respectively. This underscores the insignificance they place on this advice, despite some variation as indicated by the standard deviation of 1.389 and 1.332, respectively.

Table 5: Mean and Standard Deviation for Financial Behavior

No	Statement	Mean	Std. Deviation	Rank (Based on mean)
FB1	I am always looking to save money	4.122	0.934	1
FB2	I always compare prices before purchasing any product	4.056	0.916	2
FB3	I am always tracking my spending	3.422	1.289	6
FB4	I am always preparing my monthly personal budget	3.456	1.359	5
FB5	I have always received financial information and advice from the bank	2.589	1.389	8
FB6	I have always received financial information and advice from friends and family	3.022	1.332	7
FB7	I have allocated money to short-term savings.	3.800	1.083	3
FB8	I have allocated money into long-term savings.	3.644	1.202	4

Table 6 reveals respondents' views on financial literacy in the hospital setting. Respondents indicated the hospital has an investment plan, scoring a mean of 3.656, suggesting respondents see the hospital as somewhat planned in investments. However, there was variability in perception, evident from the standard deviation of 1.029. Respondents also noted the hospital uses financial data in its statements to manage operations, scoring a mean of 3.489. This suggests they believe the hospital leverages financial statements for business management. Similarly, respondents perceived the hospital to have a business plan, scoring a mean of 3.444, hinting at strategic planning. Yet, variations existed in these perceptions, as reflected in standard deviations of 1.052 and 1.029, respectively. Overall, the findings imply respondents generally perceive the hospital as involved in financial practices like investment plans, using financial statements, and having business and ROI monitoring. However, these perceptions varied, potentially due to differences in understanding the hospital's financial approaches and strategies.

Table 6: Mean and Standard Deviation for Financial Literacy

No	Statement	Mean	Std. Deviation	Rank (Based on mean)
FL1	This hospital manages its business using the financial information in its financial statements.	3.489	1.052	3
FL2	The hospital has a business plan.	3.444	1.029	4
FL3	The hospital must save money for business expenses	3.511	1.019	2
FL4	Return on investment (ROI) is regularly monitored by the	3.444	1.072	5

	hospital.			
FL5	The hospital has an investment plan.	3.656	1.029	1

Table 7 indicates that the correlation between financial knowledge and financial literacy is 0.741, showing a significant positive correlation. This indicates that an increase in respondents' financial knowledge is associated with an increase in their literacy of financial matters. Likewise, the correlation between financial attitude and financial literacy is 0.820, demonstrating a strong positive correlation. This suggests that a more positive financial attitude in respondents corresponds to a more positive understanding of financial matters. The correlation between financial behaviour and financial literacy is 0.839, also showing a strong positive correlation. This implies that an enhancement in respondents' financial behaviors is linked to an improvement in their literacy of financial matters. In summary, these robust positive correlations highlight a connection between financial knowledge, attitude, behavior, and literacy. Improvement in one aspect is likely to lead to improvements in the others.

Table 7: Pearson Correlation

		FK	FA	FB	FL
	Pearson Correlation	.741**	.820**	.839**	1
FL	Sig. (2-tailed)	.000	.000	.000	
	N	90	90	90	90

Table 8 above shows the result for the multiple regression summary. The R-squared value in the table shows the variance of the dependent variable being influenced by the independent variable. For this case R R-squared is 0.656 with F F-statistic value of 55.777 and a significance level of 0.000; therefore, the model is significant. Thus, the linear regression result indicates 65.6% of the dependent variable (financial literacy) can be explained by the independent variables (financial knowledge, financial attitude, financial behaviour) included in the study. It can be concluded that the remaining 34.4% of the dependent variable is explained by other factors that are not included in the research.

Table 8: Multiple Regression Summary

Model	R	R Square	F	Sig.
1	.901 ^a	.656	55.777	.000 ^b

Table 9 represents the correlation coefficient for multiple regression analysis. Results show financial knowledge, financial attitude, and financial behaviour have a significant value below 0.05, which indicates the independent variables are significant. In conclusion, the findings indicate that financial knowledge, attitude, and behaviour are significant predictors of financial literacy. As individuals' financial knowledge, attitude, and behaviour improve, their literacy of financial matters also tends to improve.

Table 9: Correlation Coefficient for Multiple Regression

Model	Beta	t	Sig
(Constant)	.688	1.572	.120
FK	.225	2.735	.008
FA	.328	2.108	.038
FB	.300	2.013	.047

Table 10 indicates that this study utilized the SWOT analysis tool to conduct a situational analysis of an organization in the healthcare industry. This analysis delves into internal and external aspects to pinpoint strengths, weaknesses, opportunities, and threats, aiding in devising measuring factors contributing to financial literacy among non-finance managers. The SWOT analysis aids researchers in crafting strategies and recommendations for organizational improvement. This aligns with existing research underlining the significance of SWOT analysis in strategic decision-making and organizational growth (Sandra et al., 2016).

Table 10: SWOT Analysis

Strengths	Weaknesses
Offer a diverse array of specialized services, primary care, and wellness solutions Employ skilled managers who specialize in their respective fields. Focus on patient services, prioritizing patient care and satisfaction.	Limited financial background among managers Inadequate financial training for managers Delays in financial reporting and inefficiencies in resource management within departments. Unhealthy corporate policy management practices
Opportunities	Threats
Financial courses offered by local and international universities are available Training can be done online or in person, making it easy for managers to enroll. Mentorship program for financial training. User-friendly financial systems are available in the marketplace.	Increasing competition among private hospitals. Strong financial performance among competitors Shift in healthcare patterns, consumer choices, and lifestyles.

The TOWS Matrix, as indicated in Table 11, is a vital tool for assessing internal strengths and weaknesses of an organization, while considering external opportunities and threats. It helps identify ways to leverage opportunities, address threats, and address weaknesses by maximizing strengths. This strategic assessment, tailored for non-financial managers at Healthcare Institutes, aids in developing strategies aligned with research objectives. Consequently, implementing the TOWS Matrix at Healthcare Institutes will empower non-finance managers to make informed decisions, enhancing strategic planning and operational efficiency. Through thorough examination of internal factors and external market dynamics, Healthcare Institutes can position themselves for sustainable growth and competitive advantage in the healthcare sector. This strategic approach will assist the Healthcare Institute in overcoming challenges, capitalizing on opportunities, and achieving research goals with precision and foresight.

Table 11: TOWS Matrix

	Opportunities	Threats
	Financial courses offered by local and international universities are available. Training can be done online or in person, making it easy for managers to enroll. Mentorship program for financial training. User-friendly financial systems are available in the marketplace.	Increasing competition among private hospitals. Strong financial performance among competitors. Shift in healthcare patterns, consumer choices, and lifestyles
Strength	S-O Strategies	S-T Strategies
Offer a diverse array of specialized services, primary care, and wellness solutions. Employ skilled managers who specialize in their respective fields. Focus on patient services, prioritizing patient care and satisfaction.	Utilize skilled managers to enroll in financial courses offered by the universities to enhance financial literacy and better manage the hospital's finances (S2, O1) Implement advanced training programs for skilled managers by using user-friendly financial systems (S2, O4)	Utilize the hospital's skilled managers (S2) to formulate strategies that address the increasing competition (T1) and strong financial performance among competitors (T2). Promote specialized services (S1) to adapt to changing healthcare patterns (T3)
Weaknesses	W-O Strategies	W-T Strategies
Limited financial background among managers Inadequate financial training for	Overcome the limited background of finance (W1) and lack of financial training (W2) among	Implement healthy corporate policies (W4) to remain competitive among private

managers Delays in financial reporting and inefficiencies in resource management within departments Unhealthy corporate policy management practices.	non-finance managers by providing a financial course (O1) and a mentorship program (O3) Overcome the delays of financial reporting and inefficiencies (W3) by implementing a user-friendly financial system (O3) that can be used by the non-finance manager.	hospitals (T1) Hire and improve talent management (W1) by recruiting qualified managers to enhance competitiveness among private hospitals (T1).
--	--	---

5. Conclusion and Recommendations

Based on the research results on enhancing financial literacy among non-finance managers in Healthcare Institutes, this study yields several targeted recommendations. These suggestions aim to boost the financial knowledge, attitude, behaviour, and overall literacy of the managers, ensuring improved financial performance and sustainability for the hospital. Firstly, it is crucial to conduct regular and comprehensive training programs focused on financial management. These sessions should cover key financial principles, budgeting, financial reporting, and interpretation of financial statements. The goal is to equip non-finance managers with the necessary skills to understand and manage financial data effectively. Regular workshops and seminars led by finance experts can bridge the knowledge gap and promote a culture of continuous learning within the organization.

Secondly, establishing a mentorship program by pairing non-finance managers with experienced finance professionals is recommended. This mentorship will offer ongoing support and guidance, assisting managers in applying financial concepts in real-world scenarios. Mentors can provide insights into complex financial issues and help develop strategic thinking and decision-making skills among the managers.

Thirdly, embedding financial literacy into the organizational culture is crucial. Every Healthcare institute should foster an environment where financial discussions are part of daily operations. This entails integrating financial literacy into performance evaluations, setting improvement goals, and recognizing and rewarding managers who exhibit strong financial management skills. Promoting financial literacy as a core competency will ensure managerial decisions are made with a thorough understanding of their financial implications.

Furthermore, adopting user-friendly financial systems and tools can significantly enhance financial reporting and resource management. Implementing modern financial software that offers real-time tracking and reporting will help non-finance managers stay updated on the hospital's financial status. Training managers to use these tools effectively will reduce delays and inaccuracies in financial reporting, supporting better decision-making processes.

Finally, refining talent management practices by recruiting managers with strong financial backgrounds and offering professional development opportunities is essential. Healthcare institutions should prioritize hiring individuals with expertise in financial management and healthcare administration. Creating a comprehensive talent management strategy that includes ongoing professional development, mentorship initiatives, and clear career paths will aid in retaining competent managers. Cross-training opportunities can also be provided to non-financial managers to enhance their understanding of financial management practices and improve their overall effectiveness.

References

- Abousaidi, M., Moeinadin, M., & Heyrani, F. (2021). Evaluation of the financial literacy of the managers of the private sector companies. *Financial Accounting Knowledge*, 8(2), 195-219. <https://doi.org/10.30479/jfak.2021.13956.2738>
- Al Rahhaleh, N., Al-Khyal, T. A., Daghran Alahmari, A., & Al-Hanawi, M. K. (2023). The financial performance of private hospitals in Saudi Arabia: An investigation into the role of internal control and financial accountability. *PloS One*, 18(5), e0285813. <https://doi.org/10.1371/journal.pone.0285813>
- Andarsari, P. R., & Ningtyas, M. N. (2019). The role of financial literacy on financial behavior. *Journal of Accounting and Business Education*, 4(1), 24-33. https://www.researchgate.net/publication/337161522_The_Role_of_Financial_Literacy_on_Financial_Behavior/fulltext/5def06eea6fdcc283714770d/The-Role-of-Financial-Literacy-on-Financial-Behavior.pdf
- Anthony, R., & Sabri, M. F. (2015). Financial management practices of medical practitioners in the private and public medical service in Malaysia. *International Review of Management and Business Research*, 4(4), 1105. https://www.researchgate.net/publication/301222728_Financial_Management_Practices_of_Medical_Practitioners_in_the_Private_and_Public_Medical_Service_in_Malaysia
- Bongomin, G. O. C., Munene, J. C., Ntayi, J. M., & Malinga, C. A. (2018). Nexus between financial literacy and financial inclusion: Examining the moderating role of cognition from a developing country perspective. *International Journal of Bank Marketing*, 36(7), 1190-1212. <http://dx.doi.org/10.1108/IJBM-08-2017-0175>
- Boon, T. H., Yee, H. S., & Ting, H. W. (2011). Financial literacy and personal financial planning in Klang Valley, Malaysia. *International Journal of Economics and Management*, 5(1), 149-168. <http://www.ijem.upm.edu.my/vol5no1/bab08.pdf>
- Brannagan, K. B. (2012). Enhancing online finance education for non-financial managers. *Journal of Online Learning and Teaching*, 8(1), 79-87. https://jolt.merlot.org/vol8no1/brannagan_0312.pdf
- Cerullo, M., Yang, K., Joynt Maddox, K. E., McDevitt, R. C., Roberts, J. W., & Offodile, A. C. (2022). Association Between Hospital Private Equity Acquisition and Outcomes of Acute Medical Conditions Among Medicare Beneficiaries. *JAMA Network Open*, 5(4), e229581. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2791727>
- Eniola, A. A., & Entebang, H. (2017). SME managers and financial literacy. *Global Business Review*, 18(3), 559-576. <http://dx.doi.org/10.1177/0972150917692063>
- James, B. D., Boyle, P. A., Bennett, J. S., & Bennett, D. A. (2012). The impact of health and financial literacy on decision-making in community-based older adults. *Gerontology*, 58(6), 531-539. <https://doi.org/10.1159/000339094>
- Jusoh, M. A., & Abd Talib, N. A. (2018). Literasi dan tingkahlaku kewangan usahawan mikro di utara Semenanjung Malaysia: Financial literacy and behavior of micro entrepreneurs in the northern peninsula of Malaysia. *Management Research Journal*, 7, 244-259. <https://doi.org/10.37134/mrj.vol7.21.2018>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610. <https://doi.org/10.1177/001316447003000308>
- Lyn, S. H. M., & Sahid, S. (2021). Faktor-faktor mempengaruhi tahap literasi kewangan masyarakat kawasan pedalaman. *Proceedings of the 8th International Conference on Management and Muamalah 2021*, 62-70. <https://conference.uis.edu.my/icomm/8th/images/021-054.pdf>
- Naranjee, N., Sibiya, M. N., & Ngxongo, T. S. P. (2019). Development of a financial management competency framework for nurse managers in public health care organizations in the province of KwaZulu-Natal, South Africa. *International Journal of Africa Nursing Sciences*, 11, Article 100154. <http://dx.doi.org/10.1016/j.ijans.2019.100154>
- Nawaz, S. (2015). Finance for non-finance managers. Manaraa. <https://lib.manaraa.com/books/FINANCE%20FOR%20NONFINANCIAL%20MANAGERS.pdf>
- Oppong, C., Salifu Atchulo, A., Akwaa-Sekyi, E. K., Grant, D. D., & Kpegba, S. A. (2023). Financial literacy, investment and personal financial management nexus: Empirical evidence on private sector employees. *Cogent Business & Management*, 10(2), Article 2229106. <https://doi.org/10.1080/23311975.2023.2229106>

- Plakalović, N. (2015). Financial literacy of SME managers. *Management, Knowledge and Learning Joint International Conference 2015*, 409-416. <https://toknowpress.net/ISBN/978-961-6914-13-0/papers/ML15-086.pdf>
- Potrich, A. C. G., Vieira, K. M., & Mendes-Da-Silva, W. (2016). Development of a financial literacy model for university students. *Management Research Review*, 39(3), 356-376.
- Rasiah, R., Noh, A., & Tumin, M. (2009). Privatising healthcare in Malaysia: Power, policy and profits. *Journal of Contemporary Asia*, 39(1), 50-62. <http://dx.doi.org/10.1080/00472330802506790>
- Reuter, J., Dias, M. F., Sousa, M. J., Soobhany, A. R., & Hendi, A. (2022). Unlock financial knowledge in managers through games. *Proceedings of the 16th European Conference on Game-Based Learning*, 16(1), 463-472. <http://dx.doi.org/10.34190/ecgbl.16.1.842>
- Siswanti, I., & Halida, A. M. (2020). Financial knowledge, financial attitude, and financial management behavior: Self-control as mediating. *The International Journal of Accounting and Business Society*, 28(1), 105-132.
- Sriyono, S., & Rif'ah, N. L. (2022). Can Gender be a Moderating Variable in Micro, Small Medium Enterprises' Financial Behavior? A Perspective from Financial Literature, Financial Attitude, and Income. *Jurnal Manajemen Bisnis*, 13(2), 306-323.
- Vieira, K. M., Júnior, F. d. J. M., & Potrich, A. C. G. (2020). Measuring financial literacy: proposition of an instrument based on the Item Response Theory. *Ciência e Natura*, 42, e38. <https://periodicos.ufsm.br/cienciaenatura/article/download/40167/html?inline=1>
- Zait, A., & Berteau, P. E. (2015). Financial literacy-Conceptual definition and proposed approach for a measurement instrument. *The Journal of Accounting and Management*, 4(3). <https://core.ac.uk/download/pdf/229471204.pdf>