

LEVEL OF KNOWLEDGE IN THE FIELD OF FINANCIAL MANAGEMENT FOR MICRO AND SMALL COOPERATIVES IN MALAYSIA

¹Farahaini Mohd Hanif*, ²Roziah Mohamed, ³Rosmalina Che Yakzam, ⁴Adila Hashim, ⁵Siti Nuraini Abu Bakar, ⁶Azianti Ismail

^{1,2,3,4,5} *Institut Koperasi Malaysia*
⁶ *Universiti Teknologi MARA, Shah Alam*

*Corresponding author email: farahaini@ikma.edu.my

Received 26 March 2024; Revised 12 June 2024; Accepted 25 July 2024

ABSTRACT

As crucial drivers of a nation's economic advancement, cooperatives must possess relevant understanding and proficiency in financial management to ensure continuous and progressive development. This research, therefore, holds significant implications for the cooperative sector in Malaysia. It aims to assess cooperatives' level of knowledge on financial management, focusing on five specific scopes: working capital management, budget management, capital management, financial reporting, and financial information systems. A questionnaire (quantitative method) was used as a data collection instrument, and 221 treasurers, assistant treasurers, and relevant management personnel from micro and small cooperatives participated in the survey. The research findings, which categorise cooperatives via different zones across Malaysia, indicate that the most complex topic is working capital management, followed by financial information systems. In contrast, budget management and financial reporting are perceived as simple topics with no challenging elements. These findings underscore the need for immediate action to enhance the knowledge and practices of the cooperatives in specific financial management topics, particularly in the areas of working capital management and financial information systems.

Keywords: *Cooperatives, financial management, working capital management, budget management, capital management*

INTRODUCTION

The cooperative sector in Malaysia holds a significant role in the national economy, with cooperatives engaging in various functions such as banking, credit, agriculture, housing, industrial, consumer, construction, transport, and services. The Ministry of Entrepreneur Development and Cooperatives (KUSKOP) has been actively promoting the growth and development of cooperatives in the country by implementing diverse programs and incentives.

Financial management is a crucial element within cooperative management that warrants attention. Effective financial management ensures that a cooperative can execute all planned activities to achieve its objectives. Moreover, it enables the management to make informed decisions regarding financing and asset management and efficiently handle the organisation's limited financial resources.

With their significant presence in Malaysia's economic landscape, cooperatives play a pivotal role in the country's economic development. As of June 2023, there are 15,556 registered cooperatives in Malaysia with RM161.958 billion in total assets and RM17.465 billion in share capital and fees (Suruhanjaya Koperasi Malaysia, 2023). They are the third most significant economic sector in the country, providing financial benefits through dividends, rebates, subscription deductions, or bonus share issuance (Abd Rahman & Zakaria, 2018), and non-financial benefits such as better emotional well-being, balanced living, contentedness, and job creation (Sarmila et al., 2017). To maintain their relevance and contribute to the economy, cooperatives must devise an efficient financial management program that aligns with their goals. This research report aims to assess the level of knowledge in financial management for micro and small cooperatives in Malaysia, a topic of utmost importance given the significant role of cooperatives in the country's economic landscape.

Habidin et al. (2021) found that one of the most critical success factors for micro cooperatives in Malaysia is cooperative education, especially in the field of cooperative management, and this is translated in *Pelan Transformasi Koperasi 2021*, where one of

the primary key areas is to enhance the talent and human capital in the cooperative movement (Ministry of Entrepreneur and Co-operatives Development, 2021). Meanwhile, findings from Hashim et al. (2022) state that financial management is the most challenging management field for cooperative board members to implement. Thus, the findings from other studies affirmed that cooperatives' financial management aspect should be strengthened significantly in terms of practical and knowledge aspects. This study is essential to verify the current status and plot action plans to improve further the financial management proficiency of cooperative treasurers and board members, enabling them to better manage the entities' financials per the laws and guidelines.

Therefore, this study analyses small and micro cooperatives' knowledge levels, especially in financial management. Researchers have found that previous studies are quite limited regarding the level of knowledge in financial management for cooperatives, even though there are 14,945 small and micro-cluster cooperatives in Malaysia. Cooperatives in the small category have a turnover between RM200,000 and RM1 million per year, while cooperatives in the micro category have a yearly turnover of less than RM200,000.

LITERATURE REVIEW

Financial Management Knowledge

Knowledge of financial management is crucial in the current globalisation era because almost all our daily transactions involve financial aspects. According to Abdul-Rahman and Zulkifly (2016), money is the most critical asset that can be used to satisfy a person's needs and wants in an increasingly challenging economic situation.

According to Garman and Gapinger (2008) and Shaari et al. (2013), financial literacy is knowledge, principles, concepts, and basic technology tools that can transform a person into a financially intelligent individual. It can also be defined as the science and art of managing money, and it is a paramount skill to be possessed by an individual or organisation (Noraihan et al., 2013)

Yong et al. (2018) found that proper financial education affects financial knowledge and may change one's attitude and behaviour toward financial management. Recent studies have discussed the critical issues related to the financial management field, including skill level, behaviour, attitude, experience, and practice (Mahmud & Rahman, 2018; Sepeai & Ramli, 2019; Zainol & Ramli, 2019) and efficient management of personal wealth (Anthony, 2011). Knowledge has a significant impact on a person's financial management style. Inappropriate financial management may result in a firm experiencing loss or bankruptcy. According to Sudar (2003), budding and established entrepreneurs should equip themselves with financial management knowledge to minimise their exposure to business failure. This statement is supported by Zaman and Othman (2018), who found that business failures reported by entrepreneurs in Malaysia are due to their insufficient financial knowledge.

Financial Management Scopes

This study reviewed five (5) financial management scopes: working capital management, budget management, capital management, financial reporting, and financial information systems.

(1) Working Capital Management

Working capital refers to the amount of cash assets owned by an organisation. An organisation should manage its working capital efficiently to finance all planned or unplanned expenses and meet its short-term liabilities. Current assets and liabilities must be considered when analysing a business's working capital and ensuring profitability (Yusoff et al., 2014). Profitability also depends on how well a business manages its working capital components (Johar, 2016). Current assets include cash, accounts receivable, inventory, and short-term securities, while current liabilities include creditors, unpaid bills, outstanding expenses, and bank overdrafts (Mwanzia & Makori, 2023; Peykani et al., 2023).

(2) Budget Management

Budgetary management is one of the most essential aspects of accounting—it refers to an organisation's planning and spending aspects. From a cooperative management viewpoint, budget management is critical to the proper and priority-based distribution of financial resources (Md Zeni et al., 2021). A budget is another type of financial statement and a document that can predict an organisation's future performance (Maktab Kerjasama Malaysia, 2006). It is a benchmark for a person's lifestyle based on their means. From a business viewpoint, a budget is a mechanism used to determine an entity's cash flow efficiency and the success of its financial planning process (Md Zeni et al., 2021).

(3) Capital Management

Next, capital management refers to the resources required to cover a business's daily operations. Small- and medium-sized enterprises in the country often face the issue of insufficient capital due to their lack of a complete financial management system and their heavy reliance on the owner's funding or funding from government agencies (Kamsin et al., 2008; Othman & Dawood, 2020). Cooperatives may derive their capital from internal or external sources. Internal capital is funding from a cooperative's internal sources, e.g., members' contributions, while external capital is funding gathered from external sources, e.g., loans (Ismail & Said, 2012). A cooperative's capital needs to be managed based on specific requirements. For example, short-term capital should be financed via short-term sources and vice versa to ensure the entity can fulfil its liability obligations within the relevant time frame.

(4) Financial Reporting

In financial management, a financial report is an essential source of information for understanding and analysing the financial position of a business. An analysis of such a report can be used in making business decisions. The cooperative annual report is a document prepared by a cooperative at the end of a financial year to present information on trading, financial position, and social activities

(Maktab Kerjasama Malaysia, 2006). Section 58 (3) of the Co-operative Societies Act 1993 requires each cooperative to prepare the report as soon as possible but not later than two months after the completion of each financial year its trading and profit and loss accounts and balance sheet together with any other document required for audit (Suruhanjaya Koperasi Malaysia, 2017).

(5) Financial Information System

Cooperatives' financial management also involves accounting information systems. Such systems process financial and non-financial transactions, directly impacting a company's financial transaction process (Hall, 2011); from an organisation's viewpoint, an accounting information system is a set of people and capital resources responsible for preparing financial information and business transaction data. Information generated by such a system will be distributed to managers at different levels to be utilised for both the planning and execution phases.

RESEARCH METHODOLOGY

This study employs a quantitative method using a questionnaire instrument. The respondents selected for this study are cooperative board members (CBMs), specifically treasurers, assistant treasurers, or officers responsible for the cooperative's financial management matters. The study population includes 13,910 cooperatives from Malaysia's micro and small clusters. This figure is sourced from the latest data provided by the Malaysia Cooperative Societies Commission (SKM), ensuring the population data is current and comprehensive.

This population's sample size of 150 respondents was calculated based on the Rasch Measurement Model. The Rasch Measurement Model is a robust tool for sample size determination in social science research, which posits that a minimum of 30 respondents per zone (Central, Southern, Northern, Sabah, and Sarawak) is adequate to achieve reliable and consistent data with a 95% confidence level (Linacre, 1991). The formula

used to calculate the sample size considers the total population and the desired confidence level, ensuring the sample is representative of the larger population.

The sampling method adopted for this study is stratified random sampling. This approach ensures that each zone is adequately represented, providing a comprehensive overview of the financial management practices across different regions. The questionnaire is divided into multiple sections, each designed to gather detailed information on specific aspects of financial management within the cooperatives. The respondents were selected through a systematic process where each zone was proportionately represented to maintain the integrity of the study. Within each zone, cooperatives were chosen randomly, and the treasurers, assistant treasurers, or financial officers were invited to participate in the survey. This method ensures a balanced and unbiased representation of cooperatives from each zone.

The unit of analysis for this study is individual, focusing on the responses provided by the Cooperative Board Members rather than the cooperatives as organisations. This approach allows for a detailed understanding of the perspectives and practices of those directly involved in financial management. The Rasch Measurement Model was used to test the study's objectives due to its ability to provide precise measurements of respondent ability and item difficulty. This model is beneficial in educational and psychological measurements, offering a detailed analysis of how well each item on the questionnaire performs. Using the Rasch Model, the study ensures that the data collected is reliable and valid, addressing the specific objectives with high accuracy.

The questionnaire used in this study was modified from a previous survey by Abanis et al. (2013), adapting 74 items to align with the study's objectives. Ten local university lecturers with expertise in finance and accounting reviewed and verified the questionnaire content. Their feedback was incorporated to improve the language style and sentence structure and eliminate duplications. Two hundred twenty-one respondents participated in this study, exceeding the minimum requirement set by (Linacre, 1991) for each zone. The analysis was conducted using the Rasch Measurement Model via Winstep 5.2.2.0

software, which evaluates each respondent's ability to answer the questionnaire and measures the difficulty level of each item (Rasch, 1980).

ANALYSIS AND RESEARCH FINDINGS

Background of the Cooperatives

The study obtained data from 221 respondents from various micro and small cooperatives. The majority, or 61.1 percent, of the cooperatives have been in operation for between 1 and 25 years, and their main functions are in the services (35.3%) and consumer (31.7 %) areas. Table 1 shows the background of the cooperatives involved in this study.

Table 1: Cooperatives background

Demography		Frequency	Percentage (%)	Range
Years of operation	1 - 25 years	135	61.1	-
	26 - 50 years	67	30.3	-
	51 - 75 years	18	8.1	-
	76 - 100 years	1	0.5	-
The primary function of the cooperative	Services	78	35.3	-
	Consumers	70	31.7	-
	Plantation	42	19.0	-
	Finance and banking	17	7.6	-
	Transport	8	3.6	-
	Construction	3	1.4	-
	Housing	2	0.9	-
	Industry	1	0.5	-
Total number of cooperative board members (CBM)	-	-	-	3 - 15
Total number of cooperative members	-	-	-	20 - 9,358

Background of Respondents

This study received data from 221 respondents, who were treasurers, assistant treasurers, and management, who were involved in the cooperatives' financial operations. Table 2 shows that the majority of 145 persons (65.6 percent) hold the treasurer post, 69 persons (31.2 percent) are from the management, and seven persons (3.2 percent) are assistant treasurers. The total number of male respondents is 105 persons (48 percent), while the rest are female respondents (116 persons or 52 percent). The majority of the respondents are between the age of 41-60 years old category (113 persons or 51.1 percent), followed by the 31-40 years old category (59 persons or 26.7 percent) and above 60-year-old category (30 persons or 13.6 percent).

In terms of respondents' level of education, the majority or 103 persons are holders of a Bachelor's Degree (46.6 percent), followed by 49 STPM/Diploma holders (22.2 percent), 42 persons having SPM/MCE/Equivalent (19.0 percent), three persons (1.4 percent) each for SRP/PMR and Doctor of Philosophy, while only one person (0.4 percent) for UPSR. From an experienced viewpoint, the majority, or 61.1 percent, of respondents have less than five years of experience in managing cooperatives' financial matters, and a minority of them, or 7.2 percent, have more than 15 years of experience in the field.

Table 2: Background of the respondents

Demography		Frequency	Percentage (%)	Range
Position held in the cooperative	Treasurer	145	65.6	-
	Management	69	31.2	-
	Assistant Treasurer	7	3.2	-
Gender	Female	116	52	-
	Male	105	48	-
Age	18 - 30 years old	19	8.6	-
	31 - 40 years old	59	26.7	-
	41 - 60 years old	113	51.1	-
	Above 60 years old	30	13.6	-
Education Level	Bachelor Degree	103	46.6	-
	STPM/Diploma	49	22.2	-

	SPM/MCE/Equivalent	42	19.0	-
	Masters	20	9.0	-
	Doctor of Philosophy	3	1.4	-
	SRP/PMR	3	1.4	-
	UPSR	1	0.4	-
Experience in the cooperative field	Less than five years	135	61.1	-
	6 - 10 years	50	22.6	-
	11 - 15 years	20	9.1	-
	Above 15 years	16	7.2	-

Level of Knowledge in Cooperatives' Financial Management Scopes

Table 3 shows 74 total items segregated based on level of knowledge for each scope. Based on the items' means, generally, 13 items are categorised as having a problematic level of knowledge (items with a logit above 0.00) and requiring specific attention. In comparison, 24 other items are categorised as having a manageable level of knowledge (items with a logit below 0.00).

Table 3: Level of difficulty for various financial management scopes

Scopes	No of Item	Level of Knowledge	
		Easy logit<0.00	Hard logit>0.00
Working Capital Management	34	9	8
Budget Management	8	4	0
Capital Management	8	1	3
Financial Reporting	12	6	0
Financial Information System	12	4	2
Total	74	24	13

Results show that the scope with the most challenging level of knowledge (items with logit above 0.00) is Working Capital Management with eight items. In contrast, the most accessible items (items with logit below 0.00) are mainly under the Budget Management and Financial Reporting scopes with no problematic items.

Level of Knowledge in Working Capital Management

Based on Table 4, eight of 17 items with the most challenging level of knowledge percentage are PA9 control of the line of credit for members, PA11 determination of lousy debt percentage, PA10 preparation of debtors ageing table, PA8 business credit activity policy, PA7 credit facility to buy and sell goods/services, PA12 management of credit repayments, PA16 management of current inventory/stock, and PA15 management of inventory/stock cost. The three most accessible items are PA6, the importance of internal control on cash; PA1, the procedure for opening a bank account; and PA5, the preparation of monthly bank reconciliation statements.

Table 4: Measurement result on the level of knowledge difficulty for working capital management

No	Item	Code	Logit	%
1.	Control of line of credit for members*	PA9	1.57	82.78
2.	Determination of bad debt percentage*	PA11	1.45	81.00
3.	Preparation of debtors ageing table*	PA10	1.37	79.74
4.	Business credit activity policy*	PA8	1.30	78.58
5.	Credit facility to buy and sell goods/services*	PA7	1.21	77.03
6.	Management of credit repayments*	PA12	0.52	62.71
7.	Management of current inventory/stock**	PA16	0.10	52.50
8.	Management of inventory/stock cost**	PA15	0.01	50.25
9.	Function of cash budget in the decision-making process***	PA3	-0.12	47.00
10.	Management of inventory/stock safety**	PA13	-0.13	46.75

11.	Inventory/stock purchase confirmation**	PA14	-0.13	46.75
12.	The requirement to set a minimum cash balance***	PA4	-0.17	45.76
13.	Calculation of end stock**	PA17	-0.22	44.52
14.	Risk of cash shortage***	PA2	-0.32	42.07
15.	Preparation of monthly bank reconciliation statements***	PA5	-0.42	39.65
16.	Procedure for opening a bank account***	PA1	-0.86	29.73
17.	Importance of internal control on cash***	PA6	-0.86	29.73

* Credit, ** Inventory/stock, ***Cash

Working Capital Management can be segregated into credit, inventory/stock, and cash. Six items under credit are complicated because they relate to the cooperative's financial capability and hence require a high level of decision-making analysis. On the other hand, the six lowest items are under the cash component, involving daily operations (cash payments).

Level of Knowledge in Budget Management

Based on Table 5, all four items are easy to understand (percentage less than 50). Thus, the respondents' level of knowledge for this scope is easy. Budget courses are conducted at least twice yearly, and each cooperative must table its budget in its annual general meeting.

Table 5: Measurement result on the level of knowledge difficulty for budget management

No.	Item	Code	Logit	%
1.	Management of annual budget	PB4	-0.44	39.17
2.	Review of the annual budget	PB3	-0.46	38.70
3.	Planning of annual budget	PB1	-0.55	36.59
4.	Preparation of annual budget	PB2	-0.55	36.59

Level of Knowledge in Capital Management

Based on Table 6, three out of four items have a high level of knowledge difficulty, namely PC3 external funding sources from financial institutions, PC4 requirement for cost comparison analysis in obtaining external funding sources, and PC2 generation of internal sources funding from share capital and fees. No specific guidance is provided to obtain external funding sources—micro and small cooperatives rarely apply for such schemes because they usually rely more on internal funding sources.

Table 6: Measurement result on the level of knowledge difficulty for capital management

No.	Item	Code	Logit	%
1.	External funding sources from financial institutions.	PC3	0.95	72.11
2.	Cost comparison analysis is required to obtain external funding sources.	PC4	0.74	67.70
3.	Internal sources of funding are generated from share capital and fees.	PC2	0.10	52.50
4.	Determination of capital structure by Cooperative Board Members (CBM).	PC1	-0.04	49.00

Level of Knowledge in Financial Reporting

Based on Table 7, all six items under this scope are considered accessible by the respondents (percentage less than 50). A complete training course is provided for this scope, starting with introductory courses and ending with advanced classes. The practical training sessions are conducted in small groups.

Table 7: Measurement result on the level of knowledge difficulty for financial reporting

No.	Item	Code	Logit	%
1.	Preparation of financial reports based on GP23 requirements: Cooperative Financial Statement Reporting Guidelines	PD6	-0.04	49.00
2.	Basic bookkeeping skills	PD1	-0.46	38.70
3.	Preparation of monthly expense and income reports	PD5	-0.49	37.99
4.	Financial resource document storage system for every transaction	PD2	-0.64	34.52
5.	Preparation of annual financial statements	PD4	-0.69	33.49
6.	Preparation of daily transaction records in the record book	PD3	-0.73	32.52

Level of Knowledge in Financial Information Systems

Based on Table 8, two items with a high percentage of knowledge difficulty are PE6 financial report details in *Sistem Pengurusan Maklumat Kewangan Koperasi* (SPMKK) and PE5 working capital report prepared using computer software. SPMKK, managed by SKM, is difficult because Treasurers are not directly involved in preparing the requested data. IKMa has provided information on SPMKK usage in the Cooperative Financial Management Course (Mandatory 2).

Table 8: Measurement result on the level of knowledge difficulty for financial information system

No.	Item	Code	Logit	%
1.	The details of the financial report are in <i>Sistem Pengurusan Maklumat Kewangan Koperasi (SPMKK)</i> .	PE6	0.82	69.42
2.	Working capital report prepared using computer software.	PE5	0.18	54.49
3.	Generation of documents using computer software.	PE4	-0.15	46.26
4.	Computerised accounting systems (Microsoft Excel, Sage UBS Accounting, Mr. Accounting, etc.) are available.	PE1	-0.28	43.05
5.	Financial records need to be kept for seven years.	PE3	-0.64	34.52
6.	Treasurers need to record each financial transaction.	PE2	-1.17	23.69

CONCLUSION AND RECOMMENDATIONS

The main finding of this study is that no previous research has thoroughly measured cooperatives' level of financial knowledge using Rasch analysis. A review of the literature and syllabus found five scopes of financial management: working capital management, budget management, capital management, financial reporting, and financial information systems. Data obtained via the questionnaire instruments reveal that respondents find capital working management harder to master and is perceived as more complex than the other four topics. In comparison, the easy-to-master topics include budget management and financial reporting. A summary of this research is provided in Table 9 below.

Table 9: Research summary

Research Objective	Item	Research Summary
Analysing cooperatives' level of knowledge in the field of financial management		<ul style="list-style-type: none"> • The knowledge level in working capital management is perceived as the most complex, with eight items categorising it as the most challenging level of knowledge. • Knowledge in capital management is the next most complex, with the three most challenging knowledge levels.
	Finding	<ul style="list-style-type: none"> • Knowledge level of financial information systems has two items categorised as the most challenging level of knowledge. • The respondents considered the knowledge level in budget management easy, as no item was considered challenging. • The respondents' knowledge level in financial reporting is also considered easy.

Based on the findings and discussion of the study, future studies can be conducted to examine aspects that should be more focused on in this research. For example, a similar analysis can be conducted using qualitative method, specifically via a case study approach on cooperatives' working capital and sound financial management practices, as well as more thorough studies on other components of financial management, including financial manual/working procedure, risk management, performance evaluation, internal control, etc.

REFERENCES

Abanis, T., Sunday, A., Burani, A., & Eliabu, B. (2013). Financial management practices in small and medium enterprises in selected districts in Western Uganda. *Research Journal of Finance and Accounting*, 4(2), 29–43.

- Abd Moen, J., Che Omar, A. R., Ishak, suraiya, Darawi, Z., & Hamdan, H. (2012). Amalan pengurusan kewangan di kalangan usahawan asnaf. *Prosiding PERKEM VII, Jilid 2*, 2, 762–769.
- Abd Rahman, N., & Zakaria, Z. (2018). Kecekapan pengurusan koperasi di Malaysia. *Journal of Nusantara Studies (JONUS)*, 3(2), 134. <https://doi.org/10.24200/jonus.vol3iss2pp134-146>
- Abdul-Rahman, A., & Zulkifly, W. (2016). Faktor penentu pengurusan kewangan: Kes mahasiswa Universiti Kebangsaan Malaysia. *Jurnal Personalia Pelajar*, 19(2), 85–94.
- Abdullah, N., Sabri, M. F., Abdul Rahim, H., Othman, M. A., Muhammad Arif, A. M., & Zakaria, N. F. (2013). Pengurusan kewangan dalam kalangan pekerja muda. *Jurnal Pengguna Malaysia*, 16–34.
- Ahmad, N. A., & Yusop, N. M. (2021). Penggunaan sistem perakaunan berkomputer di kalangan usahawan perusahaan kecil dan sederhana di sekitar bandar Kota Bharu, Kelantan. *Jurnal Dunia Perniagaan*, 3, 19–29.
- Anthony, R. (2011). *Knowledge, Attitude, Practice and Satisfaction on Personal Financial Management among the Medical Professionals in the Public and Private Medical Services in Malaysia* (Issue April). Universiti Kebangsaan Malaysia.
- Ariffin, A., Abd Malek, R., Raffae, M. R., Yacob, Y., Said, M. S. A., Mohd Hanif, F., Juhan, R., Md Yusop, J., & Abdul Razak, N. A. (2017). *Pengurusan Kewangan*. Maktab Koperasi Malaysia.
- Azmi, S. N. S., Rahman, S. A., Ibrahim, S., Muhamad, N., & Esa, M. M. (2018). Amalan pengurusan kewangan mahasiswa. *Journal of Business Innovation*, 3(2), 9–23.
- Fong, V. (2018). *Fintech Malaysia Report 2018 - The State of Play for Fintech Malaysia - Fintech News Malaysia*. FINTECH Malaysia. <https://fintechnews.my/17922/uncategorized/fintech-malaysia-report-2018/>
- Garman, E. ., & Gapinger, J. . (2008). *Delivering Financial Literacy Instruction to Adults*. Heartland Institute of Financial Education.
- Habidin, N. F., Abu Talib, N. A., Yacob, Y., Abu Hassan, H., & Ibrahim, A. (2021). *Analisis Ekosistem Pertumbuhan Koperasi dan Halatuju bagi Meningkatkan Prestasi Koperasi Mikro di Malaysia*. Institut Koperasi Malaysia.

- Hall, J. A. (2011). *Accounting information systems* (Seventh Edition). SOUTH-WESTERN CENGAGE Learning.
- Hashim, A., Abu Bakar, S. N., Mahmood, N., Hamsan, N. Y., Ismail, A., & Saari, N. (2022). *Analisis Kompetensi Anggota Lembaga Koperasi di Malaysia*. Institut Koperasi Malaysia.
- Hussin, N. (2021). *Koperasi Perlu Seiring Era digitalisa*. Utusan Malaysia. <https://www.utusan.com.my/ekonomi/2021/11/koperasi-perlu-seiring-era-digitalisasi/>
- Ismail, I., & Said, M. S. (2012). *Pengenalan Koperasi*. Utusan Publications & Distributors Sdn Bhd.
- Johar, N. Z. (2016). *Kesan Pengurusan dan Kecekapan Pengurusan Modal Kerja Terhadap Keuntungan Firma*. Universiti Teknologi Malaysia.
- Kamsin, R., Din, J., Yunus, M. Z. M., Yusof, K., Said, & Anuar, M. S. (2008). Kajian Sumber dan Penggunaan Dana Koperasi. In *Maktab Koperasi Malaysia*.
- Kyeremeh, K., Kyeremeh, B. B., & Forson, M. A. (2022). Role of accounting information systems in organizational decision making: Evidence from the banking sector in Ghana. *Journal of Accounting and Taxation*, 2(3), 123–144. <https://doi.org/10.47747/jat.v2i3.912>
- Linacre, J. M. (1991). *Constructing Measurement with a Many-Facet Rasch Model*.
- Mahmud, N. H. A., & Rahman, S. A. (2018). Kesejahteraan kewangan kajian kes pengusaha chalet di Pantai Pengkalan Balak. *Jurnal Inovasi Perniagaan*, 3(2), 24–30.
- Maktab Kerjasama Malaysia. (2006). *Memahami laporan tahunan koperasi*. Maktab Kerjasama Malaysia.
- Md Zeni, S., Hashim, A., Md Din, N., & Ahmad, M. A. N. (2021). Pengurusan kewangan mahasiswa. *Journal for Social Sciences*, 24(3), 62–66. https://www.researchgate.net/publication/356407874_Pengurusan_Kewangan_Mahasiswa_MyCite
- Mohamed Adil, M. A., Mohd-Sanusi, Z., Jaafar, N. A., Khalid, M. M., & Abd Aziz, A. (2013). Financial management practices of mosques in Malaysia. *Global Journal Al-Thaqafah*, 3(1), 23–29. www.gjat.my

- Mwanzia, G., & Makori, D. (2023). Asset and liability structure on investment performance of deposit-taking savings and credit cooperatives in Nairobi City County, Kenya. *American Journal of Finance and Business Management*, 2(1), 1–15. <https://doi.org/10.58425/ajfbm.v2i1.161>
- Noraihan, M. Z., Hasmida, M. H., & Jaafar, S. B. (2013). Hubungan antara Amalan Pengurusan Kewangan Pelajar dan Kursus PA305: Pengurusan Kewangan Peribadi - Satu kajian kes di Politeknik Tuanku Sultanah Bahiyah. *Technical And Education Colloquium (TEC) PTSB, September*, 25–31.
- Norazam, N. S., & Othman, N. (2017). Kualiti pendidikan pengurusan kewangan dengan tahap literasi kewangan. *Journal of Global Business and Social Entrepreneurship (GBSE)*, 1(1), 183–193. <http://gbse.com.my/v1no1jan17/Paper-17-BM-.pdf>
- Othman, A. S. H., & Dawood, S. R. S. (2020). Keusahawanan wanita di Kelantan berteraskan Model Ekonomi Baru: Hala tuju dan cabaran. *E-Bangi Journal of Social Science and Humanities*, 17(4), 1823–1884.
- Peykani, P., Sargolzaei, M., Botshekan, M. H., Oprean-Stan, C., & Takaloo, A. (2023). Optimisation of asset and liability management of banks with minimum possible changes. *Mathematics*, 11(12), 1–24. <https://doi.org/10.3390/math11122761>
- Ramlee, S., & Berma, M. (2009). Pertanian Adalah Perniagaan: Analisis Pengurusan Kewangan PKS Pertanian dan Asas Tani. *Prosiding Perkem IV*, 151–160.
- Rasch, G. (1980). *Weblogs Models for Some Intelligence and Student Tests*. Chicago. The University of Chicago Press.
- Sarmila, M., Ramli, R., Lyndon, N., Che Rose, R. A., Mansor, N. H., Jaafar, N., & Isnin, K. A. (2017). Sumbangan koperasi terhadap pembangunan sosial komuniti pekebun kecil sawit. *Malaysian Journal of Society and Space*, 13(3), 19–28. <https://doi.org/10.17576/geo-2017-1303-03>
- Saro, N., Bhari, A., & Mat Rani, A. (2022). Aplikasi pendigitalan dalam pengurusan kewangan di kalangan institusi pengurusan zakat di Malaysia Digitalization. *Journal of Information System and Technology Management*, 7(26), 32–42. <https://doi.org/10.35631/jistm.726003>
- Sepeai, N., & Ramli, Z. (2019). Pengurusan kewangan usahawan: Kajian kes Usahawan KADA di Kota Bahru, Kelantan Entrepreneur Financial Management: A case study of KADA Entrepreneurs. *Jurnal Wacana Sarjana*, 3(3), 1–12.

- Shaari, N. A., Hasan, N. A., Ramesh Kumar Moona Haji, M., & Mior Ahmad Jafri Md, S. (2013). Financial literacy: A study among the university students. *Interdisciplinary Journal of Contemporary Research In Business*, 5(2), 279.
- Siraj, S. A., Mohamed Ibrahim, S. H., & Sulaiman, M. (2008). Pengurusan Berkualiti Memacu Kecemerlangan Pengurusan Masjid. In *Pengurusan Berkualiti Memacu Kecemerlangan Pengurusan Masjid* (pp. 67–80). Universiti Teknologi Malaysia.
- Sudar, K. (2003). Satu Tinjauan Terhadap Pengetahuan Pengurusan Kewangan dalam Bidang Keusahawanan. In *Kolej Universiti Teknologi Tun Hussein Onn*.
- Suruhanjaya Koperasi Malaysia. (2017). *Suruhanjaya Koperasi Malaysia (SKM) - Akta dan Peraturan*. Suruhanjaya Koperasi Malaysia. <https://www.skm.gov.my/index.php/my/perundangan/akta-dan-peraturan>
- Suruhanjaya Koperasi Malaysia. (2023). *Perangkaan Koperasi Malaysia 2020*. Suruhanjaya Koperasi Malaysia.
- Yong, C. C., Yew, S. Y., & Wee, C. K. (2018). Financial knowledge, attitude and behaviour of young working adults in Malaysia. *Institutions and Economies*, 10(4), 21–48.
- Yusoff, K. M., Ismail, A. G., & Sulaiman, A. A. (2014). Pengurusan Pengagihan Keuntungan dan Hipotesis Pengurusan Modal. *Prosiding PERKEM Ke 9*, 9, 374–382.
- Zainol, A. S., & Ramli, Z. (2019). Pengurusan kewangan Usahawan MADA: Kajian kes di Kubang Pasu, Kedah Financial Management of MADA Entrepreneurs: Case Study in Kubang Pasu, Kedah. *Jurnal Wacana Sarjana*, 3(4), 1–10.
- Zaman, M. M. K., & Othman, N. (2018). Amalan pengurusan kewangan usahawan wanita Felcra. *Journal of Business Innovation*, 3(1), 1–21.