



Moderating Effect of Financial Literacy on The Relationship Between Clan Culture and Financial Performance of SMEs in Nandi County, Kenya

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Abstract

The main aim of this study is to examine the moderating role of financial literacy on the relationship between clan culture and the financial performance of Small and medium-sized enterprises. The study employed the Resource-Based View Theory, an explanatory research design, and cluster sampling techniques to collect data using a closed-ended questionnaire from a sample of 376 Small and Medium-Sized Enterprises. A Hierarchical regression model was used to test the study's hypotheses. The study findings indicate that Clan culture ($\beta = 0.605$, $p = 0.000$) and financial literacy ($\beta = 0.456$, $p = 0.000$) positively influence financial performance. In addition, the results reveal that financial literacy moderates the relationship between clan culture ($\beta = -0.100$, $p = 0.000$) and financial performance. Managers and owners of SMEs should recognize the importance of organizational culture in a firm's performance. They should create and implement an appropriate culture that fosters joint effort and mutual trust, ensuring high and sustainable performance for their SMEs. In addition, the moderation results reveal that managers in financially savvy businesses shouldn't depend entirely on clan culture for determining financial performance. On the contrary, they should combine data-driven practices or information with culture to enhance performance. The originality of this research paper lies in the moderation hypothesis. The moderation results contribute to theory and literature, as there are minimal studies that have been tested.

Keywords: Clan Culture, Financial Literacy, and Financial Performance

Introduction

Today, small and medium-sized enterprises (SMEs) are the utmost strategy in achieving the national economic transformational agenda (Nalweyiso et al., 2022). In developed economies, SMES are drivers of innovation that account for 90% of existing businesses, contribute 50% employment opportunities, and 40 % of gross domestic product (GDP) (Costa Melo et al., 2023; Nasimiyu, 2023). Relatedly, in Kenya, SMEs make up 98% of the country's business empire, with 83.6% creating job opportunities (Nasimiyu, 2023). Despite their strategic importance, many SMEs underperform and fail to reach their full potential (Omowole et al., 2024; Ramsuraj, 2023). The survival rate of SMEs in Kenya is alarmingly low. Specifically, only 60% of newly established businesses survive beyond the first year, and 80% collapse before reaching five years of operation (Kenya National Bureau of Statistics, 2020). This high failure rate undermines economic stability and limits the sector's ability to support long-term national development (Kithae et al., 2012). As such, understanding how SMEs perform financially in Kenya is timely. Financial performance reflects a business's ability to meet its strategic and operational goals, serving as a key indicator of its health, sustainability, and long-term viability (Nasimiyu, 2023). Thus, SMEs demonstrate improved performance to remain afloat and competitive during economic meltdowns (Rumanti et al., 2023). Prior literature has linked numerous predictors to the financial performance of SMEs.

One factor influencing SME sustainability is organizational culture. Research in countries such as Pakistan (Ahmad, 2012), Nigeria (Aluko, 2005), and Somalia (Dahie et al., 2016) have all shown that a positive organizational culture, particularly clan culture, which emphasizes teamwork, trust, and leadership support, can enhance business performance. Clan culture fosters a family-like environment where employees feel valued, engaged, and motivated, which can translate into better operational outcomes (Ayandibu & Vezi-Magigaba, 2021). However, in Kenya, empirical research on the impact of clan culture on SME financial performance remains limited, especially in rural regions like Nandi County. Furthermore, while culture is important, it may not be sufficient on its own. The effectiveness of a supportive culture may depend on other factors, such as the entrepreneur's ability to manage financial resources (financial literacy).

This is where financial literacy becomes critical. Defined as the ability to understand and apply financial concepts in decision-making, financial literacy enables business owners to manage cash flow, interpret financial statements,



develop a growth plan, and avoid insolvency (Benedict et al., 2021). Without adequate financial knowledge, even firms operating in a positive cultural environment may struggle to sustain operations (Abdallah et al., 2024). However, many SME owners and managers in Kenya lack the financial literacy needed to interpret these reports, limiting their capacity to make informed decisions about costs, investments, and growth (Benedict et al., 2021).

While several studies have investigated the link between organizational culture and financial performance in SMEs, the majority have concentrated on the developed economies (Arabeche et al., 2022). Similarly, most research has examined these variables in isolation. Further, these studies have reported mixed results that are positive (Arabeche et al., 2022; Ayandibu & Vezi-Magigaba, 2021), negative (Lozano, 2013), insignificant (Hajipour & Ghanavati, 2011; Yesil & Kaya, 2013), requiring further empirical studies to correct this anomaly. In addition, a few SME studies in Kenya have studied financial performance with different predictors (Ahmed, 2022; Ali et al., 2022; Kawira, 2021), creating a gap to explore financial literacy as a predictor variable. Despite its importance, few studies have explored financial literacy as a moderator in the relationship between organizational culture and financial performance (Fatoki, 2021). Guided by the RBV, we believe that missing the interactive effect that could explain why some SMEs succeed while others fail under similar cultural conditions (Sajuyigbe et al., 2024). Therefore, highly financially literate managers in a low clan environment tend to enhance financial performance and discipline by making sound financial decisions.

This study addresses these gaps by examining how financial literacy enhances the relationship between clan culture and financial performance among SMEs in Nandi County, Kenya. We contend that the combination of a collaborative culture and strong financial skills leads to superior outcomes compared to either factor alone (Goso, 2022). By focusing on this moderating role, the research contributes to both theory and practice, offering actionable insights for entrepreneurs, policymakers, and training institutions seeking to improve SME sustainability. The rest of the paper proceeds with literature, methodology, findings, implications, and limitations.

Resource-Based Theory

To understand the performance and competitiveness of SMEs, we anchor our study on the Resource-Based View (RBV) theory. Borrowed from the field of management strategy, the RBV was discovered by Wernerfelt (1984) and developed by Barney (1991). RBV argues that an organization's future performance is dependent on its inbuilt heterogeneous resources and capabilities that are valuable, rare, difficult to imitate, and non-substitutable (Hernández-Linares et al., 2021). When a firm possesses such resources, it can outperform competitors and maintain a sustainable advantage in the marketplace. RBV categorizes organizational resources into three main types: physical (equipment, infrastructure), human (skills, knowledge, relationships), and organizational (culture, systems, processes) (Seedee, 2012; UYANIK, 2023). Among these, intangible resources—particularly organizational culture, trust, and managerial expertise are increasingly recognized as critical, especially in small and medium enterprises (SMEs) where tangible assets and economies of scale may be limited.

For organizational culture to serve as a source of sustained competitive advantage, Barney (1991) outlines three essential conditions: Value: The culture must enhance the firm's ability to exploit opportunities or neutralize threats. Rarity: It must be uncommon among competitors in the same industry. Imperfect imitability: Even if rivals understand the culture, they should not be able to replicate it due to historical, social, or causal ambiguity. This makes culture a particularly powerful resource—especially in SMEs, where strong internal cohesion and shared values can compensate for limited financial or structural advantages. However, the RBV assumes that firms can identify, develop, and protect these strategic resources. In practice, many SMEs lack formal management systems, financial literacy, or analytical tools needed to fully harness their internal assets (Madhani, 2010). As a result, while the theory provides a compelling rationale for competitive advantage, its application in small business contexts requires careful consideration of these operational constraints. In summary, the RBV offers a robust lens for analyzing organizational performance by emphasizing the strategic importance of internal capabilities. For SMEs, where hard assets may be scarce, soft resources like culture and knowledge become vital levers for differentiation, innovation, and resilience. This study applies the RBV to examine how clan culture, as a valuable and often inimitable organizational resource, influences financial performance, particularly when reinforced by financial literacy, which enhances the firm's ability to manage and leverage its resources effectively.

Clan Culture and Financial Performance

Clan culture is characterized by a strong emphasis on teamwork, mutual support, shared values, and a sense of belonging, qualities that mirror familial relationships within an organization (Cameron, 2008). Empirical evidence supports the positive impact of clan culture on organizational outcomes. Cameron and Quinn (2011) applied the CVF and the Organizational Culture Assessment Instrument (OCAI) to evaluate project cultures across 13 Australian construction projects. Their findings revealed a significant positive correlation between clan culture



and project quality, suggesting that a collaborative, team-oriented environment contributes to superior performance outcomes.

This culture is marked by values such as trust, solidarity, loyalty, morale, tradition, and consensus (Cameron, 2008; Tseng, 2010). Employees in clan-oriented organizations tend to feel a deep emotional connection to their workplace, which enhances their commitment and willingness to go beyond formal job requirements. Leaders in such settings act as mentors and facilitators, building trust and empowering teams through participative management (Hartnell et al., 2011). This sense of belonging fosters a positive emotional orientation toward the organization, which in turn strengthens performance. A core principle of clan culture is that organizational investment in employees through training, recognition, and inclusive decision-making leads to greater engagement and retention. Tseng (2010) argues that such organizations benefit from a highly motivated workforce with strong unity and self-esteem, which translates into improved performance. The author further notes that interdependent behaviors, such as cooperation, knowledge sharing, and mutual support, are key drivers of organizational success in clan-type settings.

Empirical studies have produced mixed but generally supportive findings. For example, Xiong et al. (2021), using data from China's 2007 Annual Census of Industrial Enterprises, found that clan culture positively influences social performance, though its effect on financial performance was less pronounced. Similarly, Hung et al. (2022), reported that clan culture significantly enhances both task performance and contextual performance (e.g., organizational citizenship behavior). Lee and Ding (2024) also confirmed a positive relationship between clan culture and individual job success, reinforcing its role in fostering employee effectiveness.

Further supporting these findings, Fekete and Bocskei (2011) found a positive association between clan culture and overall firm performance, attributing this to high levels of employee loyalty, dedication, and adherence to organizational traditions. The culture's people-centered nature enhances employee morale and satisfaction, creating an enabling work environment that supports productivity. Japanese firms, known for their strong team orientation and lifetime employment practices, are often cited as real-world examples of successful clan cultures (Berrio, 2003). Reino et al. (2020) in a study of Estonian service and manufacturing firms, researchers noted that clan culture was one of the strongest predictors of financial performance, reinforcing its strategic value in competitive markets. However, not all studies report a positive or significant relationship. Hajipour and Ghanavati (2011) and Yesil and Kaya (2013) found that dimensions of organizational culture, including clan culture, had no significant impact on financial performance in their samples.

Similarly, Silwal (2022) concluded that clan culture and power distance do not significantly influence financial outcomes in SMEs. Davidson et al. (2007) also noted that only a few cultural traits showed a clear link to financial success, suggesting that culture alone may not be a sufficient driver of performance. These inconsistent findings highlight a critical research gap: while clan culture is widely believed to enhance organizational outcomes, its real effect on financial performance in SMEs remains unclear, particularly in diverse economic and cultural contexts. This study addresses this gap by examining the influence of clan culture on the financial performance of SMEs in Nandi County, Kenya, where such relationships have not been adequately explored. With these assertions, the following hypothesis is developed: Thus, we hypothesize that:

H1: Clan culture positively relates to the financial performance of SMEs.

Financial Literacy and Financial Performance

Extant literature on financial literacy continues to draw the attention of scholars and practitioners, who consider it a prerequisite for rational financial decision-making and business triumph. At the end, no business starts and desires to end up making losses (Weerasekara & Bhanugopan, 2023). This validates the significant role that financial literacy plays in enhancing a business's financial performance. The role of financial literacy in SMEs is to ensure they manage their capital while ensuring firm growth. Specifically, it has been noted in literature that SMEs with better performance have owners or managers with higher levels of financial literacy. Financially knowledgeable managers can easily understand organizational financial resources effectively, make informed and viable investment choices, and navigate organizations in turbulent economic times (Bruhn & Zia, 2011). In the context of SMEs, literate owners and managers need to interpret financial statements, draft budgets, manage cash flow, and evaluate business risks that may undermine financial performance. From the World Bank (2022) report, it was noted that financial literacy enables firms to meet their target goals and offer better quality service. To become financially literate, training is needed. Training in financial and business management has also been shown to yield tangible benefits. Simeyo et al. (2011) examined the impact of micro-enterprise investment

training and found that participants who received instruction in financial planning and capital management reported higher employee satisfaction and improved business outcomes. Notably, those who combined microloans with training were better equipped to use funds prudently, leading to enhanced operational efficiency and growth. In addition, numerous scholars project a positive association between literacy and performance (Sucuahi, 2013). Despite these benefits, many SME owners remain under-equipped in key areas such as risk management.

In this study, therefore, we presume that financial literacy shapes both the success and failure of SMEs based on the financial decisions made, impacting their financial performance. A growing body of research recognizes that organizational culture alone is insufficient to drive financial performance; its impact is often contingent upon the presence of complementary managerial capabilities. Financial literacy has emerged as a critical moderating factor that strengthens the link between organizational culture and firm outcomes. Studies have shown that financially literate managers are better equipped to translate a supportive cultural environment into tangible results by making informed decisions on budgeting, investment, and risk management (Weerasekara & Bhanugopan, 2023). In the context of SMEs, where resources are limited and strategic agility is essential, financial literacy enhances the effectiveness of clan culture, a collaborative, family-oriented work environment, by enabling owners to align emotional commitment with sound financial practices (Goso, 2022). Research by Okello Candiya Bongomin et al. (2017) supports this interaction, demonstrating that financial literacy strengthens the relationship between access to finance and SME growth in developing economies. Similarly, Fatoki (2021) found that financial literacy moderates the link between financial access and performance in South Africa, recommending its inclusion in future studies as a key contextual variable. Akhtar and Malik (2022) further confirmed its moderating role in entrepreneurial decision-making, reinforcing its relevance across diverse business contexts. These findings collectively suggest that financial literacy does not merely support performance in isolation but amplifies the positive effects of organizational culture, particularly in dynamic and resource-constrained settings like Nandi County, Kenya. However, despite growing recognition of its importance, there is scant research on the moderating role of financial literacy in the link between clan culture and financial performance in developing economies like Kenya. This study addresses that gap by examining how financial literacy enhances the positive effects of a supportive organizational culture. Based on the evidence, the following hypotheses are proposed:

H2: Financial literacy is significantly related to the financial performance of SMEs

H3: Financial literacy moderates clan culture and the financial performance of SMEs

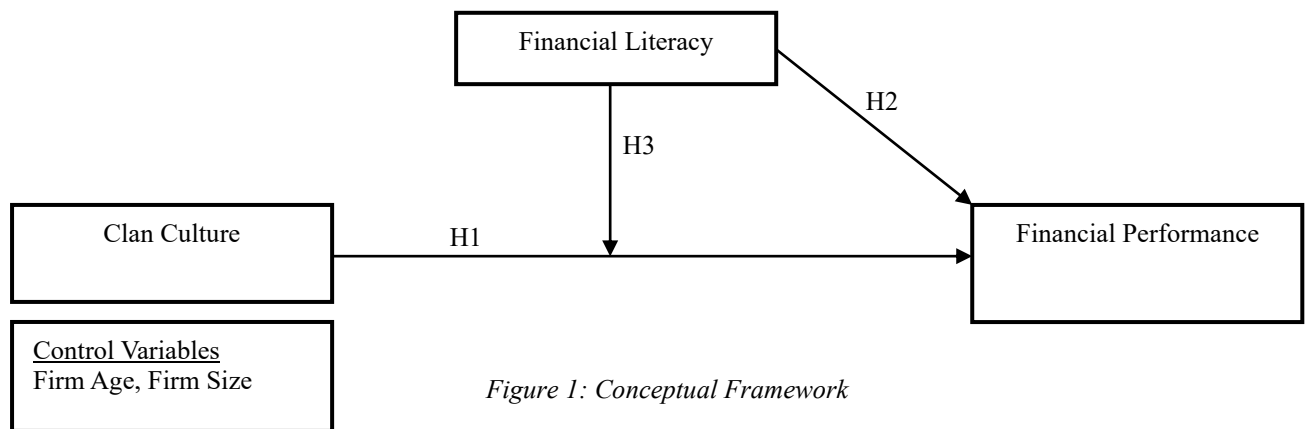


Figure 1: Conceptual Framework

Methodology

Research Design and Data Collection

The study employed an explanatory research design, utilizing cluster and proportionate sampling techniques for sample selection of 376 small and medium enterprises, as determined by Yamane’s formula, drawn from a target population of 6,347 registered SMEs in Nandi County, Kenya. Primary data was collected using a closed-ended questionnaire. Three hundred and seventy-six (376) copies of the questionnaire were administered to the respondents; however, only three hundred and fifty-two (352) were collected from the field. After screening the data gathered, only 344 questionnaires were properly filled, as 8 were incomplete and were hence excluded from



the final analysis. This represented a 91% response rate. According to Kazzazi et al. (2018), a response rate of 50% or above is considered viable for the study.

Measurements of the Variables

The measurements of variables in this study were adopted from validated items and modified to suit the current context. Two control variables were monitored during the analysis in this study. The first one was firm age, operationalized as the number of years the firm had been in operation. Firm size captures the number of employees. These variables were controlled during the analysis as guided by prior literature (Adil et al., 2023; Rundjan & Susanti, 2023; Rwakihembo et al., 2023), which have indicated that they significantly influence financial performance. Measurements of clan culture were adopted from the Organizational Culture Assessment Instrument (Cameron & Quinn, 2011), while Financial literacy was measured using items adopted from Van Rooij et al. (2011), and financial performance was adopted from Watson (2007). All these variables were anchored on a 5-point Likert scale, ranging from 1 "strongly disagree" to 5 "strongly agree."

Results

Demographics of Respondents

Most respondents in this study were male (50.6%, n = 174), while females comprised 46.4% (n = 170). Findings further revealed that most respondents were aged between 31 and 40 years (52%, n=179), and the least were those aged between 51 and 60 years (2.6%, n = 9). In terms of education, the majority of the respondents had a diploma (33.1%, n =114), followed by certificate holders (26.7 %, n = 92), while 23% (n =79) had a bachelor's degree, and lastly, 1.7% (n = 6) had postgraduate qualifications. This implies that all the respondents were able to understand the questions in the study. The study further indicates that most of the SMEs had been in operation for more than 5 years, accounting for 63% (n=217), while 36.9 % (n=127) of them had been in operation for less than 5 years. Finally, it was established that SMEs with employees below 10 accounted for 49.1% (n=169), followed by those businesses with employees between 11-49, which represented 45.3 % (n=156), while those with more than 50 employees were only 19 (5.5 %).



Table 1: Demographic information of the Respondents

Demographic Factor		Frequency	Percentage %
Gender	Male	174	50.6
	Female	170	49.4
Total		344	100
Age	21-30 years	114	33.1
	31-40 years	179	52
	41-50 years	42	12.2
	51-60 years	09	2.6
Total		344	100
Level of Education	Secondary	53	15.4
	Certificate	92	26.7
	Diploma	114	33.1
	Degree	79	23
	Postgraduate	06	1.7
Total		344	100
Firm age	Below 5 Years	127	36.9
	5-10 Years	155	45.1
	11-15 years	48	14
	Above 15 years	14	4.1
Total		344	100
Firm size	Below 10 Employees	169	49.1
	11- 49 Employees	156	45.3
	Over 50 Employees	19	5.5
Total		344	100

Source: Research Data (2024)

Descriptive Statistics, Reliability, and Correlation

Table 2 displays the results of the descriptive, reliability, and correlation analyses. The table shows that clan culture had the highest mean score of 3.93, SD=.883. This was followed by financial literacy with a mean = 3.88, SD =.647, then, finally, financial performance had the least mean = 3.69, SD = .709. Reliability results indicate that all variables had a Cronbach's alpha value above .7, with financial literacy having the highest score of $\alpha = .919$, clan culture, $\alpha = .870$, while financial performance had the lowest score, $\alpha = .784$. Finally, the table shows financial literacy had the (strongest) and most significant relationship with financial performance ($r = .652, p < 0.01$), while clan culture had the least significant association with performance ($r = 0.608, p < 0.01$).

Table 2. Descriptive, reliability, and correlation analysis results

Variable	Mean	S. D	(α)	Correlation
Financial Performance	3.69	0.709	.784	1
Clan Culture	3.93	0.883	.870	.608**
Financial Literacy	3.88	0.647	.919	.652**

Note: ** Correlation is significant at the 0.01 level (2-Tailed)

Testing the Validity of the Research Instrument

Principal component analysis was carried out to verify the validity of the 23 items proposed to measure the study variables. Results of the analysis indicate a KMO value of 0.922, with a significant chi-square as shown by Bartlett's test of sphericity ($\chi^2 = 3826.474, df = 253, p = .000$), which confirms factorability. Results in Table 3 show that the 23 items loaded under 3 components. Component one (1) was named financial literacy after all its nine (9) items were loaded under it. This component shows an initial eigenvalue of 7.938, with the 9 items explaining approximately 34.5% of the variance in financial literacy. Component two (2) was named clan culture after all its seven (7) items were loaded on it. This had an initial eigenvalue of 3.089, with the items accounting for 13% of the variance in clan culture, and finally, component 3, with an initial eigenvalue of 1.721, was named financial performance after its seven (7) items loaded on it. These statements explain approximately 7.5% of the variance in financial performance. Finally, the three components cumulatively account for 55.4% of the variance in financial performance in this study.

Table 3: Factor Analysis



Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.922	
Bartlett's Test of Sphericity	Chi-Square	3826.474	
	df	253	
	Significance	.000	
Items of Innovativeness (n = 344)	Eigen Values	% Variance	Cumulati ve %
1. Financial Literacy	7.938	34.513	34.513
2. Clan Culture	3.089	13.429	47.942
3. Financial Performance	1.721	7.484	55.426
Items and their Factor Loadings	Comp 1	Comp.2	Comp.3
The sales turnover of the business has been improving over years.			.691
Annual average sales of the business have been increasing over years			.593
The SME realized higher output, increasing gross profits.			.671
The average sales of the business have been increasing over the years			.690
Return on assets of business has been increasing in the last 3 years.			.726
The net profits of the business have been above the average.			.596
The business's sales turnover has surpassed the targets over years.			.653
Our organization fosters collaboration and shared responsibility to drive success.		.631	
Employee growth and development are key to our long-term success.		.636	
Mutual trust enables open communication and strong team cohesion.		.751	
Leadership in our firm is defined by guidance, support, and talent development.		.796	
Our company is an individual place like an extended family.		.703	
Our organization measures success by how well it values and supports its employees.		.697	
Employee dedication is a cornerstone of our long-term sustainability.		.655	
Financial literacy improves profitability through sound fiscal management.	.649		
It promotes strategic saving, enhancing financial stability.	.755		
Understanding financial principles ensures efficient resource allocation.	.830		
This knowledge helps leaders choose optimal funding options.	.813		
Financial capability drives growth and organizational adaptability.	.801		
Informed decisions improve the selection of profitable investments.	.619		
Financial attitudes improve the profitability of the business through planning.	.746		
Financial literacy expands investment opportunities and supports diversification.	.742		
A strong financial mindset enables strategic value creation and better performance.	.726		

Source: Research Data (2024)

Hypotheses Testing

The study examined two direct hypotheses and one moderation hypothesis as stated in the objectives. Before testing these hypotheses, it was essential to ascertain whether the two control variables, firm age and size, affect SME financial performance and the extent of variance they account for in this dependent variable. The choice of these two control variables is based on prior studies in the literature (Adil et al., 2023; Rundjan & Susanti, 2023; Rwakihembo et al., 2023) that have indicated that firm age and size significantly influence financial performance; hence, their inclusion.

To realize our purpose, we conducted a hierarchical regression in four sequential models to assess the incremental contribution of each variable to financial performance. The results are summarized in Table 4. Model 1 evaluated the influence of the control variables, firm age, and firm size on financial performance. The findings indicate that firm age has a statistically significant positive effect ($\beta = .136, p = .045$), suggesting that older firms tend to perform better financially. In contrast, firm size did not show a significant relationship with performance ($\beta = .012, p = .898$). The model as a whole explains 1.2% of the variance in financial performance ($R^2 = .012, F = 2.14, p > .05$), though this is not statistically significant, indicating that demographic controls alone have limited explanatory power.

Model 2 introduced clan culture as the primary predictor, while controlling for firm age and size. The overall model fit improved substantially, accounting for 37.7% of the variance in financial performance ($R^2 = .377, F =$



199.099, $p < .001$). The change in R^2 ($\Delta R^2 = .365$) reflects the substantial explanatory contribution of clan culture. Most importantly, clan culture emerged as a strong and significant predictor ($\beta = .605$, $p = .000$), confirming that organizations characterized by teamwork, trust, and employee involvement achieve higher financial outcomes. This result provides strong support for Hypothesis H1.

In Model 3, financial literacy was added to assess its direct effect on financial performance. The model now explains 51.7% of the variance ($R^2 = .517$, $F = 97.870$, $p < .001$), with financial literacy contributing an additional 14% ($\Delta R^2 = .140$). The coefficient for financial literacy is positive and significant ($\beta = .456$, $p < .001$), indicating that owner-managers with stronger financial knowledge are more likely to achieve better financial results. These findings support Hypothesis H2, reinforcing the critical role of financial competence in SME success.

Model 4 tested the moderating effect of financial literacy on the relationship between clan culture and financial performance by including an interaction term. The final model explains 53.1% of the variance in financial performance ($R^2 = .531$, $F = 10.033$, $p < .001$). The interaction term between clan culture and financial literacy is statistically significant and negative ($\beta = -.100$, $p = .002$), supporting Hypothesis H3. The small but significant ΔR^2 of .014 indicates that the interaction adds incremental explanatory power to the model. As illustrated in Figure 2, the nature of this moderation reveals a nuanced relationship: When clan culture is low, high levels of financial literacy are associated with relatively high financial performance. As both clan culture and financial literacy increase, financial performance improves dramatically. Conversely, low levels of both factors are linked to the poorest outcomes. This suggests that while financial literacy can compensate for a weak cultural environment, the strongest performance is achieved when a collaborative culture is combined with strong financial skills. These results also support H3. **Figure 2** illustrates the nature of this interaction. The figure indicates that at low levels of clan culture in an organization, financial performance is high in a firm that has high levels of financial literacy. The figure further shows that an increase in both clan culture and financial literacy drastically improves SMEs' financial performance and vice versa.

The significant interaction effect between clan culture and financial literacy ($\beta = -0.100$, $p < 0.001$) indicates a negative moderating role of financial literacy in the relationship between clan culture and financial performance. In particular, as levels of financial literacy rise, the strength of the positive association between clan culture and financial performance diminishes. This finding implies that while clan culture enhances performance when workers are financially illiterate, its effects diminish when workers are financially literate, possibly due to a shift away from relational governance and toward data-driven decision-making. These findings indicate that SMEs with limited financial literacy, a clan culture that emphasizes teamwork, loyalty, and shared values, can significantly affect financial performance. However, as financial literacy improves, the impact of clan culture on performance lessens, possibly because financially educated employees rely more on objective financial information and personal decision-making rather than shared values and relationships in the organization. This finding could suggest that clan culture's effectiveness is not universal. Its impact on performance varies depending on the context, and it is particularly influenced by employee capabilities such as financial literacy.

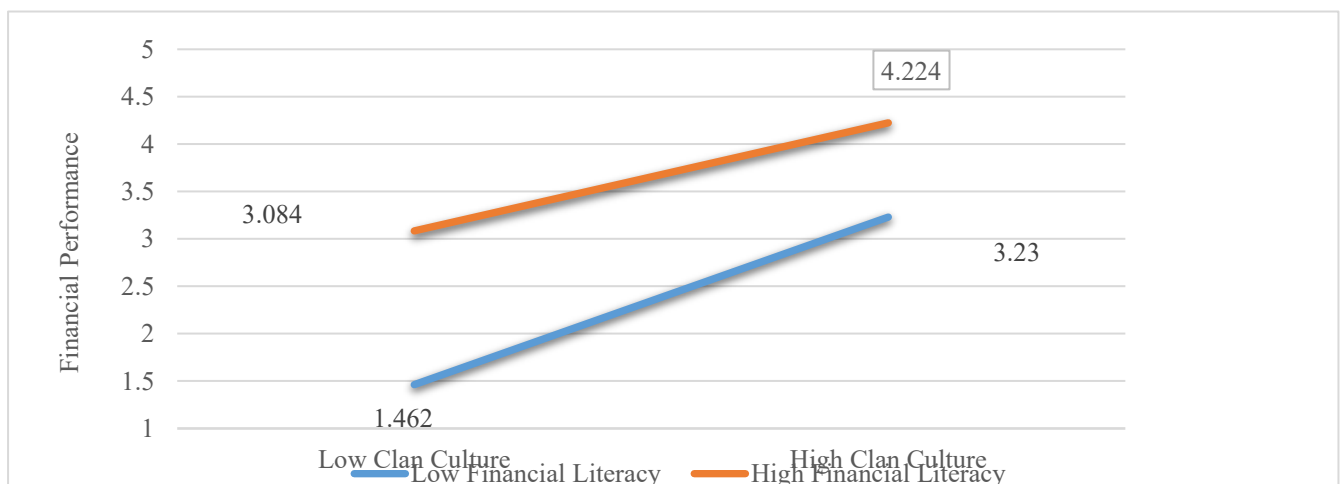


Figure 2: The Moderation of Financial Literacy on Clan Culture and Financial Performance

Table 4: Hierarchical Regression Results

Variables	Model 1		Model 2		Model 3		Model 4	
	β	p -v	β	p -v	β	p -v	β	p -v



Firm Age	.136*	.045	.096	.076	.041	.392	.052	.392
Firm Size	.012	.898	.047	.517	.115	.076	.105	.101
Clan Culture			.605***	.000	.352***	.000	.703	.000
Financial literacy					.456***	.000	.662	.000
Clan Culture*FinLi							-.100**	.002
R ²	.012		.377		.517		.531	
ΔR ²	.012		.365		.140		.014	
F	2.145		199.099***		97.870***		10.033**	

NOTE: * $P < .05$, ** $P < .01$, *** $P < .001$, FinLi = Financial literacy

Discussion

This study set out to investigate the moderating role of financial literacy in the relationship between clan culture and the financial performance of SMEs. To realize this purpose, all conditions of moderating were fulfilled, hence the discussion below. First, clan culture is a significant predictor of SME financial performance. This suggests that better financial decisions are made in an environment where there is openness, trust, and collaboration. This is because before any key investment decision is taken, team meetings are held, employee contributions are recognized, and implemented. Such SMEs are likely to outperform similar counterparts with a top-down, impersonal culture. This highlights the importance of investing not just in products or profits, but in relationships, trust, and shared purpose, especially in small, agile organizations where human capital is the most valuable asset. Hence, happy, connected teams are more likely to build successful businesses. Our findings are supported by earlier works in the literature. For instance, Ayandibu and Vezi-Magigaba (2021), and Ramdan et al. (2022) show that clan culture yields better financial results. Further, this finding supports the RBV by suggesting that clan culture is an intangible, inimitable resource that provides a sustainable competitive advantage.

Secondly, financial literacy builds a strong SME financial backbone and performance. This implies that managers or owners with good financial behavior know where and how to invest finances that deliver financial success. As a daily routine, managers are required to budget, monitor inflows and outflows, make daily financial decisions, assess risks, and monitor market trends, all of which require financial literacy. This relates to Hossain et al. (2023) and Siddik et al. (2023), who argue that financial literacy breeds healthy financial performance. Financial management empowers SME leaders to make informed monetary decisions and helps SMEs adapt more effectively to economic fluctuations, thereby consolidating their financial power (Hamzat et al., 2023; Nkwinika & Akinola, 2023). In the intensely competitive SME area, having managers who are both skilled and financially informed is a key advantage, as they are more capable of recognizing and capitalizing on emerging opportunities (Malik et al., 2019). Thus, SME owners and managers ought to seek financial education to broaden their understanding of routine financial management decisions that drive institutional financial outcomes (Fikri & Nahda, 2023). To this end, our finding supports RBV, which argues that knowledge and skills are fundamental capabilities required in achieving financial success (Barney, 1991).

Finally, our results confirm that financial literacy moderates the relationship between clan culture and financial performance. This implies that when managers improve their financial skills, the association between culture and performance is enhanced. Ideally, high-quality financial management decisions in SMEs in instances of moderate culture lead to better financial outcomes. Equally, SMEs whose owners or managers possess inadequate or low financial literacy in the presence of a strong clan culture alone are no guarantee for SME financial sustainability. Going forward, the presence of family culture does not stop an SME from collapsing due to poor financial literacy. This finding aligns well with Fatoki (2021) in South Africa, Okello Candiya Bongomin et al. (2017) in Uganda, and Adomako and Danso (2014) in Ghana. These studies suggest that sound financial knowledge among owners or managers is a catalyst (Ahdanisa & Tarmidi, 2024; Awaluddin et al., 2025) for effective financial success based on informed investment decisions. This moderating effect underscores the importance of integrating soft and hard skills in SME development strategies. It suggests that training programs should not focus solely on leadership or teamwork, but should also equip entrepreneurs with practical financial tools. Financial skills development is influenced by individual perceptions and cultural norms. These factors, including beliefs about money, risk, and self-efficacy, influence how people interpret financial information and make decisions (Blake Gray PhD, 2022; Malika et al., 2022). Cultural norms also establish implicit expectations, such as attitudes towards saving, debt, spending, and gender roles in financial management. Understanding financial behavior requires an assessment of cognitive competence and an appreciation of the socio-cultural environment in which financial decisions are made (Malika et al., 2022). Although the moderation results indicate a significant but negative moderation effect ($\beta = -.100$, $p = .002$) that explains only a variance of 1.4% in performance, the results reveal that while clan culture enhances financial performance in low levels of financial literacy contexts, its impact diminishes when employees



have high levels of financial knowledge. This means that companies aiming for growth, especially in competitive sectors like SMEs, that depend exclusively on clan culture, could hinder performance improvements if employees already possess strong financial skills. Therefore, these results contribute novel insights and enhance the existing body of knowledge.

Conclusion

This study offers critical insights for SME owners and managers by highlighting the strategic value of clan culture and financial literacy in enhancing financial performance. The findings confirm that a work environment built on collaboration, mutual trust, and shared values, hallmarks of a clan-type culture, fosters stronger employee dedication, organizational loyalty, and adherence to established practices, which drives sound financial decisions and performance. Secondly, financial literacy differentiates successful and unsuccessful SMEs. Every day, managers are faced with key financial decisions that can only be made by financially sound managers. Finally, financial literacy amplifies the direct link between culture and performance. SMEs with well-built cultures can't sustain financial competitiveness when their managers lack good financial management. Kenya will only become a business hub once managers embrace financial literacy.

The Study Implications

This study contributes to the Resource-Based View (RBV) theory by demonstrating that organizational culture (a soft resource) and financial literacy (a human capital capability) are both valuable, rare, and difficult-to-imitate resources that contribute to sustainable competitive advantage (Barney, 1991). While RBV has traditionally been applied in large firms, this research validates its relevance in SMEs where tangible assets are limited, and success depends heavily on internal capabilities. More importantly, it shows that the value of clan culture is contingent upon financial literacy, suggesting that resources do not act in isolation but interact synergistically to enhance performance.

In regard to policy, we advocate for the integration of financial literacy into national SME development programs. The government, through institutions like the Small and Medium Enterprises Authority (SMEA) and County Governments, should institutionalize financial education as a core component of entrepreneurship training. Specifically, the Kenya Revenue Authority should collaborate with business development agencies, SMEA, and educational institutions to deliver accessible, context-specific financial training programs for SME owners. These should go beyond basic bookkeeping to include topics like financial statement analysis, credit management, and digital financial tools. This will enhance investment choices, timely tax filings, and the ability to secure growth capital.

Practically, SME owners and managers ought to institutionalize a clan-type culture by promoting teamwork, open communication, employee recognition, and inclusive decision-making. A supportive work environment enhances morale, reduces turnover, and improves performance. Further, they need to invest in financial literacy through formal training, online courses, or mentorship. Owners and or managers should be able to read financial statements, prepare budgets, and evaluate investment opportunities, leading to better financial performance.

Limitations and Future Directions

Our study poses some limitations. A primary constraint is the use of only one dimension of culture. Future studies could adopt the remaining three dimensions to gain a more dynamic and culturally nuanced understanding. The study is grounded in the Resource-Based View (RBV), which highlights internal resources as sources of advantage but may overlook external influences and cognitive or behavioral factors. Integrating theories like absorptive capacity, managerial cognition, or behavioral finance could enhance explanatory power in future research. The cross-sectional design limits causal inference and the ability to track changes over time. Longitudinal studies are recommended to establish temporal relationships among culture, self-efficacy, and commitment. Additionally, reliance on self-reported survey data raises concerns about response bias and common method variance, which were not tested (e.g., via Harman's test). Future research should include such checks to improve data validity. To deepen insights, mixed methods combining surveys with interviews or focus groups could capture richer, context-specific experiences. Expanding the sample to include public enterprises or cross-national contexts would also enhance the generalizability of findings. While this study advances understanding of organizational dynamics in Kenyan SMEs, these limitations point to valuable directions for more robust, context-sensitive future inquiry.

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References

- Abdallah, W., Harraf, A., Ghura, H., & Abrar, M. (2024). Financial literacy and small and medium enterprises performance: the moderating role of financial access. *Journal of Financial Reporting and Accounting*.
- Adil, M., Ghafoor, M. M., Shafiqat, M. M., Munir, Y., & Murtaza, G. (2023). Exploring the Relationship Between Board structure and Firm Performance using Meta-Analysis: Moderating Role of Firm Age and Firm Size. *Journal of Applied Research and Multidisciplinary Studies*, 4(1), 285-314.
- Adomako, S., & Danso, A. (2014). Financial Literacy and Firm performance The moderating role of financial capital availability and resource flexibility.
- Ahdanisa, S., & Tarmidi, D. (2024). Unlocking Business Success: The Role Of Financial Literacy, Innovation Capability, And Government Support. *Revista de Gestao Social e Ambiental*, 18(8), 1-21.
- Ahmad, M. S. (2012). Impact of organizational culture on performance management practices in Pakistan. *Business Intelligence Journal*, 5(1), 50-55.
- Ahmed, A. Y. (2022). *Working capital management and financial performance of small and medium enterprises in Garissa County, Kenya* [Doctoral dissertation, Kenyatta University].
- Akhtar, M., & Malik, M. U. (2022). Personality traits and investor risk behavior: moderating role of financial literacy. *Managerial Finance*, 49(5), 884-905. <https://doi.org/10.1108/mf-08-2021-0387>
- Ali, M. A. H., Ogolla, D., & Nzioki, S. (2022). Influence of resource allocation on organizational performance of cement manufacturing firms in Kenya. *International Academic Journal of Human Resource and Business Administration*, 4(1), 198-207.
- Aluko, M. (2005). The impact of the environment on organizational performance in selected textile firms in Nigeria. *Global journal of social sciences*, 4(1), 1-7.
- Arabeche, Z., Soudani, A., Brahmi, M., Aldieri, L., Vinci, C. P., & Abdelli, M. E. A. (2022). Entrepreneurial orientation, organizational culture and business performance in SMEs: Evidence from emerging economy. *Sustainability*, 14(9), 5160.
- Awaluddin, S. P., Paula, E. W., Tamriesfatno, S., & Khair, A. U. (2025). Empowering Communities through Financial Literacy Initiatives for SME Development. *Golden Ratio of Community Services and Dedication*, 5(2), 10-21.
- Ayandibu, A. O., & Vezi-Magigaba, M. F. (2021). The impact of organisational culture on performance of SMEs: A case study of SMEs within uMhlatuze municipality. *Multicultural Education*, 7(8), 68-79.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Benedict, A., Gitonga, J. K., Agyeman, A. S., & Kyei, B. T. (2021). Financial determinants of SMEs performance: evidence from Kenya leather industry. *Small Business International Review*, 5(2), 5.
- Berrio, A. A. (2003). An organizational culture assessment using the competing values framework: A profile of Ohio State University Extension. *The Journal of Extension*, 41(2), 4.
- Blake Gray PhD, C. (2022). Cultural Diversity and Risk Management. *Journal of Financial Planning*, 35(11), 52-56.
- Bruhn, M., & Zia, B. (2011). Stimulating managerial capital in emerging markets: the impact of business and financial literacy for young entrepreneurs. *World Bank Policy Research Working Paper*(5642).
- Cameron, K., & Quinn, R. E. (2011). *The Competing Values Culture Assessment, A Tool from the Competing Values Product Line Diagnosing and Changing Organizational Culture: Based on the Competing Values Framework*. In: Jossey-Bass, San Francisco, USA.
- Cameron, K. S. (2008). A process for changing organizational culture. In.
- Costa Melo, I., Alves Junior, P. N., Queiroz, G. A., Yushimito, W., & Pereira, J. (2023). Do we consider sustainability when we measure small and medium enterprises' (SMEs') performance passing through digital transformation? *Sustainability*, 15(6), 4917.
- Dahie, A. M., Takow, M. A., Nur, A. H., & Osman, M. M. (2016). Organizational culture and employee performance at telecommunication firms in Mogadishu-Somalia. *International Journal in Commerce, IT & Social Sciences*, 3(1), 30-41.
- Davidson, G., Coetzee, M., & Visser, D. (2007). Organisational culture and financial performance in a South African investment bank. *SA Journal of Industrial Psychology*, 33(1), 38-48.
- Fatoki, O. (2021). Access to finance and performance of small firms in South Africa: The moderating effect of financial literacy. *WSEAS Transactions on Business and Economics*, 18, 78-87.
- Fekete, H., & Bocskei, E. (2011). Cultural waves in company performance. *Research Journal of Economics, Business and ICT*, 3.
- Fikri, A. S. K., & Nahda, K. (2023). The effect of financial literacy on MSME performance through financial access and financial risk attitude as a mediation variable. *Jurnal Economic Resource*, 6(2), 238-247.
- Goso, G. (2022). The Relevance of Financial Literacy and Cultural Inheritance in Household Finance Decision-Making. *Scientific Journal of Reflection: Economic, Accounting, Management and Business*, 5(4), 1214-1223.
- Hajipour, B., & Ghanavati, M. (2011). The impact of market orientation and organizational culture on the performance: Case study of SMEs. *Journal of contemporary Management*, 15(1), 83-95.
- Hamzat, L., Abiodun, D., & Joseph, A. (2023). Empowering entrepreneurial growth through data-driven financial literacy, market research, and personalized education tool. *World Journal of Advanced Research and Reviews*, 19, 1692-1711.
- Hartnell, C. A., Ou, A. Y., & Kinicki, A. (2011). Organizational culture and organizational effectiveness: a meta-analytic investigation of the competing values framework's theoretical suppositions. *Journal of applied psychology*, 96(4), 677.



- Hernández-Linares, R., Kellermanns, F. W., & López-Fernández, M. C. (2021). Dynamic capabilities and SME performance: The moderating effect of market orientation. *Journal of Small Business Management*, 59(1), 162-195.
- Hossain, M. M., Ibrahim, Y., & Uddin, M. M. (2023). Finance, financial literacy and small firm financial growth in Bangladesh: The effectiveness of government support. *Journal of Small Business & Entrepreneurship*, 35(3), 336-361.
- Hung, Y.-C., Su, T.-C., & Lou, K.-R. (2022). Impact of organizational culture on individual work performance with national culture of cross-strait enterprises as a moderator. *Sustainability*, 14(11), 6897.
- Kawira, K. D. (2021). The effect of product and service innovation on the performance of micro, small and medium enterprises in Kenya. *Journal of Marketing and Communication*, 4(1), 1-16.
- Kazzazi, F., Haggie, R., Forouhi, P., Kazzazi, N., & Malata, C. M. (2018). Utilizing the Total Design Method in medicine: maximizing response rates in long, non-incentivized, personal questionnaire postal surveys. *Patient Related Outcome Measures*, 169-172.
- Kenya National Bureau of Statistics (2017). Economic Survey, Nairobi, Kenya.
- Kenya National Bureau of Statistics (2020). Economic Survey, Nairobi, Kenya.
- Kithae, P. P., Gakure, R., & Munyao, L. (2012). The place of micro and small enterprises in achievement of Kenya's vision 2030. *Journal of US-China Public Administration*, 9(12), 1432-1440.
- Lee, M. C., & Ding, A. Y. (2024). The relationship between market culture, clan culture, benevolent leadership, work engagement, and job performance: leader's dark triad as a moderator. *Psychological Reports*, 127(2), 887-911.
- Lozano, R. (2013). Are companies planning their organisational changes for corporate sustainability? An analysis of three case studies on resistance to change and their strategies to overcome it. *Corporate Social Responsibility and Environmental Management*, 20(5), 275-295.
- Madhani, P. M. (2010). Resource based view (RBV) of competitive advantage: an overview. *Resource based view: concepts and practices*, Pankaj Madhani, ed, 3-22.
- Malik, M. I., Nawaz Mir, F., Hussain, S., Hyder, S., Anwar, A., Khan, Z. U., Nawab, N., Shah, S. F. A., & Waseem, M. (2019). Contradictory results on environmental concern while re-visiting green purchase awareness and behavior. *Asia Pacific Journal of Innovation and Entrepreneurship*, 13(1), 17-28. <https://doi.org/10.1108/apjie-11-2018-0061>
- Malika, M., Maheswaran, D., & Jain, S. P. (2022). Perceived financial constraints and normative influence: discretionary purchase decisions across cultures. *J Acad Mark Sci*, 50(2), 252-271. <https://doi.org/10.1007/s11747-021-00814-x>
- Nalweyiso, G., Mafabi, S., Kagaari, J., Munene, J., Ntayi, J., & Abaho, E. (2022). Relational agency and relational people management: evidence from Uganda's micro and small enterprises. *Asia Pacific Journal of Innovation and Entrepreneurship*, 16(1), 51-68.
- Nasimiyu, A. E. (2023). Cashflow management practices and financial performance of small and medium business enterprises in Kenya. *African Journal of Commercial Studies*, 4(3), 252-263.
- Nkwini, E., & Akinola, S. (2023). The importance of financial management in small and medium-sized enterprises (SMEs): an analysis of challenges and best practices. *Technology audit and production reserves*, 5(4 (73)), 12-20.
- Okello Candiya Bongomin, G., Mpeera Ntayi, J., Munene, J. C., & Akol Malinga, C. (2017). The relationship between access to finance and growth of SMEs in developing economies: Financial literacy as a moderator. *Review of International Business and Strategy*, 27(4), 520-538. <https://doi.org/10.1108/ribs-04-2017-0037>
- Omowole, B. M., Olufemi-Phillips, A. Q., Ofodile, O. C., Eyo-Udo, N. L., & Ewim, S. E. (2024). The role of SMEs in promoting urban economic development: A review of emerging economy strategies. *Journal Name Unspecified*.
- Ramdan, M. R., Abd Aziz, N. A., Abdullah, N. L., Samsudin, N., Singh, G. S. V., Zakaria, T., Fuzi, N. M., & Ong, S. Y. Y. (2022). SMEs performance in Malaysia: The role of contextual ambidexterity in innovation culture and performance. *Sustainability*, 14(3), 1679.
- Ramsuraj, T. (2023). Assessing the role of entrepreneurship industry and SMEs to economic growth in South Africa. *International Journal of Research in Business & Social Science*, 12(7).
- Reino, A., Rõigas, K., & Mütürsepp, M. (2020). Connections between organisational culture and financial performance in Estonian service and production companies. *Baltic Journal of Management*, 15(3), 375-393. <https://doi.org/10.1108/bjm-01-2019-0017>
- Rumanti, A. A., Rizana, A. F., & Achmad, F. (2023). Exploring the role of organizational creativity and open innovation in enhancing SMEs performance. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(2), 100045.
- Rundjan, E. P., & Susanti, M. (2023). Intellectual capital, capital structure, firm size, firm age and financial performance. *International Journal of Application on Economics and Business*, 1(1), 37-46.
- Rwakihembo, J., Aryatwijuka, W., Kalinda, P., & Nimusiima, P. (2023). Firm age and financial performance: the firm life-cycle theoretical perspective of private limited companies in Uganda. *International Journal of Business Strategies*, 8(1), 30-42.
- Sajuyigbe, A., Oyedele, O., Oke, O., Sodeinde, G., Ayo-Oyebiyi, G., & Adeyemi, M. (2024). Financial behavior and SMEs performance: The mediating influence of financial literacy and organizational culture. *Journal of Business and Technology*, 8(2).
- Seedee, R. (2012). Moderating role of business strategies on the relationship between best business practices and firm performance. *International journal of business and social science*, 3(24).
- Siddik, A. B., Rahman, M. N., & Yong, L. (2023). Do fintech adoption and financial literacy improve corporate sustainability performance? The mediating role of access to finance. *Journal of Cleaner Production*, 421, 137658.
- Silwal, P. P. (2022). Corporate cultures and financial performance: The mediating role of firm innovation. *Cogent Business & Management*, 9(1), 2010480. <https://doi.org/10.1080/23311975.2021.2010480>
- Simeyo, O., Martin, L., Nyamao, N. R., Patrick, O., & Odonde, A. J. (2011). Effect of provision of micro-finance on the performance of micro-enterprises: A study of youth micro-enterprises under Kenya Rural Enterprise Program (K-REP), Kisii County, Kenya. *African Journal of Business Management*, 5(20), 8290.
- Sucuahi, W. T. (2013). Determinants of financial literacy of micro entrepreneurs in Davao City. *International Journal of Accounting Research*, 1(1), 44-51.



- Tseng, S. M. (2010). The correlation between organizational culture and knowledge conversion on corporate performance. *Journal of knowledge management*, 14(2), 269-284.
- UYANIK, M. (2023). Resource-based view in marketing literature. *Journal of Business and Management Studies*, 5(4), 29-39.
- Van Rooij, M. C., Lusardi, A., & Alessie, R. J. (2011). Financial literacy and retirement planning in the Netherlands. *Journal of economic psychology*, 32(4), 593-608.
- Watson, J. (2007). Modeling the relationship between networking and firm performance. *Journal of business venturing*, 22(6), 852-874.
- Weerasekara, S., & Bhanugopan, R. (2023). The impact of entrepreneurs' decision-making style on SMEs' financial performance. *Journal of Entrepreneurship in Emerging Economies*, 15(5), 861-884.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic management journal*, 5(2), 171-180.
- Xiong, M. N., Wang, C. L., Cui, N., & Wang, T. (2021). The influence of clan culture on business performance in Asian private-owned enterprises: The case of China. *Industrial Marketing Management*, 99, 97-110.
- Yesil, S., & Kaya, A. (2013). The effect of organizational culture on firm financial performance: Evidence from a developing country. *Procedia-Social and Behavioral Sciences*, 81, 428-437.