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Factors Influencing the Adoption of Management Accounting in Nepal's Co-operatives

Atmaram Khatiwada
Far Western University, Triveni Multiple Campus, Dadeldhura, Nepal
Email: atmaramkhatiwada@gmail.com

Abstract

The management accounting is deliberative to decision-making, long-term planning and long-term sustainability of co-operatives run on the values of supportive and democratic governance. Despite the growing importance of financial management, the adoption of management accounting within Nepalese cooperatives remains under-researched, particularly regarding the interplay between organizational, technological, and environmental factors. This study adopts quantitative framework by using descriptive research design and causal-comparative research design to question the identified determinants. Ten cooperatives - savings and credit, multipurpose and dairy cooperatives - located in Prashuram Municipality were the target of the investigation. The data was collected by using structured questionnaire that was sent to a sample of 112 respondents, including the board members, the management employees, and the general members. The SPSS was used to analyze the data that incorporated the use of descriptive statistics, correlation analysis, and regression analysis. The results show that technological aspects (r = 0.65), organizational aspects (r = 0.62), rivalry (r = 0.60) and environmental aspects (r = 0.58) are positively and significantly related to management accounting adoption. The results of multiple regressions suggest that these predictors reveal 61 percent of variance in management accounting adoption (R^2 = 0.61), and there are no problems with multicollinearity or autocorrelation. The study notes that technology and organizational support are the main drivers for competitive and environmental pressures. The practical implications of this paper propose that to enhance the leadership, increase capacity, to refine decision-making processes and enhance the financial performance, the management accounting must be used by the cooperative boards, policymakers and training institutions to promote the sustainable development of the cooperatives in Nepal.

Keywords: Competitive intensity, environmental factors, organizational factors, technological factors

Introduction

Management accounting is instrumental in promoting good decision making, strategic planning and the sustainability of cooperative enterprises over the long run. With the principles of mutuality and democratic management that shape cooperatives, there is need to utilize accounting systems that are not parallel to those that have been utilized by investor-owned companies. Empirical data provided by the international collaborative research and the Nepalese context specifically prove that, despite the emerging pattern of adopting both traditional and modern management accounting instruments, cooperatives still face significant barriers (Birchall, 2014; International Co-operative Alliance [ICA], 2015; Pandey, 2019).

Previous studies suggest that the effectiveness of management accounting (MA) implementation largely depends on organizational size, the level of leadership support, competitive conditions, and institutional pressures (Alleyne & Marshall, 2011). MA serves as a key tool for financial control, strategic decision-making, and performance measurement in organizations, including cooperatives. In Nepal, cooperatives play a significant role in socio-economic development by promoting financial inclusion, reducing poverty, and supporting rural development, with more than 30,000 cooperatives registered nationwide (Department of Cooperatives, 2023). The application of MA practices is also scarce because of the lack of resources, the scarcity of highly qualified individuals, the lack of technological resources, and the lack of the enforcement of regulations (Khadka & Aryal, 2021). Although the legislative advancement that has been created by the Cooperative Policy 2012 is present, the effectiveness of the sector remains compromised by vital flaws in financial literacy and a lack of effective regulatory regulation (Acharya, 2022).

The knowledge of the determinants of efficient management accounting can help cooperative leaders to develop better planning strategies, monitor performance more strictly, provide the policymakers with empirical data to develop specific training programs, promote digitalisation, and strengthen regulatory frameworks, which will ultimately contribute to greater transparency and involvement of members in cooperative governance (Buang & Samah, 2020; Sudha et al., 2024). None of the theories applied in the current study is based on the Technology Organization Environment (TOE) model and the contingency theory that have been well-defined theoretical models, but have not been empirically tested in the context of management accounting adoption in cooperative organizations. This study attempts to offer information that may help improve governance procedures, strengthen the sustainability of the industry in the long term, and increase its contribution to the inclusive economic growth by examining the determinants that can determine the practice of management accounting within Nepalese cooperatives (Birchall, 2014).

Earlier studies on the application of management accounting (MA) have mainly concentrated their attention to manufacturing companies, big corporations or SMEs in both the developed and emerging economies, with little attention paid to cooperatives (Channel, 2003). Although research has been conducted on financial reporting and internal controls, there is no systematic research on the factors that affect the adoption of MA in Nepal cooperatives (Paudel & Acharya, 2022; Subedi, 2022) Cooperatives have their own set of problems such as socio-economic limitations, governance issues and dependence on government schemes.

This research used the Technology-Organization-Environment (TOE) model to state that effective implementation of MA can be achieved through the technological categories of accounting software, IT infrastructure, and advisory services. Ready and able to change is very much dependent on the organizational factors such as cooperative size, structure, management support, and skills of staff, whereas formalized adoption depends on the environmental factors such as government regulations, competition, and market volatility (Permatasari et al., 2024). This research associates the adoption of MA with not only financial results but also the quality of governance, transparency and sustainability. The research, which is an expansion of the same theoretical framework into the Nepal cooperative sector, offers both theoretical and practical recommendations on how policy-makers and cooperative leaders can enhance the financial practices and governance by applying the same theoretical framework (Pramono et al., 2023).

Despite the consideration of Management Accounting (MA) practices to be critical towards improving the governance, transparency, sustainability, and the overall financial performance, little empirical research has been conducted to assess their application in the cooperative sector (Teh & Khan, 2024). There is an apparent salient lacuna especially on the aggregate impact of organizational, technological and environmental antecedents in adoption of MA in cooperatives. The current study attempts to fill this gap by providing empirical data on the overall combination of these determinants to influence MA practices. Furthermore, the paper presents a new perspective by focusing specifically on Nepalese cooperatives an environmental space, which has not received much academic focus on the uptake of MA and its implications (Khadka et al., 2024).

Particularly, the paper analyses the impact of organizational variables, that is, cooperative size, managerial support, and the level of staff skill, on the adoption of MA practices. It also analyses the effect of the technological aspects, such as accounting software, IT infrastructure and external advisory services on the uptake as well as the level of MA implementation.

This paper examines how environmental contingencies, that is, uncertainty and intensity of competition affect adoption of management accounting (MA) practices. This aims at explaining the synergistic impact of organizational, technological, and

environmental influences especially in the unique socioeconomic and governance setup of Nepalese cooperatives (Al-Mawali & Al-Tobi, 2016; Scupola, 2023).

Literature Review

This paragraph integrates and critically connects all the mentioned works (Anderson & Lanen, 1999; Barreto et al., 2025; Chenhall, 2003; Fouché, 2024; Ismail & King, 2007; Khadka et al., 2024; Mahataman, 2024; Moustafa & Mcillan, 2013; Naushad, 2020; Neupane, 2021; Nguyen et al., 2020).

The contingency theory provides a solid theoretical foundation of the adoption of management accounting (MA) practices in cooperatives. Fundamentally, the contingency theory holds that there is no universal best management or accounting system, rather the immunence of all such systems depends on the extent to which they are sensitive to the internal qualities of an organization and the external environment (Chenhall, 2003). In this context, the practice of management accounting is seen as a responsive mechanism that the organizations tune with respect to the different technological, organizational, and environmental contingencies.

In the current study, technological aspects such as accounting software, IT infrastructure, and advisory service accessibility are found to be internal contingencies influencing sophistication and high levels of adoption of MA. The contingency theory also indicates the existence of the enterprises that are equipped with strong technological capabilities which are more flexible to use advanced accounting tools which enable them to plan, control and make decisions (Chenhall, 2003; Ismail & King, 2007). In the case of Nepalese cooperatives, where resources are often limited, technological preparedness is a critical variable that defines the possibility of introducing MA.

Conditions within an organization, such as size of a cooperative, governance structure, managerial support and competence of the staff are closely linked with the contingency theory framework, which is based on the idea that suitability of managerial practices, such as management accounting is dependent on the specific attributes of an organization. The bigger and more resourceful organizations that are characterized by effective leadership and highly skilled staff are the ones that are proportionately more likely to adopt formalized and sophisticated management accounting systems in this theoretical perspective (Silalahi & Kesuma, 2025).

The democratic form of government coupled with the active membership involvement helps to cool down the design and the use of management accounting practices in cooperatives. This kind of arrangement is compatible with the contingency perspective according to which the internal organisational circumstances, i.e. governance structures, participative systems, and managerial participation, are of critical importance in determining the accounting system performance (Fouché, 2024).

Environmental factors (i.e., regulatory pressure, market uncertainty and institutional expectations) however, they are external contingencies emphasized by contingency theory; in dynamic and competitive environment, management is more likely to reliance on MA information for reducing uncertainty and improving strategic responsiveness (Otley, 2016).

Competitive intensity is a contextual force that increases the relationship between these contingencies and the adoption of management accounting. In line with contingency theory, an increase in competition increases the need of accurate cost data, the performance measurement, as well as strategic analysis and therefore promotes the more active management use of management accounting(Al-Mawali et al., 2025). This explains why the impact of the technological, organisational, and environmental factors is moderated by the competitive intensity in the current research.

Technological Factors

Technological advancement serves as a primary driver in the evolution and increasing complexity of management accounting systems (MAS). As organizations integrate sophisticated digital tools, the scope and capability of accounting practices have expanded significantly. A recent systematic literature review conducted by Barreto et al. (2025) highlights this trajectory, analyzing studies published between 1992 and 2024. Their research delineates a gradual yet transformative process wherein digital innovations are embedded into accounting frameworks, leading to progressive improvements in both cost management efficiency and sustainability outcomes.

Despite these advancements, the current body of knowledge remains unevenly distributed across organizational types. Barreto et al. (2025) note a significant gap in the literature regarding the application of these technologies within smaller entities. Specifically, they identify a lack of empirical evidence focusing on small businesses and cooperatives, suggesting that while large enterprises may be capitalizing on digital accounting innovations, the specific challenges and benefits for smaller, community-focused organizations remain under-researched.

Previous studies show that a company ability to use technology is very important for choosing management accounting practices. Ismail and King found out in 2007 that if a company has technology, like computers and software that work well together it is more likely to use management accounting practices effectively. Nguyen et al. (2020) clarified that companies, in Vietnam that are ready to use technology are more likely to use management accounting practices that need a lot of technology. Management accounting practices are important for companies to use technology well. Technology is a part of management accounting practices. Naushad (2020) further argued that cloud-based accounting systems enhance accessibility and reduce operational costs, particularly for organizations with limited financial and human resources. Collectively,

these studies support the view that the availability and integration of digital technologies substantially increase the likelihood of MAP adoption **(**Kathayat, 2024**.**

H1: Technological factors significantly influence the adoption and intensity of management accounting practices in cooperatives.

Organizational Factors

Fouche (2024) has focused on the adoption of corporate reporting practice in the Global Top 300 cooperatives and sought to determine the determinants of the adoption of corporate reporting practices. This study closed a significant divide in the existing body of literature by examining cooperatives, the ownership structure as well as the stakeholder relationships, which are distinctly different with investor-owned businesses. The analysis model identified the market conditions, country specific, institutional and cooperative specific factors, including cooperative specificity and profit distribution mechanisms. Ordinal regression and binary logistic models were used to examine adoption of various categories of reports- such as annual, governance, environmental, social, and management reports in 2024. Results showed that cooperatives that had external shareholders, had strong cooperative identities, and restricted the distribution of profits to the members were more likely to embrace holistic reporting practices. The importance of rationalizing reporting practices by cooperative values and identity that has been emphasized by the study implies that the rationalization will lead to transparency and stakeholder trust. Therefore, the research contributes to our understanding of the impact of organizational factors, especially cooperative identity and the governance patterns, on the implementation of the Management Accounting Practices (MAPs) in cooperatives.

Anderson and Lanen (1999) examined how the size of the firm and organization structure affected the adoption of management accounting practices and found that the larger, more complex operations, and resource-endowed firm could implement more sophisticated accounting systems. Their study also pointed out that smaller companies and firms such as cooperatives usually have difficulties with the adoption of such practices due to limited financial and technical resources.

On the same note, Chenhall (2003) highlighted the crucial importance of managerial support in developing the environment that will allow implementing contemporary accounting systems by stating that the commitment and vision of leadership are the keys to the successful implementation. In the cooperative environment, where the governance serves a lot on the involvement of the members, the significance of leadership and management support is compounded. Abdel-Luther (2008) emphasized that one of the key factors that be determined successful implementation of costing, budgeting, and performance-measurement tools are staff expertise and training. Simultaneously, Joshi (2001) noted that in developing economies, the lack of technical knowledge and the absence of training is often a barrier to the process.

H2: Organizational factors have a significant positive effect on the adoption of management accounting practices in cooperatives.

Environmental Factors

The systems of environmental dynamics which include institutional pressures, uncertainty and market competition have a tremendous impact on the uptake of management accounting systems. Alnaim and Metwally (2024) found that the adoption of Environmental Management Accounting (EMA) in Egyptian manufacturing companies is influenced by institutional and regulatory pressures significantly, and the environmental strategy has a moderating effect on the relationship. According to Gordon and Narayanan (1984), organizations that have to work in unpredictable environments have more elaborate and flexible accounting systems to improve decision-making in risky situations. In the same spirit, Cadez and Guilding (2008) have offered empirical support to the fact that competitive intensity is a determinant of the use of cost-control and strategic management accounting tools, e.g., competitor analysis and market-based costing. These results highlight that the external conditions, i.e., the uncertainty of the environment and the competitive pressures of the market, make the firms use the highly-developed management accounting practices as the means of gaining a strategic advantage. In cooperatives, which often function in volatile and highly competitive environments, external pressures can be addressed more effectively through the adoption of well-designed accounting systems. Prior studies suggest that robust management accounting practices enable cooperatives to better monitor costs, respond to market uncertainty, and support long-term resilience and sustainability (Pavlatos, 2021).

H3: Environmental factors have a significant positive effect on the adoption of management accounting practices in cooperatives.

Accounting Views on Management Accounting Practices

The results obtained in Nepal make coherent with the evidence presented in other parts of the world that point to similar barriers in the adoption of sophisticated management accounting instruments. In a study of companies in the Gulf Cooperation Council, Mclellan and Moustafa (2013) discovered that most companies used the conventional budgeting strategies as opposed to the use of strategic management systems like activity-based management, and balanced scorecard. The research also found out that the consumption of modern tools was higher among international and large scale based firms and this fact corroborated that organizational size and ownership determine the accounting practices. This tendency testifies to a continuing gap between the practice of traditional and strategic management accounting, especially in the developing economies and branches of cooperation. The effective prevalence of the

traditional ones shows that structural and situational factors significantly influence the volume of MAP exploitation, which suggests a merit of cooperatives of customized structures that would suit their unique governance and resource situation (Naushad, 2020).

Accounting Undertakings within Management in Cooperatives

Several studies have examined the use and effectiveness of management accounting practices (MAPs) in Nepalese cooperatives. For instance, Pandey et al. (2024) evaluated financial management accounting mechanisms in agricultural cooperatives in Dang District and found that, although budgeting was commonly practiced across all cooperatives, techniques such as standard costing and responsibility accounting were rarely adopted. On the same note, Neupane (2021) found that less than 20 percent of cooperatives applied other more learnt technologies like performance measurement and capital budgets, in part due to poor technical ability and financial limitations, despite using ratio analysis and cash flow statements. To reinforce these observations, Mahataman (2024) was able to establish that information on the accounting access and quality has been where the investment and marketing decision is most effective with regards to cooperatives, thus adding to the efficiency and competitiveness of the operations.

Management Accounting Adoption Competitiveness

Based on these views, Al-Mawali et al. (2025) examined the roles that strategic management accounting (SMA) and business analytics (BA) play in developing sustainable competitive advantage. They found that there is a relationship between SMA and competitive nature, which is mediated by dynamic capabilities, and the relationship is moderated by competitive intensity, which indicates that management accounting practices (MAPs) are more effective in a competitive environment with high market pressure. This means that the integration of modern accounting and analytical systems in management contributes to the fact that organizations become strategic and improve the results of their performances (Alsolmi et al., 2021). As a result, despite ongoing challenges such as limited knowledge and experience, technological constraints, and resource scarcity, substantial evidence indicates that the successful adoption of management accounting practices enhances financial performance, strengthens governance, and improves long-term competitiveness in collaborative organizations (Dahal, 2022).

Competitive Intensity

Competitive intensity is the level of competition between companies of a given industry, which has a great influence on the strategic decision-making process, as well

as the market dynamics. As Porter (2008) has argued, competitive rivalry is the major factor in the profitability of a particular industry because companies never stop their strategies in order to retain or improve their position in the market. The number of competitors, market growth rate, product differentiation, and exit barriers are key determinants of competitive intensity, which in turn influence firms' pricing, innovation, and marketing strategies of firms (Ketchen & Short, 2019). Higher competitive intensity typically drives firms toward aggressive strategies such as cost leadership, product innovation, and enhanced customer engagement, whereas lower competitive intensity can foster market complacency and reduce incentives for performance improvement (Porter, 2008; Luo & Zhao, 2016). The nature and extent of competitive intensity play a critical role in shaping an organization's strategic responses and its ability to achieve sustainable competitive advantage, as firms operating in highly competitive environments are driven to develop and leverage capabilities that enhance long-term performance outcomes (Lee et al., 2022).

H4: Competitive intensity has a significant moderating effect on the relationship between environmental factors and the adoption of management accounting practices in cooperatives.

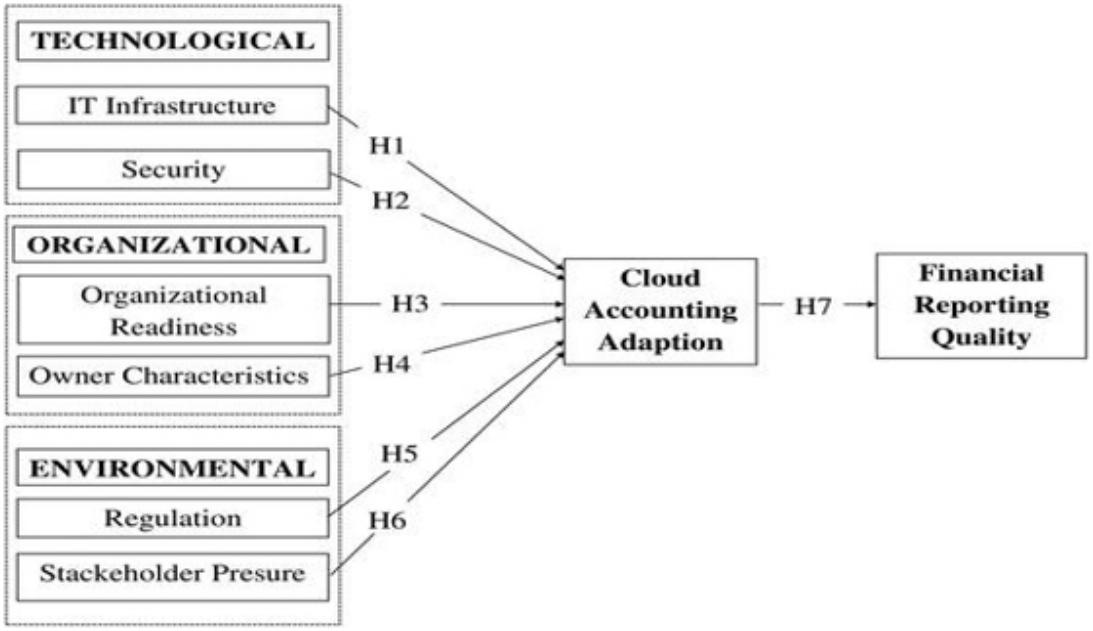
In general, it can be concluded that the studies demonstrate high levels of traditional accounting systems compliance and the high dependency of Nepalese cooperatives on the use of modern management accounting tools is explained by limited resources, structural restrictions, and an apparent lack of specialized knowledge. This observation therefore highlights the need to have in place total capacity-building initiatives and strategic adoption of technology in order to increase the effectiveness of financial management in Nepalese cooperatives.

Theoretical Review

In the last few years, the necessity to combine the TOE framework with other theoretical models to enhance the insight into the digital technology adoption in cooperatives has been highlighted. Cao et al. (2025) used TOE framework and the Technology Acceptance Model (TAM) to study the intention of farmer cooperatives in China to use digital technologies. The researchers established that perceived ease of use and external antecedents (use of internet and training) had a significant effect on adoption intentions. Putri et al. (2025) in their study searched the implementation of cloud accounting by Micro, Small, and Medium Enterprises (MSMEs) in Indonesia based on the TOE framework. The article declared IT infrastructure, organizational readiness, stakeholder pressure and regulatory compliance as important determinants of adoption which consequently improved quality of financial reports.

Figure 1

Technology, organization, and environment framework (Putri et al., 2025)

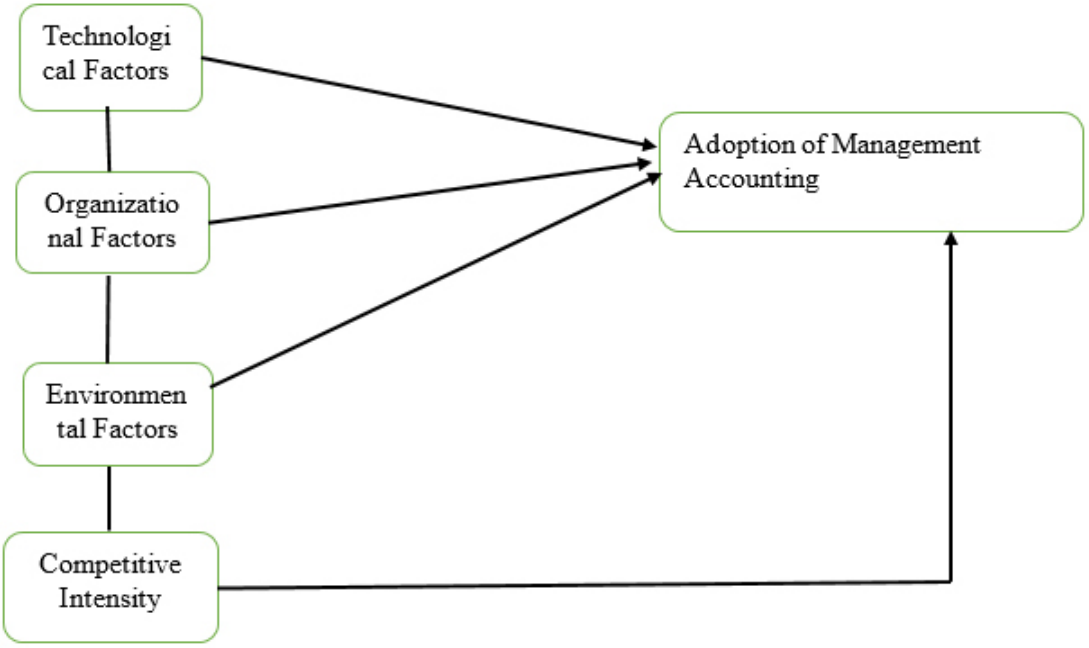


Conceptual Framework

The integration of modern technological factors such as the availability and use of accounting software, robust IT infrastructure, and online advisory services has been shown to support the adoption of management accounting practices by enhancing information quality and improving the efficiency of managerial decision-making (Lutfi et al., 2022). Organizational factors such as managerial support, employees' skill sets, the size of the cooperative, and internal procedural frameworks significantly influence cooperatives' readiness and ability to adopt and effectively implement management accounting practices. In addition, environmental factors particularly environmental uncertainty, including market volatility, regulatory changes, and competitive pressures can constrain the extent to which management accounting practices are utilized to enhance strategic planning and operational control in cooperative organizations (Naushad, 2020). The interplay of these variables implies that internal strengths and external situations work together to create successful integration of MA and the important role of cooperatives investing in technology, building organizational capabilities and creating adaptive strategies to handle uncertain situations.

Figure 2

Conceptual Framework



Methods and Procedures

This study adopts a positivist research philosophy, which emphasizes the objective measurement and analysis of observable phenomena. A descriptive-correlational research design is employed to quantify the level and types of management accounting practice (MAP) adoption among cooperatives, as well as to examine the relationships between organizational, technological, and environmental factors influencing this adoption.

Study Area

Purposive sampling is particularly appropriate in studies where the focus is on specific characteristics of the population that are critical to the research problem, rather than random representation (Etikan et al., 2016). By targeting cooperatives with relevant structures and respondents with varied knowledge levels, this study maximizes the relevance, richness, and validity of the collected data.

The study was conducted in Parashuram Municipality, which encompasses a

diverse range of cooperatives, including Savings and Credit Cooperatives, Agricultural Cooperatives, Dairy Cooperatives, and Forestry Cooperatives. The total population for this study consisted of 15 cooperatives. To ensure relevance to the research objectives, purposive sampling was employed to select 10 cooperatives as the study sample, comprising 7 Savings and Credit Cooperatives, 2 Multipurpose Cooperatives, and 1 Dairy Cooperative.

Table 1

Distribution of Respondents by Type of Cooperative

Type of Cooperative	Number of Cooperatives	Board Members	Employees	General Members	Total Respondents
Savings and Credit	7	21	19	21	68
Multipurpose	2	12	11	11	26
Dairy	1	4	8	5	18
Total	10	37	38	37	112

The people in charge of this study picked cooperatives on purpose. They wanted to choose the ones that are the best examples of how cooperatives are organized and how they work. This way the study can get a look at what helps cooperatives adopt management accounting practices. The people doing the study call this process screening. They looked at information they already had about the cooperatives to find the ones that are different, from each other in how they work and are organized. This helps the study find out what factors are important for cooperatives to adopt management accounting practices.

Within each selected cooperative, respondents were further categorized into management directors, employees, and general members, reflecting differing levels of knowledge and understanding of cooperative financial mechanisms. This approach enabled the collection of diverse perspectives on MAP adoption, enhancing the depth and reliability of the data. In total, 112 responses were gathered, providing a robust dataset suitable for descriptive and correlational analysis.

Data Collection

Before the screening of the cooperatives, Five Point Lickert was used a structured questionnaire to gather information about the target respondents. The questionnaire contained the general information on the cooperatives and financial supporting statements, which fit in the investigation of the financial mechanisms of the cooperatives. Purposive sampling was adopted to select the target population deliberately, according to the pre-existing criteria i.e. board members, employees and general members, which were relevant to the research questions.

Data Analysis

Data collected were then coded and inputted into the statistical analysis packages such as SPSS and excel where were analyzed. The descriptive statistics were used to determine the demographics of the respondents using frequency counts and percentage distributions. To test the hypothesis, inferential statistical methods were used, the regression analysis, correlation analysis, and chi -square tests were applied to explore the relationship between organizational, technological, and environmental variables and the adoption of MAPs.

Cronbach alpha, composite reliability and average variance extracted (AVE) were used to measure the reliability and validity of the constructs. Moreover, there

was a multicollinearity diagnostics and model fit indices analysis to guarantee the soundness of the findings.

The descriptive statistical procedures were utilized to describe the perception of the respondents with reference to accuracy of reporting, timeliness and transparency. The calculation of measures which included the arithmetic mean, the standard deviation and the frequency distributions were done to evaluate how cooperatives prepared and presented their financial reports.

Inferential statistics was used to test the relationship between the standard of financial reporting and the use of management accounting practices. To determine the strength and direction of this relationship, the correlational analysis was employed and to quantify the predictive effect of financial reporting variables, that in turn includes accuracy, data accessibility, and compliance, the multiple regression analysis method was utilized to determine the degree to which the management accounting practices were adopted.

Reliability

Table 2

Reliability Statistics of the Variables

Construct (variable)	No. of items	Cronbach's Alpha	Interpretation
Technological Factors	5	0.82	Good internal consistency
Organizational Factors	5	0.78	Acceptable
Environmental Factors	5	0.75	Acceptable
Competitive Intensity	5	0.74	Acceptable
Adoption of Management Accounting (Dependent)	5	0.85	Good
Overall questionnaire	25	0.88	Excellent

The report of the pilot testing of the questionnaire, given in Table 2, shows that the extent of reliability is high in all the constructs that are represented by the Cronbach alpha coefficients. The total scale, consisting of 25 question items, had a good value of reliability ($\alpha = 0.88$), which proves that the scale is very internally consistent and can be used in future studies. At the construct level, Technological Factors (0.82 = 0.82)

and Adoption of Management Accounting (0.85 = 0.85) were showing good internal consistency levels that would not necessitate any major changes. Organizational Factors (0.78), Environmental Factors (0.75) and Competitive Intensity as a moderating variable (0.74) had an acceptable level of reliability, though slightly lower than the other constructs, indicating that they could be slightly improved to help them become more consistent. On this note, researchers are therefore recommended to check item-total correlations, which may have ambiguous or redundant items, and may want to do factor analyses to ascertain the unidimensional of these constructs. Since all constructs exceeded the generally established standard of 0.70, the instrument can be regarded as being appropriate in data collection though further refinement can contribute to more effective psychometric properties of the instrument (Nunnally & Bernstein, 1994).

Results and Discussion

Table 3
Demographic Profile of the Respondents

Demographic	Categories	Frequency (n)	Percent
Age Status	20–30	21	18.75
	31–40	36	32.14
	41–50	30	26.79
	51 above	25	22.23
Gender	Male	61	54.46
	Female	51	45.54
Marital Status	Single	42	37.5
	Married	67	59.82
	Widow	3	2.68
Educational Status	Secondary or below	12	10.71
	Intermediate / +2	41	36.61
	Bachelor's Degree	37	33.04
	Master's or above	22	19.64
Work Experience	Less than 1 year	14	12.50
	1–5 years	22	19.64
	6–10 years	32	28.57
	11–15 years	21	18.75
	Above 15 years	23	20.54

The current research paper provides an overview of demographic data of 112 participants of different types (age, gender, marital status, education, and work experience). In terms of age, most of the respondents fell within the age of 31-40 years

32.14 percent, 41-50 years 26.79 percent, 51 years above 22.23 percent and 20-30 years 18.75 percent. This distribution indicates that there are many respondents who are at the middle of their careers and this fact may increase their understanding and practice of management accounting practices.

The gender distribution showed that there was a little more proportion of male 54.46 percent than females 45.54 percent, which means that the level of participation was relatively balanced. On marital status, most of the respondents were married 59.82 percent with 37.5 percent constituting the solo respondents and a small percentage constituting respondents who were widowed 2.68 percent.

The educational backgrounds revealed that the majority of the respondents were bearers of an intermediate or +2 certificate 36.61 percent or a bachelor degree 33.04 percent, with few having a master degree or above 19.64 percent or secondary and below 10.71 percent. This sample represents a relatively highly-educated group that has an ability to understand financial and management accounting concepts.

The respondents also had different work experience with the highest percent of 28.57 representing 6-10 years, 20.54 representing more than 15 years, 19.64 representing 11-15 years, and 12.50 representing less than one year of work experience. This trend indicates that majority of the respondents have adequate experience in practice to make informed opinions about management accounting practices in their cooperatives. In general, the demographics show that the sample of respondents is balanced and experienced and is suitable to test the adoption and efficacy of the management accounting practices.

Inferential Statistics

As described in the research methodology, correlation analysis conducted to explore the Correlations among the variables.

Table 4

Correlations Analysis of Dependent and Independent Variables

Variables	TF	OF	EF	CI	AMA
TF	1				
OF	.52**	1			
EF	.47**	.49**	1		
CI	.45**	.43**	.50**	1	
AMA	.65**	.62**	.58**	.60**	1

** Correlation is significant at the 0.01 level (2- tailed).

Table 4 shows the outcomes of correlation analysis and it indicated that all the independent variables, i.e. technological factors (TF), organizational factors (OF), environmental factors (EF), and moderating variable was competitive intensity (CI),

have a positive and significant correlation with adoption of management accounting (AMA) at $p < 0.01$. Among the variables, technological factors show the strongest correlation with AMA ($r = .65$) then next are organizational factors (.62), competitive intensity (.60) and environmental factors (.58). These results imply that the adoption of management accounting is aided much more by the advances in technologies, organizational support, and competitive awareness. The resultant moderate to high inter-relations of the independent variables (.43 to 0.52) show that even though the independent variables are interrelated, they are not overlapping, implying the possibility of integrated or interactive impacts on adoption of management accounting.

Table 5

Model Summary of Multivariate Regression Analysis

Model	R	R^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.78	0.61	0.60	0.42	1.95

a. Predictors (Constant), TF, OF, EF, CI

Table 5 below shows that the combination of predictors (technological factor, organizational factor, environmental factor, competitive intensity) has a strong and statistically significant relationship with the adoption of management accounting (AMA). The overall relationship is high with a multiple correlation coefficient R = 0.78 and the coefficient of determination R 2 = 0.61 demonstrates that 61% of the variance in AMA can be explained by these predictors. The adjusted R 2 = 0.60 also proves the reliability of the model after the number of predictors was adjusted and a standard error of 0.42 also suggests fairly accurate predictions. Durbin-Watson = 1.95 shows that there is no significant autocorrelation of the residual and, therefore, the assumption of independence is acknowledged. Overall, the model shows that the combination of these elements has a significant impact on management accounting adoption in SMEs, and it is thus important to reiterate that technology, organizational support, environmental factors, as well as competitive intensity are key factors in determining management accounting practices.

Table 6

ANOVA of Independent and Dependent Variables

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	45.72	4	11.43	65.02	.000**

Residual	29.28	167	0.18
Total	75.00	171	

α. *Dependent variable: AMA*

β. *Predictors (Constant), TF, OF, EF, CI (Technological Factors, Organizational factor, Environmental factor and Competitive Intensity)*

The findings in the ANOVA table 6 indicate that the regression model has been found to be statistically significant in terms of adoption of management accounting (AMA). It is observed that the predictors- tech, organizational, environmental, and competitive intensity- explain a significant percentage of the variance in AMA since it has a regression sum of squares of 45.72 compared to a residual sum of squares of 29.28. The F-value of 65.02 because it is significant at $p < 0.001$ demonstrates that the model offers a significantly better fit compared to a null model that does not include any predictors. This result means that the overall combined effect of the independent variables has a strong and significant effect on AMA, thus supporting the general effectiveness of the model in predicting the use of management accounting in cooperatives.

Table 8

Coefficient of Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics
	B	Std. Error	Beta			Tolerance
	0.52	0.15		3.47	.001**	3.47
	0.28	0.05	0.34	5.60	.000**	5.60
	0.25	0.06	0.30	4.95	.000**	4.95
	0.21	0.06	0.24	3.78	.000**	3.78
	0.23	0.05	0.27	4.40	.000**	4.40

The coefficients in Table 8 indicate that all the four factors (technological factors, organizational factors, environmental factors and competitive intensity) are statistically significant predictors of management accounting adoption (AMA), as the p-values are less than the.001 value. It is worth noting that technological factors (0.34, t = 5.60) and organizational factors (-0.30, t = 4.95) have the strongest influences, and subsequently comes the competitive intensity (-0.27, t = 4.40) and environment factors (-0.24, t = 3.78). The tolerance values, with a range of values of 0.63 to 0.68, and the relative variance inflation factors (VIFs) of 1.47 to 1.59 can be considered to be evidence that multicollinearity is not an issue and, along with the nature of values provided to support the reliability of the parameter estimates. These findings suggest

that in Nepalese cooperatives, the adoption of management accounting practices is primarily shaped by internal readiness rather than external pressure. These findings suggest that in Nepalese cooperatives, the adoption of management accounting practices is primarily shaped by internal readiness rather than external pressure. This aligns with contingency theory, which emphasizes that management systems are most effective when they fit an organization's internal capabilities and context. The results underscore the need for policies and interventions that prioritize technological upgrading and capacity building within cooperatives as a prerequisite for enhancing governance, transparency, and financial sustainability.

Table 9

Summary of Hypothesis Testing

Hypothesis	Statement	**Result**
H1	Technological factors have a significant positive effect on the adoption of management accounting practices	Accepted
H2	Organizational factors have a significant positive effect on the adoption of management accounting practices.	Accepted
H3	Environmental factors have a significant positive effect on the adoption of management accounting practices in cooperatives.	Accepted
H4	Competitive intensity has a significant moderating effect on the relationship between environmental factors and the adoption of management accounting practices in cooperatives.	Accepted

The statistical support of all the hypotheses proposed was tested. The use of management accounting is significantly aided by technological aspects, especially the IT infrastructure, accounting software, and technical support. Furthermore, organizational factors like managerial support, organizational size and employee competence positively impact on this adoption. The adoption is also promoted by environmental determinants such as regulatory changes and uncertainty in order to improve the decision-making processes. Furthermore, competitive intensity seems to intensify such relationships suggesting that the influence of a technological, organizational, and environmental factor is larger under a highly competitive environment. Therefore, the drivers that promote the adoption of management accounting are both internal and external.

Discussion

This paper has considered the impact of technological, organizational, environmental factors in the adoption of management accounting (MA) practices in the cooperative industry in Nepal, with the competitive intensity as a mediating factor. The regression analysis has shown that technological factors had a strong, positive and significant impact on MA adoption (0.52; p=0.001). These results show that improvements in IT infrastructure, accounting software, and advisory services are likely to implement MA tools, which support the validity of the model and is in line with the available literature (Ismail & King, 2007; Alzoubi, 2018; Sulaiman et al., 2008).

Organizational factors also became important predictors of MA adoption (0.28; p 0.000). This implies that managerial support, competence of the employees, and cooperative size have a positive impact on the use of MA tools. These findings are consistent with previous studies that provide the significance of managerial commitment and human resource capabilities in encouraging innovation in accounting systems (Ahmad, 2012; Waweru et al., 2004; Uyar & Kuzey, 2016).

The environmental factors had a positive and significant effect on MA adoption (0.25; p=0.000). This reveals that the presence of external uncertainties, regulatory frameworks, and market pressures encourage cooperatives to implement MA tools to improve the decision-making and competitiveness. The findings are in line with research by Abdel-Luther (2008), Cadez and Guilding (2008), and Chenhall (2003), which pointed out the role of the dynamism in the environment on accounting practices.

The analysis identified competitive intensity as a significant moderating variable that strengthens the relationship between external challenges and the adoption of management accounting (MA) practices. Specifically, under conditions of high competitive intensity, the positive association between environmental pressures and MA adoption becomes more pronounced, indicating that cooperatives facing intense competition are more likely to implement MA practices to improve efficiency, strategic planning, and performance control.

The results consequently confirm previous studies which have zeroed in on the relationship between the competitive forces and strategic uses of accounting systems (Hoque, 2011; Hyvonen, 2007).

Conclusion

The current research paper has established that technological, organizational, environmental and intensity of competition are of great importance in the adoption

of management accounting (AMA) in cooperatives. Of these, technological factors ($\beta = 0.34$) and organizational factors ($\beta = 0.30$) proved to be the most salient factors, but competitive intensity (2007) and environmental factors (2007) also had a significant impact. The correlational and regression analyses revealed that the predictor variables jointly explained a significant proportion of the variance in adoption of management accounting (AMA). Moreover, no evidence of multicollinearity was detected, indicating that both internal capabilities and external pressures independently and significantly contribute to the effective adoption of MA.

Co-operatives must give more emphasis on investing in technology and strengthening of organizational support, including the development of managerial commitment, and capacity building of staffs, to enable them to adopt management accounting practices. At the same time, environmental variables and competitive intensity should be tracked with utmost urgency so that the accounting practices could be compatible with the market forces and the regulations.

Co-operatives should have training programs that are well organized. The people, in charge should use accounting information systems in a way. They should also make sure management accounting is a part of the decision-making process.

For the boards that make decisions together this means using management accounting tools when they make plans and check on performance. The people who make policies should help with this by making policies that allow it to happen providing help and making sure everyone can use digital accounting tools. The places where people go to learn should play a role by teaching programs that help people get better at managing and accounting. Management accounting is important. These programs should help people understand it better. Management accounting should be used to make decisions. Collectively, these measures empower cooperatives to effectively leverage both internal capabilities and external conditions, thereby promoting sustainable growth and improved organizational performance.

Scope of Future Research

1. Sector and Geographical Growth Future research can focus on the adoption of management accounting in a variety of sectors and geographic locations, which could include rural cooperatives and small-to-median enterprises (SMEs) in a number of provincial settings to clarify the role of technological, organizational, and environmental factors on the performance of the system in heterogeneous settings.
2. Longitudinal and Causal Studies: Additional investigation would be done by use of longitudinal research studies to assess how the changes in technologies, organizational structure, and competitive forces over time affect the adoption and efficacy of management accounting practices.

3. Adoption of the Emerging Technologies: The study of how avant-garde digital technologies, including artificial intelligence, blockchain, and big data analytics, may impact the adoption of management accounting can offer substantive information on the future development of accounting practices in a collaborative context.

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