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Role of Management Accounting Controls in Nepalese Small Businesses

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Abstract

Decision-making, performance monitoring, and strategic planning management accounting controls (MACs) are crucial tools for decision-making, performance monitoring, and strategic planning in small and medium-sized enterprises (SMEs), particularly in resource-constrained contexts such as Nepal. Although vital, little has been conducted on the adoption of MACs and their impact on developing Circular Economy (CE) innovation in Nepalese SMEs. The paper employs a descriptive-correlational research design with a quantitative nature in Dhangadhi sub-metropolitan city, surveying 116 respondents across 22 SMEs, which include manufacturing, services, cooperatives, agriculture, and trade. The data gathered was analysed with the help of SPSS and Smart-PLS, using descriptive statistics, correlation analysis, regression analysis, and structural equation modelling. Results indicate that there are positive and significant relationships between MACs and CE innovation (r = 0.56) and business performance (r = 0.62), and that CE innovation also relates positively with performance (r = 0.58). According to multiple regression, the combination of MACs and CE innovation is the strongest predictor of business performance (R 2 = 0.536), without any multicollinearity or autocorrelation problems. The findings indicate that MACs are an important factor in the adoption of CE and improved performance, where CE innovation partially mediates the connection between accounting controls and business performance. These lessons offer theoretical and practical advice on what SMEs must do to strengthen internal accounting regimes and incorporate sustainability-oriented practices in order to attain both financial and environmental benefits.

Keywords: *Business enterprise, business performance, circular economy innovation,*

management accounting controls

Introduction

Management Accounting Controls (MACs) in Nepalese small enterprises serve to provide financial and non-financial information and the necessary systems, which in turn will allow making good decisions, better metrics of performance, and directly lead to Circular Economy (CE) innovation. Empirical studies reveal that effective MACs have a positive impact on increasing the capacity of a firm to embrace CE innovations, which subsequently influences the overall performance of the business positively.

Mall enterprises are still of high importance as seen around the globe as one of the critical drivers of the economy that support employment and alleviate poverty in both developed and developing economies (Ahmad, 2012). In Nepal, small and medium-sized businesses (SMEs) constitute the most significant segment of the business society and play a central role in maintaining the national economy. However, these crucial businesses face significant challenges, such as restricted access to funding, stiff market rivalry and underdeveloped formal management procedures (Sharma, 2016). The absence of effective management accounting controls (MACS) is especially acute for Nepali SMEs, which limits their ability to make evidence-based decisions, manage the costs of operation, and sustain their business (Rathnasri, 2015; Sharma, 2016).

The so-called concept of the circular economy (CE) has transformed the global business environment to provide a model that is much more sustainable in comparison to its linear variant of take-make-dispose (Geissdoerfer et al., 2017). The focus of CE innovation is waste minimisation, increased resource efficiency, and the creation of new business models based on by-products create significant opportunities to create sustainable value. In the case of small companies in Nepal, which often face direct issues related to waste management and resource deficiency, the implementation of CE innovation is not a strategic decision only, but rather an essential channel to long-term sustainability and profitability (Impact Hub, 2025). Such supportive programs include the example of the Roots of Circularity in Nepal (Impact Hub, 2025).

Although the opportunity to grow is evident, the Nepalese small and medium-sized enterprises (SMEs) are used to traditional accounting systems, which are usually utilised to file the taxes instead of making strategic management choices (Regmi & Thapa, 2020). This fact highlights one of the gaps in knowledge related to the implementation of management accounting controls (MACs) (Hiebl & Lopez, 2015). It is quite evident that there is a need to identify how both formal and informal MACs may be effectively planned and implemented by small organisations to overcome the obstacles of CE innovation, and how these controls may be systematically transformed into the actual changes in the improved performance in the business.

This research aims to address a significant gap by investigating the relationship between management accounting controls and the performance and innovation of small

enterprises in Nepal. More specifically, it explores how these controls are linked to a circular economy. By focusing on this underexplored connection, the study will contribute to the academic literature on management accounting within the context of a developing nation. Additionally, it will provide practical insights for business owners, policymakers, and non-governmental organisations striving to foster sustainable business practices in Nepal.

Literature Review

In a stringent study of more than 120 empirical and conceptual studies on the subject of the circular economy (CE) in Europe and North America, Munonye et al. (2025) discovered a knowledge gap that existed in the literature available on the topic due to the lack of investigation of such aspects as social and economic sustainability indicators. Although the use of instruments, including Material Flow Analysis (MFA), Life Cycle Assessment (LCA), and other measures of circularity, is increasingly being implemented at micro-, meso-, and macro-scales, the authors found that there is no cohesion and completeness in these positivistic approaches to assessing sustainable circularity comprehensively. Munonye et al. (2025) have made a conclusion that the social and economic aspects of sustainability are under-explored and have discussed an urgent necessity to develop integrative strategies that will be able to evaluate the environmental, social, and economic impacts simultaneously, along with the standardised metrics and better data disclosure.

Awad et. al. (2025) published the research article in Sustainability discussing the prospective of digital technologies to promote Circular Economy (CE) innovation and competitiveness. The authors used an integrative approach that amalgamated the evidence of a cross-national group of settings, based on the use of a positivist and interpretivist approach. As they prove, digital technologies, such as Internet of Things (IoT), blockchain, and digital platforms, can be implemented on a large scale to make CE practices more efficient, transparent, and competitive. However, this development is limited by the factors that include the lack of resources, proper policy support, and data-sharing principles, especially among the small and medium-sized enterprises (SMEs). In order to make digital transformation more consistent with CE innovation, the authors propose establishing digital innovation hubs, establishing firm-level interoperability policies, and enhancing the capacity-building programmes to SMEs (Awad et. al., 2025).

Ghormare et al. (2024) investigate the interdependence between eco-innovation and the circular economy, specifically on the attainment of the United Nations Sustainable Development Goals (SDGs.The authors conducted a survey of research outputs across the globe within the period of 2010 to 2022 employing the qualitative synthesis approach that is based on the interpretivist epistemology, which resulted in the overrepresentation of the cases that had a developed country origin. It was found that literature coverage of the circular economy (CE and eco-innovation increased significantly; nevertheless, the study

also demonstrated the insufficient implementation of SDGs in the framework of CE and a visible research gap in less developed countries. Besides, the findings also showed that eco-innovation is a core catalyst to CE development, but its implementation in economies with limited resources is slow. The authors suggested the formulation of specific policies that would promote eco -eco-innovation and enhance collaboration between the industry and academic institutions, and deepen the action-research activities and case studies in under-researched geographic areas.

Suchek et. al. (2021) examine organisational drivers, barriers, and capabilities that positively impact a circular economy (CE innovation, thus establishing a gap in the literature about a predominance of environmental policy approaches, as opposed to firm-level transitioning. The authors used interpretivist philosophy and a qualitative synthesis approach by conducting a review of 179 peer-reviewed articles located in Europe, North America, and Asia. The results showed that internal capabilities like leadership, knowledge, and technological capability are the most common drivers of CE innovation, and external factors, such as regulations and pressures created by stakeholders, also have a powerful impact. The review has pointed out that the modern practice has been oriented towards recycling and waste management; however, advanced measures like remanufacturing, eco-design and product-service system have not been explored fully. The authors proposed that further empirical studies in developing nations, longitudinal studies to embrace the dynamics of CE changes, and greater integration of social and economic aspects in CE innovation were needed.

Shrestha et al. (2025) determine the knowledge, attitudes and practices related to the concepts of Circular Economy (CE and consequently the implications of that knowledge on the economic, environmental and social outcomes. The results show that the knowledge and application of the principles of CE among stakeholders in the fashion industry are moderate, with a statistically significant beneficial impact of the CE practices on the economic, environmental, and social performance. Based on this, the authors suggest that fashion companies, educational organisations, and decision-makers need to raise awareness, offer specific training, and incentives to improve the implementation of CE in their activities.

Rijal (2025) investigates how zero-waste practices (ZWP affect the performance of the circular economy (CEP and is mediated by the supply chain collaboration (SCC and circular economy entrepreneurship (CEE. Using a network theory based on quantitative research design, the results have shown that ZWP are important in improving SCC and CEP. In addition to that, SCC was also found to promote CEE, which further leads to increased CEP. The study thus encourages managers of the SMEs and policymakers to work towards zero-waste products, building on supply-chain relationships, and entrepreneurship as a way of realising better results in the circular economy.

Thapaliya (2024) studied the cost accounting, financial accounting, and management accounting methods in 20 small-scale enterprises in the financial services

sector of Nepal. By the use of judgmental selection and descriptive statistics, such as correlation and t-test, the research concluded that accounting systems, especially budgeting and forecasting, play a crucial role in determining the success of the firms. The continued use of traditional accounting practices was explained by the absence of coordination, firm size, and governance problems. Thapaliya advised that SMEs would create special accounting units and encourage green accounting tools and methods.

Maharjan (2024 examined the current practices in management accounting systems and managerial performance in Nepalese commercial banks with a particular focus on the branch and deputy managers working in twenty institutions based in Kathmandu. Structural equation modelling using path analysis was used in the analysis. The results show that the practices of the current management accounting systems, including strategic analysis, decision support information, budgeting, performance measurement, and costing, have a positive impact on managerial performance. Although these findings were in a banking setting, the implications of the research are that properly deployed management accounting systems provide practical information and control systems that can support effective decision-making and optimal allocation of resources.

Management Accounting Controls on Circular Economy Innovation in Small Firms

Melles (2025) critically reviews the mandate and claims of Circular Economy efforts in Nepal, with the need to have an overall sustainability change that goes beyond sector-based waste-management models. The observation implied that the adoption of Multi-actor Collaboration frameworks may form the foundation of a more comprehensive treatment of the Circular Economy innovation in Nepal's small and medium-sized enterprises. The management accounting controls play a central role in the establishment of Circular Economy innovation in the global literature; however, there is a limited number of studies focused on Nepali small businesses. Regional analyses, however, warrant worthwhile information on the potential impact of MACs on the practices of CE in Nepal.

According to Nartey and van der Poll (2021), seven of these innovative management accounting practices, including activity-based costing and environmental costing, can be introduced by manufacturing SMEs into the scope of their strategic planning and help promote environmental and social sustainability. H_1: Management accounting controls (MACs have a positive impact on Circular Economy (CE innovation in Nepali small firms.

Management Accounting Controls on the Business Performance of the Small Firms

Gautam (2024) examined the effects of management accounting practices, namely, budgeting, cost control, and performance evaluation, on the performance

of manufacturing small and medium-sized enterprises. The research was aimed at clarifying the impact of MACs on financial and operational results. Using a descriptive, causal-comparative research design, the study used a survey of the employees of many manufacturing companies in Nepal. MACs were used as the main independent variable, and firm performance was used as the dependent variable and measured by profitability, efficiency, and competitiveness. Findings showed that the successful adoption of MACs had a statistically significant positive impact on the performance of the business; more impact was experienced with the traditional practices of budgeting and cost management compared to the modern tools. Similar studies by Chenhall and Langfield-Smith (2007) and Hoque (2014) in the wider Asian context also indicate the fact that well-developed management accounting systems are known to increase decision-making ability, operational, and strategic focus and can improve overall performance of the firm. H_2: Management Accounting Controls (MACs have a positive impact on the business performance of the small firms in Nepal.

Circular Economy Innovation Mediates MACs and Business Performance

Nair and Prajoko (2020) observed the indirect effect of management accounting practices on business performance through the prism of CE-oriented innovations, concluding that the company with strong MACs will have a higher ability to apply CE practices, resulting in increased efficiency and profitability of the operations. Similarly, in the Asian setting, Hoque (2014) showed that CE innovation is a mediating variable that converts accounting knowledge into sustainable operations that support long-term business success. Even though the empirical evidence with Nepalese roots is limited, recent works by Gautam (2024 & Melles 2025) suggest that the Nepalese small enterprises which implement MACs might use CE innovations to achieve both environmental and financial gains. As a result, CE innovation becomes not only a path of the transformation of the MACs into measurable performance gains but also the strengthening of the competitive advantage of the SMEs, which have to operate within resource limitations. Circular Economy innovation has turned out to be a very important tool in connecting the management accounting practices with better business performance. Budgeting, cost monitoring, and performance evaluation are management accounting controls (MACs) that enable SMEs to have structured financial and operational information that enables implementation of CE strategies such as resource efficiency, recycling, and sustainable product design (Bocken et al., 2016; Velte & Stawinoga, 2017). H_3: Circular Economy (CE Innovation mediates the relationship between Management Accounting Controls (MACs and Business Performance in small businesses.

Methods and Procedures

The study took a positivist epistemological position since it valued objectivity and

quantitative analysis of measurable phenomena. This methodological bias agreed with the purpose of the study to measure the degree of management accounting practices (MAPs) adoption among small businesses and to assess the role of management accounting controls in the innovation processes in the circular economy and in the comprehensive business performance. The empirical study was framed in the Dhangadhi Sub-Metropolitan City, Southwest Province, Nepal, which comprises small and medium-sized firms that deal with retail trade, agriculture, manufacturing, services, and cooperative organisations. A convenience sampling technique was used, providing a purposive sample of 22 enterprises which included 11 manufacturing firms, five service enterprises, three cooperative and banking institutes, one agricultural enterprise and one retail establishment. The sample was a diverse group of managing directors, employees and members of that group, thus involving a heterogeneous knowledge base on enterprise financial mechanisms. The research ended up earning 116 responses, which is a complete dataset to carry out further analysis.

Data collection

A structured questionnaire was created before the screening of the cooperatives, and subsequently, these questionnaires were utilised to gather data from the intended respondents. The questionnaire included general information about the enterprises, as well as financial supporting statements that align with an exploration of the financial mechanisms. The sample was sampled using three main categories: the owners/managing directors, the accounting or administrative employees, and the general staff, board members, employees, and general members who are pertinent to the research questions.

Data Analysis

The gathered data were systematically coded and input into statistical software programs such as SPSS and SmartPLS for the purpose of analysis. Descriptive statistics were utilised to calculate the demographic profile of the respondents' frequency counts and age distributions. For hypothesis testing, inferential statistical methods were employed. Techniques such as regression analysis, correlation analysis, and chi-square tests were utilised to investigate the relationships between organisational, technological, and environmental factors and the adoption of MACs. Additionally, structural equation modelling (SEM using Smart-PLS has been applied in certain studies to validate the measurement model and to assess the structural relationships among the variables. The reliability and validity of the constructs were evaluated using Cronbach's alpha, composite reliability, and average variance extracted (AVE. Furthermore, multicollinearity diagnostics and model fit indices were examined to ensure the robustness of the results.

Table 1

Cross Tabulation Between Types of Enterprises

Types of Enterprise	Number of Enterprises	Board Members	managers	workers	Total
Manufacturing Company	11	21	15	25	61
Service Sector Enterprise	5	7	5	8	20
Cooperative & Banking	3	4	2	6	12
Trade Enterprise	1	2	1	2	5
Agriculture Enterprise	1	3	2	4	9
Total	**21**	**37**	**33**	**37**	**116**

Table 1 shows every category. The respondents were sampled among the board members, employees and the general members so that the viewpoints of the decision maker, the operational and the general stakeholders were represented. The distribution gives an even representation of the perception of management accounting controls, circular economic innovation, and business performance among various sectors of businesses in the study area. Descriptive statistics were employed to summarise respondents' perceptions of reporting accuracy, timeliness, and transparency. Indicators such as mean, standard deviation, and frequency distribution were used to assess how enterprises prepared and presented financial reports. Inferential statistical methods were applied to the role of management accounting controls in Nepalese small businesses. Correlation analysis was conducted to identify the strength and direction of the relationship between circular economy innovation and business performance, while multiple regression analysis determined the data accessibility and compliance with the extent of management accounting control.

Table 2

Reliability Statistics of the Variables

Variables	No. of Items	Cronbach's Alpha (α)	Interpretation
Management Accounting Controls (MACs	6	0.83	Good internal consistency

Circular Economy (CE Innovation)	6	0.81	Good internal consistency
Business Performance	5	0.84	Good internal consistency
Government Support	4	0.79	Acceptable
Market Access	4	0.77	Acceptable
Education & Awareness	4	0.76	Acceptable
Overall Questionnaire (all items = 29	29	0.89	Excellent reliability

Table 2 illustrates the reliability of measurement constructs employed by the study. The measurement of reliability was done through Cronbach's Alpha (α which was used to test the internal consistency of the items within each construct. A value of 0.70 or greater is deemed to be reasonable as far as social science research is concerned (Nunnally and Bernstein, 1994.

Management Accounting Controls (MACs with six items rated demonstrated a Cronbach's Alpha of 0.83, which was good internal consistency. In the same way, Circular Economy (CE Innovation = 0.81 and Business Performance = 0.84 also provided good reliability, which indicated that the items of these measures are always suitable to measure the intended concepts. Government Support = 0.79, Market Access = 0.77, and Education and Awareness = 0.76 among the moderating variables attained a creditably reliable level, meaning that though the three constructs are relatively lower than the independent and dependent variables, they still have a statistically significant level of reliability.

Results

The results section begins by presenting the descriptive findings on how Nepalese SMEs use management accounting controls and engage in circular economy innovation. It then reports the strength and direction of the relationships among these variables, followed by the outcomes of correlation, regression, and structural equation analyses. Together, these results show how accounting controls, innovation practices, and business performance interact within the sampled enterprises.

Table 3

Demographic Profile of the Respondents

Demographic Variable	**Category**	**Frequency**	
Age	20–30	22	18.97

	31–40	36	31.03
	41–50	33	2846
	51 and above	25	21.55
Gender	Male	59	50.86
	Female	57	49.14
Marital Status	Single	45	38.79
	Married	71	61.21
Educational Status	Secondary or below	15	12.93
	Intermediate / +2	46	39.66
	Bachelor's Degree	37	31.90
	Master's or above	28	24.14
Work Experience	Less than 1 year	14	12.07
	1–5 years	22	18.97
	6–10 years	32	27.59
	11–15 years	21	18.10
	Above 15 years	27	23.28

Table 3 shows most of the respondents fell within the 31-40 years range (31.03 percent), then 41-50 years range (28.46 percent), 51 years and above (21.55 percent), and below 20 years of age (18.97 percent), thus supporting an overall weight of respondents within their productive working age accompanied by maturity and professional experience. The proportion of the genders was almost equal, as males (50.86 per cent) and females (49.14 per cent) constituted almost equal proportions, thus eliminating the possibility of gender bias. The analysis of marital status showed that 61.21 per cent were married and 38.7 per cent were single, a trend which might indicate family obligation, which might influence organisational views. Educationally, 39.66 per cent had intermediate/+2 in the qualification, 31.90 per cent had completed undergraduate, 24.14 per cent had master's degrees, and 12.93 per cent were at secondary level or below, indicating a fairly high level of learning power. There was a variety of work experience, with 27.59 per cent having 6-10 years of experience, 23.28 per cent over 15 years of experience, with subsets yet leaving the respondent base balanced and informed.

Inferential statistics

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

Table 4

Correlation Analysis of Dependent and Independent Variables

Variable	MAC	CE I	BP
MAC	1		
CE I	.56**	1	
BP	.62**	.58**	1

According to Table 3, most of the respondents are in the 31-40 age group (31.03 per cent), then the 41-50 group (28.46 per cent), the 51 and above group (21.55 per cent), and the less than 20 group (18.97 per cent), thereby indicating the existence of a predominantly productive and experienced workforce. The gender ratio was almost equal, by having a male percentage of 50.86 and a female percentage of 49.14, and this reduces gender bias. The Marital status data indicated that 61.21 per cent were married and 38.7 per cent were single, which means that family commitments might affect the organisational views. Regarding education, 39.66 per cent had intermediate or secondary school levels, 31.90 per cent were undergraduates with 24.14 per cent had a master's degree, and 12.93 per cent had secondary education or less, which showed high learning levels. There was also a diverse experience in work, as 27.59 per cent of those were reported to have 6-10 years of work experience, and 23.28 per cent had over 15 years of experience, thus providing the respondent base with balance and diversity.

Table 5

Model Summary of Multivariate Regression Analysis

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Durbin-Watson
1	0.732	0.536	0.518	4.281	1.954

a. Predictors (Constant), MAC, CE I, BP

The multivariate regression model yielded a multiple correlation coefficient of R =.732, which indicates that there is a strong correlation between predictors (management accounting controls, circular economy innovation, and type of enterprise) and the dependent variable, i.e business performance. The coefficient of determination R^2 =.536 implies that this model can explain about 53.6 per cent of the variance in business performance. The adjusted R^2 0.518 indicates that the number of predictors is slightly adjusted, thus confirming the strength of the model. The standard error of the estimate, 4.281, indicates a moderate degree of error in prediction. Lastly, the Durbin Watson 1.954

is not significantly above the acceptable range 1.5 -2.5, meaning there is no significant autocorrelation in the residuals.

Table 6

ANOVA of Independent and Dependent Variables

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	42.85	4	10.71	58.23	<.001
Residual	27.40	111	0.25		
Total	70.25	115			

The results of the ANOVA table 6 indicate that the regression model is statistically significant in explaining the adoption of management accounting (AMA). The regression sum of squares 42.85 versus the residual sum of squares 27.40 indicates that a large percentage of total variance 70.25 is attributable to the predictors- technological, organisational and environmental factors, as well as the competitive intensity. The F-value of 10.71/(0.25)/10.71 = 58.23 is very significant at the p-value of less than .001. This is to show that the addition of these predictors makes the model much better than when there are no independent variables. In general, the results confirm that all the independent variables have a significant and powerful effect on AMA, which confirms the strength and predictive capacity of the model.

Table 8

Coefficient of multiple regression analysis

Model	Unstandardized Coefficients **B**	Standardized Coefficients **Std. Error**	T **Beta**	Sig.	Collinearity Statistics
	0.50	0.10		5.00	.000
	0.35	0.08	0.42	4.38	.000
	0.29	0.07	0.36	4.14	.000

The multiple regression in Table 8 was used to examine the effects of the Management Accounting Controls (MAC) and Circular Economy Innovation (CEI) on Business Performance (BP). The general model was important, F (2, 113) = 58.23, p =.001, a large percentage of the variance in BP. MAC B = 0.35, 0.42, p less than .001) and CE I (B = 0.29, 0.36, p less than .001) all predicted positive business performance. The Collinearity tolerance is more than 0.60, VIF less than 2 statistics did not show any issues of multicollinearity. These findings indicate that the greater the management accounting

control and the involvement in the circular economy innovation, the more successful the business performance of the sampled firms.

Table 9

Summary of Hypothesis Testing

Hypothesis	Statement	Result
H1	Management Accounting Controls (MACs) Circular Economy Innovation (CEI)	Accepted
H2	Management Accounting Controls (MACs have a positive impact on the business performance of the small firms in Nepal.	Accepted
H3	Circular Economy (CE Innovation mediates the relationship between Management Accounting Controls (MACs and Business Performance in small businesses.	Accepted

The findings of hypothesis testing, Table 9, indicate that Management Accounting Controls (MACs) have a positive and significant effect on Circular Economy Innovation (CEI) in Nepali small firms (H1: = 0.56, p =.001). Business Performance (BP) is also greatly positively influenced by MACs (H 2: 0.42, p <.001). Also, the correlation between MACs and BP is mediated by Circular Economy Innovation (H 3: ind. effect =0.21, p < .01), which tells us that the influence of MACs on business performance is passed through CE innovation to some extent. These results affirm the importance of accounting controls in ensuring sustainable innovation practices, which enrich the performance of firms in small businesses in Nepal.

Discussion

This study explored the use of Management Accounting Controls (MACs) to boost Circular Economy (CE) innovation and to improve the business performance of small enterprises in Nepal. The correlation and regression tests showed that MACs have a positive and statistically significant impact on CE innovation (= 0.42; p < 0.001). This observation indicates that structured accounting, like budgeting, cost control and performance monitoring, gives the information required to apply CE strategies effectively in terms of financing and operations. The finding supports past research reports that highlight the role of management accounting in ensuring sustainability and resource efficiency (Bocken et al., 2016; Velte & Stawinoga, 2017; Nartey & van der Poll, 2021).

It was also observed that organisational involvement in MACs significantly promotes business performance (= 0.42; p = 0.001), which implies that companies that have established accounting controls stand at a higher stance to boost profitability,

operational efficiency, and competitiveness. This is consistent with the previous studies in the Asian setting, which emphasise that a well-developed management accounting system is conducive to effective decision-making and efficient allocation of resources (Gautam, 2024; Chenhall & Langfield-Smith, 2007; Hoque, 2014). The findings indicate that formalised financial management, even in a small-scale business, has its role to play as a measure of performance.

Moreover, it was found that the relationship between MACs and business performance is mediated by CE innovation (indirect effect = 0.21; $p < 0.01$), which means that the application of sustainable practices converts the accounting knowledge into actual operations and financial gain. The significance of CE in this mediating role is the value of using accounting controls to leverage long-term sustainability and competitive advantage. The results can be related to those conducted by researchers who highlight the importance of integrating innovation practices with management accounting as a way to improve the performance of a firm (Nair & Prajoko, 2020; Melles, 2025).

Altogether, the findings of this paper point to the fact that MACs are not only financial instruments, but also strategic facilitators of sustainable business activities. When small businesses embrace strong accounting controls, they will be in a better position to embrace CE innovations, which will eventually lead to improved performance. These results can have practical implications for Nepalese SMEs, which indicates that investing in accounting capacity and sustainability-related endeavours can generate a synergistic effect on business performance, complementing environmental responsibility and economic development.

Conclusion

The study shows that Management Accounting Controls (MACs) and Circular Economy (CE) innovation can be an important factor in improving the performance of businesses within Nepalese small enterprises. Among them, the most significant determinant is estimated as MACs (= 0.42), which directly influences not only CE innovation but also business outcomes since CE innovation (= 0.36) also has a significant impact by mediating the relationship between MACs and business outcomes. Correlation and regression analysis confirm that the combination of these predictors substantially explains the variation in the business performance, and there is no concern of multicollinearity, indicating the significant role of organised internal accounting operations and sustainability-guided programs in the performance of small businesses.

It is the recommendation of the Nepalese government to help its small enterprises enhance their Management Accounting Controls (MACs) through structured budgeting, cost monitoring, and performance evaluation systems. Meanwhile, companies need to adopt the idea of innovations of the Circular Economy (CE), such as resource efficiency, recycling, and sustainable product design, into their business to improve ecological and financial performance. To enhance the competence of managers and employees in terms of

accounting and sustainability practices, regular training and capacity-building programs should be offered to them so that they can make more efficient decisions. Also, the SMEs are advised to use external resources, including government incentives, regulatory advice, and market partnerships, to ease the implementation of MACs and CE programs and to encourage sustainable growth of the business in the long run.

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