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Evaluating the Effect of Strategic Management Accounting Tools on Perceived Organizational Performance: Evidence from Nepalese Commercial Banks

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ABSTRACT: This study examines the impact of Strategic Management Accounting Tools (SMATs) on the perceived organizational performance (POP) of Nepalese commercial banks. Structured questionnaires were distributed to 390 branch managers, accounting officers, and senior staff in accordance with a causal-comparative research design. Confirmatory factor analysis (CFA), path analysis, and structural equation modeling (SEM) were used to examine the proposed relationship between SMATs and organizational performance outcomes. The results show that SMATs' adoption significantly improves financial and nonfinancial performance metrics, including profitability, return on equity, return on assets, customer satisfaction, and innovation. The results indicate that the proper application of SMATs markedly improves organizational performance and competitiveness within Nepal's banking sector.

KEYWORDS: Nepalese commercial banks, Perceived organizational performance, Strategic management accounting tools, Structural equation modeling

1. INTRODUCTION

In today's competitive business landscape, organizations must utilize modern accounting systems to remain profitable and efficient. The main goals of traditional management accounting were cost control and budgeting. However, due to globalization and the rapid growth of technology, accounting has become increasingly strategic. This change led to the creation of Strategic Management Accounting Tools (SMATs), which help managers make better decisions for the long term (Kaplan & Norton, 1996; Cadez & Guilding, 2008).

SMATs include methods such as activity-based costing, balanced scorecard, benchmarking, and customer profitability analysis. These tools help organizations measure performance, identify profitable customers, and improve efficiency (Guilding & McManus, 2002; Chenhall, 2003). In the banking industry, where competition and regulations are increasing, SMATs help improve both financial performance—such as profit, return on assets (ROA), and return on equity (ROE)—and non-financial results like customer satisfaction and innovation (Banker, Chang, & Pizzini, 2004; Hossain, 2021).

In Nepal, most commercial banks still rely on traditional tools like budgeting and variance analysis (Adhikari, 2012; Shrestha, 2020). This limits their ability to benefit from modern accounting practices. As a result, there is limited research on how SMATs influence performance in the Nepalese banking sector. This study aims to fill that gap by examining *how the use of SMATs affects the perceived organizational performance (POP) of Nepalese commercial banks*.

The main objective of this study is to evaluate the effect of strategic management accounting tools on the performance of Nepalese banks. It also seeks to identify whether adopting SMATs can lead to better financial and non-financial outcomes.

Table 1
Research questions, objectives, and methods summary

Research questions	Objectives	Research methods
How does the adoption of strategic management accounting tools influence Nepalese commercial banks' perceived performance?	To examine the influence of strategic management accounting tools on the perceived performance of Nepalese commercial banks.	A questionnaire supported by structural equation model analysis and a literature review

2. LITERATURE REVIEW

Management accounting has changed significantly over time. In the past, budgeting and cost control were its main uses. But because of globalization, fast technological advancement, and fierce competition, businesses are looking for more creative ways to support strategic decision-making. Strategic Management Accounting (SMA), which links financial data to long-term business strategy, emerged as a result of this development, claim Kaplan and Norton (1996) and Cadez and Guilding (2008).

SMATs were developed because traditional accounting systems were too focused on recording past events and not enough on helping people make decisions for the present and the future (Cooper & Kaplan, 1988). By linking overhead costs to particular actions, Activity-Based Costing (ABC) was one of the first creative concepts that assisted managers in identifying ways to add value (Cooper & Kaplan, 1988). This made the costs more accurate. Internal processes, learning and growth, customers, and finances are the four primary areas from which the Balanced Scorecard (BSC) incorporates financial and non-financial measures to help short-term goals match with long-term strategy (Kaplan & Norton, 1996). The use of customer profitability analysis (CPA) helped managers focus on profitable customer segments. According to Chenhall and Langfield-Smith (1998), companies were able to boost productivity by evaluating their performance against that of industry leaders. Guilding and McManus (2002) found that managers focused on profitable customer segments by using Customer Profitability Analysis (CPA). Furthermore, Economic Value Added (EVA), which examines the difference between net operating profit and the cost of capital, was used to calculate real economic profit (Sharma & Kumar, 2010). Target costing enabled companies to stay competitive while designing products within financial constraints (Ansari & Bell, 1997). When taken as a whole, these tools help modern businesses make better decisions and plan more effectively.

SMATs and Organizational Performance

Numerous studies have shown that implementing SMAT improves organizational performance. These tools enhance non-financial aspects like customer satisfaction, service quality, and innovation in addition to financial outcomes like profitability, return on equity (ROE), and return on assets (ROA) (Banker, Chang, & Pizzini, 2004; Hossain, 2021; Maharjan, 2024; Maharjan, Dongol & Maharjan, 2025).

In terms of finances, SMATs help managers identify cost factors, cut waste, and boost profitability (Hossain, 2021). For example, Dahal et al. (2024) found that firms using advanced management accounting techniques experience better financial efficiency and competitiveness. Non-financial tools like benchmarking and the balanced scorecard promote innovation and staff development while enhancing long-term sustainability and customer satisfaction (Ittner & Larcker, 1998).

Chenhall (2003) asserts that these tools' effectiveness is contingent upon their ability to adapt to the organizational environment, a concept known as contingency theory. This theory states that management tools are only effective when they align with the organization's structure, culture, and strategic goals.

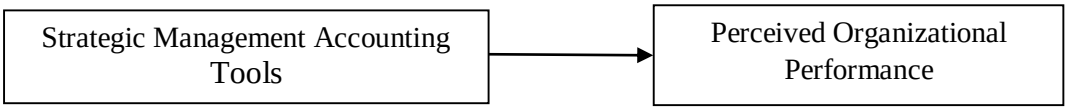
Although international studies have shown that SMATs enhance decision-making, profitability, and customer value, there have been relatively few studies conducted in Nepal (Cadez & Guilding, 2008; Chenhall & Langfield-Smith, 1998). Since most previous research has focused on manufacturing or large corporations in developed countries, there is a knowledge gap about their effects on financial institutions in developing contexts.

Thus, the primary focus of this research is on the impact of SMATs on the perceived organizational performance (POP) of Nepalese commercial banks. It aims to demonstrate whether these instruments can enhance the banking industry's financial and non-financial results.

Based on the literature reviewed, the study proposes the following hypothesis:

Figure 1

Research framework



H_1: There is a significant positive effect of SMATs on banks' perceived performance.

3. RESEARCH METHODOLOGY

This study followed a causal-comparative research design to examine how the use of SMATs affects the POP of Nepalese commercial banks (Zhang & Morris, 2014). Purposive sampling was used to distribute 550 questionnaires, and 390 valid responses from managers, accountants, and senior employees with at least three years of experience were gathered, yielding a 70.91% response rate (Farouk et al., 2016). The study employed eight primary dimensions to assess SMATs: Activity-Based Costing, Life Cycle Costing, Balanced Scorecard, Benchmarking, Customer Profitability Analysis, Economic Value Added, Competitor Analysis, and Strategic Budgeting. The cost-to-income ratio, return on equity (ROE), return on assets (ROA), customer satisfaction, and innovation and product development were the five metrics used to measure POP. All items were evaluated on a five-point Likert scale to measure the respondents' level of agreement (Hair et al., 2019).

The data was analyzed using AMOS and SPSS software. Numerous statistical tests were conducted, including reliability (Cronbach's Alpha above 0.70; Nunnally, 1978), validity (Composite Reliability above 0.70 and Average Variance Extracted at least 0.50; Fornell & Larcker, 1981), and multicollinearity (VIF less than 5; Hair et al., 2019). Two advanced analytical methods, structural equation modeling (SEM) and confirmatory factor analysis (CFA), were also employed to verify the accuracy of the measurement model and test the hypothesis. Table 2 lists the specifics and sources of the SMAT and POP measurement items.

Table 2

Measurement items

Constructs	Items	Measurements Items	Sources
Strategic Management Accounting Tools (SMATs)	SMA1	Activity-Based Costing	Cooper & Kaplan (1988); Al-Shammari (2019); Baird et al. (2004)
	SMA2	Life Cycle Costing	Shields & Young (1991); Hansen & Mowen (2015)
	SMA3	Balance-scored card	Kaplan & Norton (1996); Ahmad (2012); Kihara & Ngugi (2020)
	SMA4	Bench marking	Drury (2018); Hoque (2018); Cadez & Guilding (2008)
	SMA5	Customer profitability analysis	Guilding & McManus (2002); Cadez & Guilding (2012); Tsamenyi et al. (2017)
	SMA6	Economic Value Added	Sharma & Kumar (2010); Al Mamun et al. (2018)
	SMA7	Competitor Analysis	Bromwich (1990); Cadez & Guilding (2008); Roslender & Hart (2003); Maharjan (2024)
	SMA8	Strategic Budgeting	Horngren et al. (2015); Abdel-Kader & Luther (2008)
Perceived Organizational Performance (POP)	OP1	Decrease in Cost-to-Income Ratio	Tiffany & Sufiyati (2023); Kartal Demirgunes & Gulbahar Ucler (2015)
	OP2	Increase in return on assets	Athanasoglou et al. (2008); Al Tamimi & Hassan (2010); Maharjan (2024)
	OP3	Increase in return on equity	Flamini et al. (2009); Dietrich & Wanzenried (2011); Maharjan (2024)
	OP4	Increase in customer satisfaction	Zeithaml et al. (1996); Ehigie (2006); Munir & Ahmad (2020); Maharjan (2024)

OP5	Innovation and Product Development	Chenhall & Langfield-Smith (1998); Hoque (2018); Maharjan (2024)

4. RESULTS AND DISCUSSION

Respondent's profile

The study received 390 valid responses from managers, accountants, and senior employees of Nepalese commercial banks, yielding a 70.91% response rate. Men made up 65.13% of the respondents, while women made up 34.87%. Most were between the ages of 30 and 40 (40.00%), followed by 41 and 50 (31.79%), with 11.79% under 30 and 16.42% over 50. The majority of participants (71.00%) had a master's degree, 22.00% had a bachelor's degree, and 7% had credentials above a master's. 29.23% of respondents had over ten years of work experience, 46.15% had six to ten years, and 24.62% had three to five years. This shows that the data came from knowledgeable and experienced professionals, adding credibility to the study's results (Zhang & Morris, 2014). The detailed demographic information of the respondents is shown in Table 3.

Table 3
Respondent's Background Profile

Demographic	Categories	Respondents	Percentage
Gender	Male	254	65.13
	Female	136	34.87
Age group	Below - 30	46	11.79
	30-40	156	40.00
	41-50	124	31.79
	Above-50	64	16.42
Education Level	Bachelor	86	22.00
	Master	277	71.00
	Above Master	27	7.00
Experience	3 to 5 years	96	24.62
	6-10 years	180	46.15
	Above 10 years	114	29.23

Note: Field survey

Measurement model. The measurement model describes how observed variables represent underlying constructs and is evaluated for reliability and validity.

As shown in Table 4, each construct explained at least half of the variation in its indicators, as evidenced by the fact that all factor loadings were above 0.70 (Hair et al., 2019). The data exhibited strong internal consistency, as indicated by Cronbach's Alpha (CA) and Composite Reliability (CR) values exceeding 0.70 (Nunnally, 1978). Furthermore, the Variance Inflation Factor (VIF) values were all less than 5, indicating that there were no issues with multicollinearity among the variables. The Average Variance Extracted (AVE) values were also higher than 0.50, confirming good convergent validity (Fornell & Larcker, 1981).

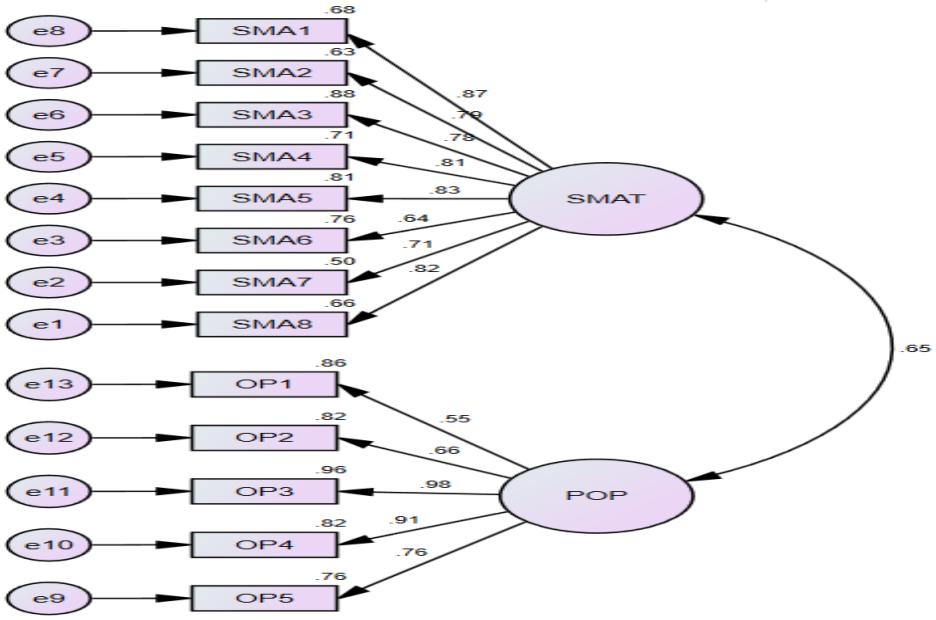
Table *4*
Measurement Model

Constructs	Items					
	Code	Factor Loading	CA	CR	AVE	VIF
Strategic Management Accounting Tools (SMATs)	SMA1	0.874	0.875	0.942	0.654	1.26
	SMA2	0.789				2.25
	SMA3	0.782				1.50
	SMA4	0.809				2.32
	SMA5	0.833				1.65
	SMA6	0.643				2.24

	SMA7	0.712				1.75
	SMA8	0.822				2.48
Perceived Organizational Performance (POP)	OP1	0.554	0.764	0.824	0.652	2.02
	OP2	0.664				1.23
	OP3	0.984				1.22
	OP4	0.914				1.14
	OP5	0.764				2.04

Note: Cronbach's Alpha (CA), Composite Reliability (CR), Average Variance Extracted (AVE), Variance Inflation Factor (VIF)

Figure2.
Measurement model



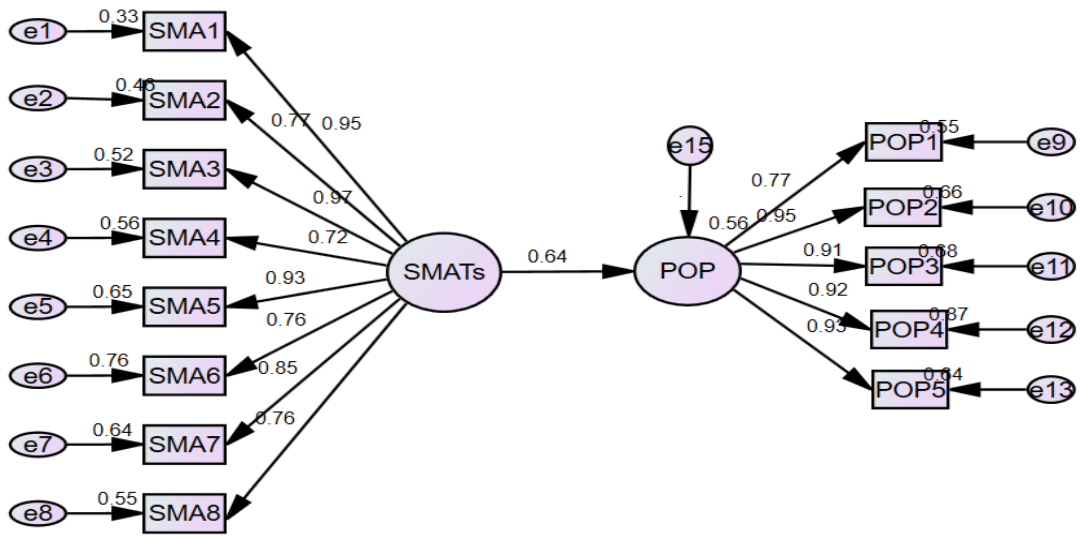
Structural Model Assessment. The structural model was evaluated using multiple fit indices, all of which satisfied recommended thresholds (Kline, 2016; Hu & Bentler, 1999).

Table 5
Fit indices values of the structural model

Model Fit Indices	Threshold value	Sources	Obtained Value	Interpretation
χ^2/df	≤ 3.00	Kline (2016)	1.92	Good Fit
CFI	≥ 0.90	Hair et al. (2019)	0.96	Excellent Fit
TLI	≥ 0.90	Hair et al. (2019)	0.95	Excellent Fit
RMSEA	≤0.08	Hu and Bentler (1999)	0.06	Acceptable Fit
SRMR	≤ 0.08	Hu & Bentler (1999)	0.05	Acceptable Fit

The findings show that the model fits well across all measurement criteria, confirming that the proposed framework is suitable. Figure 3 presents the path diagram of the structural model along with its regression coefficients.

Figure 3.
Structural model



Using Structural Equation Modeling (SEM), the study found that, with an R^2 value of 0.56, the use of SMATs accounted for a considerable portion of the variance in POP. This implies that the effectiveness of SMATs accounts for roughly 56% of the variations in POP.

Table 6
Value of R^2 of the model

Exogenous Variables	Endogenous Variable	Squared Correlations (R^2)
Strategic Management Accounting Tools	Perceived organizational performance	0.56

Hypothesis test. The results of the SEM confirmed a significant positive effect of SMATs on POP.
Table 7
Values of Regression Coefficients of Influence of SMATs Adoption on Perceived Organizational Performance

Hypothesis	Path	β	t-value	p-value	Decision
H1	POP <--- SMATs	0.64	8.42	< 0.001	Supported

Significant at a 5% level

Discussion. The study reveals that SMATs, including activity-based costing, life cycle costing, balanced scorecards, benchmarking, customer profitability analysis, economic value added, competitor analysis, and strategic budgeting, have a significant impact on enhancing the performance of Nepal's commercial banks. Based on the SEM results, SMATs could account for roughly 56% of the variations in bank performance. As a result, banks that employ SMATs typically have better non-financial performance (innovation, customer satisfaction) and financial performance (ROE, ROA, and cost-to-income ratio). These findings are consistent with other research showing how modern accounting tools improve competitiveness, efficiency, and decision-making (Cooper and Kaplan, 1988; Chenhall and Langfield-Smith, 1998; Hossain, 2021). Overall, the findings suggest that Nepalese banks should adopt more sophisticated accounting systems to improve their operations and stay competitive in the current unstable economic climate.

5. CONCLUSION AND IMPLICATION

Conclusion. The study concludes that SMATs are critical for improving the overall performance of Nepal's commercial banks. The study, which used Structural Equation Modeling, found that SMATs account for 56% of the variance in organizational performance. This means they have a significant impact on both financial and non-financial assets. Activity-based costing, the balanced scorecard, benchmarking, and customer profitability analysis are all approaches a company can use to increase revenue while improving ROA, ROE, customer satisfaction, and innovation. The findings suggest that when banks use SMATs appropriately, they can make better judgments,

accomplish more, and remain competitive in an ever-changing economic world. As a result, SMATs are viewed as essential strategic tools that surpass traditional accounting practices, ensuring sustainable growth and long-term success in the banking sector.

Implications. The research demonstrates that the adoption of SMATs is essential for improving profitability, customer satisfaction, and sustainable growth in Nepalese commercial banks. Managers are urged to invest in employee training and contemporary accounting systems that facilitate tools such as the Balanced Scorecard, Benchmarking, and Customer Profitability Analysis. Policymakers should promote SMATs through supportive policies and instructional initiatives. The study validates that SMATs are efficacious in developing nations like Nepal and align with contingency theory. The report advocates for the broader implementation of SMATs to enhance financial performance, competitiveness, and sustainable growth within the banking sector.

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