# Contemporary Management Accounting System Practices and Managerial Performance of Nepalese Commercial Banks Purna Narayan Maharjan

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### **Abstracts**

Contemporary management accounting systems managers provide with the necessary organizational performance commercial in banks. The study examines the adoption and influence contemporary management accounting system practices (CMASPs) on managerial performance within commercial banks in Kathmandu Valley, Nepal. The study treats costing, budgeting, strategic analysis, decision-support information, and performance measurement as independent variables, with managerial performance as the dependent variable. Employing descriptive and causalcomparative research designs alongside convenience sampling, the study gathered primary data from selected twenty Nepalese commercial bank branch managers and deputy managers using structured survey questionnaires rated on a 5-point Likert scale. Analysis encompassed descriptive statistics, inferential statistics including mean, standard deviation, skewness, kurtosis, and structural equation modeling (SEM) via Path Analysis. The study reveals that CMASPs function effectively, positively affecting managerial performance. These findings highlight the significance of CMASPs in achieving superior managerial performance within Nepal's commercial banking industry, offering actionable insights for bank managers and policymakers aiming to optimize performance through effective CMASPs. Future directions research could explore management accounting system practices across different sectors and investigate advanced MAS practices and technological integration.

#### Introduction

Contemporary management accounting systems practices (CMASPs) are essential in enabling informed decision-making, efficient resource allocation, employee motivation, and continuous operational improvement for commercial banks, ultimately contributing to achieving organizational performance goals (Kabir et al., 2018; Drury, 2019; Bhimani, 2019). Commercial banks rely on various CMASPs components, including costing systems, budgeting systems, strategic analysis, performance measurement systems, and decision-support information, to optimize profits, ensure regulatory compliance, manage risks effectively, and improve outcomes over time (Horngren et al., 2019; Drury, 2019; Porter, 1980; Laitinen and Lindgren, 2021; Hwang and Chen, 2016).

CMASPs help bank managers organize their resources more effectively, which leads to increased profitability and customer satisfaction (Choudhary and Shah, 2015). This generates long-term value for both internal and external stakeholders, resulting in benefits over time (Figueroa, 2020).

Managerial performance in commercial banks requires multiple competencies, including planning, investigation, coordinating, evaluating, supervision, staffing, negotiating, and representing. Effective managers in banks must balance these competencies to achieve organizational success.

Managerial performance is crucial for the success of commercial banks as they navigate a complex and competitive environment. Managers must possess strong analytical skills, communication and coordination abilities, and be knowledgeable about relevant performance metrics. Planning and aligning activities with the bank's mission and objectives is essential, as is supervising and mentoring employees, hiring the right personnel, and negotiating and representing the organization effectively. These competencies collectively contribute to the operation and success of commercial banks. (Atiase et al., 2015; Bikker & Hu, 2002; Daft, 2018; Karimi & Gu, 2017; Saka-Helmhout & Yunitsyna, 2019; Paudyal et al., 2019; Yildiz & Cömert, 2020)

Nepal's commercial banking system has grown and played an important role in the country's economy despite facing challenges such as low profitability, high non-performing loans, and inadequate technology infrastructure. Effective CMASPs are necessary for banks to adapt to external factors such as political instability, natural disasters, and exchange rate volatility. Studies on Nepalese and Malaysian commercial banks have shown that MASPs, such as cost accounting, budgeting, performance measurement, and traditional MASPs, are significant tools that support decision-making processes and achieve organizational goals. However, a greater understanding of CMASPs is needed to utilize them and manage financial resources effectively and fully. (Shah & Tamrakar, 2018; Aryal & Adhikari, 2019; Gyawali, 2017; Shrestha & Kunwar, 2018; Ahmad et al., 2020).

This study adds to the existing knowledge of CMASPs in commercial banks in Nepal. It specifically aims to investigate the implementation of contemporary management accounting system techniques in Nepalese commercial banks and assess how these practices affect managerial performance. Table 1 presents Research questions, objectives, and methods summary.

**Table 1** *Research questions, objectives, and methods summary* 

<b>Research questions</b>	Objectives	Research Methods
	To examine the extent of the use of the CMASPs in Nepalese commercial banks.	supported by descriptive statistical
How do CMASPs influence the performance of managers in Nepalese commercial banks?	influence of CMASPs on the managerial	equation model analysis and a literature

## **Literature Review and Hypotheses Development**

The Literature review focuses on reviewing literature related to CMASPs and their impact on managerial performance. It starts with a theoretical review, followed by empirical studies on CMASPs, and managerial performance, highlighting their findings and contributions to the ongoing study. The literature evaluation aims to identify research gaps and establish the groundwork for the current investigation.

## **Contingency Theory**

The effectiveness of management accounting system practices (MASPs) is determined by contextual factors such as organizational structure, culture, size, competitive pressures, and managerial performance according to contingency theory, which has been studied extensively in the context of MASPs in commercial banks. MASPs like costing systems, budgeting systems, strategic analysis, performance measurement, and information for decision-making can benefit commercial banks, but their efficacy depends on the competitive pressures and regulatory framework they face. Bank managers need effective coordination, strategic planning, performance evaluation skills, and communication with stakeholders and regulators to use MASPs effectively. A contingency approach that includes these contextual factors and managerial performance is necessary to enhance commercial banks' performance. (Otley, 1980; Sargiacomo & Tang, 2020).

# **Empirical Studies**

This empirical study explores the management accounting system practices and how they affect commercial bank managerial performance.

# Contemporary Management Accounting System Practices

Commercial banks heavily depend on Management Accounting Systems (MAS) for strategy planning and decision-making (Ramas et al., 2020). MAS is effective in improving cost reduction, profitability, and decision-making in commercial banks. Techniques such as budgeting, variance, and ratio analysis are commonly used in MAS (Hidayah & Thoyib, 2018; Tamimi & Mazrooei, 2007).

Several studies have shown that strategic analysis practices are commonly used in commercial banks to enhance competitiveness and profits, such as SWOT analysis, benchmarking, and scenario planning (Abdul-Jalilu et al., 2019; Siti-Nabiha et al., 2016). Internal accounting information is also important for decision-making and overall performance in Indonesian commercial banks (Nasution et al., 2018). Financial reports, market research, and internal management reports are commonly used sources of information for making strategic and operational decisions within Nigerian commercial banks, and balanced scorecards and financial performance measures are commonly used in performance measurement (Imoniana and Obamiro, 2018; Ojo and Bankole, 2018). Financial ratios, non-financial indicators, and balanced scorecards are also widely used performance measures in Bangladeshi and Malaysian commercial banks (Islam and Islam, 2015).

Rao and Joshi's (2014) survey of 100 bank managers in India found that activity-based costing, outsourcing, and cost control through budgeting and variance analysis are commonly used to improve profitability and decision-making. Mbawuni and Anertey's (2014) study on the mobile telecom industry in Ghana found that strategic analysis practices were most commonly used, while MTN Ghana utilized traditional budgeting techniques and financial measures. Vashisht et al. (2015) found that activity-based costing and zero-based budgeting were the most widely employed practices in Indian commercial banks and recommended their use to improve financial performance and decision-making. Amuyunzu-Nyamongo and Njeru's (2014) study on Kenyan commercial banks found that budgeting practices, including incremental, zero-based, and rolling budgets, were widely used for planning and control purposes.

Effective use of modern management accounting techniques is crucial for boosting financial performance, competition, and decision-making ability in commercial banks, according to the studies.

# Management Accounting System Practices and Managerial Performance

Effective MASPs significantly impact managerial performance and organizational success, with the performance evaluation system, decision-making strategies, strategic analysis of planning, and budgeting system having a greater impact than the costing system. Investing in training and development programs for managers is crucial for improving MASP skills and knowledge. More modern and sophisticated practices within MASPs, such as multiple and balanced performance measures and more timely and relevant information for

decision-making, are particularly effective in enhancing managerial performance (Bhimani, 2012; K & M, 2015; Otley, 2016; Gupta & Goyal, 2018; Hussin & Jais, 2016; Ahmed & Scapens, 2017; Nguyen & Nguyen, 2015; Maher, 2015).

Several studies have found that using Management Accounting and Control Systems (MASPs) positively impacts managerial performance in areas such as planning, coordination, evaluation, supervision, staffing, negotiating, and representing. Fraihat and Khadash (2020) discovered this in commercial banks in Jordan, using MASPs like a costing system, budgeting system, performance evaluation system, decision-making techniques, and strategic analysis on planning. Firth et al. (2019) found similar results in Chinese commercial banks while Janudin et al. (2019) identified it in the cooperative sector in Malaysia. Bhanu et al. (2018) observed that MASPs improved performance in Indian commercial banks. Din and Habibullah (2015) found that adopting performance measures and MAS amplified the connection between budget participation and managerial performance in Malaysian local government.

Abbas et al. (2021) conducted an empirical study on the impact of contemporary management accounting practices on managerial performance in Malaysia's top 100 co-operatives. The study included queries on strategic accounting procedures, strategic planning, and goal achievement. Through statistical analysis, the researchers found the relationship between contemporary MAP and managerial performance. The study provides valuable information to co-operatives in Malaysia and aims to enhance management accounting practices within the industry. Empirical studies suggest that effective MASPs can enhance managerial performance in commercial banks, specifically in areas like planning, coordination, evaluation, supervision, staffing, negotiating, and representing. Such systems include costing, budgeting, performance measurement, information for decision-making, and strategic analysis.

The literature review revealed research gaps in CMASPs in commercial banks, particularly regarding their effectiveness in developing countries and the unique challenges faced. Additionally, the impact of CMASPs tools on managerial performance needs further study. Addressing these gaps will enhance the understanding of CMASPs and managerial performance, especially

in contexts like Nepal. The empirical studies have led to the development of six hypotheses shown in Figure 1.

 $H_1$ : CMASPs in commercial banks influence Managerial performance Sub-hypotheses of  $H_1$  are as follows

H<sub>1a</sub>: Costing system in commercial banks influence Managerial performance

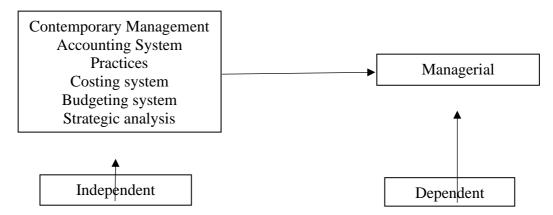
H<sub>1b</sub>: Budgeting system in commercial banks influence Managerial performance

H<sub>1c</sub>: Strategic analysis in commercial banks influence Managerial performance

 $H_{1d}$ : Performance measurement in commercial banks influences Managerial performance

H<sub>1e</sub>: Decision-support information in commercial banks influences Managerial performance

Figure 1. Research framework



Sources: Ahamad (2017); Mazzarri (2017); Janu din et al. (2019)

Sources and Operational definitions of variables are presented in Table 2.

**Table 2**Sources and Operational definition of variables

	perational definition of va		C1
Construct	Operational	Sources	Scales
	Definitions		
Contemporar	_	Chand and Ambardar (2013),	Likert, 1-7(1
y	<u> </u>	Pavlatos and Paggios (2008),	<ul><li>lowest</li></ul>
Management	financial and non-	Hansen and Mowenne (2007),	extension of
Accounting	financial data to	Chenhall & Langfield (1998),	use, 7 –
system	improve decision-	Ittner, Larcker & Rajan (1997),	highest
	making and	Maher, Lanen, & Akers (2018),	extension of
	organizational	Yesmin & Fowzia (2010),	use),
	performance. It	Mboweni & Anertey (2014),	Likert, 1-7(1
	employs methods like	Ojra (2014), Wang & Huynh,	<ul><li>Very</li></ul>
	costing, budgeting,	(2014), Leftesi (2014), Ahmad	strongly
	evaluation, and	(2017), Thabet & Aladdin	disagree, 7 –
	measurement to	(2017), Mazzarri (2017)	Very
	provide timely and		strongly
	relevant information.		agree),
Managerial	Managerial	Wang & Huynh (2014),	Likert, 1-5(1-
Performance	performance is crucial	Ghasemi, R., et al. (2016),	strongly
	for organizational	Dahal, R. K., Bhattarai, G., &	disagree, 5 –
	success, relying on	Karki, D. (2020), Mintzberg	strongly
	skills like planning,		agree),
	coordinating,	Coulter, & DeCenzo, (2017).	<b>C</b> ,,
	evaluating, and	Efendi, & Kusuma (2021)	
	negotiating. These		
	skills empower		
	managers to strategize,		
	allocate resources, and		
	lead teams effectively.		

# **Research Methodology**

This study employed both descriptive and causal-comparative research designs to investigate the impact of contemporary management accounting system practices (CMASPs) on managerial performance in Nepalese commercial banks. Descriptive research methods were used to describe the situation, while causal-comparative research aimed to establish cause-and-effect relationships between variables (Trochim, 2015). The study focused on all managers and deputy managers of selected commercial bank branches situated

in the Kathmandu Valley with expertise in MASPs and organizational performance. This study calculates the sample size using Argyrous's (2013) formula.

$$n = \frac{Z^2 X P X (1-P)}{e^2}$$

Where n = sample size,

Z =1.96 (at 95% confidence level),

e = 4% acceptable error

P = 0.2 (Estimated sample proportion of the population),

Value of n = 369 (minimum sample size required for the study is 369).

A total of 600 questionnaires were distributed using convenience sampling, suitable for a limited, homogeneous, and geographically scattered population (Kumar & Bhatia, 2018). Out of these, 450 questionnaires were completed, resulting in a 75% response rate (Baruch & Holtom, 2008). After excluding 25 incomplete questionnaires, the final sample size was 425 valid responses, exceeding the minimum required by Argyrous (2013). The researcher collected primary data using self-administered questionnaires with close-ended statements and a five-point Likert scale, ensuring reliable and valid information for easy and uniform data analysis.

Data analysis, crucial for classifying and interpreting data, employed various analytical tools. Descriptive statistics, including mean values, percentages, standard deviations, skewness, and kurtosis, were used to describe the results and address initial research objectives. Inferential statistics, such as structural equation modeling (SEM) for Path Analysis, confirmatory factor analysis (CFA), Latent Variable Modeling, and Model Fit Indices (CFI, GFI, IFI, RMSEA), were applied to test hypotheses. Reliability and validity assessments were conducted, with analyses performed using SPSS Version 22.0, AMOS Version 23.0, Microsoft Excel, and Zotero for referencing (Trochim, 2015; Kumar & Bhatia, 2018; Baruch & Holtom, 2008).

#### Measurement variables

The latent indicators of the examination were CMASPs and managerial performance and the test items of the latent indicators were drawn from the

review of earlier studies. The study focused on 25 CMASPs and eight managerial performance test items, as presented in

**Table 3** *Measurement and Items* 

Constructs	Items	Measurements Items	Resources
	CS1	The bank effectively applies cost segmentation	Simons
		to allocate costs to different products or	(1995),
~	004	services.	Hansen &
Costing	CS2	Standard costing is regularly employed in our	Mowen,
System	CCC	bank to establish cost benchmarks.	(2006),
	CS3	Opportunity cost analysis is an integral part of	Horngren,
		the decision-making process in commercial	
	CC4	banks.	
	CS4	The bank uses activity-based costing to	
		evaluate performance and make strategic decisions.	
	CCE		
	CS5	The banks use target costing to identify appropriate cost levels for new products or	
		services.	
	BS1	The bank applies budgetary control in	Demetriou
	DSI	effectively monitoring and managing expenses	Bolton
		and revenues.	(2019),
Budgeting	BS2	Financial stability and profitability are assured	(2017),
System System	<b>D</b> 02	in banks through budget planning.	Gyawali
System	BS3	The bank uses activity-based budgeting to	(2018),
	Doc	allocate resources more accurately and	Chen (2019
		effectively.	C11011 (201)
	BS4	Zero-based budgeting is used by banks to	
		improve cost control and resource allocation.	
	BS5	Banks use flexible budgeting to optimize	
		resource allocation and efficiency.	
	SA1	Strategic costing analysis is used by the bank	Mohamed e
		to improve efficiency and decision-making.	al (2015)
	SA2	Bank uses strategic pricing analysis to	Al-Aamaed
		enhance pricing competitiveness and market	(2020,)
		positioning	

Constructs	Items	Measurements Items	Resources
	SA3	Brand valuation is an important indicator of the	Johnson
Strategic		bank's overall financial performance.	(2020),
analysis	SA4	The bank uses competitor analysis to	
		successfully identify market opportunities and	
		risks.	
	SA5	The bank uses SWOT analyses to assess its	
		strengths, weaknesses, opportunities, and	
		threats.	
	PM1	Financial statement analysis is used to assess	Johnson &
		the organization's financial health and	Smith (2019)
		performance.	Smith&
	PM2	The performance of the bank is evaluated	Johnson
Performance		based on residual income	(2021),
measurement	PM3	The bank's performance is assessed through	
		benchmark report analysis.	
	PM4	The bank's performance is evaluated using a	
		balanced scorecard approach.	
	PM5	The bank's performance is evaluated by	
		comparing its competitor's performance	
	DS1	Bank uses break-even analysis to determine the	•
	_ ~-	financial feasibility of new products or services.	
<b>Decision-</b>	DS2	Investment decision analysis assists in making	* * * * * * * * * * * * * * * * * * * *
support	DGG	sound investment decisions.	Khatiwada et
information	DS3	Customer profitability analysis has a	al. (2018)
		significant impact on the strategic decisions	
	DC4	made by banks.	
	DS4	The bank has an effective strategic plan that	
	DS5	aligns with its long-term goals and vision.	
	DSS	The bank implements pricing strategy	
		adjustments based on product profitability	
	MP1	analysis.	Dec (2018)
	IVII I	The manager develops and implements strategic plans to achieve bank objectives.	Doe (2018),
	MP2	The manager shows strong analytical abilities	Williams &
	1711 4	to investigate market trends and competition.	Johnson
	MP3	The manager effectively coordinates and	(2019),
	1711 0	allocates resources to ensure smooth	(2017),
		operations.	
		operations.	

Constructs	Items	Measurements Items	Resources
	MP4	The manager consistently evaluates	
Managerial		performance and takes corrective actions when	Ferreira &
Performance		necessary.	Laux (2008),
	MP5	The manager demonstrates strong supervisory	
		skills by effectively managing and motivating	Datar, &
		the team.	Rajan (2018),
	<b>MP6</b>	The manager effectively staffs positions with	•
		qualified and competent individuals.	
	<b>MP7</b>	The bank manager negotiates and interacts	
		successfully with clients and stakeholders to	
		achieve mutually beneficial	
	MP8	The manager effectively represents the bank's	
		interests in external meetings and negotiations	

The study used Confirmatory Factor Analysis (CFA) to measure the standardized regression loads of observed variables within a latent construct. Hair et al. (2006) suggested that a stacking value of 0.50 or higher indicated significance, and the observed variables with stacking values above this threshold were deemed significant. The CMASP construct, which had 25 observed variables, showed acceptable model fit statistics, (Normed chi-square,  $\chi^2$ /df =2.394; Root Mean Square Error of Approximation, RMSEA=0.080; Adjusted Goodness of Fit Index, AGFI=0.949; Comparative Fit Index, CFI=0.924; Normed Fit Index, NFI= 0.902; Tucker Lewis Index, TLI=0.910). The observed variables for the managerial performance construct were retained as they had a stacking value exceeding 0.50. The managerial performance construct also demonstrated satisfactory model fit statistics, including  $\chi^2$ /df =2.402; RMSEA= 0.051; AGFI=0.992; CFI=0.995; NFI=0.902; TLI=0.984. The cut-off and obtained values as shown in Table 4.

**Table 4**Fit indices values of the structural model

Model fit Indices	Cut-off value	Sources	Obtained Value of CMASP construct	Obtained Value of managerial performance construct
$\chi^2/df$	$\leq 3.00$	Kline (1998)	2.394	2.402
AGFI	$\geq 0.80$	Baumgartner & Homburg (1996)	0.949	0.992
CFI	$\ge 0.80$	Schreiber et al. (2006)	0.924	0.995
NFI	$\ge 0.80$	Bentler & Bonett (1980)	0.902	0.902
TLI	$\geq 0.90$	Hu & Bentler (1999)	0.910	0.984
<b>RMSEA</b>	$\leq 0.08$	Hu & Bentler (1999)	0.080	0.051

## Reliability and Validity

The reliability and validity tests confirm the validity of the structure of the measurement model. The statistics related to the measurement are displayed in Table 5.

**Table 5** *Reliability and Validity Statistics* 

Reliab	ility Test	Validity	y Test			
Cronba	ach's Alpha	Compo	site Reliability	Average Variance		No.
$(\alpha)$	•	(CR)		Extrac	ted (AVE)	Of
Test	Recommende	Test	Recommende	Test	Recommende	items
value	d edge value	value	d edge value	value	d edge value	
0.863	≥ 0.7	0.862	≥ 0.70 (Hair,	0.558	≥ 0.5 (Hair,	5
0.919	(Nunnally,	0.919	Ringle, &	0.695	Ringle, &	5
0.862	1994)	0.856	Sarstedt,	0.506	Sarstedt,	5
0.902		0.879	2011)	0,568	2011)	5
0.910		0.910		0.671		5
0.790		0.702	_	0.500	-	8
	Cronba (α) Test value 0.863 0.919 0.862 0.902	Test value         Recommende dedge value           0.863         ≥         0.7           0.919         (Nunnally, 0.862         1994)           0.902         0.910	Cronbach's Alpha       Component         (α)       (CR)         Test       Recommende value       Test value         0.863 $\geq$ 0.7       0.862         0.919       (Nunnally, 0.919)       0.856       0.902       0.879         0.910       0.910       0.910	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

(CS= Costing System, BS= Budgeting System, SA= Strategic Analysis, PM= Performance Measurement, DS= Information for decision-making, MP= Managerial Performance)

Source: Output from AMOS Software

Table 5 indicated that the statistics met the recommended edge values, which implies that the observed variables and latent constructs were credible and suitable for further analysis.

### **Results**

## Profile analysis of respondents

The survey had 425 participants with varied ages, but most (52%) were between 41-50 years old. The majority (80%) were male with a master's degree (70.6%). The 31-50 age group made up 74% of the total respondents, and 32% had 11-15 years of experience. Overall, the participants had moderate experience levels and possessed a master's degree. The survey data is in Table 6.

 Table 6

 Respondent's Background Profile

Demographic	Categories	Respondents	Percentage
Gender	Male	340	80
	Female	85	20
Age group	21-30	51	12
	31-40	102	24
	41-50	221	52
	51-above	51	12
<b>Education Level</b>	Bachelor	85	20
	Master	336	70.6
	M.Phil./PhD	4	9.4
Experience	3-5 years	50	11.76
	6-10 years	187	44
	11-15 years	136	32
	Above 16 years	52	12.24

Source: Survey data

## Contemporary Management Accounting System Practices

The study examines CMASPs in Nepalese commercial banks, collecting data from managers and presenting descriptive values in Table 7. The results are analyzed to enhance understanding of CMASPs application in these banks.

**Table 7**Descriptive Statistics of Contemporary Management Accounting System
Practices

Variab les of	Sam ple	Mea n	Std. Deviat	Test = 3	Value	Skewn ess	Kurto sis	Remar ks
MASP	size		ion	t	p-			
S				value	val			
					ue			
CS	524	3.8	.794	23.8	.0	657	.205	Signific
		29		89	00			ant
BS	524	3.5	.969	13.5	.0	590	190	Signific
		74		65	00			ant
SA	524	3.5	.956	77.6	.0	481	447	Signific
		82		32	00			ant
PM	524	3.6	.964	86.7	.0	495	134	Signific
		54		41	00			ant
DS	524	3.5	.928	13.7	.0	544	218	Signific
		56		30	00			ant

Source: Results obtained through SPSS

The study used a 5-point Likert-type scale to measure the variables. Table 7 shows that the mean values of the five dimensions of the overall CMASP variable are above the test value 3, indicating a successful implementation of CMASPs in Nepalese commercial banks. Respondents gave stable responses with mean values ranging from 3.556 to 3.829. All opinion statements are significant with a probability value of 0.000. The data for all five constructs follow normality with skewness and kurtosis values within an acceptable range.

### Structural Model Assessment

A structure-equation model generated through AMOS was used to test the relationships. The model had adequate fitness statistics and all stood within the recommended cut-off values as shown in Table 8.

**Table 8**Fit indices values of the structural model

Model	fit	Cut-off	Sources	<b>Obtained Value</b>
<b>Indices</b>		value		
$\chi^2/df$		≤ 3.00	Kline (1998)	1.372
AGFI		$\geq 0.80$	Baumgartner & Homburg	0.870
			(1996)	
CFI		$\geq 0.80$	Schreiber et al. (2006)	0.922
NFI		$\geq 0.80$	Bentler & Bonett (1980)	0.922
TLI		$\geq 0.90$	Hu & Bentler (1999)	0.992
RMSEA		≤0.08	Hu & Bentler (1999)	0.064

The assessed values of fit indices for the model are a good fit for  $\chi^2/df$ , AGFI, CFI, NFI, TLI, and RMSEA showed an acceptable fit. So, the structural model fit is good. The path diagram of the structural model and its regression coefficients are displayed in Figure 2.

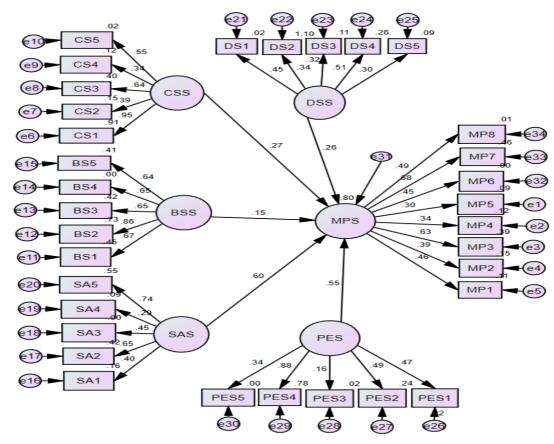


Figure 2 Study Structural Model

# Analysis of the structural equation model

This segment presents the SEM regression coefficient values for testing the present study's hypotheses.

# Variances Explained by Exogenous Variables in Endogenous Variables

The quality of a model's forecasting capability is measured by how well exogenous variables predict endogenous variables. Future forecasting will improve. The SEM presents the variance explained by Squared Multiple Correlations  $(R^2)$  in regression analysis. Table 9 shows the value of  $R^2$  in the study.

Table 9	
$Value\ of\ R^2$	of the model

Exogenous Variables	Endogenous Variable	Squared Multiple Correlations (R <sup>2</sup> )
CMASPs	Managerial performance	0.80

The study found that the selected CMASPs - costing, budgeting, strategic analysis, performance measurement, and information for decision-making - are independent factors affecting managerial performance. The MASPs variable explained 80% of the variance in managerial performance.

# Testing of Hypotheses

Table 10

This segment examines structural model regression coefficients, which help test the study hypotheses.

Impact of CMASPs on Managerial performance

The following hypothesis assesses the impact of CMASPs on managerial performance.

H<sub>1</sub>: CMASPs in commercial banks influence managerial performance.

Table 10 displays the regression coefficients of the select CMASPs.

Values of Regression coefficients of Influence of CMASPs on Managerial performance

perjormance							
Hypotheses		otheses	Hypothesized	Standardized	T - Value	P- Value	Decision
			Relationship	Estimates			
_		$H_{1a}$	MPP < CSS	0.268	3.888	0.044	Significant impact
		$H_{1b}$	MPP < BSS	0.015	2.187	0.040	Significant impact
	$H_1$	$H_{1c}$	MPP < SAS	0.602	4.299	0.001	Significant impact
		$H_{1d}$	MPP < PES	0.548	4.597	0.005	Significant impact
		$H_{1e}$	MPP < DSS	0.263	2.581	0.005	Significant impact

Significant at a 5% level of probability

The study found that CMASPs have a significant positive impact on managerial performance. This was tested through five hypotheses, which were all supported. The costing system (b = 0.268, t = 3.888, P = 0.044), budgeting system (b = 0.015, t = 2.187, P = 0.040), strategic analysis (b = 0.602, t = 4.299, P = 0.001), performance measurement system (b = 0.548, t = 4.597, P = 0.005), and information for decision-making (b = 0.263, t = 2.581, P = 0.005), were all found to have a positive and significant impact on managerial performance. Therefore, the study concludes that CMASPs significantly influence managerial performance.

### **Discussion**

The descriptive statistics of the management accounting system practices in Nepalese commercial banks indicate good implementation of MAS practices with high mean values and low standard deviation of dimensions. The effectiveness of CMASPs is dependent on contextual factors and managerial skills. A contingency approach is necessary for organizations to enhance their performance. Empirical literature emphasizes the importance of aligning management accounting systems with organizational goals for improving financial performance and decision-making ability, providing feedback for strategic decision-making, and adapting to unique needs for ongoing success. Ongoing evaluation and adaptation of management accounting systems are necessary for commercial banks to enhance their performance. (Hartmann, 2018; Chenhall, 2011; Chenhall, 2003; Otley, 2016; Simons, 1995; Kaplan and Norton, 1992; Langfield-Smith, 1997).

The study confirms that CMASPs have a positive impact on managerial performance, which is consistent with previous research (Bhimani, 2012; Hussin and Jais, 2016; Nguyen and Nguyen, 2015). The authors highlight the importance of investing in training and development programs to improve MASP skills and knowledge, which is also supported by previous studies (Gupta and Goyal, 2018; Maher, 2015). Overall, the literature provides valuable insights into the impact of CMASPs on managerial performance, highlighting the need to consider various contextual and organizational factors when evaluating the effectiveness of CMAS practices.

## **Conclusion and Implication**

The study concludes that effective CMASPs, including costing, budgeting, strategic analysis, performance measurement, and information for decision-making are essential for the success of Nepalese commercial banks. The study found a statistically positive and significant impact of these systems on managerial performance. The findings provide valuable insights for commercial bank managers and policymakers to enhance their managerial performance by implementing effective CMASPs.

The study suggests that implementing advanced management accounting systems and practices (MASPs) can improve the performance and competitiveness of Nepalese commercial banks. Other factors, such as decision-making style, organizational commitment, environmental uncertainty, and organizational culture, should also be considered. Management training programs can enhance managerial skills and competencies for better organizational performance. Measuring and assessing managerial performance is critical. Findings from other countries and industries can be adapted to Nepalese commercial banks. The effectiveness of MASPs depends on the organizational context.

## **Future Research of the Study**

The scope for extending this study includes analyzing the concept in other sectoral organizations, using qualitative and mixed methods for deeper insights, comparing public and private banks, and studying other MASPs such as performance evaluation, strategic analysis, controlling, reporting, and risk management in banking and other industries. It also involves exploring the role of technology in implementing MASPs in commercial banks and testing the impact of advanced MASPs on various aspects of managerial performance.

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