# Cost-Volume-Profit (CVP) Analysis of Nepalese Commercial Banks [1]

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## Abstract

The paper uses the Cost-Volume-Profit (CVP) model to compare the profitability structure and operational practices of two big banks of Nepal Everest Bank Limited (EBL) and Sanima Bank Limited (SANIMA). Using the audited financial data from the period from FY 2014/15 to 2023/24, the study has a quantitative, longitudinal design. Within the CVP framework, Total Operating Income is the sales, Interest Expenses equals the variable costs and Operating Expenses equals the fixed costs. On the basis of this, the study calculates and compares important parameters: Contribution Margin Ratio (CMR), Break-Even Point (BEP), Margin of Safety (MOS) and Degree of Operating Leverage (DOL). The analysis demonstrates that both the banks have developed steadily towards sustainable growth with stable cost structures. EBL's CMR is on average ten percentage points higher than SANIMA's, and the difference is significantly higher, reflecting a stronger structure in terms of profitability. However, variations in BEP, MOS and DOL are not statistically significant and would indicate similar operational resilience and risk exposure. EBL's superior profitability is attributed to structural efficiency; on the other hand, SANIMA gains competitiveness through disciplined cost management. Implications: The implications of the study are that it is possible to achieve stability of operations in commercial banking through the application of different strategic approaches - either through a high margin structure or by exercising strong cost control. The CVP framework provides a useful diagnostic tool for bank managers to determine

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core profitability (via CMR) and financial resilience (via MOS), and goes beyond traditional analysis of performance by going beyond conventional banking ratios.

***Keywords*:** Break-even point, CVP analysis, Nepalese commercial banks, operating leverage, quantitative analysis

## Introduction

Cost-Volume-Profit (CVP) analysis is a critical managerial accounting instrument that aids in planning, control and decision-making in all industries and the banking industry is no exception. CVP is traditionally used in manufacturing and service industries, but it is also applicable to financial institutions, where the study of the cost structure and income-generating activities can help in strategic management (Lamichhane, Lama, and Lopchan, 2024; Yadav, 2018). The major goal of CVP analysis is to evaluate the impact of changes in cost and volume on profit and, thus, help the management to estimate the price, sales objective and break-even (Dangol, 2022; Thapa and Sapkota, 2019).

The banking sector in Nepal has experienced a rapid growth, increased competition, and an increase in stricter regulations over the last 20 years. As the Basel III norms, digital transformation, and increased customer expectations are introduced, the tools that help to correlate cost behavior and profitability have become a necessity. CVP analysis offers a dynamic analysis which facilitates banks to predict the impact of the variation in business volume, revenue of interest, and operating expenses on overall stability and profitability- to give information not just on the usual ratio analysis.

When modifying the use of CVP to the banking industry, the total operating income (interest and non-interest income) is considered as sales revenue, the costs of interest as variable costs, and the rest of the operating costs (personnel, administrative and depreciation) as fixed (mostly). It is possible to calculate such essential indicators like Contribution Margin Ratio (CMR), Break-Even Point (BEP), Margin of Safety (MOS), and Degree of Operating Leverage (DOL), which can lead to a greater insight into the operational efficiency and the exposure of risk (Paudel and Acharya, 2021; Hossain and Ahamed, 2021; Mahataman, 2025; Shrestha, 2023).

The applicability of CVP principles in different industries has been proven by past researchers. Its use in hospitality management was demonstrated by Yadav (2018) and Shakya (2025), and Subedi (2022) reported its use in increasing the financial sustainability in cooperatives. But the current banking research in Nepal is mostly

concentrated on macro-level indicators, including capital adequacy, liquidity, and non-performing assets, instead of the hidden cost-volume relationships (Thapa and Sapkota, 2019). Therefore, there is a paucity in integrating CVP techniques in the financial performance analysis.

CVP based profitability models have been used globally in the banking industry to investigate the effect of cost structure on the operations achieved. Hossain and Ahamed (2021) discovered that the effect of cost management on profitability among Bangladeshi banks is quite strong, whereas Abbasi and Weigand (2017) emphasized the role of digital financial services in efficiency. Cost of funds and operational efficiency were found to be key determinants of profitability in Nepal according to studies by Paudel and Acharya (2021) and Nepal Rastra Bank (2020) variables directly aligned with the CVP variables.

Although there are these contributions, no longitudinal analysis has been done using CVP on Nepalese commercial banks. In past comparative research, like that of Bhandari (2010) on the Himalayan Bank and Everest Bank, the ratio analysis was also stressed but not such CVP indicators as break-even points and safety margins. In the same vein, Shrestha (n.d.) investigated the determinants of profitability but did not consider the cost-volume dynamics.

Therefore, this paper uses the CVP model to analyze the performance of Everest Bank Limited (EBL) and Sanima Bank Limited (SANIMA) in the FY period (2014/15-2023/24). The study will reveal information about the operational efficiency and cost management as well as the resistance to changes in income by evaluating their CMR, BEP, MOS, and DOL. It is believed that the findings will have a practical implication on managers, policymakers, and researchers who, in an effort to increase profitability and financial stability in the banking industry of Nepal.

Research Questions

Building upon the problem context and literature, this study is guided by the following research questions:

- **RQ1:** Is there a significant difference in the *Contribution Margin Ratio (CMR)* between EBL and SANIMA?
- **RQ2:** Is there a significant difference in their *Break-Even Point (BEP)?*
- **RQ3:** Is there a significant difference in their *Margin of Safety (MOS)?*

- **RQ4:** Is there a significant difference in their *Degree of Operating Leverage (DOL)?*

These questions aim to clarify whether variations in cost behavior and income structure contribute to the profitability differences observed between the two banks.

Research Hypotheses

Based on prior research (Paudel & Acharya, 2021; Lamichhane et al., 2024; Mahataman, 2025), the study tests the following hypotheses to statistically examine differences in CVP metrics:

| Null Hypothesis ($H_0$) | Alternative Hypothesis ($H_1$) |
|---|---|
| $H_{01}$: There is no significant difference in the CMR between EBL and SANIMA. | $H_{11}$: There is a significant difference in the CMR between EBL and SANIMA. |
| $H_{02}$: There is no significant difference in the BEP between EBL and SANIMA. | $H_{12}$: There is a significant difference in the BEP between EBL and SANIMA. |
| $H_{03}$: There is no significant difference in the MOS between EBL and SANIMA. | $H_{13}$: There is a significant difference in the MOS between EBL and SANIMA. |
| $H_{04}$: There is no significant difference in the DOL between EBL and SANIMA. | $H_{14}$: There is a significant difference in the DOL between EBL and SANIMA. |

**Literature review**

The Cost-Volume-Profit (CVP) analysis is a critical managerial-accounting tool that helps in the determination of how any changes in cost, volume, and revenue affect profitability. It gives the decision-makers a systematic approach to calculating the break-even point, the margin of safety and the amount of operating leverage, the parameters that can be used to estimate how sales changes affect profits (Maharjan, 2012).

CVP has been used in various industries worldwide to assist in pricing, budgeting and performance appraisal. As Abbasi and Weigand (2017) observed, the CVP analysis would help financial institutions match the profitability objectives with the cost structure. On the same note, Hossain and Ahamed (2021) focused on the importance of cost efficiency, composition of funds, and discipline in operations as some of the key factors that keep a bank profitable.

The determinants of financial performance have also been investigated in the Nepalese context with a number of studies done but a few studies have applied CVP models directly. The study by Shrestha (2018) discovered that management performance, the quality of assets, and control over operations have a significant impact on the profitability of banks. Managerial efficiency and cost control were also listed by Paudel

and Acharya (2021) as the drivers of profitability among Nepalese commercial banks. Similarly, Lamichhane, Lama, and Lopchan (2024) proved that financial outcomes in Nepalese state-owned enterprises are enhanced by the efficient cost management and higher sales volume.

In his review of Management Accounting and Its Application, Dangol (2018) pointed at the increasing applicability of CVP techniques in service industries, particularly in the banking industry, because it allows controlling the future of finances. Similar findings were made by International studies by Safitrii and Fitriya (2023) and Ditoananot and Purwanti (2023) who concluded that contribution margin, break-even point, and degree of operating leverage are effective profitability measures in dynamic market conditions.

However, its popularity notwithstanding, CVP analysis is still not fully exploited in Nepalese commercial-banking studies that have been long dominated by accounting ratios like return on assets (ROA), return on equity (ROE) and net-interest margin (NIM). Mahataman (2025) thought that the inclusion of CVP indicators in the analysis of banks enables the dynamics of operational leverage and costs to be better understood.

**Research gap**

Although previous literature has determined the significance of cost management and operational efficiency (Shrestha, 2018; Lamichhane et al., 2024; Paudel and Acharya, 2021), little empirical data on CVP metrics dynamics over a period have been made on Nepalese banks. Therefore, this research closes this gap by utilizing the longitudinal CVP model to compare the Everest Bank Limited (EBL) and Sanima Bank Limited (SANIMA) within a decade (FY 2014/15 -2023/24).

**Methods**

This research is a quantitative, comparative and longitudinal study utilizing cost-volume-profit relationships (CVP) of two Nepalese commercial banks; Everest Bank Limited (EBL) and Sanima Bank Limited (SANIMA). The two banks were carefully chosen among Class “A” commercial banks licensed in Nepal Rastra Bank due to their similar size, perpetual presence of audited financial information over the whole decade and their unique strategic characteristics. EBL is a more established and foreign partnered bank with conservative growth and SAN IMA is a younger bank promotion that is promoted within the country and has modern expansion strategies. This choice

guarantees structuring and performance comparability and represents various managerial choices under the same regulatory level.

The study simply relied on secondary information extracted by the perusal of the audited annual reports of the two banks, which were released by their respective corporate offices and were available on their respective official websites. This helped in the accuracy, uniformity and compliances with the International Financial Reporting Standards (IFRS).

The study is based on a continuous ten-year time span from the fiscal years of 2014/15 through 2023/24. This long period was chosen so that the analysis of the performance of the banks includes the whole period of economic conditions such as several interest rate cycles, major changes in regulations, and market dynamics.

The differences and similarities in cost structures and profitability patterns between the two banks have been determined using a comparative approach. The priority of a longitudinal design was to observe trends within the whole study period. The CVP analytical model has been appropriately deployed to the setting of the banking sector context with modifications to variable definition being made.

With regards to the present study, the standard cost volume profit (CVP) model was modified to the banking industry with sales and costs being assigned particular meanings consistent with financial intermediation operations.

Sales in the case of the manufacturing industry are the total amount of revenue earned by selling the goods. In case of banks, this study considers sales as the total operating income, the components of which are: interest income (income through loans, advancements and investments), and non-interest income which is determined by the fees, commissions, exchange gains, and income through other services. The definition includes all revenue generating potential of the core operations of the bank.

Variable costs in a banking scenario are costs that change in direct proportion to the interest bearing liabilities. In this case, interest expense such as interest on deposit accounts, borrowings and other financial interest is considered as variable. It is assumed that as the bank lends and invests more money, there will be a likelihood that it will have to pay more interest payments in proportion.

Fixed costs are those expenditures which are not affected by fluctuations in short-term operation during a given period. This consists of personnel expenses (salaries, benefits, training), other operating expenses (administrative costs, rent, utilities,

technology) and depreciation/amortization in banks. Such costs are generally steady over a range of capacity even when the levels of loans or deposits change.

The contribution figure is calculated as:

$$C=S-VC$$

It is the value of revenue that remains that can be utilized to cover the fixed expenses and profit after the variable expenses are taken care of. Any increase in the contribution depicts a more efficient cost structure in terms of interest expense management.

Earnings Before Interest and Taxes (EBIT) in the CVP context is obtained by deducting fixed costs from the contribution:

$$EBIT=C-FC$$

This reflects the profitability from core banking operations before accounting for non-operating items and taxes.

In the study, there are four indicators of the CVP that have been used to assess and compare the financial performance of the Everest Bank Limited and the Sanima Bank Limited in the ten-year period, as follows:

$$CMR=\frac{C}{S}$$

The ratio indicates the percentage of each rupee of sales (operating income) to pay the fixed costs and toward profit. The higher the CMR, the more efficient in translating revenue into profit potential the company. The implications of a higher CMR of a bank are that it can better control interest expenses in comparison to the operating income.

$$BEP=\frac{F \quad C}{C}$$

The break-even point is the amount of operating income that makes the total revenue equivalent to total cost, when the profit is zero. It acts as a breakpoint on the financial management side in ascertaining the minimum sales to steer away the losses. In business terms, BEP determines the size of Jeff to continue being profitable in the banking industry.

$$MOS=\frac{A \quad Sa \quad -B}{A \quad S}$$

The margin of safety measures how much sales (operating income) can decline before the bank reaches its break-even point. A high MOS provides a cushion against

revenue fluctuations and indicates lower business risk. For banks, it reflects resilience against interest rate changes, reduced loan demand, or lower transaction volumes.

$$\mathbf{DOL}=\frac{\mathbf{C}}{\mathbf{E}}$$

Degree of operating leverage measures how operating profit is affected by change in sales (operating income). High DOL indicates that when revenue changes by a small amount, EBIT changes proportionately by a greater amount and, therefore, represents higher business risk but also higher profit potential as the revenue increases. The high DOL in the bank would imply increased dependence on fixed costs, and profits become more sensitive to fluctuation of income.

The data in the annual reports was tabulated and subjected to the analysis with the assistance of Microsoft Excel and IBM SPSS statistics (Version 26). Mean and standard deviation were utilized as descriptive statistics that would determine the trend and variation of each CVP indicator over the ten years. Independent samples t-tests were conducted to test the statistics of the differences between EBL and SANIMA variables at a significance level of 5% ( 5 = 0.05) on each variable (CMR, BEP, MOS, and DOL). The null hypothesis was rejected and the alternative hypothesis accepted in case the p-value had a value lower than 0.05 indicating a significant difference whereas the null hypothesis was not rejected. Such a method of analysis permits trend evaluation as well as statistical comparison in accordance with earlier research work like Lamichhane et al. (2024) and Mahataman (2025).

All these indicators have been computed annually on the basis of each bank in the study making it possible to analyze trends, perform a comparison and interpret with respect to the developments of the macroeconomy and regulatory issues within the Nepalese banking system.

The longitudinal comparative design, audited secondary data, and descriptive and inferential statistical tools make the findings robust and reliable. Microsoft excel offers CVP computation transparency whereas SPSS offers statistical validity in hypothesis testing. This type of analysis has been extensively employed in the empirical research to evaluate financial performance and efficiency of managers in Nepalese companies (Paudel and Acharya, 2021; Lamichhane et al., 2024).

## Results and Discussion

The longitudinal Cost-Volume-Profit (CVP) analysis which consists of the period of a decade between FY 2014/15 and 2023/24 presents a clear and in-depth discussion of

the operational strategies and the financial architectures of Everest Bank Limited (EBL) and Sanima Bank Limited (SANIMA). Each of these institutions has shown incredible stability and growth but the CVP metrics portrayed some sharp differences in their core profitability and efficiency that create a picture of two successful yet essentially different ways to achieve sustained performance. Table 1 shows the entire comparative data.

**Table 1**

*Comparative Cost–Volume–Profit (CVP) Metrics*

| Fiscal Year | Bank | S/TOI (NPR billions) | CMR (%) | BEP (NPR billions) | MOS (%) | DOL |
|---|---|---|---|---|---|---|
| 2014/15 | EBL | 6.24 | 54.8 | 1.84 | 70.5 | 1.42 |
| | SANIMA | 4.08 | 46.8 | 1.52 | 62.7 | 1.60 |
| 2015/16 | EBL | 6.71 | 53.6 | 2.20 | 67.2 | 1.49 |
| | SANIMA | 4.45 | 50.0 | 1.57 | 64.7 | 1.55 |
| 2016/17 | EBL | 8.10 | 58.4 | 2.24 | 72.3 | 1.38 |
| | SANIMA | 6.27 | 43.7 | 2.21 | 64.8 | 1.54 |
| 2017/18 | EBL | 10.23 | 56.1 | 2.95 | 71.2 | 1.41 |
| | SANIMA | 8.63 | 39.7 | 3.18 | 63.2 | 1.58 |
| 2018/19 | EBL | 13.70 | 48.9 | 4.37 | 68.1 | 1.47 |
| | SANIMA | 11.79 | 40.4 | 4.11 | 65.2 | 1.53 |
| 2019/20 | EBL | 14.26 | 44.8 | 5.60 | 60.7 | 1.65 |
| | SANIMA | 12.03 | 38.7 | 4.81 | 60.1 | 1.67 |
| 2020/21 | EBL | 12.27 | 55.5 | 4.78 | 61.0 | 1.64 |
| | SANIMA | 9.80 | 50.2 | 4.22 | 56.9 | 1.76 |
| 2021/22 | EBL | 12.87 | 62.9 | 4.97 | 61.4 | 1.63 |
| | SANIMA | 11.46 | 52.0 | 4.43 | 61.4 | 1.63 |
| 2022/23 | EBL | 19.78 | 53.4 | 6.89 | 65.2 | 1.53 |
| | SANIMA | 18.67 | 47.9 | 6.08 | 67.5 | 1.48 |
| 2023/24 | EBL | 22.32 | 44.0 | 9.55 | 57.2 | 1.75 |
| | SANIMA | 19.09 | 43.0 | 7.74 | 59.4 | 1.68 |

*Note: Everest Bank Limited (EBL) and Sanima Bank Limited (SANIMA), FY 2014/15–2023/24*

EBL and Sanima have both evidenced a good and steady increase in their Total Operating Income (TOI) successfully tripling their revenue base within the decade. This

concurrent course of action implies the similar approach to the long-term organic development as opposed to the market share risky chase. They have been able to expand their operations effectively in line with the opportunities in the market thereby eluding temperamental expansionist prospects.

The most critical lesson of this analysis can be learned based on the Contribution Margin Ratio (CMR), which indicates the key profitability of the work of any bank, considering the fixed costs.

Everest Bank continues to posses structurally better CMR. The average CMR of EBL over the decade is 54.9 percent, which is large compared to that of Sanima Bank which is at 45.2 percent. This long-lasting 10-points-spread is an economic moat that EBL has with its core business. This probably represents a more favorable funding composition (a larger proportion of low-cost CASA deposit sources) or more profitable lending.

Such a higher margin gives EBL more freedom to gain-in profit on each rupee of sales, and makes it more comfortable and resistant, particularly when interest rates are on the high rise as was the case in half-year 2023/24.

Margin of Safety (MOS) demonstrates the extent to which the revenue can reduce without resulting into a loss making bank.

Both EBL and Sanima have a high MOS, which is most times, above 60 percent which means that they have a large margin to cover the economic shocks or competition hits. Although Sanima has a lower CMR, its capability to sustain such high MOS indicates that it has firmly controlled its fixed operating costs thus presenting an indication that it is financially sound.

The Degree of Operating Leverage (DOL) is used to gauge the vulnerability of the operating profit affected by activities in revenue. When the DOL is greater, the level of risk and reward becomes higher.

The DOL of the 2 banks is so close to each other and has been in a conservative sector (usually 1.4 to 1.7) throughout the decade. It is a common philosophy of operating sensibly in general with regards to their fixed cost base (i.e., branch networks staff and IT infrastructure) in relation to their growth in revenues.

Nevertheless, a significant increase in DOL in both banks in the latest years is one of the trends that can be observed. This indicates that fixed cost might be going up and

maybe so because of the inflation of salary in that industry and investment in digitalization which causes the slight rise in operational risk.

The CVP analysis shows that we have two financially stable institutions, and the core competency of EBL is one of the major strengths as its profitability core engine is highly efficient and better. However, Sanima provides a solid safety margin and sound cost management, which, despite its smaller CMR, gives this corporation an opportunity to be competitive and stable during the uncertain changes of the market.

In order to test the statistical validity of the comparative CVP findings, an independent samples t-test was used on the four main performance metrics; the Contribution Margin Ratio (CMR), Break-Even Point (BEP), Margin of safety (MOS), and Degree of operating leverage (DOL), with the data covering the period FY 2014/15 to 2023/24.Table 2 presents the results of the hypothesis testing.

**Table 2**

*Independent Samples t-Test Results*

| Metric | EBL Mean ± SD | SANIMA Mean ± SD | *t*-Statistic | *p*-Value | Significance (α = 0.05) | Interpretation |
|---|---|---|---|---|---|---|
| CMR | 0.539 ± 0.064 | 0.452 ± 0.048 | 3.424 | 0.0033 | Significant | EBL's higher CMR indicates stronger cost-efficiency and structural profitability. |
| BEP (NPR billions) | 4.54 ± 2.42 | 3.99 ± 1.97 | 0.561 | 0.5818 | Not significant | Both banks show similar break-even levels. |
| MOS | 0.655 ± 0.052 | 0.626 ± 0.032 | 1.512 | 0.1516 | Not significant | Both banks maintain comparable financial safety margins. |
| DOL | 1.536 ± 0.124 | 1.602 ± 0.083 | –1.400 | 0.1808 | Not significant | Both banks exhibit similar operational risk exposure. |

*Note: Everest Bank Limited (EBL) and Sanima Bank Limited (SANIMA), FY 2014/15–2023/24*

The descriptive results are consistent with the results of the t-test. Among the variables considered, difference in Contribution Margin Ratio (CMR) is the only one which is statistically significant ($p<0.01$), thus confirming that Everest Bank Limited

(EBL) has structural advantage in achieving profitability. The mean CMR of EBL (0.539 (+-0.064)) is evidently higher compared to Sanima Bank Limited (SANIMA) (0.452 (+-0.048)) showing the cost-efficiency and revenue composition are superior. In contrast, the differences in Break-Even Point (BEP), Margin of Safety (MOS) and Degree of Operating Leverage (DOL) are not statistically significant, indicating that both banks have a similar cost structure, operational resilience and risk profile. Thus, the higher profitability of EBL is due more to the efficient distribution of funds and the broad basis of income than to the higher level of risk taking.

SANIMA has relatively high MOS, which implies lean operations and tight management of spending. Despite the thinner margins, however, this efficiency gives the bank stability against volatility in the market. These results show that the banks have different but equally sustainable strategies, EBL which seeks profitability through revenue maximization and SANIMA which seeks stability through cost discipline.

These outcomes receive further support from the wider economic context. Both banks suffered a temporary drop in operating income during the pandemic of Covid-19 (FY 2019/20 - 2020/21) yet still had positive MOS values which proved their capacity to control costs during low business activity. As mentioned, during FY 2022/23 and 2023/24, when post-pandemic liquidity became tighter and interest rates were higher, EBL coped with the stress by income diversification while SANIMA dealt with it by reducing non-essential expenses and optimising branch operations. These adaptive responses strengthen the model of CVP as a diagnosis tool to determine managerial resiliency in changing macro economic conditions.

From a theoretical perspective, the CVP findings are consistent with the principles of profit planning and the risk - return trade-off. The strategy of EBL reflects the endeavor for greater margins per unit of revenue generated, while SANIMA's strategy is focused on risk minimization through cost control. Both methods achieve the major goals of managerial accounting - predictability, control, and financial sustainability. These results also add to the evidence provided by Paudel and Acharya (2021) and Mahataman (2025) who found that managerial efficiency and cost management are major determinants of bank profitability in Nepal. The present study contributes to the literature by providing evidence of how specific CVP components are interrelated over time to maintain profitability and stability.

For managers, CVP metrics are forward looking metrics that complement the traditional financial ratios like the Return on Assets (ROA) and Return on Equity (ROE). A fall in CMR is indicative of increasing funding costs or diminishing asset efficiency, whereas a fall in MOS is an indicator of growing operation risk. Regular monitoring of these indicators helps managers to take corrective actions in pricing, allocation of costs or investment decisions. For example EBL can employ its high CMR to increase fee based products and increase the profit buffers while SANIMA can leverage its high MOS through selective automation and cost optimization. Inclusion of CVP metrics as part of normal performance evaluations and budgetary management processes can improve predictive financial planning and flexibility in responding to changes in the market.

From a regulatory and policy standpoint, CVP analysis provides a good adjunct to traditional supervision ratios. Since CMR and MOS are the balance between elasticity of profit and stability of costs, these measures could be added to stress-testing and early warning systems. Encouraging banks to share summary CVP ratios in annual reports would increase transparency and investor confidence which would support the Nepal Rastra Bank's objectives of risk-based supervision and data-driven financial controls.

Overall, the results show that both the banks have maintained good financial performance through different approaches to strategy. EBL's strength is structural profitability and diversified sources of income, while SANIMA's success is driven by cost prudence and control over operations. The simultaneous presence of these two models demonstrates the maturity level of Nepal's commercial banking sector and its ability to change with the macroeconomic situation without losing control of financial intermediation. Therefore, Cost-Volume-Profit analysis should be institutionalized as a standard managerial accounting tool within Nepalese commercial banks which will promote evidence-based strategic planning and link managerial accounting practices to sustainable financial performance.

## Conclusion

The two banks, Everest Bank Limited and Sanima Bank Limited, studied based on the Cost-Volume-Profit (CVP) analysis over a period of ten years indicates that both the banks have recorded a consistent and sustainable growth in total operating income and they have retained operational stability. The findings indicate that the two institutions have been able to maintain good financial status and flexibility in changing macroeconomic environments despite variations in structural profitability. The result

shows that managerial accounting instruments such as CVP play a significant role in the analysis of the relationship between the behavior of costs, the sales volume, and profit in the banking environment- a field that is usually ignored in the traditional analysis concerning financial ratios.

The independent samples t-test proves that the contribution Margin Ratio (CMR) of Everest Bank Limited (EBL) is significantly higher than that of Sanima Bank Limited (SANIMA) and the average difference between the two banks has been approximately ten percentage points over the ten-year period. This means that EBL has a more efficient revenue generation mechanism, which may be attributed to a higher dependence on low cost current and savings accounts (CASA), streamlined lending portfolio, and more non-interest diversified revenue sources. This efficiency enables EBL to achieve greater profitability per unit of income and hence it is less prone to failure in times of unfavorable situations like changes in interest rates, liquidity squeeze, or regulatory tightening.

On the other hand, the CMR of SANIMA is relatively lower though the statistical comparison indicates that there is no significant difference in Break-Even Point (BEP), Margin of Safety (MOS), or Degree of Operating Leverage (DOL). Such consistency indicates that the cost discipline and conservative model of operation are the strong points in the managerial capability of SANIMA. The capability to sustain a high MOS amid reduced contribution margins shows that it has a good internal control, frugal expenditure control, and its management of fixed costs. Therefore, the business model of Sanima bank guarantees business sustainability and financial stability even in times of market turbulence or dwindling revenues.

These findings coincide with those obtained by Paudel and Acharya (2021) and Nepal Rastra Bank (2020), which list managerial efficiency, capital adequacy, and operational cost management as the key factors of profitability of Nepalese banks. The current research builds on this evidence base by measuring the dynamic change of internal cost volume relationship over time by using longitudinal CVP model. The results affirm that structural profitability (as with the case of EBL) and regulated cost management (as with the case of SANIMA) are two equally effective strategic directions towards long-term financial stability reached by commercial banking sector in Nepal.

In practice, the analysis indicates that CVP analysis offers a diagnostic tool to the bank managers and policymakers that goes beyond the fixed financial ratios. Constant

scenario observation of CMR, MOS, and DOL can act as the early warning signals of the cost behavioral and profitability trends. To the regulators, the incorporation of such indicators into supervisory evaluation may augment the viability of risk-based monitoring systems. Moreover, policy-makers may stimulate banks to utilize CVP-based internal reporting frameworks as a component of their strategic planning and budgeting procedures thus facilitating the utilization of data in decision-making and better allocation of resources.

To sum up, the comparative analysis demonstrates that the profitability advantage of Everest bank is structurally enshrined in the business model of the bank, whereas the cost prudence and cost stability are the pillars of the operational strength of Sanima Bank. They both indicate that a sustainable financial success is possible in both dissimilar yet complementary approaches- by maximizing income structures or by showing strict management of operating costs. Thus, CVP analysis must be systematized to be a part of managerial accounting of Nepalese commercial banks as an ongoing practice of improvement, financial sustainability, and balanced development in the ever-competitive and regulated banking market.

**Study limitations and suggestions for future research**

This study has some limitations. First, it only focuses on two commercial banks, which may not be generalizable to the banking sector in Nepal. Second, the analysis is based only on secondary information provided in published financial statements which may not reflect all qualitative factors that influence profitability (e.g., management practices, risk culture, technological efficiency). Third, the study assumes a simple distinction between fixed and variable cost, which may not reflect the complex cost behaviour in modern banking operations.

Future research may expand this analysis to a larger sample of banks, such as development banks and microfinance institutions, in order to gain some comparative insights. Using panel data or econometrics could be useful in establishing causality between cost structure, profitability and risk. Additionally, the use of qualitative methods (interviews with financial managers or other financial sector participants or regulators) may be considered to deepen the understanding of the application of CVP analysis in strategic decision-making. Cross-country studies in South Asia could also study the impact of various regulatory environment on CVP dynamics and their operational efficiency in banks.

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