



A STRUCTURED FLASHCARD-BASED APPROACH TO ENHANCE COST-VOLUME-PROFIT (CVP) UNDERSTANDING AMONG DIPLOMA OF ACCOUNTANCY STUDENTS: CVP SMARTCARDS

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ABSTRACT

Cost-Volume-Profit (CVP) Analysis is one of the fundamental topics discussed in the Cost and Management Accounting 1 (MAF201) subject. To master this topic, students need to understand the integrated concepts and formula-based applications of CVP. However, Diploma level students found this topic difficult. Analysis on students' performance in MAF201 final examination indicated that there was a decline of students' average score from 13.72 in July 2025 to 11.435 in February 2026, despite improvements in other topics. As a result, this topic has become a topic-specific learning gap where students were unable to grasp the fundamentals of this topic. To overcome this issue, this project proposes a structured flashcard-based approach called CVP SmartCards to enhance students' understanding of CVP. The intervention will be implemented over a period of 2–3 weeks during revision sessions among Diploma of Accountancy students enrolled in the MAF201 subject. The measurement of understanding will be analyzed by comparing pre-test and post-test scores by students. This method is expected to assist the students to recall, improve conceptual understanding and enable students to apply CVP in solving problems. After the implementation, students should have a clear understanding of CVP concepts. The study contributes to accounting education by recommending an effective teaching strategy which fulfil the learning needs of diploma-level students.

KEYWORDS: Cost-Volume-Profit, flashcards, accounting education, active recall

PROBLEMS AND OBJECTIVES

Cost-Volume-Profit (CVP) plays a crucial role in the decision making process. CVP analysis enables the decision makers to make informed decisions related to achieving the targeted profits by determining the number of units to be produced, the desired sales volume and setting the selling price to be charged. Due to its importance, CVP analysis has become a fundamental topic in the Cost and Management Accounting (MAF201) subject. In this topic, students are required to comprehend the relationship between cost behaviour, sales volume, and profit; which is essential for decision-making. Unfortunately, regardless of its importance, students struggle to understand and grasp the concepts of CVP, specifically in applying formulas and interpreting results. This is proven by the examination results of students who sat for the MAF201 subject for the past two semesters. Their results showed a



modest upward trend. The average scores for semester March 2024 – August 2025 and October 2025 – February 2026 were 13.72 and 11.435, respectively. This sluggish trend suggests that current teaching approaches may not effectively support students' understanding and retention of the topic.

Reliance on traditional learning methods such as listening to hours of lectures and use of lengthy notes may contribute to a dull learning environment. Normally, students are less able to stay engaged in long hours of lecture (Schmidt, et al, 2015). As a result, this tedious learning session may negatively affect students' concentration and hinder their understanding of the learning material. In addition, CVP analysis has many formulas and requires the student to have good memory on this during the examination session. Hence, it is necessary for the lecturers to discover innovative and student-centered teaching methods that can help students comprehend and memorize the lessons taught.

Based on the highlighted issue, this study proposes one potential approach that is flashcard as a tool to help students comprehend and memorize on the CVP analysis topic. Flashcards, as one form of visual and tactile learning media, have been widely used to support memorization and conceptual understanding across various subjects (Pratama & Zubaedi, 2025). In addition, the main advantage of using flashcards as a learning strategy is its flexibility as they can be taken anywhere (Putu & Agung, 2021). Thus, it is appropriate for this study to introduce the use of structured flashcards, known as CVP SmartCards. It was designed to enhance learning through active engagement and reinforcement through active recall and continuous practice.

DESIGN DESCRIPTION

CVP SmartCards is an innovative, structured flashcard-based learning tool designed to improve students' understanding of Cost-Volume-Profit (CVP) analysis. The making of flashcards is based on study by Chotimah (2021).

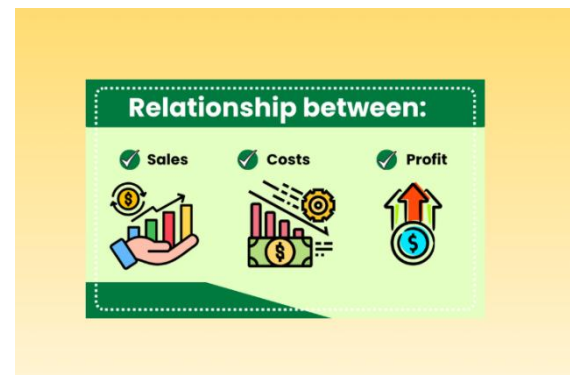
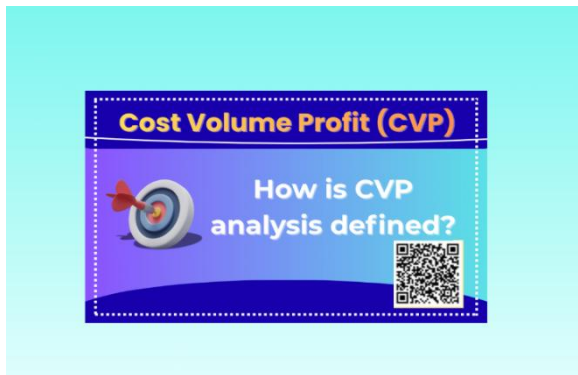
- 1) Construct your cards. A set of index cards is produced by using Canva.
- 2) Choose the category of information for the “deck” of flashcards. The cards are systematically organized into key CVP components such as contribution margin, break-even point, margin of safety, and target profit analysis.
- 3) Important information within CVP analysis will be selected based on prediction of which information will likely be on the exam and considered as part of the most critical ideas.
- 4) The cards will be personalized to make them unique to the students. Images and colour coding will be included to trigger the memory. Add clues that come to mind when reading actively or taking notes in class.

The learning approach emphasizes active recall, repetition, and self-paced learning. This seems to be suitable for both in-class activities and independent revision among the students.



VISUALS

The CVP SmartCards are designed with engaging and student-friendly visuals to enhance comprehension and retention. Students will be given the link to access this CVP SmartCards and they can conduct self-learning at their own convenience.



Key features include:

- Infographics and mini diagrams to illustrate CVP relationships.
- Questions are included and formulas are provided to solve the quizzes.
- Attractive icons and symbols are used to highlight key formulas.
- Clean and minimalistic layout to reduce overload.

NOVELTY AND UNIQUENESS

Compared to traditional methods, the use of flashcards is more effective because it helps increase students' memory and flexibility in use. Key innovative aspects include:

- 1) Combination of conceptual learning and computational practice as a hybrid approach
- 2) Focus on active recall and gamified learning elements to attract students interest
- 3) Designed specifically for CVP topic, which is often challenging for students
- 4) Mobile-friendly flashcards

BENEFITS TO MANKIND

The CVP SmartCards provide several educational and societal benefits:

- 1) Help to enhance students' understanding of cost behavior and decision-making
- 2) Develop analytical and critical thinking skills
- 3) Increase students' confidence when answering questions in exams
- 4) Improve academic performance
- 5) Provides an accessible learning tool for diverse learners, including non-accounting students

COMMERCIAL POTENTIAL

CVP SmartCards have strong potential for commercialization in the education sector. Possible avenues include:

- 1) Developing a mobile application version for wider accessibility.
- 2) Integration into e-learning platforms and Learning Management Systems (LMS).



- 3) Expansion into other accounting topics such as budgeting, costing, and financial analysis.

CONCLUSION

The use of flashcards is hoped to attract students' interest to understand the concepts being taught. It also provides flexibility in learning where students can access this method via their mobile device. This gives students the advantage of doing their revision at any time and place convenient to them.

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