

Transforming Accounting Education: Breakeven Buddy as a Hybrid Digital Teaching Tool

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ABSTRACT

Cost-Volume-Profit (CVP) analysis is a core topic in management accounting, yet many students struggle to master it due to the reliance on multiple formulas and the challenge of linking theoretical notes with practical application. This often results in confusion when calculating the Break-Even Point, Margin of Safety, Target Profit, or Contribution/Sales Ratio. To address this gap, BreakEven Buddy was developed as an innovative hybrid tool that combines concise explanatory notes with a structured calculation template. The aim is to simplify CVP learning and help students capture its key concepts more effectively. What makes BreakEven Buddy unique is its dual function: it is both a learning resource and a practical guide. Unlike conventional notes that are purely descriptive, or worksheets that are purely functional, this tool integrates explanation with computation in one compact format. Students are guided step by step through key areas such as Break-Even analysis (in units and value), targeted profit planning, contribution margin analysis, margin of safety calculations, and multi-product CVP scenarios. It is simple, color-coded design enables quick reference and application, making it suitable for lectures, revision, and independent learning. The potential benefits of BreakEven Buddy are significant. Students gain clarity and confidence in applying CVP concepts, while lecturers save time by reducing repetitive explanations. The template is versatile, with potential to be developed as a digital resource or app, and the concept is adaptable to other areas of accounting education. In sum, BreakEven Buddy transforms CVP analysis into an accessible, engaging, and impactful learning experience.

Keywords: Accounting Education, Break-Even Point (BEP), Cost-Volume-Profit (CVP) Analysis, Teaching Innovation, Student-Centered Learning

INTRODUCTION

Cost-Volume-Profit (CVP) analysis is a fundamental concept in management accounting, used to examine the relationships among costs, sales volume, and profit. Mastery of CVP is essential for decision-making in areas such as pricing, product mix, and cost control (Horngren et al., 2019). Despite its importance, students frequently struggle with CVP because of the reliance on multiple formulas and the challenge of linking lecture notes to practical applications. Prior research highlights that accounting students often experience difficulties in remembering formulas, applying them accurately, and interpreting results, leading to confusion in calculating Break-Even Point (BEP), Margin of Safety (MOS), Contribution/Sales (C/S) ratio, and Target Profit (Marriott & Marriott, 2003; Yunkul & Demir, 2017).

Furthermore, traditional lecture approaches tend to focus heavily on theoretical explanation, leaving students feeling disengaged or “lost” during lessons (Hilton & Platt, 2020). Without sufficient scaffolding, they often fail to bridge the gap between conceptual understanding and practical computation. These issues point to a need for more interactive and guided learning tools that make CVP both understandable and applicable.

The objectives of this project are therefore threefold. Firstly, to provide concise, structured notes that help students grasp the key ideas of CVP analysis quickly. Secondly, to design an Excel-based template that guides students in performing essential CVP calculations step by step and finally, to create a tool that supports revision, practice, and independent learning while reducing lecturers' repetitive explanations.

METHODOLOGY

This project adopted a design-based research approach (Reeves, 2006), focusing on iterative problem-solving in educational practice. The process involved three main stages:

Problem Identification includes the reviewing of literature and conducting informal discussions with accounting lecturers to confirm common challenges in teaching CVP. Next the Design and Development stage where BreakEven Buddy was developed. BreakEven Buddy is an Excel-based hybrid that integrates concise explanatory notes with calculation templates. The template covers BEP (units and value), MOS (units, RM, percentage), C/S ratio, Target Profit, and Multi-Product CVP. Color-coding and step-by-step flow were incorporated to ensure ease of use. Finally, the stage of Implementation and Feedback. This involves piloting the tool with diploma-level accounting students in two to four tutorial sessions. Student reflections and informal lecturer observations were gathered to evaluate usability and effectiveness.

RESULTS AND DISCUSSION

The pilot application of BreakEven Buddy yielded encouraging results. Students noted enhanced clarity in understanding CVP concepts, commenting that the tool enabled them to "capture the main ideas quickly." Testimonials included: "BreakEven Buddy made BEP so much clearer—I just fill in the numbers and see the answer," and "I finally understand Margin of Safety because the template shows the calculation step by step." Lecturers appreciated the tool's utility as a revision aid, especially before assessments, and welcomed reduced redundancy in explaining foundational formulas.

These findings are consistent with broader research on educational technology in accounting. The integration of digital pedagogies across the learning lifecycle has shown statistically significant improvements in exam performance compared to traditional methods (Coovadia & Ackermann, 2020). Similarly, digital interventions in accounting instruction—such as interactive note-template combinations—enhance comprehension by making abstract concepts more tangible and actionable (Iyiner, 2024).

Moreover, blended learning environments that combine digital tools and self-directed learning positively influence student achievement in foundational accounting subjects (Supramaniam et al., 2024). Studies also affirm that digital platforms improve accessibility, engagement, and independence in learning, which in turn reduce the gap between theory and practice (Ma & Ruannakarn, 2022; Jusop et al., 2022).

The novelty of BreakEven Buddy lies in its hybrid structure—merging concise explanations with computational templates in a single, scalable format—that aligns with evidence favouring guided, technology-enhanced learning in accounting education.

CONCLUSION

BreakEven Buddy demonstrates strong potential in addressing the challenges of teaching and learning CVP analysis. By combining concise notes with a practical, guided template, it empowers students to master key concepts more effectively and supports lecturers in delivering lessons more efficiently.

Future development directions include: (1) transforming BreakEven Buddy into a mobile or web-based application, (2) embedding interactive tutorials and auto-feedback for student practice, and (3) expanding the concept into other accounting areas such as budgeting, variance analysis, and investment appraisal. With these enhancements, BreakEven Buddy has the potential to go beyond CVP and serve as a model for future teaching tools in accounting education.

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