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Capital Development in Thailand: Limitations and Misconceptions of Capital Budgeting Techniques

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Abstract. National growth depends on the efficient use of limited capital resources, especially in emerging economies. However, capital budgeting features many misconceptions and limitations, the misunderstanding of which can produce suboptimal capital budgeting decisions. This study compares Thai to U.S. students and practitioners in their understanding of several common capital budgeting misconceptions to identify significant areas of misunderstanding that educators in both countries can address in their classrooms. Three hundred and fifty-four respondents answered questions regarding types of capital budgeting methods and their understanding of their deficiencies. Chi-square analysis revealed significant differences according to education/ practitioner status, gender, and age among the Thai respondents. A Student t-test analysis also revealed significant differences between the Thai respondents' and U.S. accountants' understanding of these limitations. These results indicate weaknesses in both Thai and U.S. accountants' understanding of the dangers of evaluating capital budgeting analysis results that should be addressed by their respective educational systems.

Keywords: capital budgeting, Assurance of Learning, managerial accountant, suboptimal decision making, capital budgeting limitation.

1. Introduction

Capital budgeting requires some of the most consequential and expensive decisions made by management. Countries, and the corporations that operate in them, make decisions on capital improvements that can cost hundreds of billions of dollars. These assessments can lead a company to bankruptcy if made without an understanding of the limitations of the capital budgeting procedures used.

Investment decisions are sound when they create value for investors. When a decision is made to buy a new piece of machinery for $100,000 and modify it for an additional $100,000, how will the purchaser determine if a suitable return has been achieved? It might be argued that, in this situation, the project is profitable if it returns more than the $200,000 spent. However, this simplistic approach ignores the fundamental element of the time value of the money invested.

The key question for the investor is, "How do you determine, in advance, if a project creates value?" The answer for most companies is to use one or more forms of capital budgeting to determine if the project will add the necessary value to justify the expenditure made and the added risk incurred. Regrettably, many decision makers accept the results of that analysis at face value, and their lack of understanding of the abovementioned limitations can lead to incorrect decisions. Unfortunately, these decisions are usually unalterable, as it is difficult to find a market for capital goods.

This study is motivated by the lack of research that attempts to determine how widespread these capital budgeting misconceptions are or how these limitations differ by country, culture, or the educational background of students or professionals. This study addresses that gap in the literature by pursuing four objectives: (1) reporting the results of a series of quizzes given to accountants and students in the U.S. and Thailand about their understanding of capital investment decision making; (2) determining the gap between the Thai accountant's and the U.S. accountant's understanding of the pitfalls of capital budgeting; (3) determining what areas of capital budgeting have the widest gap in understanding between these two countries; and, most importantly, (4) identifying specific areas of misunderstanding that educators could address in their classrooms.

Thailand was chosen for this study because it is a developing country that does not widely use some of the evaluation methods used in more developed nations. Moreover, Thailand has a relatively low level of liquidity. Udomsirikul, Jumreornvong, and Jiraporn (2011) examined the liquidity and capital structures in Thailand and determined that capital markets were less sophisticated in Thailand than in more developed countries such as the U.S., and that liquidity was a significant problem there. This study compares Thai students and practitioners with U.S. students and practitioners and the differences in capital budgeting methods. It is widely accepted in the literature that net present value (NPV) is the preferred method of analyzing capital budgeting, yet studies have shown only a limited use of NPV in Thailand, while use of the measure in the U.S. is significant. It is hypothesized that a greater use of the more sophisticated methods of capital budgeting may correlate with a greater understanding of their limitations.

2. Literature Review

Significant research has sought to determine which of the various capital budgeting methods are used globally and how those preferred methods have evolved. Freeman and Hobbes (1991) examined how the popularity of these methods had evolved between 1979 and 1989 in Australia, finding that discounted cash flow (DCF) techniques became more prevalent over time and that their use appeared to be increasing. Specifically, the researchers demonstrated that