THE IMPACT OF CAPITAL BUDGETING PRACTICES ON FINANCIAL PERFORMANCE OF LEBANESE BANKS

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Individuals participating in capital budgeting choices are presumed to act rationally while making investments. However, human irrationality may have an impact on actual capital budgeting choices. The primary purpose of this research was to analyze how capital budgeting choices affected the bottom lines of Lebanese financial institutions. The sample for the research consisted of nine different banks in Lebanon. Data was gathered using both original sources and secondary resources. The data covered the years 2015 till 2020. The listed banks' financial statements served as a secondary data source, while questionnaires were used to gather primary data. For the purpose of analysis, we used MS Excel and SPSS. This research shows that capital budgeting methods are used by banks in Lebanon while making investments. In terms of capital planning, net present value was the most used metric. After NPV and IRR came PBP and ARR, with ARR being used the least. Banking institutions in Lebanon are urged to provide their staff with training in capital budgeting techniques after reading this paper. Prioritize initiatives based on their potential for success while you look for external financing. Consider acquiring a blend of conventional and contemporary capital budgeting methods to assist the company decrease the risks of project failure and establish a dedicated department to handle the identification of potential projects and the selection of suitable capital budgeting tools mix.

Keywords: net present value; internal rate of return; payback period; average rate of return

Introduction

Since the effects of capital budgeting are long-lasting and the business may lose part of its flexibility, it is the most crucial function of finance. Investment in new goods, services, or markets is what determines a company's strategic orientation; hence capital expenditure comes before strategy. Using a capital budget, businesses may weigh their best investment opportunities to maximize returns for their shareholders (Hall & Sibanda, 2016).

As such, it is crucial that the expected cash flows from a project be calculated so that management may make a well-informed decision. One of the most important factors in
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determining a company's growth rate and trajectory is the decision to invest in long-term assets (Andor et al., 2015). The future existence of the company may be threatened if management makes a decision that is not in the best interests of the business, such as investing in long-term assets that do not generate profit or are not liked by the majority of employees.

On the other hand, if a company invests too little in its assets, it may find it difficult to compete with other businesses in the market, resulting in a loss of market share.

Research problem

According to financial theory, companies exist only to increase the wealth of their owners. Management at the company is not interested in making any old investment decision, but rather the best possible ones that will have a favorable effect on the wealth of the shareholders.

The capital budgeting procedures are assumed to help the company maximize the wealth of its owners in accordance with the economic rationality notion. In addition, the companies may achieve this objective by using cutting-edge capital budgeting methods. The banking industry in Lebanon is crucial to the country's economy because of its ability to provide loans and stimulate growth. Banking is a capital-intensive industry that often requires massive capital.

This funding is necessary for investments in long-term initiatives that are not only lucrative but also sustainable in terms of short-term expenditures. The banking industry will rely on the capital budgeting process and its many tools to identify investments likely to provide a positive return. As a result, it is important to evaluate the suggested investment portfolio in order to determine how much profit they may expect to generate.

Research objective

The purpose of the research was to ascertain how capital budgeting decisions affected the bottom lines of Lebanese banks. The research is instructive for bank CFOs since it shows that CFOs make effective decisions on where to spend money.

This research gives them a means of gauging their management skills and, if required, improving in those areas. Managers may use the research to determine whether to keep the business going as is or to adjust their investment strategy to better meet consumer demands.

As a result, less company resources will be wasted. Because of its focus on capital budgeting strategies and their correlation to financial success, this research is important to academics and researchers with a vested interest in the banking industry. Furthermore, it recognizes that the approaches presented in class cannot be immediately adopted without assessing their impact on company performance.

Theoretical review

Two theories are used in this research: the contingency theory and the traditional capital budget theory.
Contingency theory

Capital budgeting success, according to this notion, is independent of the specific capital budgeting approach used by an individual organization (Brown, 2021; Sharma & Frost, 2020) made a contribution to the development of the contingency theory by pointing out that mastery of the asset allocation process requires more than just adopting cutting-edge, theoretically predominate assumption strategies and methods; rather, it requires a focus on the compatibility of the organizational context, operational outline, and capital budgeting framework.

The theory focuses on three aspects of business specifically: the hierarchical characteristics of organizations; the emergence of decentralized regulatory frameworks; and institutional and behavioral constraints. According to (Sharma & Frost, 2020), the size of a company does not matter when deciding on an investment assessment approach (Ermasova et al., 2021) discover, however, that the investment assessment technique relies on the size of the organization.

Capital budgeting was evaluated using a longitudinal survey by Graham & Sathye, 2020; Kim et al., 2021). He sees an upward trend in the use of discounted cash flow methods. He says this is because IT has simplified tasks like data collecting and processing.

Despite its detractors, the theory remains useful for academic inquiry because it focuses on the ways in which investors and companies may affect financial outcomes via strategic corporate investment (Jha & Arora, 2019b). The theory provides little guidance on what managers should do when confronted with a variety of intricate capital budgeting decisions.

Conventional capital budgeting theory

Woods and Randall are generally credited with creating the traditional capital budgeting theory. According to the idea, the net present value (NPV) criteria are the primary indicator of financial managers' success in maximizing shareholder value.

NPV is computed using the company's weighted average capital cost (WACC), and the riskiness of the project's cash flows is equated to the riskiness of the cash flows from the company's other assets (Graham & Sathye, 2017).

Although the market generally discounts FIOs with high levels of uncertainty and perceived risk, there are certain exceptions. Traditional methods of capital planning sometimes include hidden assumptions that favor FIOs over investors over the long run (Vecchi & Casalini, 2018).

To calculate the portion of shareholders' wealth due to FIOs, discounting should be performed using the needed return on equity (Ke) rather than the WACC (Ka).

If management has a strong motivation to improve the company's reputation in the financial markets, the capacity to borrow on FIOs basis would result in a measurable rise in shareholder worth. A deviation will be bounded by the market value of shares and real investor holdings when the company is unable to provide information or is unable to convince markets of prospective cash flows (de Souza Michelon et al., 2020).

This theory is relevant to our study because it takes into account the main factors that shareholders use when deciding how to allocate their capital.
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**Determinants of financial performance**

Various perspectives and lenses may be used to analyze the drivers of a company's financial performance, including those that are company-specific and those that are macroeconomic in nature.

They are the company's prospects for expansion, its size, its profitability, and its liquidity.

**Growth opportunities**

Opportunity cost is the price at which a company is willing to sell its assets in order to expand (Turner, 2017). If the company's assets are a smaller percentage of its total value, the company has more room to expand (Al-Mutairi et al., 2018).

Companies that have more room to expand are better able to do things like diversify their product offerings, take advantage of research and development possibilities, grow via mergers and acquisitions, and update and refresh their physical infrastructure.

(Graham & Sathye, 2018) also argues that a company's expansion has a beneficial effect on its financial results. Companies with minimal growth potential have better financial results than those with average growth opportunities. Future financial results for the company are affected by the company's rate of growth. Investment prospects improve as growth accelerates. When a company's finances improve, it moves up in the rankings and acquires an edge over its rivals. The potential for expansion is an asset that might increase a business' worth, but it cannot be mortgaged or taxed as revenue.

According to (Jha & Arora, 2019a; Khalid et al., 2017) a company's growth and its ability to compete in its business environment are largely determined by the process of idea development, which includes things like creating new products, improving existing ones, and finding ways to cut operational costs. Capital budgeting encourages the free flow of ideas as they are first generated, then tested, and then evaluated for their potential to add value to the company.

**Company size**

It has been stated by (Chittenden & Derregia, 2015; Nurullah & Kengatharan, 2015) that a larger company's financial performance is enhanced by increased production and decreased outlays on unit cost thanks to functional efficiencies gained via greater scale. When it comes to responding swiftly to changes in market circumstances, investors may benefit from the diversified risks offered by large corporations.

To maximize profits, huge enterprises, according to (Andor et al., 2015; Hall & Sibanda, 2016), have monopolistic power that enables them to charge prices that are higher than the economic costs of production.

According to (Nurullah & Kengatharan, 2015), major organizations' capacity to diversify their investment portfolios may mitigate business risks and improve investment performance.

According to (Jha & Arora, 2019a) research, big corporations can attract and retain talented managers because they have the means to capitalize on economies of scale. Both a company's profitability and its liquidity are influenced by its size.

Because of their larger market share, bigger companies can better compete with smaller ones.
Furthermore, bigger organizations are better positioned to take advantage of possibilities in industries that demand high capital needs because of their vast resources. In this case, they will be able to find employment in more lucrative fields with less rivalry. Smaller businesses are preferred over larger ones for short-term profits due to their greater access to liquid assets.

**Profitability**

Every corporate endeavor should aim to maximize shareholder value, and this is best accomplished by increasing profits. Since profitability is a measure of how well management is using the resources given to them by shareholders to create wealth, without it, the company would not be successful over the long term (Graham & Sathye, 2018; Khalid et al., 2017).

Consequently, decision making about a company's prospects relies heavily on assessing current and past benefit and forecasting future income. This is essentially a yearly accounting of the company's total income and expenses over a certain time period. A company's income statement is a description of its activities that is used to evaluate the effectiveness of management in creating value for shareholders. In any event, an ace pro rata compensation explanation evaluates a company's success by gauging its present performance against its historical data and anticipated future results.

Revenue and turnover are the two main components that may be broken down to determine the true value of an advantage. (Al-Mutairi et al., 2018) state that both may influence a business’s profitability at any given moment. If a high turnover indicates more efficient use of the company's resources, then a high net income indicates the element has a sizable share of the market.

**Liquidity**

Liquidity is the primary indicator of a company's success. The term "liquidity" is used to describe a company's capacity to pay its regular bills. With sufficient liquidity, businesses may meet their debt obligations and prevent a financial meltdown (Graham & Sathye, 2017).

The companies' existence depends on keeping their liquidity at a safe level. Reduced liquidity threatens a company's ability to meet its financial commitments and may lead to higher expenses. Businesses may support their operations and investments with liquid assets when they don't have access to adequate cash from other sources. Companies with plenty of cash on hand may weather financial storms and fulfill their obligations even when profits are low.

Distributions of size and performance across time were investigated by (Turner, 2017), who found that they changed depending on factors including age and access to capital. The results showed that in any given year, liquidity issues had a negligible impact on the financial performance of businesses.

Lack of access to credit limits the expansion potential of businesses by reducing the number of investment options available to them and the size of their available cash reserves. As a result, opportunities for long-term growth and, by extension, for increasing income, are diminished.

**Capital budgeting and financial performance**

Numerous researchers have studied the correlation between effective capital budgeting decisions and a company's bottom line.
It is expected that capital budgeting, in particular, would play a major role in the entire company strategy aimed at maximizing shareholder value. Accounting data has been used in previous research in order to demonstrate a company's rationality, or the means by which it pursues its objectives in a manner that maximizes the value of its investors' assets, via the use of performance metrics and analysis. This demonstrates that companies may increase shareholder value by using current evaluation techniques.

Accordingly, from the perspective of the budgetary theory, it is common sense that there is a strong correlation between the use of sophisticated capital appraisal techniques and the success of businesses. However, the outcomes gained need careful analysis when thinking about the connection between capital budgeting decisions and swings in profitability.

Despite the growing number of sophisticated capital evaluation methodologies in the United States, (Al-Mutairi et al., 2018) found no significant association between the financial success of businesses and their capital budgeting decisions, (Khalid et al., 2017) noted that in order for the nation's businesses to take advantage of the potential afforded by its position as a bridge between the West and the East, the investment policies of the country needed to be readjusted to meet those of the developed world.

Therefore, investment was seen as crucial to spurring development and setting up domestic businesses to compete on a global scale. As a result, the capital budgets play a pivotal role in ensuring the company's long-term viability by increasing its competitiveness.

**Population**

Nine Lebanese banks were included in the sample in which secondary data was extracted from the annual reports between 2015 and 2020. Lebanon's main economic sector is represented by these banks. Moreover, they are publicly listed and disclose their fiscal yearly statistics; hence, data on them was available.

**Data collection**

We collected information from nine different Lebanese banks, using both primary and secondary sources, covering the period from 2015 to 2020. Public annual reports were selected for secondary data as they are a reliable source of information that may be used to draw conclusions about the companies under study.

The estimation methods used by Lebanese banks were determined by completing questionnaires by the bank officials directly involved in capital budgeting on a day-to-day basis. The surveys included three separate parts and were mostly closed-ended.

The acquired data was entered into the scientific analysis tool, SPSS version, after sorting, cleaning, and coding. Both inferential and descriptive statistics were used to the coded data, and results were presented as means, standard deviations (Tab. 1).

**Regression analysis**

NPV, IRR, ARR, and PB are all addressed independent variables in the model, and their combined R value of 0.653 indicates a 65.3% correlation with banks financial performance. The independent factors tend to affect financial performance by 65.3%, whereas the remaining 34.7% are not accounted for in the model.
However, the model's R2 value of 42.6% indicates that only 42.6% of the variance in the dependent variable is explained by the variation in the independent variables.

The regression examines the connection between the dependent variable and the independent variables. Since the margin error of each independent variable is lower than 5% meaning that the null hypothesis is rejected and the alternative one is accepted.

Table 1 - Regression analysis
(Source: author work)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.653 a</td>
<td>.426</td>
<td>.411</td>
<td>.990</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), NPV, IRR, ARR, PB, Financial Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.387</td>
<td>.196</td>
<td>1.977</td>
</tr>
<tr>
<td>NPV</td>
<td>.248</td>
<td>.070</td>
<td>.243</td>
<td>3.555</td>
</tr>
<tr>
<td>IRR</td>
<td>.132</td>
<td>.075</td>
<td>.134</td>
<td>2.763</td>
</tr>
<tr>
<td>ARR</td>
<td>.179</td>
<td>.080</td>
<td>.276</td>
<td>2.993</td>
</tr>
<tr>
<td>PB</td>
<td>.181</td>
<td>.073</td>
<td>.283</td>
<td>2.117</td>
</tr>
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</table>

a. Dependent Variable: Financial Performance

Thus, the following equation had been formulated:

\[ Y = B_0 + BX_1 + BX_2 + BX_3 + BX_4 \]

Financial Performance = 0.387 + 0.248 NPV + 0.132 IRR + 0.179 ARR + 0.181 PB

This implies that:
1. For every 1% increase in NPV, Financial Performance will increase by 24.8%.
2. For every 1% increase in IRR, Financial Performance will increase by 13.2%.
3. For every 1% increase in ARR, Financial Performance will increase 7.9%.
4. For every 1% increase in PB, Financial Performance will increase 8.1%.

Discussions of findings

The purpose of this research was to determine how capital budgeting decision affects the financial performance of Lebanese banks. The NPV, IRR, ARR, and PBP were considered separate factors in the capital budgeting process.

Return on equity was used as the indicator of the dependent variable financial performance. It was found that Lebanese banks use the NPV method when making decisions.
on individual projects. According to the results, NPV is the only capital planning method that takes into account every cash flow that might possibly occur over the course of a project's lifetime. NPV is in line with the idea of increasing the company's value for its owners.

Finding a positive and statistically significant correlation between IRR and financial success. The survey also found that the Internal Rate of Return (IRR) assessment method was the second most used method, behind the Net Present Value (NPV) method, for making decisions on individual projects.

It was found that IRR was the most popular approach of capital budgeting, followed by NPV and PI. Regression analyses also found a strong correlation between ARR and profitability for Lebanese Banks. The correlation was also determined to be statistically significant. The ARR technique is favored by several businesses because of how simple it is to implement. It's a helpful resource for capital budgeting since it doesn't need any work to acquire the accounting data it uses.

As an added value, the ARR may be calculated manually utilizing all the return generated by a capital expenditure. However, there are several drawbacks to using ARR, including the fact that it does not account for the time value of money, that it is generally recognized, and that it employs accounting profits rather than cash flows in its calculation, making it very subjective.

The regression findings also demonstrated a positive relation between PBP and financial performance of Lebanese Banks. When analyzing which banks had the best performance, a positive correlation was found between IRR and PBP. Further, financial institutions that use PBP have an advantage over their competitors. As a result of PBP, they are better able to determine which initiatives will provide a satisfactory rate of return in order to recoup their investment expenditures as soon as possible. In this way, businesses may pinpoint investments that will provide a profit in the shortest amount of time and by that improving the company's liquidity.

In addition, PBP allows businesses to reduce their vulnerability to future risks that might reduce their project returns.

Therefore, PBP will determine whether projects are suitable for banks who place a premium on liquidity. The model summary revealed that the independent variables: NPV, IRR, ARR and PBP explained 65.3 % of the variations in financial performance as depicted by the R2 value.

Thus, 34.7% of the variations in financial performance of Lebanese Banks occur as a result of other factors not discussed in the study. The model was found to be significantly fit since the p-value is 0.000. This endorses that total multiple regression model is significant statistically.

Conclusions

The research shows that capital budgeting decisions have a significant impact on the financial performance of Lebanese banks (NPV, IRR, ARR and PBB). In the end, the research found a favorable and statistically significant correlation between NPV and financial performance. The research also finds that Lebanese banks' financial performance is positively and statistically significantly correlated with IRR.

The research also shows that ARR correlates positively and significantly with financial outcomes for the Lebanese banking sector.
The research shows that PBP is positively associated with the financial performance of Lebanese banks and that this association is statistically significant.

**Recommendations**

Often, managers believe that capital budgeting is handled with insufficient training of implementers and inappropriate financial and operational frameworks. Therefore, this research suggests that businesses carefully evaluate the strain these initiatives will place on their resources before committing to them. Bank executives should devote significant time and resources to training and education for bank staff, with a focus on improving their knowledge and abilities in the areas of capital planning and investments.

Employees who will be advising management on the best investment options may benefit from training provided by training consultants.

Banks' adoption of investment assessment methodologies might be impacted by the lack of financial literacy among employees. The government, through the Ministry of Finance, must do more to ensure that all bank executives are financially literate. As a result, government organizations need to develop training programs.

Since capital budgeting has been identified as a key determinant of the financial performance of Lebanese banks, it is crucial that it be refined to include non-financial factors in the evaluation of potential investments.

In addition, when evaluating investments, banks must look beyond their history and apply methods that are more in line with the requirements of today's banks than those of the future.

**Limitations of the study**

It was difficult to get in touch with the required sample size and population. Banking regulations made it difficult to collect data since a document must be processed through each level until the appropriate officer determines whether requested information may be released. In some cases, this was a prerequisite for researchers to get access to the data they needed. Mistakes may have been made because survey participants misunderstood either the questions themselves or the technical terminology used in capital budgeting. In several situations, the researcher had to explain to the respondents the meaning of certain terms before they could even try to provide the correct answer.

The research used a multivariate linear regression model for analysis. The researcher cannot generalize with confidence the findings because of the limitations inherent with utilizing regression models, such as erroneous and misleading results when the variable values change.

The anticipated association between two or more variables could not hold when more and more information is given to the functional regression model.

**Suggestions for further research**

To get more accurate findings from future studies, researchers should think about using a larger sample size. It would be possible to check whether the observation would have altered by repeating the same research.
Examining the correlation between capital budgeting decisions and financial performance using statistical methods to determine whether alternative methods would lead to varying rates of development, a case study would have to follow a project from the point of decision making all the way through to its final implementation.

Repeating the same research over a longer time frame may provide better and more consistent results. Ideally, the sample would consist of a larger number of banks. Decisions regarding the allocation of capital resources may have a significant impact on a company's ability to expand and prosper.

Alternative measures of financial success to return on equity (ROE), such as return on assets (ROA), need further investigation as well. Lebanese banks were the focus of this research. As a result, the study's conclusions cannot be extrapolated to other sectors of the economy, including manufacturing companies, insurance providers, or the tourism industry. More research is needed to determine how different sectors' capital budgeting practices influence their financial performance

References:


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