Capital Budgeting Theory and Practice

Abstract

Finding out how healthcare firms make decisions on capital budgeting remains an intriguing topic because almost 85 percent of medical institutions are non-profit. This paper analyzes and compiles the critiques of various research articles based on the capital budgeting process framework; identification, selection, development, and post-audit. Capital budgeting is a significant task in medical institutions and hospitals due to the rising medical costs, fund limitations, and the competitive environment among hospitals. Therefore, proper tools have to be used during capital budgeting so that appropriate decisions can be made. In this case, five articles have evaluated by discussing their research objectives, main findings, methods, key limitations, conclusions, and contributions. Thereafter, the key findings collected from the articles have been synthesized into themes, the gaps in literature assessed concerning the capital budgeting theory, and finally, recommendations for future research have been provided. Key words: capital budgeting practice, method, analytics.   Capital Budgeting Theory and Practice Critical Evaluation of the Articles The Evaluation Methods for Hospital Projects article reports the survey findings of hospital managers in terms of their use of different evaluation methodologies and project selection. The paper mostly concentrated on the empirical relationship between the project evaluation procedures that were specifically used for a particular project as well as various measures of the perceived project success. The results of the analysis showed that the top management support and cost-benefit analysis were considered as the main project evaluation methods utilized more frequently by hospital managers. Furthermore, the research has provided evidence that implies that the top management support may be linked with the overall success of a project (Buelow, Zuckweiler, & Rosacker, 2010). The research objectives of the article include conducting a survey that will determine if hospital managers use standard project methodologies when it comes to deciding on specific project opportunities as well as controlling selected projects so that they can be implemented. The article also sought to document a preferable project analysis methodology that is used by different project managers as they control and evaluate projects that have already been completed in the healthcare environment. A description of the reasons for using some procedures was done through ranking the project methodologies. Do you need help with your assignment? We write original academic papers onany subject and topic CHECK PRICES Quantitative project evaluation procedures were used in the research. These methods focused on and aimed at evaluating the project investments using financial criteria (Buelow et al., 2010). This includes budgetary constraint, cost-benefit analysis, net present value, Net Project Execution Cost (NPEC), as well as Net Project Operation Value. The findings of the research showed that there was no statistical relationship between any of the proposed five measures of the project success; this includes mandatory requirements, NPOV NPEC, and the probability of completion. In addition, the results imply that hospital managers usually utilize various project evaluation processes with top management support that represent the two main project evaluation methods. The results of the study show useful and practical guideline that may assist new hospital managers and experienced ones by supporting the enhancement of hospital project management. Making Informed Capital Investment Decisions for Clinical Technology is an article by Brian Poplin, and it is aimed at analyzing the strategic planning process of the hospital by incorporating the use of different data sources that support the smart capital planning. The objective of the research is to evaluate the current clinical equipment through the data-focused lens so that irregularities can be eliminated for hospitals. This is important when assessing if new equipment needs to be purchased or whether slightly aged equipment should be redeployed to other areas (Poplin, 2011). A case study was used to try to understand as well as analyze this concept. The case study offered a stronger perspective of where hospital activities concentrated on and how purchasing new and innovative technology may prove to be the cost efficient and effective approach for hospitals. The main findings of the research revealed that when determining the capital investment requirements, hospital managers determine equipment to be purchased and the right time to do it. This process of evaluating needs may become tricky particularly when the outspoken parties demand greater and more modern equipment. The study concluded that identifying the areas that need equipment redeployment needs the establishment of key parameters that evaluate the functional capability and the probable risks to the safety of the patient that may take place when redeploying equipment. Poplin further states that hospital managers can improve the incorporation of the needs of the organization’s equipment and create effective capital plans using mined data sources; this will help in long-term planning (Poplin, 2011). Capital budgeting practices: A comparative study between a port company in Brazil and Spain is an article that has focused on analyzing capital budgeting practices that are used in Brazil and Spain port companies while focusing on a comparative perspective. This has been done through empirical research that was applied in order to study the two ports as well as questionnaires that were administered to collect additional data. The main findings of the research revealed that the port in Brazil used internal return rate solely for the capital budgeting analysis along with random rate so that the minimum acceptable return could be determined. On the other hand, the Spanish port utilized all method including internal return rate, payback, real options valuation, net present value, and the average capital cost. These were used to determine minimum return rates, sensitivity analyses, decision tree, and simulation to evaluate the investment risks. The article recommends that a budgeting manual has to be developed in hospitals because it may assist in creating an investment manual. The ports that were investigated in the study adopted the capital spending audits. Capital Budgeting Practices In Developing Countries: A Case of Rwanda is a research paper that reports the results from a survey that focuses on Rwandan capital budgeting practices. A questionnaire was used to assess the procedures of capital budgeting and cash flow estimation assisted in examining issues faced when applying the theory into practice. Thirty Rwandan companies participated in the survey and they included non-banking and banking institutions. The results of the study implied that many firms utilize Internal Rate of Return as well as Discounted Payback Period (Mbabazize, & Daniel, 2014). The main finding revealed ignorance of institutions when applying the cost of capital because of their use of cost of equity especially when discounting cash flows irrespective of the fact that many firms finance their projects with equity and debt. Furthermore, it has been revealed that inflation remains as an area that most firms fail to pay attention to when it comes to making decisions on capital budgeting. The conclusion of the study suggested an area that needed further research on how capital budgeting may be utilized in resource allocation within the budgeting process especially in developing countries (Mbabazize, & Daniel, 2014). Capital Budgeting Theory and Practice: A Review and Agenda for Future Research focuses on investigating the capital budgeting theory and practice over the last 20 years so that areas for further research can be identified (Kengatharan, 2016). The researchers carried out thematic text analyses and identified the use of modern capital budgeting procedures and numerous capital budgeting tools utilized for incorporating risk. As a result, a distinction between developing and developed countries was made in terms of their choice of a capital budgeting technique. The research was well developed in terms of design and it managed to find different methods of capital budgeting from the past twenty years. Recommendations that have been generated from this paper may offer further assistance to hospitals when it comes to capital budgeting theory and its application (Kengatharan, 2016). Synthesis of the Findings Decisions on capital budgeting are complex and significant and have managed to attract most researchers within the field. According to Kengatharan (2016), capital budgeting refers to a procedure of making decisions on investment projects that develop because of the maximized value of the shareholder. Hence, capital budgeting mostly deals with an attainable investment that includes long-term assets. The assets may be tangible (equipment, plant, or building) or intangible (trade mark, modern/new technology, or patents. Thus, Mbabazize & Daniel (2014) assume that capital budgeting involves selecting and analyzing investment opportunities especially in long-term assets that may benefit a firm or hospital for a longer time. The real option theory is related to the capital investment theory of decision-making and it can be identified as the alternative approach when it comes to investment appraisal especially under uncertainty. The theory can be seen in the article because of its operating flexibility that allows management to revise decisions in future. As identified in the selected articles, utilizing real options analysis may have an advantage over other alternatives like NPV; NPV does not have the ability to determine the managerial flexibility value. Capital budgeting is a significant task in medical institutions and hospitals due to the rising medical costs, fund limitations, and the competitive environment among hospitals. Therefore, proper tools have to be used during capital budgeting so the appropriate decisions can be made. Gaps in Literature Most of the research scholars have opted to test the capital budgeting method as well as its practices. It was found that there were numerous factors influencing capital budgeting practice. The selected articles failed to investigate the organizational characteristics like incentive and reward structures, business unit strategies, financial structure, and distribution of the decision rights; these aspects affect the capital budgeting practices. The challenges faced by CFOs were not addressed in terms of capital budgeting practices; this includes organizational barriers, technological challenges, and knowledge gap of the CFOs. Investigating these challenges may result in increased performance. Future Research There is a need to conduct further studies on capital budgeting theory and practice by carrying out more surveys that will attain more data on the practices. Future research needs to focus on variables like the size and type of organization in order to determine the effect of capital budgeting and other aspects. Studies should identify the areas that need equipment redeployment needs establishment of key parameters that evaluate the functional capability and the probable risks to the safety of the patient that may take place when redeploying equipment. Furthermore, hospital managers can improve the incorporation of the needs of the organization’s equipment and create effective capital plans using mined data sources; this will help in long-term planning. Evaluation of the proposed projects An evaluation of the first proposed project; CT: A new mobile 16-slice CT Scanner was done using the payback period, net present value, internal rate of return and profitability index. From the calculations, the payback period for this first project will be 1.2 years with a Net Present Value (NPV)  $2,843,254.03. Furthermore, the project will have an Internal Rate of Return (IRR) of 102.892% and Profitability Index (PI) of 8.78%. On the other hand, the calculations revealed that the payback period of the second proposed project; PET: A refurbished PET Scanner will be 2.2 years with a Net Present Value (NPV) of  $1,719,628.36. Additionally, this project will have an Internal Rate of Return (IRR) of 51.641% and Profitability Index (PI) of 3.46%.   Thus, based on the calculations and evaluation of these two projects, the most appropriate project that should be invested in is the first on A new mobile 16-slice CT Scanner. This project would bring high returns than the other and it also has a higher NPV which makes it more feasible. Limitations of capital budgeting analytic tools  While capital budgeting analytic tools are popular in influencing critical decisions within organizations, they have major limitations. First, the payback period is limited by the fact that it ignores time value of money as well as the risk of future cash flows. Additionally, this tool ignores cash flows which are received after the payback period. At the same time, it is limited by the lack of concrete decision criteria to determine if the investment increases the value of the business (Fabozzi, Peterson, & Polimeni, 2008). On the other hand, the net present value is limited by having that it is expressed in terms of dollars and not a percentage. Moreover, to calculate it, one requires the cost of capital estimate. Consequently, the internal rate of return is limited by the fact that it cannot be used in instances where the cash flow sign changes more than once during the life of the project. Secondly, when used to compare mutually exclusive projects, it lacks to provide a value-maximizing decision. Finally, the profitability index cannot be able to give a correct decision when two mutually exclusive projects are compared (Fabozzi, et al. 2008). These limitations mean that business owners and managers should make decisions cautiously upon consideration of other factors. Conclusion     The first part of this paper reviewed research articles on capital budgeting where they have been critically evaluated and the key findings synthesized. Moreover, a gap from the literature reviewed in relation to capital budgeting theory and practice was provided. Directions of future research based on the gap have also been provided. The second part involves using budgeting analytic tools such as Payback Period (PP), Net Present Value (NPV), Internal Rate of Return (IRR), and Profitability Index (PI) to evaluate two proposed projects with an aim to make a decision on the most appropriate project to invest. Calculations done on each of these tool revealed that investing in the first project on a new mobile 16-slice CT Scanner was most feasible. Additionally, it has also involved providing key limitations of each of these tools.     References Buelow, J. R., Zuckweiler, K. M., & Rosacker, K. M. (2010). Evaluation methods for hospital projects. Hospital Topics, 88(1), 10-17. Fabozzi, F. J., Peterson, D. P., & Polimeni, R. S. (2008). The complete CFO handbook: From accounting to accountability. Hoboken, N.J: John Wiley & Sons. Kengatharan, L. (2016). Capital Budgeting Theory and Practice: A Review and Agenda for Future Research. Applied Economics and Finance, 3(2), 15-38. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=0ahUKEwivqIqQvOTTAhUHAsAKHb4pAuYQFgg0MAI&url=http%3A%2F%2Fredfame.com%2Fjournal%2Findex.php%2Faef%2Farticle%2Fdownload%2F1261%2F1340&usg=AFQjCNHDkIUSl0kAfbfGycIht49WH-JpVg&sig2=Vz6MFNu-GFrxev4TrdTZ4A Lunkes, R., Ripoll-Feliu, V., Giner-Fillol, A., & Silva da Rosa, F. (2015). Capital budgeting practices: A comparative study between a port company in Brazil and in Spain. Journal of Public Administration and Policy Research 7.3, 39-49. http://www.academicjournals.org/journal/JPAPR/article-full-text-pdf/6B3E0B352950 Mbabazize, P. M., & Daniel, T. (2014). Capital Budgeting Practices in Developing Countries: A Case of Rwanda. Research Journal of Finance, 2(3). http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.731.4492&rep=rep1&type=pdf Poplin, B. (2011). Making informed capital investment decisions for clinical technology. Healthcare Financial Management, 65(2), 64-68.