**EXPLORATORY SIGNIFICANCE OF CAPITAL BUDGETING TECHNIQUES IN INVESTMENT ANALYSIS OF NON-PROFIT ORGANISATIONS**

**A CASE OF UGANDA HEALTH MARKETING GROUP (UHMG)**

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**ABSTRACT**

The general aim of this study was to examine the significance of capital budgeting techniques in the investment analysis of the Uganda Health Marketing Group. The objectives of the study were; To Assess the techniques used in investment appraisal in UHMG, to determine the challenges faced during investment appraisals in UHMG, To assess the significance of Capital Budgeting Techniques in Investment appraisal in UHMG. The study used a cross sectional design because data was collected at only one point in time. The target population included 40 Staff from Uganda Health Marketing Group Ltd. The research sample size covered was 36 respondents while using simple random sampling. Data was collected by use of questionnaires composed of open ended and closed ended questions, each question in the several sections, scores were rated on a dichotomous scale. The response rate was 36 (100%) and none of the questionnaires were left unfilled. The study also indicated that majority of respondents were male represented, majority were aged between 30-39 years, majority of respondents (58.3%) were married. The study also further indicated that more respondents representing 63.9% of the total number of respondents had education qualification of Bachelor’s degree. The study also indicated that a majority of the study respondents had worked for 6-10 years in UHMG. The study found out that majority represented sated that UHMG does not use capital budgeting techniques. The study concluded that majority of the respondents actually UHMG faces difficulties in incorporating risk while appraising projects, a challenge in Estimating cash flow, difficulties in determining discount rate during investment appraisal, difficulties in Adjusting inflation during investment appraisal and difficulties in achieving competitive advantage over its competitors.

**Key words:** capital budgeting, investment appraisal, cash flow

**INTRODUCTION**

## **1.1. The background of the Study.**

The basic objective of financial management is the maximization of the shareholders’ wealth by focusing on three decisions which are capital budgeting decisions, capital structure decisions, and dividend decisions. Most scholars and practitioners opine that although three decisions are important, firm success and survival ultimately depend on the right investment decision because a good investment decision remains good business even though bad finance is taken; on the contrary, a bad investment decision was a wrong decision even with best finance policy (Brealey et al., 2015). A sound capital budgeting decision is very critical for a firm because it is aligned with the firm’s primary objective (wealth maximization), and it requires a substantial amount of resources and long-term commitment. Gitman et al. (2015) define capital budgeting as “the process of evaluating and selecting long-term investment consistent with the firm owners’ goal of wealth maximization”.

Capital budgeting is a tool modern firms use to help minimize cost and maximize revenue and in turn, generate profit and return for the capital investments undertaken by the organization.

Capital budgeting decisions involve outlays of big investments of Capital and are expensive and irreversible. Businesses exist to make a profit and maximize shareholders’ wealth, (Board, 2019). Capital budgeting is one means by which a firm can achieve the goal of shareholder wealth generation.

Capital budgeting methods are generally classified into non-discounted or discounted. Non-discounted techniques are traditional techniques that are not sophisticated such as the Accounting Rate of Return (ARR) & Payback method. The non-discounted techniques do not factor time value of money and hence the cash streams are not discounted. Therefore, cash inflows from different periods are all treated the same. The discounted techniques consider the time value of money and apply an appropriate discount to calculate the net present value for expected cash inflow. Brigham and Ehrhardt, (2002) listed discounted cash flows including Modified Internal Rate of return (MIRR), Internal rate of Return (IRR) Discounted Payback period, Net present value (NPV) and profitability Index (PI). NPV gives the net difference between the present value of cash inflows and outflows.

Contingency theory is a management theory that states that there is no one best management approach. Pike (1986) advances that the choice of a capital budgeting method is dependent on the environment the organization operates. The theory suggests that the capital budgeting policy of the organization should be reflective of the objectives of the firm and should consider the challenges that the firm may such as environmental uncertainty, leadership style, size of the organization’s financial status and organizational structure. The size of a project and the size of a firm were found to be two factors that influence the adoption of capital budgeting techniques (Payne et al., 1999; Kester and Robbins, 2011). According to Chege, (2015), carried out a study on capital budgeting practices of kenya’s 2008 top 100 mid- sized companies and these include; CELLULANT (K) LTD, TECHBIZ LTD , DIMENSION DATA, HASSCONSULT LTD , OVIDIAN ADVERTISING &DESIGN LTD, MAGNATE VENTURES, CHEMOQUIP LTD, ELRIS COMMUNICATIONS SERVICES LTD , MASTER POWER SYSTEMS LTD among others. All these companies use capital budgeting techniques while evaluating projects.

In fact, for not-for-profit organizations estimation and quantification of the project's benefits in monetary terms can be quite difficult. A project's benefits to the not-for-profit organizations (which is equivalent to the benefits to the organization's stakeholders) basically fall into one of two groups. A project generally involves either a lowering of the organization's cost structure (such as the implementation of automated inventory control) or an increase in revenues (such as donations. This has been the model upon which Uganda Health Marketing Group Ltd. (UHMG) has fought to remain sustainable to date, with reduced dependency on donors. In fact, for not-for-profit organizations estimation and quantification of the project's benefits in monetary terms can be quite difficult. Studies by Katabi and Dimoso (2016), revealed that when making investment decisions, a firm’s goal for shareholders’ wealth maximization can be achieved through the use of capital budgeting techniques and control capital expenditures. Just as importantly, once capital budgeting methods are put in place, it can streamline the decision-making process, which can save companies both time and money. However, despite the benefits of capital budgeting techniques, companies like Uganda Health Marketing Group (UHMG) do not use the techniques. This makes managing future financial obligations more difficult as contributions from donors, especially from America, have greatly reduced their grants and contributions which have been the primary source of funds for the running of programs and projects of this institution. This is based on UHMG financial Annual report, (2021) it is evident that there was a drop in donations from 34.8bn in 2017 to 606m in 2021. Studies by Kyalimpa, (2017) indicate that many NGOs in sub-Sahara Africa, Uganda at the heart, have used capital budgeting decisions while committing donor funds. Among these include the international development agencies such as Save the Children Fund, Organization Development Department of the International Federation of the Red Cross, CARE International, and a consortium of US-based NGOs. While reliance on the external source of funding is reflective of the wider economic context of African countries, in this situation, if international funding were to disappear, many of the NGOs would collapse (USAID, 2010).

NGOs may establish the investment plan either as a basis of attracting donor funding or as a funding requirement by the donor. In either case, what remains important is the implementation of the investment or financial plan that will have a bearing on sustainable funding on the NGO. Therefore, NGOs should invest in capital budgeting techniques and establish alternative sources of funding, as well as commit to implementation of those plans to increase NGO funding and become sustainable. With that background, the study aims at examining the significance of capital budgeting techniques in the investment analysis in NGOs in Uganda, particularly in Uganda Health Marketing Group.

**1.2. Statement of the problem.**

Capital budgeting practice has become one of the fundamental criteria for a company planning to undertake an investment. It is one of the most important decisions that face financial managers today; these decisions shape the future of the company (Aruho, 2021). Because it uses several calculations to determine which projects are most worthwhile, capital budgeting helps companies make thorough, informed investment decisions (Kerubo, 2016). By creating a structured process for evaluating new opportunities, companies can develop long-term goals, estimate future cash flows, and control capital expenditures. Just as importantly, once capital budgeting methods are put in place, it can streamline the decision-making process, which can save companies both time and money. The decision by donors to reduce the grants could have been prompted by UHMG inability to use capital budgeting techniques when assessing investments. If caution is not exercised in undertaking long‐term investments, ultimately the UHMG *will continue facing challenges.* Therefore, this study aims to examine the significance of capital budgeting techniques in the investment analysis of the Uganda Health Marketing Group.

**1.3. Purpose of the study**

The general aim of this study aimed to examine the significance of capital budgeting techniques in the investment analysis of the Uganda Health Marketing Group.

**1.4. Research objectives**

**The following are the objectives of the study;**

1. To Assess the techniques used in investment appraisal in UHMG
2. To determine the challenges faced during investment appraisals in UHMG
3. To assess the significance of Capital Budgeting Techniques in Investment appraisal in UHMG

# **LITERATURE REVIEW**

## **2.2. Description of the organization**

Uganda Health Marketing Group Ltd. (UHMG) is a Company Limited by Guarantee, with an NGO status, whose Vision is "A good life for all Ugandans". We envision a Ugandan society with good life, when products and services in Reproductive Health, HIV, Malaria and Child Health are accessible, affordable and effectively utilized by all those in need. Our Mission is "To improve the quality of life of Ugandans, through the provision of superior and affordable health care solutions." Our Core Values are; Integrity, Transparency, Accountability, Teamwork, Excellence, Flexibility, and Equity.

In 2021 UHMG greatly contributed to the positive change in public attitudes regarding sexual reproductive health rights for adolescents and youth through advocacy and social behaviour change communication. This was a great contribution to the fight against HIV and unplanned pregnancies amongst the youth. Focusing on preventive measures, UHMG continues to develop and produce quality public health communication strategies. Basing on Total Marketing Approaches, the company continues to strength the delivery of such strategies communication strategies with consumer products such as medical gloves condoms and insecticide treated nets.

**2.3. Capital Budgeting Techniques**

The capital budgeting method can be categorized into two groups: discounted cash flow (DCF) method and the non-discounted cash flow (non-DCF) method. Non-DCFs include the Payback Period (PBP) and accounting rate of return (ARR). DCFs include net present value (NPV), internal rate of return (IRR), and profitability index (PI). While DCFs take into account the time value of money, the non-discounted methods are not considered the time value of money (Farragher, E. J., Kleiman, R. T., & Sahu, A. P. , 2001).

**Accounting Rate of Return (ARR)**

(Munyao, A., 2010) Described ARR as the annual accounting profits from a capital project divided by a defined annual average capital investment outlay over the lifespan of a project. It is a non-discounting technique and considers all accounting profits instead of cash flows over the life of capital investment. (Kadondi, E. A. , 2002) Depicts ARR as the average after-tax profits divided by the initial investment. The higher the accounting rate the more preferable the investment is to a firm and evaluates projects based on profitability. However, the method does not factor in the time value of money.

**Pay Back Period (PBP)**

PBP is the number of years required to recover the original investment. It’s the simplest and oldest method used to evaluate the capital budgeting method. Using PBP to make capital budgeting decisions is based on the concept that it’s better to recover the cost of the project sooner rather than later. As a general rule, a project is considered acceptable if its PBP is less than the maximum cost recovery time established by the firm. Its limitations are the failure to recognize the time value of money and cash flows beyond the payback period. PBP = Initial cash outlay / Annual cash inflows (Graham & Harvey, 2001).

**Net Present Value (NPV)**

(Graham & Harvey, 2001) Defined NPV as the method of finding the present value of future net cash flows discounted at the rate of return required by the firm. To implement this approach, we find the present value of all future cash flows a project is expected to generate and then subtract its initial investment to find the net benefit the firm realized from investing in the project. If the net benefit is computed on a present value basis positive, then the project is considered an acceptable investment. The advantage of this method is that it recognizes the time value of money.

If that difference is positive it is considered to be returning the required rate of return and is an acceptable project. If the amount is negative it is not providing a sufficient return and would be rejected.

**Internal rate of return (IRR)**

Internal rate of return (IRR) is simply a variation of NPV in that it attempts to find the discount rate that provides a NPV of zero. If the NPV is positive it is assumed that the actual return is higher. If the NPV is negative, it is presumed the actual return is lower. By continuously manipulating the discount rate it is possible to hone in on the rate where the NPV is zero (Kerubo, 2016).

**The profitability index (PI)**

The profitability index (PI) is another variation of NPV in that it attempts to approximate the results obtained by the IRR without the resultant computations. NPV generally rewards large profits because it is easier for them to **generate** large NPVs without have a high IRR. The PI adjusts for this by a simple change. In NPV calculations, the present value of the outflows is subtracted from the present value of the inflows giving the NPV. The profitability index takes those same two numbers but instead divides the **present** value of the outflows into the inflows. If the resultant number is greater than one it is an acceptable project (Asorit, Mary, N, 2021).

## **2.4.** **Significance of Capital budgeting techniques (CBTS)**

According to Gilbert (2005), the increasing capital intensive nature of modern production methods necessitates careful consideration in the selection of methods and processes used for investment appraisal. Since mining investments require a huge capital layout (Erarslan and Celebi, 1999), the finding and subsequent application of a reliable method of investment appraisal in the present time is not only a matter of concern for the managers of a company, it is also increasingly important to the shareholders (Akalu and Turner, 2002). However this study is limited to mining industry.

Several studies have demonstrated the importance of capital budgeting practices as a tool for evaluating the feasibility of possible investments in the corporate world (Mao, 1970; Pandey, 1989; Lefley, 1996; Maccarrone, 1996; Graham and Harvey, 2001).

A number of studies have also been conducted on this subject in South Africa (Lambrechts, 1976; Andrews and Butler, 1986; Hall, 2000; du Toit and Pienaar, 2005; Gilbert, 2005; Correia and Cramer, 2008; Hall and Millard, 2010; Olawale et al., 2010). However, these studies either analysed practices of large companies or all sectors whereas the study reported on in this paper is concerned specifically with Ugandan companies.

## **2.5. Challenges people face in Capital Budgeting**

With regard to the issue of reasons for not adopting capital budgeting techniques, the research evidence is relatively small compared to other researches carried out on similar issues investigated. Financing problems and budget constraints have been the main barriers for implementation of capital budgeting techniques in high tech firms (Silvola 2006).

In developing countries, capital budgeting practices is also being pronounced however not to the great pace as it is for developed countries. Kengatharan (2016) admits that there is dearth of studies carried out on capital budgeting practices in developing countries during the last two decades. According to Monakgisi (2015) in his research that focused on the examination and principles of capital budgeting by the public sector in the Republic of South Africa revealed that in South Africa the companies make use of more than one evaluation technique with IRR being the most utilized technique followed by NPV, payback period and hurdle rate tying in the second position. His study revealed also that there are cases where the capital budgeting principles were not thoroughly applied due to the need to execute the projects that were classified as emergency and projects that were initiated based on political pressures and regarded as urgent. Another challenge that was identified is lack of top management support. According to him, these are among the causes for cost and time overrun in the implementation of the building projects in South Africa.

According to Batra & Verma (2017) who carried a study on the use of capital budgeting appraisal techniques in India showed that all companies except one were using the payback period to evaluate the projects. The discounted cash flow techniques were used as a secondary technique because of their difficulty to understand and using and also that lack of qualified personnel impeded its use. According to Kiget (2014), capital budgeting is affected by certainty in the cash flow of the organizations, prevailing corporate tax and the prevailing limitation in the strategic plan of the organizations. Her study however points out the great use of NPV, IRR and the profitability index.

A study by Mbabazize & Twesige (2014) in Rwanda focused most on the capital budgeting techniques and the cash flow techniques applied by firms in Rwanda in order to determine if they operate as per the finance theory in attempt to solve the problem faced in applying theory of capital budgeting to real practice. Their study found that most firms in Rwanda use discounted techniques and no firm was found to use payback period. Furthermore, the study revealed that inflation is a challenge in capital budgeting practices as it affects the overall estimation. As a result, there is difficult in estimation because of lack of advanced software. In Tanzania, there is inadequate literature as evidence on capital budgeting practices in any industry. The literature finds only the central government budget which of course has a general provision for capital budget and expenditure budget. However, this is in broad perspective budgeting of the whole country, but there is little knowledge for individual institutions on capital budgeting evaluation practice. Hence the need for research to be undertaken in order to unveil the capital budgeting practice among various organizations in Tanzania.

**RESEARCH METHODOLOGY**

The study used a cross sectional design because data was collected at only one point in time. The target population included 40 Staff from Uganda Health Marketing Group Ltd. The research sample size covered was 36 respondents. Data was collected by use of questionnaires. Simple random sampling ensured equal representation, while purposive sampling selected cases aligned with research objectives. Data collection spanned three weeks, utilizing interviews and self-administered questionnaires. Interviews provided reliable, relevant insights, while questionnaires allowed efficient quantitative analysis (Saunders et al., 2009).

# **PRESENTATION INTERPRETATION AND ANALYSIS OF FINDINGS**

## **4.2 Demographic Characteristics of Respondents**

The researcher in this section considered personal demographic characteristics of gender, age group, marital status, education qualification and how long respondents have worked at UHMG. Demographic factors help researchers to collect and evaluate data on people in a given population. Typical factors include age, gender, marital status, race, education, income and occupation and the researcher was able to capture the following summaries of this as presented in the proceeding tables below.

### **4.2.1 Gender**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table *4.2*: Showing the Gender of respondents | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Female | 17 | 47.2 | 47.2 | 47.2 |
| Male | 19 | 52.8 | 52.8 | 100.0 |
| Total | 36 | 100.0 | 100.0 |  |

***Source: Primary data (2022)***

The frequency table above indicated that 17 (47.2%) of the respondents were female and 19 (52.8%) were male. The study also indicated that majority of respondents were male represented by 52.8% of the total number of respondents***.***

### **4.2.2 Age Group**

**Table 4.3: Showing the Age Group**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 20- 29 years | 11 | 30.6 | 30.6 | 30.6 |
| 30 - 39 years | 21 | 58.3 | 58.3 | 88.9 |
| 40 – 49 years | 1 | 2.8 | 2.8 | 91.7 |
| 50 - 59 years | 2 | 5.6 | 5.6 | 97.2 |
| Above 60 years | 1 | 2.8 | 2.8 | 100.0 |
| Total | 36 | 100.0 | 100.0 |  |

***Source: Primary data (2022)***

From table 4.3, it is indicated that respondents represented with 21(58.3%) were aged 30 - 39 years, those aged between 40 – 49 years represented by 1(2.8%), in addition, those that were between 50 - 59 years represented with 2(5.6%), lastly, respondents with 60 years and above were represented by 1(2.8%). It, therefore, implies that the majority were aged between 30-39 years and indicated in the summary frequency table above.

### **4.2.3 Marital Status**

**Table 4.4. : Showing the Marital Status**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Single | 11 | 30.6 | 30.6 | 30.6 |
| Married | 21 | 58.3 | 58.3 | 88.9 |
| Widow | 1 | 2.8 | 2.8 | 91.7 |
| Widower | 3 | 8.3 | 8.3 | 100.0 |
| Total | 36 | 100.0 | 100.0 |  |

***Source: Primary data (2022)***

The researcher further indicated that 11(30.6%), 21(58.3%), 1(2.8%), and 3(8.3%) of the respondents were respectively single, married, Window and Widower. The study also indicated that a majority of respondents (58.3%) were married as the table displayed above indicated the findings.

### **4.2.4 Educational Qualification**

**Table 4.5: Showing the Educational Qualification**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Diploma | 4 | 11.1 | 11.1 | 11.1 |
| Bachelors’ degree | 23 | 63.9 | 63.9 | 75.0 |
| Masters’ degree | 7 | 19.4 | 19.4 | 94.4 |
| PhD | 1 | 2.8 | 2.8 | 97.2 |
| Professional qualification | 1 | 2.8 | 2.8 | 100.0 |
| Total | 36 | 100.0 | 100.0 |  |

***Source: primary data (2022)***

The findings indicated that 4(11.1%), 23(63.9%), 7(19.4%), 1(2.8%), and 1(2.8%) of the respondents according to the table above had education qualification of Diploma, Bachelors’ degree, Masters’ degree, PhD and Professional qualification respectively. The study also further indicated that more respondents representing 63.9% of the total number of respondents had education qualification of Bachelor’s degree.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **4.2.5 .For how long have worked in UHMG?**  **Table 4.6: Length of service** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 1-5 years | 14 | 38.9 | 38.9 | 38.9 |
| 6-10 years | 18 | 50.0 | 50.0 | 88.9 |
| Over 15 years | 4 | 11.1 | 11.1 | 100.0 |
| Total | 36 | 100.0 | 100.0 |  |

***Source: primary data (2022)***

The information in the frequency table above showed that 14 (38.9%), 18(50.0%), and 4 (11.1%) of the study respondents had worked for UHMG 1-5 years, 6-10 years, and Over 15 years. The study also indicated that a majority of the study respondents representing 50% of the total number of respondents had worked for 6-10 years in UHMG.

## **4.3 .Descriptive statistics**

### **4.3.1. The techniques used in investment appraisal in UHMG**

Under this section, we requested respondents to present their opinions regarding the statements we placed to them to analyze the techniques used in investment appraisal in UHMG. For each question, a scores on a dichotomous scale ranging from 1-NO, 2-NOT SURE, AND 3-YES.

**Table 4.7: The techniques used in investment appraisal in UHMG**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | No | | Not sure | | Yes | |
| Count | Row N % | Count | Row N % | Count | Row N % |
| TC1. Does UHMG use Net present value (NPV) in appraising projects? " | 25 | 69.4% | 6 | 16.7% | 5 | 13.9% |
| TC2. Does UHMG use the Accounting rate of return in appraise projects?" | 27 | 75.0% | 4 | 11.1% | 5 | 13.9% |
| TC3. Does UHMG use the Internal rate of return method in investment appraisal?" | 24 | 66.7% | 6 | 16.7% | 6 | 16.7% |
| TC4. Does UHMG use a Payback period method in investment appraisal? | 25 | 69.4% | 4 | 11.1% | 7 | 19.4% |
| TC5. Does UHMG use Profitability index (PI) in investment appraisal? | 21 | 58.3% | 3 | 8.3% | 12 | 33.3% |

***Source: primary data (2022)***

From the table 4.7, the findings indicates that Majority of the respondents 25(69.4%), stated that UHMG does not use Net present value (NPV) in appraising several projects, of the respondents 6(16.7%) were not sure whether UHMG uses the Net present values. Of 5(13.9%) respondents, agreed by stating yes UHMG uses NPV in appraising some projects. From the findings, this indicates that generally UHMG does not use NPV in appraising projects. This is not in line with Ryan and Ryan’s (2002) who found that NPV was most popular technique, followed by IRR in Fortune 1000 companies.

Majority of the respondents stated that UHMG does not use the Accounting rate of return in appraise projects, this is represented by 27 (75.0%). Of the respondents 4(11.1%) stated that they were not sure whether UHMG uses it or not, 5(13.9%) of the respondents stated that yes, UHMG uses the ARR in appraising projects. From the findings, this implies UHMG does not use the Accounting rate of return in appraise projects being represented by 75%. This is not in line with Dakshayani & Chandrika, (2018) who stated that ARR is favored by manager because this method measures the management performance among units or departments of a company.

Majority of the respondents sated that UHMG does not use the Internal rate of return method in investment appraisal, 24(66.7%) of the respondents stated that, of the respondents 6(16.7%) were not sure whether UHMG uses IRR in appraising projects, 6(16.7%) stated that UHMG uses IRR in appraising projects. From the findings, this implies that UHMG does not use IRR, this is represented by 667%. This is in line with Nguyen, (2019) who stated that CEOs don’t use any method in capital budgeting at Aristino. Instead, they follow objectives of the company as decision criteria for project investment after completing all of the steps of analysis and numerical calculation

Majority of the respondents stated that UHMG does not use a Payback period method in investment appraisal, this is represented by 25(69.4%), of the respondents 4(11.1%) were not sure, of the respondents 7(19.4%) stated that UHMG uses PBP in investment appraisal. From the findings, it indicated that UHMG Majority of the respondents stated that UHMG does not use PBP in investment appraisal, this is not in agreement with Al-Mutairi, et al., ( 2018) who stated that the payback period (PP) is the most popular technique employed in evaluating projects in developing countries

Majority of the respondents stated that UHMG use not use Profitability index (PI) in investment appraisals, this is represented by 21(58.3%) respondents, 3(8.3%) of the respondents were not sure whether UHMG use the method or not, however, 12(33.3%) of the respondents stated that UHMG uses Profitability index (PI) in investment appraisals. From the findings, this indicated that UHMG does not use Profitability index (PI) in investment appraisals. This is line with Iroegbu, (2015) who stated that the use of profitability index is mostly preferred by the decision-makers of small-sized enterprises and it is the least frequently used method by professionals at corporations.

### **4.3.2 .The challenges faced during investment appraisals in UHMG**

Under this section, we requested respondents to present their opinions regarding the statements we placed to them to analyze the challenges faced during investment appraisals in UHMG. For each question, a scores on a dichotomous scale ranging from 1-NO, 2-NOT SURE, AND 3-YES.

Table 4.8. **The challenges faced during investment appraisals in UHMG**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | No | | Not sure | | Yes | |
| Count | Row N % | Count | Row N % | Count | Row N % |
| CL1. At UHMG, do you face difficulties in Incorporating risk? | 15 | 41.7% | 3 | 8.3% | 18 | 50.0% |
| CL2. At UHMG, do you face difficulties in Estimating cash flows? | 13 | 36.1% | 3 | 8.3% | 20 | 55.6% |
| CL3. At UHMG, do you face difficulties in Determining discount rate? | 16 | 44.4% | 4 | 11.1% | 16 | 44.4% |
| CL4. At UHMG, do you face difficulties in Adjusting inflation? | 15 | 41.7% | 2 | 5.6% | 19 | 52.8% |
| CL5. At UHMG, do you face difficulties in achieving competitive advantage over your competitors? | 13 | 36.1% | 9 | 25.0% | 14 | 38.9% |

***Source: primary data (2022)***

From table 4.8, of the 15(41.7%) respondents stated that UHMG does not faces difficulties in incorporating risk, of 3(8.3%) respondents stated that they are not sure whether UHMG faces this challenge, 18(50.0%) of the respondents stated that it is true, UHMG faces difficulties in incorporating risk. From the findings it indicated that UHMG faces difficulties in incorporating risk while appraising projects. This is in line with O’Sullivan & Sheffrin, (2003) who stated that investing in the wrong project means committing corporate resources to a project without taking into consideration its risks and returns, thereby negatively affecting shareholders’ wealth.

Of 13(36.1%) respondents stated that UHMG does not face difficulties in Estimating cash flows, 3(8.3%) of the respondents were not sure about this challenge, while (55.6%) stated that it is true that UHMG face difficulties in Estimating cash flows during investment appraisal. This implies that UHMG faces a challenge in Estimating cash flow, which is line with Stewart, (2019) who stated that Cash flow estimation is a primary requirement for capital budgeting and using project evaluation techniques.

Of 16(44.4%) respondents stated that UHMG, managers don’t face difficulties in determining discount rate, 4(11.1%) of the respondents sated that, they were not sure about this challenge, majority of the respondents represented by 16(44.4%) stated that it is true UHMG faces difficulty in determining discount rate during investment appraisal. This is in line with Szűcsné, (2016) who stated that the inappropriate determination of the discount rate might lead to erroneous decisions in some cases.

15(41.7%) of the respondents stated that UHMG managers don’t face difficulties in Adjusting inflation, 2(5.6%) of the respondents stated that they were not sure whether UHMG faces this kind of challenge, whereas 19(52.8%) of the respondents stated that yes, its true UHMG faces difficulties in Adjusting inflation during investment appraisal. This means UHMG indeed faces difficulty in Adjusting inflation during investment appraisal. This is in line with (Chowdhury, et al., 2018) who stated that, the cash flows should be adjusted for inflation and the market-based cost of capital should be used in the analysis.

Of 13 (36.1%) respondents who participated in the study , stated that UHMG does not face difficulties in achieving competitive advantage over its competitors, 9(25.0%) respondents were not sure about this challenge, 14(38.9%) of the respondents sated that its true ( yes) UHMG faces difficulties in achieving competitive advantage over your competitors. This implies that majority agreed that UHMG faces difficulties in achieving competitive advantage over its competitors. This is line with Chai, (2011) who stated that capital budgeting techniques process acted as a strategy to gaining competitive advantage over its competitors.

**4.3.3. The significance of Capital Budgeting Techniques in Investment appraisal in UHMG**

Under this section, we requested respondents to present their opinions regarding the statements we placed to them to analyze **the significance of Capital Budgeting Techniques in Investment appraisal in UHMG**. For each question, a scores on a dichotomous scale ranging from 1-NO, 2-NOT SURE, AND 3-YES.

Table 4.9: **The significance of Capital Budgeting Techniques in Investment appraisal in UHMG**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | No | | Not sure | | Yes | |
| Count | Row N % | Count | Row N % | Count | Row N % |
| RL1. Is Capital budgeting an essential tool for financial management? | 13 | 36.1% | 5 | 13.9% | 18 | 50.0% |
| RL2. Does UHMG management provide effective control on the cost of capital expenditure projects? | 22 | 61.1% | 5 | 13.9% | 9 | 25.0% |
| RL3. Does Capital budgeting assist in checking over or under investments? | 8 | 22.2% | 3 | 8.3% | 25 | 69.4% |
| RL4. Does Capital budgeting help in exposing the risk and uncertainty of different projects? | 8 | 22.2% | 4 | 11.1% | 24 | 66.7% |
| RL5. Does Capital budgeting provide a wide scope for financial managers to evaluate different projects in terms of their viability to be taken up for investments? | 8 | 22.2% | 2 | 5.6% | 26 | 72.2% |

***Source: primary data (2022)***

From table 4.9, 13(36.1%) of the respondents rejected that Capital budgeting is an essential tool for financial management, 5(13.9%) were not sure whether Capital budgeting is an essential tool for financial management, 18(50.0%) of the respondents accepted that Capital budgeting is an essential tool for financial management in UHMG. This means that Capital budgeting is an essential tool for financial management. This is in line with Jama, (2018) who stated that firms in Brazil consider capital budgeting as an essential tool that helps in maximization of the shareholders wealth.

22(61.1%) of the respondents, rejected that UHMG management provides effective control on the cost of capital expenditure projects, 5(13.9%) of the respondents were not sure about this, 9(25.0%) of the respondents accepted that yes, UHMG management provides effective control on the cost of capital expenditure projects. This implies that UHMG management does not provide for effective control on the cost of capital expenditure projects. This is in line with Mafazi, (2018) who stated that organisations should ensure the effective control of capital expenditure in order to achieve by forecasting the Long - term financial requirements.

Of 8(22.2%) respondents rejected that Capital budgeting assist in checking over or under investments, (8.3%) of the respondents were not sure about this, 25(69.4%) of the respondents accepted that it’s true Capital budgeting assist in checking over or under investments. This implies in UHMG, Capital budgeting assist in checking over or under investments, this is in agreement with Rossi, (2014)who sated that there are several steps to implement the capital budgeting such as strategic planning, determining and selecting the investment opportunities, evaluating the investments and others.

8(22.2%) of the respondents rejected that Capital budgeting help in exposing the risk and uncertainty of different projects, 4(11.1%) of the respondents were not sure about this, 24(66.7%) of the respondents accepted that it true Capital budgeting help in exposing the risk and uncertainty of different projects. This implies at UHMG Capital budgeting help in exposing the risk and uncertainty of different projects, and this is in line with Burkert, et al., (2022) who stated firm strategies are in three aspects: focusing on the new production lines, selecting the investment projects with high return and risk and emphasising on research and development

8(22.2%) rejected that Capital budgeting provide a wide scope for financial managers to evaluate different projects in terms of their viability to be taken up for investments, 2(5.6%) were not sure, 26(72.2%) of the respondents accepted that Capital budgeting provide a wide scope for financial managers to evaluate different projects in terms of their viability to be taken up for investments. This means that at UHMG, Capital budgeting provide a wide scope for financial managers to evaluate different projects in terms of their viability to be taken up for investments.

**The recommendations for the challenges faced during investment appraisals in UHMG?**

**Following suggestions from the questionnaire, respondent 10 stated that:**

*Management should be able to device better methods of improving employee participation so as to build team work and thus increasing the effectiveness of their organisations.*

**Respondent number 12 stated that:**

*At UHMG, management should encourage Employee participation in making investment decisions that affect their duties.*

**Respondent 11 stated that:**

*Management for UHMG should at least use one methods among the many techniques for evaluating investment.*

## **5.1 Discussion of findings**

### **5.1.1. The techniques used in investment appraisal in UHMG**

The study found out that majority represented by 69.4%) sated that UHMG does not use NPV in appraising projects. The finding were not in agreement with Ryan and Ryan’s (2002) who found that NPV was most popular technique, followed by IRR in Fortune 1000 companies.

From the findings, it was noticed that UHMG does not use the Accounting rate of return in appraise projects, this was represented by 75%. The results were rejected by Dakshayani & Chandrika, (2018) who stated that ARR is favored by manager because this method measures the management performance among units or departments of a company.

From the findings, it was observed that UHMG does not use IRR, this was represented by 667%. The results were in agreement with Nguyen, (2019) who stated that CEOs don’t use any method in capital budgeting at Aristino. Instead, they follow objectives of the company as decision criteria for project investment after completing all of the steps of analysis and numerical calculation.

From the findings, Majority of the respondents stated that UHMG does not use PBP in investment appraisal, this was not in agreement with Al-Mutairi, et al., ( 2018) who stated that the payback period (PP) is the most popular technique employed in evaluating projects in developing countries.

From the findings, majority this indicated that UHMG does not use Profitability index (PI) in investment appraisals. The results were not in agreement with Iroegbu, (2015) who stated that the use of profitability index is mostly preferred by the decision-makers of small-sized enterprises and it is the least frequently used method by professionals at corporations.

### **5.1.2 .The challenges faced during investment appraisals in UHMG**

From the findings it was indicated that UHMG faces difficulties in incorporating risk while appraising projects. This was in line with O’Sullivan & Sheffrin, (2003) who stated that investing in the wrong project means committing corporate resources to a project without taking into consideration its risks and returns, thereby negatively affecting shareholders’ wealth.

Findings implied that UHMG faced a challenge in Estimating cash flow, which was line with Stewart, (2019) who stated that Cash flow estimation is a primary requirement for capital budgeting and using project evaluation techniques.

Majority of the respondents represented by 16(44.4%) stated that it is true UHMG faced difficulties in determining discount rate during investment appraisal. This was in line with Szűcsné, (2016) who stated that the inappropriate determination of the discount rate might lead to erroneous decisions in some cases.

Findings indicated that UHMG indeed faced difficulties in Adjusting inflation during investment appraisal. This was in line with (Chowdhury, et al., 2018) who stated that, the cash flows should be adjusted for inflation and the market-based cost of capital should be used in the analysis.

The findings implied that majority agreed that UHMG faced difficulties in achieving competitive advantage over its competitors. This was in line with Chai, (2011) who stated that capital budgeting techniques process acted as a strategy to gaining competitive advantage over its competitors.

### **5.1.3. The significance of Capital Budgeting Techniques in Investment appraisal in UHMG**

From the findings, majority of the respondents accepted that Capital budgeting is an essential tool for financial management in UHMG. This means that Capital budgeting is an essential tool for financial management. This was in line with Jama, (2018) who stated that firms in Brazil consider capital budgeting as an essential tool that helps in maximization of the shareholders wealth.

Findings implied that UHMG management does not provide for effective control on the cost of capital expenditure projects. This was in line with Mafazi, (2018) who stated that organisations should ensure the effective control of capital expenditure in order to achieve by forecasting the Long - term financial requirements.

Majority indicated that Capital budgeting assist in checking over or under investments, this was in agreement with Rossi, (2014)who sated that there are several steps to implement the capital budgeting such as strategic planning, determining and selecting the investment opportunities, evaluating the investments and others.

Majority of the respondents stated that Capital budgeting help in exposing the risk and uncertainty of different projects, and this was in line with Burkert, et al., (2022) who stated firm strategies are in three aspects: focusing on the new production lines, selecting the investment projects with high return and risk and emphasising on research and development.

Majority of the respondents accepted that Capital budgeting provides a wide scope for financial managers to evaluate different projects in terms of their viability to be taken up for investments.

## **5.2 Conclusion**

The study concluded that majority of the respondents actually UHMG faces difficulties in incorporating risk while appraising projects, a challenge in Estimating cash flow, difficulties in determining discount rate during investment appraisal, difficulties in Adjusting inflation during investment appraisal and difficulties in achieving competitive advantage over its competitors.

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