

AN INVESTIGATION INTO CAPITAL BUDGETING DECISIONS:

A CASE OF WADOMA ROYALE HOTEL IN ASHANTI REGION

by

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DECLARATION

I, Frank Y. Gbadago hereby declare that this submission is my own work for partial fulfillment of the requirements for the award of the degree in Master of Business Administration (MBA) in Finance & Banking and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the university, except where due acknowledgement has been made in the text.

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ABSTRACT

Capital investment decisions are expected to have significant impact on the future well being of a firm in term of its profitability and survival. This is because it involves long term commitment of firm's scarce funds often in the face of considerable uncertainty. There have been concerns among many (investors, shareholders, management as well as financial analysts) why a number of projects turned out to be unproductive at the end of the day. Is it because of non existence of systematic procedures and rules for generation and appraising the investment projects? This was what the research attempted to investigate. Generally, the approach adopted for this study was a case study research in which attempt was made to assess the respondent's capital budgeting procedures and rules for generating and ranking investment proposals and to find out whether or not post implementation audit or review is done after the project takeoff. This was done using self administered questionnaire coupled with personal and telephone interviews with regular visits to the respondent's premise. In consonance with theoretical bases respondent's (Wadoma Royale Hotel, Abuakwa) practice does not differ significantly. However, it was found out that Wadoma Royale Hotel, Abuakwa do not include risk and uncertainty in its capital budgeting decisions. This is highly disastrous and might have catastrophic effects on the outcomes of the capital budgeting decisions arrived at. This is possible area of further research and study in the near future.

DEDICATION

This research work is especially dedicated to my lovely sweet heart Agnes Fafa Ama Gbadago (Mrs) and Bill Etornam Kwame Gbadago my dear son.

TABLE OF CONTENTS

	Page
Title Page	i
Declaration	ii
Abstracts	iii
Dedication	iv
Table of Contents	v
List of Tables	viii
List of Appendices	ix
Acknowledgement	x

CHAPTER ONE: INTRODUCTION AND RESEARCH CONTEXT

1.0	Introduction	1
1.1	Background Statement of the study	1
1.2	The Problem Statement of the study	2
1.3	The Research Objectives of the study	3
1.4	The Significance/Justification for the Research	4
1.5	The Research hypothesis to be tested	5
1.6	The Limitations of the Research	6
1.7	Organisation of the study	6

CHAPTER TWO : REVIEW OF RELEVANT PRIOR LITERATURE

2.0	Introduction	8
2.1	Capital Budgeting Procedures	9
2.2	Investment Proposal Idea Generation and Administration	10
2.3	Estimation of project Cash flow	11
2.4	Investment Projects Appraisal and (Ranking) Methods	13
2.5	Non Discounted Cash flow techniques	16
2.6	Discounted Cash flow Methods	19
2.7	Comparison of the Appraisal Methods	25
2.8	Effects of Inflation on Capital Budgeting	28
2.9	Effects of Risk & Uncertainty on capital budgeting decisions	29
2.10	Chapter Summary	35

CHAPTER THREE: THE RESEARCH METHODOLOGY AND

PROFILE OF WADOMA ROYALE HOTEL

3.0	Introduction	37
3.1	Primary Data	37
3.1.2	The research approach adopted in this study (case study)	37
3.1.3	Data collection	38
3.2.	Secondary data	40
3.3	Data presentation	40
3.4	Data analysis tools and techniques	40
3.5	Preview of Wadoma Royale Hotel, Abuakwa the respondent	40

3.6	Organisational Structure and functional areas of Wadoma Royale Hotel, Abuakwa	42
3.7	Chapter Summary	43

CHAPTER FOUR: THE RESEARCH FINDINGS, ANALYSIS AND INTERPRETATION

4.0	Introduction	44
4.1	Administration of investment proposals in Wadoma Royale Hotel, Abuakwa	44
4.2	Evaluation of investment Proposals by Royale Hotel, Abuakwa	45
4.3	Financing investment projects in Wadoma Royale Hotel, Abuakwa	46
4.4	Effects of General uncertainties in the Economy on the projects selected and undertaken	46
4.5	Post Implementation Audit and Reviews by Royale Hotel, Abuakwa	47

CHAPTER FIVE: SUMMARY, RECOMMENDATION AND CONCLUSIONS

5.0	Introduction	48
5.1	Summary of research findings	48
5.2	Conclusions and recommendation for further studies	49
5.3	Recommendations	49
	References and Bibliography	51
	List of appendices	54

LIST OF TABLES

1.	Table 1	Cash flow of four mutually exclusive projects	15
2.	Table 2	Calculated pay back periods for the four mutually exclusive	16
3.	Table 3	ARRs for the four projects	18
4.	Table 4	Computation of net cash flow for projects	20
5.	Table 5	PI for the four mutually exclusive projects in table 1	20
6.	Table 6	Computation of NPV for project C	22
7.	Table 7	The NPV of all the four mutually exclusive projects from Table 1	22
8.	Table 8	Firstly using interest 20%	57
9.	Table 9	Firstly using interest 25%	58
10.	Table 10	The using interest 23%	59
11.	Table 11	IRR for all the four mutually project	59
12.	Table 12	Selected progress for each criteria	60

LIST OF APPENDICES

i.	Appendix A	Interview Questionnaire	54
ii.	Appendix B	Conceptual framework for Capital Budgeting process	56
iii.	Appendix C	Tables 8 to Tables 12	57
iv.	Appendix D	Project Evaluation Techniques of Respondent	61
v.	Appendix E	Profile of the respondent company	62
vi.	Appendix F	Contacts of the Respondent Company	63
vii.	Appendix G	Organisational Structure of Wadoma Royale Hotel	64

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To God be the glory.

CHAPTER ONE

1.0 INTRODUCTION AND RESEARCH CONTEXT

1.1 BACKGROUND STATEMENT OF THE STUDY

Capital budgeting is the process of allocating financial resources (capital) among various capital investments or projects. A capital investment is an outlay that is expected to result in benefits in the future (e.g., new plants and equipment, real estate) for considerable long period of time.

Companies (Enterprises) need to invest in wealth creating assets or projects in order to renew, extend and replace the means by which they carry on their businesses. Capital investment allows companies to continue to generate profits in future periods or maintain the profitability of existing business activities. Usually, capital investments projects will require significant cash outlays followed by cash inflows over several years. Careful evaluation is therefore necessary because large amount of cash need to be raised and invested as well as the future well being of the enterprise depends on the projects undertaken.

In order to maximise the return to shareholders of a company, it is important that the best or most profitable investment projects are selected. Bad long term investment decisions can be both financially and strategically devastating. As such, particular care needs to be taken with investment projects selection and appraisal in order to arrive at the ultimate goal.

Capital Budgeting is perhaps the most important decisions with which financial management is concerned (Weston and Copeland, 1985). All Departments of an organization from production, marketing, finance, IT etc are vitally affected by the capital budgeting decisions. For instance in a typical manufacturing firm capital investment decision of replacing existing plant will affect financing, operation, plant (engineering), production, marketing sections. As such all executives, irrespective of their

primary focus, must be conversant with capital budgeting techniques and how these decisions are made or arrived at under what circumstance etc. Again, Capital budgeting requires a commitment into the future, often in the face of considerable uncertainties and risks.

Capital Budgeting can be seen as an application of classic proposition from the economic theory of the firm "a firm should operate at the point where it's marginal revenue is equal to it's marginal cost" When this rule is applied to the capital budgeting decision, marginal revenue is taken to be the percentage rate of return on investments, while marginal cost is the firm's cost of capital. Proper application of this will result in maximising of shareholders' wealth.

In principles, good understanding and application of capital budgeting techniques should shape the direction, profitability of the firm as well as its future survival.

1.2 THE PROBLEM STATEMENT OF THE STUDY

Capital Budgeting Decisions which involve commitment of large outlays of funds, whose benefits or drawbacks extend well into the future, is of great significance to a firm. This is because decisions to this effect are expected to have a major impact on the future well being of the firm in terms of its profitability and survival. Whether this will always remain the case depends on the quality of information on relevant investment opportunities, methods used to appraised and select the investment projects, risks attached to the projects and the post implementations strategies adopted.

Again, Capital Budgeting (CB) theory suggests that there exist projects with positive NPVs which mean should they be implemented result into positive cash flows over their useful life period (Lucey, 2003). In addition, this will results in an improved profitability of the firm as a whole leading to the maximization of the shareholders' wealth.

In view of this, this project (study) is aimed at investigating into the capital budgeting decisions of modern Ghanaian Enterprises to find out;

- 1) whether the techniques (decision processes) are properly applied
- 2) why projects normally fail after implementation.
- 3) to suggest (recommmend) appropriate process tools to Ghanaian Enterprises

1.3 RESEARCH OBJECTIVES

In pursuance of this research, the major objective is to find out why capital investment projects fail in most Ghanaian Enterprises.

Specifically;

1. to assess the capital budgeting procedures and rules used in generating and ranking investment projects in modern Ghanaian Enterprises, (accomplished in pages 44-45).
2. to identify and examine how cost of capital are determined for the purposes of appraising the capital projects selected by modern Ghanaian Enterprises, (accomplished in pages 46).
3. to determine whether effects of risks and uncertainties are considered when appraising projects, (accomplished in pages 46).
4. whether the post implementation strategies adopted are effective that if one is adopted at all, (accomplished in pages 47).
5. to determine whether the cash flows from the project really improve the shareholders' wealth at all (accomplished in pages 47).
6. to ascertain why projects usually fail or are abandoned half way through, (accomplished in pages 47).

7. to make recommendations to managements of Ghanaian Enterprises of the best processes to go through when taking capital budgeting decisions, (accomplished in pages 49-50).
8. to recommend most appropriate techniques and actions for specific situation, (accomplished in pages 50).
9. to suggest the best (appropriate) cost of capital to be used in appraising projects when taking capital budgeting decisions, (accomplished in pages 50).

1.4 THE SIGNIFICANCE / JUSTIFICATION OF THE RESEARCH

Though, Capital Budgeting is believed to be perhaps the most important decisions with which financial management is concerned, to the researcher, there have not be extensive research work on the subject matter in Ghana over the recent times. Even if the contrary view exists, the studies have not been placed at the public domain. There is therefore the need for extensive study into the capital budgeting decisions of modern Ghanaian Enterprises.

In the field of academic work the study may serve as the basis of constructive criticism and further study and research.

Also, beyond the curiosity of academic endeavour it is hoped that the research will at least provide knowledge and guidance to management of modern Ghanaian organisations thereby improving upon wealth of the shareholders.

1.5 THE RESEARCH HYPOTHESES TO BE TESTED

This research was mainly to collect data (evidence) to test the following three main hypotheses and eight sub-hypotheses. These are:

- a) Are there any established capital budgeting procedures and rules used in generating and ranking investment projects in the Modern Ghanaian Companies?
 - H1: Ghanaian companies follow an established capital budgeting procedures and rules in generating and ranking investment projects.
 - H2: Ghanaian companies do not follow an established capital budgeting procedures and rules in generating and ranking investment projects.
- b) What is responsible for the high capital investment projects failures in most Ghanaian firms?
 - H3: There is high capital investment failure among Ghanaian firms
 - H4: There is low capital investment failure among Ghanaian firms
- c) Whether the post implementation strategies adopted by the Ghanaian firms are effective?
 - H5: the post implementation strategies adopted by Ghanaian Firms are effective
 - H6: the post implementation strategies adopted by Ghanaian Firms are not effective

However, the central or major hypothesis to be ascertain in this study is whether applying appropriate Capital Budgeting techniques will help ensured successful investment projects leading to profitability of firms.

- H7: Successful investment projects lead to profitability of firms
- H8: Successful investments projects do not lead to profitability of firms.

1.6 LIMITATIONS

Time constraints were limiting factor since the project was undertaken along side with regular semester works (which on its own, was packed with assignments, seminars and class presentations) and the short time duration within which one has to submit the final research report.

Originally, the project was designed to adopt a survey of firms in the Kumasi Metropolis but with the change in the main time table, the research approach has been changed this is to enable the researcher to complete the project within the school's time table.

Also, due to inadequacy of financial resources for the project work, it was very difficult to conduct a survey to include large sample and hence the approach adopted (i.e. only a case study of Wadoma Royale Hotel, Abuakwa).

The respondent was chosen because;

- proximity or closeness to the researcher and hence will not adversely affect the researcher's budget.
- It is well acclaimed facility in my locality ie Atwima Nwabiagya District of Ashanti.
- Capital intensive nature of the facility
- Well known among its clientele and as such talk of town

1.7 ORGANISATION OF THE STUDY

The study has been divided into five main chapters. The current chapter forms chapter one of the study. The rest of the study is as outlined below:

CHAPTER TWO, which is the literature review, looks at the relevant prior literature perspective of the research. It discusses both theoretical and empirical background literature relating to capital budgeting decisions high lighting issues like investment proposal idea generation and administration, estimation of project cash flow, investment

projects appraisal and ranking techniques, effects of inflation and risks on capital budgeting decisions and finally ending with post implementation audit and reviews.

CHAPTER THREE dwells on methodology and data collection techniques used to achieve the above objectives of the study. It also presents the profile on the respondent company and briefly touching on the organizational structure.

CHAPTER FOUR discusses the results of the studies; thus the analysis of the findings of the study.

CHAPTER FIVE then makes recommendations for further studies, concluding remarks and summary of the study as well as the references and bibliography.

The theoretical review, which forms the basis of this chapter, is structured under the main headings for review as follows:

- 2.1 Capital budgeting procedures
- 2.2 Investment proposal idea generation and administration
- 2.3 Estimation of project cash flow
- 2.4 Investment project appraisal (ranking) methods or techniques
- 2.5 Non-discounted cash flow techniques
- 2.6 Comparison of the methods
- 2.7 Mutually exclusive projects
- 2.8 Independent projects
- 2.9 Corollary projects
- 2.10 Capital rationing
- 2.11 Effects of inflation on capital budgeting
- 2.12 Effects of risk and uncertainty on capital budgeting decisions
- 2.13 Multinational capital budgeting

CHAPTER TWO

REVIEW OF RELEVANT PRIOR LITERATURE

2.0 INTRODUCTION

The most important contributors to the theory of capital budgeting techniques as pointed out by previous studies as noted by this paper are: Weston and Copeland (1985), Drury (1983), Brockwington (1993), Van Horne (1995), McIntyre et al (1986), etc.

The present chapter is intended to present a systematic and significant review of the literature and the basic concepts as well as theories of capital budgeting techniques. In addition the chapter will identify the various appraisal techniques (models) available and the merits and limitations associated with the various models. The chapter then ends with the theoretical framework and a summary of the chapter.

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- 2.8 Independent projects
- 2.9 Contingent projects
- 2.10 Capital rationing
- 2.11 Effects of inflation on capital budgeting
- 2.12 Effects of risk and uncertainty on capital budgeting decisions
- 2.13 Multinational capital budgeting

2.14 Post implementation audit

2.15 Conceptual Framework

2.16 Chapter summary

The chapter would now proceed accordingly

2.1 CAPITAL BUDGETING PROCEDURES

The first step in capital budgeting is to generate a list of the proposed new projects together with the data necessary to appraise them. According to Weston and Copeland (1985), although, practices vary from firm to firm, proposal dealing with asset acquisitions are normally grouped into four main categories namely;

- Replacement
- Expansion
- Growth
- Others

Replacement decisions are the simplest to make. Assets wear out or become obsolete and they must be replaced if production efficiency is to be maintained. The firm has a very good idea of cost savings to be obtained by replacing an old asset and it knows the consequences of non replacement. All in all, the outcome of most replacement decisions can be predicted with a high degree of confidence.

Expansion decisions are for adding more machines of the types already in use or the opening of new subsidiaries or branches. A degree of uncertainty is clearly involved in expansion but the firm at least has an advantage of examining past production and sales records with similar machines.

The Third type of investment decisions is growth into product lines. This may include research and development and some times exploratory decisions. The prime aim is to invest in fixed assets which may enhance the overall growth of the firm concerned.

The final category of asset acquisitions is the one that includes intangibles. An example is a proposal to boost employee morale and productivity by installing a musical system. Mandatory pollution control devices which must be undertaken though they produce no revenue, is yet another example of the other category. Major strategic decisions such as plans for over sea expansions or mergers might also be included here but more frequently they are treated separately from the regular capital budget.

2.2 INVESTMENT PROPOSAL IDEA GENERATION AND ADMINISTRATION

An integral part of capital budgeting involves administrative matters. As we move away from replacement decisions and the sums of money involved increase, approval is normally required from a high management level. One of the most important functions of the Board of Directors is to approve major outlays in a capital budgeting programs as well as the total capital budget for each planning period. Such decisions are crucial for the shaping of the direction of the firm. Weston et al (1985) observed that the planning horizon for capital budgeting programs varies with the nature of the industry. When sales can be forecast with a high degree of reliability for ten years to twenty years, the planning period is likely to be correspondingly long; electric utility are an example of such an industry. Also, when the product technology developments in the industry require an eight to ten years cycle to develop a new product as in aerospace industry, a corresponding long planning period is necessary.

Usually the operating or production department may come up with the idea of capital asset acquisition which may take a form of plant building, purchase of new equipment to meet new production technology. This investment proposal must be submitted to a higher authority for approval. Thus according to Van Horne.(1995), most firms screen proposal at multiple levels of authority. A proposal originating in production area, the hierarchy of authority might run from the section Head or Chief through General Manager Plant

(Operation) to Managing Director for onward delivery to the Board of Directors for final authority or capital budget committee for ratification.

How high a proposal must go before it is finally approved usually depends on its size and the firm's internal control procedures for financial commitments. The greater the capital outlay, the greater the number of screens usually required. Plant Manager may be able to approve smaller ones. Because the administrative procedures for screening investment proposals vary greatly from firm to firm, it is not possible to generalize. The best procedure will therefore depend on particular circumstances.

After a capital budget has been adopted, funding must be scheduled. Characteristically, the finance department is responsible for scheduling and acquiring funds to meet scheduled requirements. The finance department is also primarily responsible for cooperating with the operating divisions to compile systematic records on the uses of funds and the installation of the equipment.

The type and level of capital expenditure in a firm appear to be important to investors as this convey information about the expected future growth of earnings per share. The generally accepted perception is that an increase in the capital expenditure intentions, relative to prior expectations results in increase stock returns around the same time of announcement and vice versa.

2.3 ESTIMATION OF PROJECT CASH FLOW

For effective appraisal of project and its subsequent adoption needs the relevant cash flow associated with each project. Project's cash flow estimation is one of most important task in capital budgeting. The final results one obtain are really only as good as the accuracy of the estimates provided on the project. Weston et al (1985) defined cash flows for capital budgeting as "the after tax cash flows for an all equity financed firm"

Alternatively defined, cash flow is the earnings before interest and taxes (EBIT) less the taxes the firm would pay if it had no debt, $T(EBIT)$ plus non cash depreciation charges.

Thus cash flow = $EBIT - T(EBIT) + Deprn$

This definition of cash flow is unaffected by the firm's financing decision, for example the amount of debt which it uses.

Since the cash flow not income is central to all decisions of the firm, we express whatever benefits we expect from the project in terms of cash flows rather than income. The firm invests cash now in hope of receiving cash returns in a greater amount in the future. Only cash receipts can be reinvested in the firm or paid to stockholders in the form of dividends. This explains why Van Horne (1995) has the view that in capital budgeting good guys may get credit, but effective managers get cash. This then suggest that effective capital budgeting leads not only to a firm's survival and profitability but also its liquidity as well.

In real world situation typical cash flow estimation will assume the following steps:

- a) Generating sales forecast arising from the expected project(s)
- b) Deriving Income statement from the sales forecast known as in flows
- c) Generating all the expected expenditure associated with the project known as the out flows
- d) Determining the net cash in flow

Thus from the income statement, one can start with net income and build upward to arrive at the project cash flow. Some time this approach is easier to use.

The algebraic expression will be as follows:

$$\text{Cash flow} = NI + Deprn + (1 - T) rD$$

Where $NI = \text{Net Income}$

$\text{Deprn} = \text{Depreciation Charges}$

$T = \text{Tax rate}$

$rD = \text{Interest expenses}$

It must however be stated clearly that in practice the income statement is more complex but the approach is still the same. Where the complexities arise as in practice there must be the necessary adjustment of base case cash flows to arrive at free cash flows. This normally involves adding back all the non cash flows for which funds have not been actually expended. These items in addition to depreciation and interest include the following:

- a) Provision for bad and doubtful debt, taxes etc
- b) Assets acquired without actual cash payments
- c) Scrap value (salvage)
- d) Dividends etc

These adjustments must be done in order to arrive at the actual free cash flows associated with the proposed project.

2.4 INVESTMENT PROJECT APPRAISAL (RANKING) METHODS

Having identified various investment proposals and alternatives with the expected cash flows and relevant data, one must select the best profitable project for implementation. This requires systematic evaluation and appraisal for the best available investment project selection for adoption. There are many evaluation (appraisal) techniques namely

- a) Payback period method
- b) Accounting rate of return method
- c) Profitability Index method
- d) Net present value method

c) Internal rate of return method

These methods can be basically regrouped into two main categories namely

a) Non discounted cash flow methods

- i) payback period
- ii) Accounting rate of return

b) Discounted cash flow methods

- i) Profitability Index
- ii) Net present value
- iii) Internal rate of return

In order to answer the question what are the properties of an ideal criterion for acceptable investments project, Weston and Copeland (1985) stated that an optimal decision rule will have the following four characteristics:

1. it will select from a group of mutually exclusive projects the one that maximizes the shareholders wealth
2. it will appropriately consider all cash flows
3. it will discount the cash flows at the appropriate market determined opportunity cost of capital.
4. it will allow managers to consider each project independently from all others.

This has come to be known as the value additivity principle. The value additivity principle implies that if we know the value of separate projects accepted by management, then simply adding their values, will give us the value of the firm. If there are N projects, then the value of the firm will be the sum of all the values of the n projects put together.

This is important point because it means the projects can be considered on their merit without the necessity of looking at them in an infinite variety of combinations with other projects.

Table 1 gives the cash flows of four mutually exclusive projects. They all have the same life of five years each and they all require the same investment outlay of GHC 15,000,000.00 each. Once accepted no project can be abandoned without incurring the cash flows indicated.

For example project A has a negative cash flow during its fourth and fifth years. Once the project is accepted these expected cash flows must be incurred. An example of a project of this nature is a nuclear power plant. Decommissioning costs at the end of the economic life of the facility can be as large as the initial construction costs and they must be taken into account.

Table1.

Year	Project A	Project B	Project C	Project D
0	-15,000,000	-15,000,000	15,000,000	-15,000,000
1	1,500,000	0	1,500,000	3,000,000
2	13,500,000	0	3,000,000	4,500,000
3	1,500,000	4,500,000	4,500,000	7,500,000
4	-1,500,000	10,500,000	6,000,000	7,500,000
5	6,000,000	19,500,000	18,750,000	9,000,000

Cash flow of four mutually exclusive projects

The above table is a hypothetical one adopted to illustrate the capital budgeting techniques (i.e. the evaluation models).

2.5 NON DISCOUNTED CASH FLOW TECHNIQUES

2.5.1 PAYBACK METHOD

The pay back method is one of the simplest and most frequently used methods of capital budgeting or investment appraisal. Drury (1983) define pay back as "the length of time that is required for a stream of cash proceeds from an investment to recover the original cash outlay required by the investment". If the stream of cash flow from the investment is constant each year, the pay back period can be calculated by dividing the total initial cash outlay by the amount of the expected annual cash proceeds. Therefore if an investment requires an initial outlay of GHC 60,000,000.00 and is expected to produce annual cash inflows of GHC 20,000,000.00 per year for five years, the pay back period will be;

$$PB = \frac{60,000,000}{20,000,000}$$

$$= 3 \text{ years}$$

However, if the stream of expected proceeds is not constant from year to year, the pay back period is determined by adding up the cash in flows expected in successive years until the total is equal to the original outlay. For example the pay back periods for the four projects in table 1 in page 15 yield unequal cash inflows are given below. This is obtained by adding up the cash inflows until the total is equal to the initial outlay. If the pay back period calculated is less than or equal to a predetermined target value, the investment project is accepted.

Table 2

Projects	A	B	B	D
Payback Period	2 Years	4 Years	4 years	3 years

Calculated payback periods for the four mutually exclusive projects

Strict adherence to payback method would mean project A should be chosen as the best project among the four mutually exclusive alternative projects even though a casual look at the numbers indicates it would be a bad decision because of the negative cash inflows occurring at the last two years. While research shows that pay back is the most popular investment appraisal technique, Denzil et al (1998) stated that it suffers from the following serious shortcomings;

Firstly, the payback method does not take into account cash flows which are earned after the pay back date. And secondly, it fails to take into account differences in timing of the proceeds which are earned prior to the pay back date. The pay back computation ignores the important fact that future cash receipts cannot be validly compared with an initial outlay until they are discounted to their present values. The only arguments in favour of the payback method is that it is easy to use, this might suggest it's popularity in practice. According to Drury (1983) it is particularly useful for companies which have a weak cash and credit position and required a fast repayment of investments. It might also be appropriate in situations where risky investments are made in certain markets which are subjected to fast design and product changes.

The shortcoming of ignoring time value of money is remedied by discounting the cash flows at the firm's cost of capital before computing the pay back period. The discounting is done in order to take account of the time value of money.

2.5.2 ACCOUNTING RATE OF RETURN (ARR)

This is also known as return on capital employed (ROCE) or return on investment. It represents the ratio of average annual profits after taxes to the initial investments in the project.

$$ARR = \frac{\text{average annual profit}}{\text{Initial investment cost}} \times 100$$

Initial investment cost

It differs from the other methods in that accounting profits rather than cash flows are used.

From the example in table 1 page 15;

The ARR for project B is computed as follows

$$\text{ARR} = \frac{(-15,000,000 + 0 + 0 + 4,500,000 + 10,500,000 + 19,500,000)}{15,000,000.00}$$

5

$$= 3,900,000 / 15,000,000$$

$$= 0.26 \times 100\%$$

$$= 26\%$$

Table 3. ARRs for the four projects.

Project	A	B	C	D
ARR	8%	26%	25%	22%

The decision rule here would be to accept an investment project if the calculated ARR was greater than a target or hurdle rate of return. Thus from table 3, project B is chosen as the best.

The principal virtue of the ARR is it's simplicity. It makes use of readily available accounting information. Once the accounting rate of return for a proposal has been calculated, it may be compared with a required or a cut off rate of return to determine if a particular proposal should be accepted or rejected. The disadvantages however are that the method is based on accounting income rather than on cash flows and that it fails to take account of the timing of cash flows. The time value of money is ignored. That is benefits in the last year are valued the same as the benefits in the first year.

2.6 DISCOUNTED CASHFLOW TECHNIQUES

As the shortcomings in the payback and Accounting rate of return are recognized people began to search for methods that may provide a more objective basis for evaluating and selecting investments projects. These methods must take account of both the magnitude and timing of expected cash flows in each period of a project's life. This recognition had led to the development of discounted cash flow (DCF) techniques such as profitability index (PI), net present value (NPV) and the internal rate of return (IRR) methods.

2.6.1 PROFITABILITY INDEX (PI)

It is also known as the benefit/ cost ratio of a project. It represents the value of future net cash flow to the initial cash outlay. It can be expressed as;

$$PI = A (1 + k)^n / A_o$$

Where A = cash flows for each period

A_o = initial cash outlay

k = interest rate (cost of capital)

n = time period

As long as PI is 1.00 or greater, the project is accepted. Alternatively, if it is less than 1 the investment should be rejected. The method is consistent with the NPV method as the index can only be less than one when NPV is negative. For our example in Table 1 in page 15, we can therefore calculate the PI for project C as follows:

Table 4 Computation of net cash flow for project C

Year	Cash flow	Discount factor	Discounted Cash flow
1	1,500,000	0.909	1,363,500.00
2	3,000,000	0.826	2,478,000.00
3	4,500,000	0.751	3,379,500.00
4	6,000,000	0.683	4,098,000.00
5	18,750,000	0.621	11,643,750.00
			22,962,750.00

$$PI = 22,962,750 / 15,000,000$$

$$PI = 1.53$$

Table 5

Project	Profitability
	Index
A	0.59
B	1.51
C	1.53
D	1.52

PI for the four mutually exclusive projects in table 1.

Thus from table 5, the project C is preferred to all using the PI model for evaluating the projects. In case of independent projects and where the company is not restricted from accepting profitability index yield the same acceptance –rejection decision as the NPV method. Though the PI can be a useful method for determining how the scarce funds can best be allocated, is at the same time a weak measure for selecting between mutually

exclusive investments projects in a situation when a company can accept all investments which yield a positive NPV.

2.6.2 NET PRESENT VALUE METHOD (NPV)

The NPV method of investment appraisal uses discounted cash flows to evaluate capital investment projects. It uses a target rate of return or cost of capital to discount all cash flows to their present value and then compares the present value of all cash inflows to the present value of all cash outflows. A positive net present value indicates that an investment project is expected to give a return in excess of the cost of capital and will therefore lead to an increase in shareholder wealth.

Algebraically,

$$NPV = [CF_1(1+k) + CF_2(1+k) + CF_3(1+k) + \dots + CF_n(1+k)] - I_0$$

$$NPV = \sum CF_t(1+k) - I_0$$

Where CF_1, CF_2 , and so fourth represent the net cash flow,

k is the firm's cost of capital (required rate of return)

I_0 is the initial cost of the project

N is the project's expected life.

Table 6

Year	Cash flow	Discount factor	Discounted Cashflow
0	-15,000,000	1	15,000,000.00
1	1,500,000	0.909	1,363,500.00
2	3,000,000	0.826	2,478,000.00
3	4,500,000	0.751	3,379,500.00
4	6,000,000	0.683	4,098,000.00
5	18,750,000	0.621	11,643,750.00

NPV 7,962,750.00

Computation of NPV for project C

Table 7

Project	IRR
A	-6,109,500
B	7,660,500
C	7,962,750
D	7,788,000

The NPV of all the four mutually exclusive projects from table 1

If these projects are independent instead of mutually exclusive, we would reject A and accept B, C and D. Since they are mutually exclusive, we select the project with the greatest NPV, project C. The NPV of the project is exactly the same as the increase in shareholder wealth. This is what makes it the correct decision rule for capital budgeting purposes. Thus, if the required rate of return is the return investors expect the firm to earn

on investment project and the firm accepts that project with a net present value greater than zero, the market price of the firm's stock would rise. Again the firm is taking on a project with a return greater than that necessary to leave the present market price of the stock unchanged. This is because with a zero NPV the firm earns a fair return to compensate both debt holders and equity holders, each according to the return they expect for the risk they take. That is, the project as Weston and Copeland in book Managerial Finance (eighth edition) stated returns enough cash flows to do three things namely;

- a) to pay off all interest payments to creditors who have lent money to finance the project,
- b) to pay all expected return (dividends and capital gains) to shareholders who have put up equity for the project and
- c) to pay off the original principal which was invested in the project.

A positive NPV earns more than the required rate of return and equity holders receive all excess cash flows because debt holders have a fixed claim on the firm. Consequently, equity holders' wealth increases by exactly the NPV of the project. It is this direct link between shareholders wealth and the NPV definition which makes the NPV criterion so important in investment appraisal.

This is confirmed by Drury in his book entitled Management and Cost Accounting (2nd Edition): The positive NPV from the investment indicates the increase in the market value of shareholders fund which should occur once the stock market becomes aware of acceptance of the project. The NPV also presents the potential increase in the present consumption which the project makes available to ordinary shareholders, after any funds used have been repaid with interest.

The main advantages of NPV are

- a) That it selects from a group of mutually exclusive projects the one which maximizes shareholders wealth.
- b) It takes into account when selecting projects time value of money

- c) It considers all cash flows and discounts them at appropriate market determined opportunity cost of capital.

2.6.3 INTERNAL RATE OF RETURN (IRR)

The internal rate of return (IRR) is an alternative technique use for investment appraisal which takes into account the time value of money. The IRR represents the true rate of return or interest rate earned on invest over the course of it's economic life. This measure is sometimes referred to as the discounted rate of return. This measure is sometimes referred to as the discounted rate of return. The internal rate of return is that interest rate which when used to discount all cash flows result from an investment, will equate the present value of cash receipts to the present value of cash outlays. In other words it is the discount rate which will cause the NPV of an investment be zero. Alternatively IRR can be described as the maximum cost of capital which can be applied to finance a project without causing any harm to the shareholders. The equation for calculating the IRR is

$$CF_1(1 + IRR) + CF_2(1 + IRR) + + CF_n(1 + IRR) - I_0 = 0$$

Where the value for I_0 , CF_1 , CF_2 CF_n are usually known but the value for IRR is unknown. The IRR can be found by trial and error (linear interpolation) using arbitrarily selected interest rate until the NPV is equal to zero.

The decision rule is that IRR is greater than the opportunity cost of capital, the investment is profitable and will yield a positive NPV.

For illustration IRR for project C is calculated using linear interpolation (as shown in Table 8 in appendix C page 57).

If the IRR criterion is used assuming the projects are independent, the project which has an IRR greater than the opportunity cost of capital which is 10% is recommended.

Therefore projects B, C and D would be accepted. However, since these projects are mutually exclusive the IRR rule leads to acceptance of project D as the best to all. This is because it gives the highest IRR.

It can be recognized that the IRR method possesses all the virtues of NPV and that it maximizes shareholders wealth. Its demerits however is that is very tedious using the trial and error method for finding the IRR. However with the advent of small and calculators and computers, the problem is somehow solved. Again, it normally leads to the calculation of multiple IRR. The method assumes automatic reinvestment of cash flows.

2.7 COMPARISON OF THE METHODS

The numerical example given in table 1 as depicted on page 15 illustrates that each of the investment evaluation techniques favours a different project. The results are summarized in table 12 in appendix C at page 60 where the best project selected by each criterion is shown by bolding and underlining the project selected.

Though payback method have been rejected as an ideal criterion, it is frequently used in practice, and it is particularly useful for companies which have a weak cash and credit position and required a fast repayment of investments. The payback method may also be appropriate in situation where risky investments are made in certain markets which are subjected to fast design, product changes and political unrest. In this case if payback method is used it should be used in conjunction with the NPV method and cash flows should be discounted before the payback is calculated.

Accounting rate of return (ARR) method on the other hand indicates the average return expected of an investment. Like the payback method ARR is rejected because it fails to discount cash flows.

Profitability Index (PI) as an evaluating technique expresses only the relative profitability of an investment project. For any given project the PI and NPV method give the same accept reject signals.

IRR has many difficulties which invalidate it as a generally accepted capital budgeting rule. First, the IRR assumes that funds invested in projects have the same opportunity cost equal to the IRR for the project. This implicit investment rate assumption violates the requirement that all cash flows should be discounted at the market determined opportunity cost of capital which is appropriate for their risk. Secondly, the IRR does not obey the value additivity rule and consequently, managers who use the IRR cannot consider projects independently of each other. Finally, IRR rule can lead to multiple rates of return whenever the sign of cash changes more than once.

The NPV rule supersedes all the other methods. It avoids all the problems to which IRR is even heir. It discounts cash flows at the appropriate cost of capital, obeys the value additivity principles and most importantly, is precisely the same thing as maximizing shareholders wealth. As such NPV rule should be recommended the best capital budgeting technique since it leads to the shareholders wealth maximization.

Once the capital budget is nearing completion and a variety of alternative projects have been identified, the firm must select the projects it will finance. Among problems that normally arise are:

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2.7.1 MUTUALLY EXCLUSIVE PROJECTS

A project is said to be mutually exclusive if the acceptance of it precludes the acceptance of one or more other projects. For instance, if the firm is considering investment in one of two temperature- control systems, acceptance of one system will rule out the acceptance of the other. Two mutually exclusive projects cannot both be accepted. That is if the firm accepts one project, it eliminates the other.

2.7.2 INDEPENDENT PROJECTS

Independent projects are those that are being considered for different kinds of tasks that need to be accompanied. That is, acceptance of one does not exclude the acceptance of the other and therefore both investments can be undertaken. They serve different purposes and therefore do not compete with each other.

2.7.3 CONTINGENT PROJECTS

The utility of some projects is contingent upon acceptance of the others. For instance, a firm may be considering the construction of a new head quarters building and a new employee parking lot. If it decides not to build the headquarters, the need for the lot is gone. At the same time, if the firm builds the headquarters and not the lot, the employees will have no place to park, these are contingent projects. Therefore contingent projects depend upon each other. The acceptance of one necessitates the acceptance of the other investment.

2.7.4 CAPITAL RATIONING

Firms will normally have more projects than can be funded properly. In this case, only the most desirable projects will receive approval. Capital rationing occurs when the firm has more acceptable projects than can finance. In this situation, the firm should rank the projects from highest to lowest priority. Then a cut-off point is selected. The projects above the cut-off point are selected after carefully considering the number of projects, the goals of the firm and the availability of capital to finance the capital budgets.

According to Van Horne (1995) under capital rationing, the objective is to select the combination of investment projects that provide the highest net present value, subject to the budget constraint for the period. If this constraint is strictly enforced, it may be better to accept several smaller, less profitable projects that allow full utilization of the budget than to accept one large project that results in part of the budget being unused. It is important to know how long capital rationing is to persist. This according to Brockington (1993) may be a permanent state of affairs (multi period rationing) or it may be imposed temporary to help a company through a bad patch or to enable it to consolidate past expansion.

2.8 EFFECTS OF INFLATION ON CAPITAL BUDGETING

Inflation distorts capital budgeting decisions. This is because it affects the future cash flow and return the shareholders expect on the investments. Again, the real cash flow does not keep up with the rate of inflation. The discount rate consists of the required rate of return on risk less investments plus a risk premium which is related to a project risk. Usually interest rates quoted on investments are known as nominal or money rates of interest whereas the real rate of interest represents the rates of interest that would be required in the absence of inflation. However, in inflationary settings this nominal rate imputed in the interest rate mostly differ from the actual. The presence of inflation therefore results in lower rate of return. As such in inflationary settings companies do not like to expand or invest in capital projects.

2.9 EFFECTS OF RISK AND UNCERTAINTY ON CAPITAL BUDGETING DECISIONS

When evaluating a capital budgeting project, we need to examine the risk associated with the project and how the existing assets of the firm will be affected if the project is purchased. The reason we need to evaluate the risk of a project is to determine if the appropriate required rate of return is used to compute the project's NPV (or to compare to its IRR). If a firm is considering a project that is much riskier than the existing assets, then it makes sense that the firm should expect to earn a higher return on the project than on its existing assets.

There are three risks that we generally identify when evaluating a project: (1) *stand-alone risk*, which is the risk of the asset when it is held in isolation—that is, when it stands alone; (2) *corporate, or within-firm, risk*, which is measured by the impact an asset is expected to have on the operations of the firm—that is, how an asset will affect the firm's total risk if it is purchased and added to existing assets; and (3) *beta, or market, risk*, which is the portion of an asset's risk that cannot be eliminated through diversification—that is, how an asset will affect the firm's market risk, or beta, if it is purchased and added to existing assets. For a more detailed discussion of how each of these types of risks is measured, see the notes for the "Risk and Return" section.

2.9.1 STAND-ALONE RISK

Generally this is the risk that we compute when evaluating capital budgeting projects because it is easier to determine than the other two types of risk and it is usually very highly correlated to the other types of risk. To examine stand-alone risk, we need to determine how uncertain a project's cash flows are. To do this, we often apply the following techniques:

2.9.2 SENSITIVITY ANALYSIS

Determine by how much the final result of a computation, such as NPV, changes when the values (inputs) needed for the computation are changed. For example, if we examine the NPV of a project at various levels of sales and find that the result changes very little, then sales would be considered a fairly insensitive variable in the computation. Generally, if the final results are very sensitive to the value of a variable (the variable is said to be sensitive), greater care is taken to ensure an accurate forecast of the variable is attained so that the final results are more accurate. Sensitivity analysis is easy to perform using a spreadsheet because you can input numerous values for the variable being evaluated.

2.9.3 SCENARIO ANALYSIS

Compute outcomes using various circumstances, or scenarios. Often firms will compute the NPVs of a project using the normal, or most likely, situation, a conservative, or worst-case, situation, and an optimistic, or best-case, situation. After determining the NPVs, a probability is assigned to each scenario, and the expected NPV and standard deviation of the NPV are computed.

In this case, if the company's assets have an average $CV = 1.0$, this project probably would be desirable. Remember that a lower CV is better than a higher CV when we are measuring risk relative to return.

2.9.4 MONTE CARLO SIMULATION

We try to simulate the real world by identifying all the possible outcomes for all the situations, or variables that are associated with a capital budgeting project. For example, one variable that generally needs to be forecast is the change in sales that will occur if a project is implemented. When using simulation, you must predict every sales level that is feasible under various circumstances—for example, sales if projections are met during

good economic times, sales if projections are not met during good economic times, sales if projections are met during normal economic times, and so forth. After identifying all the possible sales outcomes, you must determine the possibility (probability) that such outcomes will occur. This process is completed for each variable included in the final outcome (e.g., NPV) and then all the information is input into a computer program that determines a final outcome value based on the various values and the probabilities that were provided. The computation is completed numerous times such that the final product is a distribution of values for the final outcome. If the NPV of a project is the final result, then the computer program produces values for the NPV under various circumstances. This helps us determine the most likely outcome for NPV, the range within which NPV is likely to fall, and the riskiness of the project.

2.9.5 CORPORATE (WITHIN-FIRM) RISK

Determine how a capital budgeting project is related to the existing assets of the firm. If the firm wants to diversify its risk, it will try to invest in projects that are negatively related (or have little relationship) to the existing assets. If a firm can reduce its overall risk, then it generally becomes more stable and its required rate of return decreases.

2.9.6 BETA (MARKET) RISK

At least theoretically, any asset has a beta, β , or some way to measure its systematic risk (see the notes for "Risk and Rates of Return" for a detailed discussion).

" If we can determine the beta of an asset, then we can use the capital asset pricing model, CAPM, to compute its required rate of return as follows:

$$k_{\text{proj}} = k_{\text{RF}} + (k_{\text{M}} - k_{\text{RF}})\beta_{\text{proj}}$$

According to the CAPM, the greater a project's systematic risk as measured by β , the greater the return the firm should require to invest in the project. For example, if a firm uses the CAPM and determines $k_{\text{proj}} = 16\%$, then the IRR for the project must be greater than 16 percent for it to be acceptable.

The concept of beta can also be used to determine the impact of adding a project to existing assets. Remember that the beta of a portfolio is the weighted average of the betas

of the individual investments. The beta for a firm can be thought of as the weighted average of the betas of the individual assets it possesses. For example, if the firm's beta equals 1.5, then the weighted average of the betas of all the assets in the firm is 1.5. Suppose the firm adds a new project. If the new project has a beta equal to 3.0 and it will constitute 20 percent of the firm's operations once it is added, then the beta of the firm after the project is added, β_{new} , will be:

$$\beta_{\text{new}} = (0.20 \text{ H } \beta_{\text{project}}) + (0.80 \text{ H } \beta_{\text{old}}) = (0.20 \text{ H } 3.0) + (0.80 \text{ H } 1.5) = 1.8$$

2.9.7 MEASURING BETA RISK FOR A PROJECT

It is difficult to determine the beta for a project. One method we use to determine a Project's beta is to examine a firm that sells only one product, the product that is identical to the project, and then use the beta of that firm as the beta of the project. When a single-product company is used to identify characteristics of a like capital budgeting project, it is called the *pure play method*.

2.10 HOW PROJECT RISK IS CONSIDERED IN CAPITAL BUDGETING DECISIONS

In reality, risk generally is incorporated into capital budgeting decisions somewhat arbitrarily. The firm generally uses its "normal," or average, required rate of return to evaluate projects that have average risk, a few percentage points are added to the average required rate of return to evaluate projects that have above-average risk, and a few percentage points are subtracted from the average required rate of return to evaluate projects that have below-average risk. It is important that a project's risk be considered in capital budgeting analysis, because incorrect decisions might be made if risk is not considered. For example, if the firm's average rate of return is used to evaluate all capital budgeting projects, regardless of their risk, then projects with little (great) risk might be rejected (accepted) when they should be accepted (rejected).

2.11 MULTINATIONAL CAPITAL BUDGETING

For the most part, the capital budgeting projects of multinational firms should be evaluated the same as for domestic firms. However, the multinational firm must be aware that many countries have restrictions on how much cash can be sent back to the parent company from its foreign subsidiaries (repatriation of cash). Restrictions on the *repatriation of cash (earnings)* can often be very severe, thus the cash flows that are relevant to the parent company are those that can be repatriated, not those that must stay in the foreign country. Also, capital budgeting projects associated with foreign operations generally are considered riskier than those associated with domestic operations because (1) movements in exchange rates—that is, exchange rate risk—affect the translation of foreign currency into domestic currency, and (2) there is a risk that foreign governments will takeover or severely restrict operations of foreign subsidiaries—that is, political risk exists. Such risks must be considered when evaluating capital budgeting projects of foreign subsidiaries.

2.12 POST IMPLEMENTATION AUDIT

The last step in the capital budgeting process is a post implementation is a post implementation audit (review) that should be performed by a person not involved in capital budgeting decision making process. Such a person can provide an impartial judgment on the project's worthiness. A company should perform this step early in the project's life, but should allow enough time to work out any operational "bug". Actual operation cost and revenue should be determined and compared with the costs revenues estimated when the project was originally reviewed and accepted.

The post implementation audit (review) performs the following functions

- a) Informs management about the accuracy of projections and whether the particular project performed as expected regarding cash flows and outflows.

- b) Identify additional factors that might be considered in upcoming capital budgeting decisions such as cash outflows that were not recognized in a particular project.
- c) Provides a review of the budgeting process to determine how effectively and efficiently that project is working.

The post implementation audit provides information that allows management to compare the actual results of decisions with the expectations it had during the planning and selection phases of the capital budgeting process.

2.13 CONCEPTUAL FRAMEWORK

Empirical investigations of investment decisions of most enterprises depict six fundamental phases in the CB process (see Figure in appendix B]. This assumption is exemplified by the extensive research and survey by Pike (1983), McIntyre and Conulthurst (1986), Lapsley (1986), Drury et al (1983) to mention but few researchers.

These fundamental phases are:

- *Identification of investment opportunities*: this phase, although extremely important, has been often ignored, probably because it cannot be easily formalized.
- *Development and evaluation*: once investment proposals have been identified, it is necessary to analyse them thoroughly, collecting relevant and detailed information for each alternative, and evaluating their profitability and global attractiveness.
- *Selection*: a screening of investment proposals which have passed through the previous phase might be necessary because of financial or strategic factors. As a result, some projects might be cancelled or postponed to another planning period.
- *Authorization*: almost all investment projects must be approved (either by line management or by appropriate investment committees) before their implementation.

- *Implementation and control*: while the project is being carried out, follow-up procedures are indispensable to adhere to budgeted costs and deadlines.
- *Post-auditing*: in this phase the outcomes of each project are compared with budget targets in order to assess forecast accuracy and identify error patterns with a feedback effect on the whole decision process.

This work will examine all the six phases, which represent the heart of the decision process.

Most of the CB process should be held in the wider context of strategic planning. This link between CB and strategic planning is one of the “dark” aspects of CB, both in the literature and practice. In fact, almost all investments are identified in the budgeting phase of the planning process only and appear insufficiently related to objectives and programmes established in the previous phases of strategic planning.

The model suggests putting forward some of the CB activities, so to include them in the strategic programming phase of the planning process. Only a strict interconnection between these two fundamental aspects of the management of a firm can lead to a more efficient allocation of resources and a subsequent profitability and survival of Enterprises McIntyre and Conulthurst (1986).

2.14 CHAPTER SUMMARY

A critical review of concepts of capital budgeting techniques revealed that, there is basically six fundamental phases of budgeting decisions as pointed in page 56 (in appendix B, figure 1). Though practice varies from firm to firm, proposal dealing with asset acquisitions are normally grouped into four main categories namely; replacement, expansion, growth, and others. The screening process gets complicated as the initial outlay is very huge and also depending upon the industry.

Project cash flow estimation is very crucial for the project evaluation and selection since the final results one obtain are really only as good as the accuracy of the estimates provided on the project, Weston et al (1985).

There are various evaluation models; the most widely best adjudged is the famous NPV which is noted for its consideration of time value of money and the value additivity, though payback model is also popular for its uniqueness of simplicity.

The chapter having examined capital rationing, effects of inflation and risks on capital budgeting, and multinational capital budgeting and post implementation audits which is very key as feed back and monitoring tools for corrective and remedial actions the chapter then concluded with conceptual framework.

The major limitation of this chapter was non identification of recent researches on the subject matter of discussions. This is partly due to non availability of both publish research and the little work done in this area of study.

CHAPTER THREE

3.0 THE RESEARCH METHODOLOGY AND PROFILE OF WADOMA ROYALE HOTEL

INTRODUCTION

The preceding chapter review prior literature on this study. In this chapter the methodology of the study is outlined and would be discussed in the following order:

- 3.1 Primary Data
 - 3.1.2 The research approach adopted in this study (case study)
 - 3.1.3 Data collection
- 3.2. Secondary data
- 3.3 Data presentation
- 3.4 Data analysis tools and techniques
- 3.5 Chapter Summary

3.1 PRIMARY DATA

The research was mainly based on primary data collected from the respondent company through the designed self administered questionnaire administered at the respondent's premises (as shown in appendix A page 54-55). This was followed by series of personal and telephone interviews as well as regular visits to the respondent's premise. This becomes necessary because, certain issues were not properly answered in the initial instrument used.

3.1.2 THE RESEARCH APPROACH ADOPTED IN THIS STUDY (CASE STUDY)

The general approach for this research project was a case study of Wadoma Royale Hotel, Abuakwa in which attempts were made to know how respondent goes about her capital budgeting decisions. This was limited to only this firm which is located at Manhyia, Abuakwa off the Kumasi Sunyani truck road in the Atwima Nwabiagya district

of the Ashanti Region of Ghana specifically Kumasi Metropolis. The scope was limited to this firm because of time constraints and possibly the resource scarcity to cover other parts of the country. May be this will be an area for further study in the near future where a survey must be conducted among various companies to determine if their capital budgeting decisions are consistent with the theoretical bases.

3.1.3 DATA COLLECTON

The data collection instrument used was self administered questionnaires (as shown in appendix A page 54-55). Personal and telephone interviews were also used as a follow up test. This was to enable the researcher to get more clearance and better explanations from the respondents on some issues which were not properly answered in the questionnaire. Where necessary, observation method of data collection was used whereby the respondent was actual situations. For example, the procedure for going about the new proposed expansion project to be implemented soon by the respondent.

The questionnaires were administered at the respondent's premise (Wadoma Royale Hotel, Abuakwa). The following steps were taken;

Step 1:

Having finished designing the instrument (questionnaire), it was tested (among colleagues) and re-edited to proof its effectiveness as a data collection tool. The purpose was to avoid ambiguity and to ensure that the intended data is collected when finally administered on the field.

Step 2:

Appointment was booked with the management of Wadoma Royale Hotel, Abuakwa with an agreed date. The meeting could not come on as scheduled since the officer in charge was not available upon arrival by the researcher. Therefore a new appointment date was renegotiated.

Step 3:

On the third visit, the questionnaires were distributed. The researcher was interested in meeting the officer in charged of the company in personal because to him that might give good impression about the seriousness of the researcher and to establish the needed relationship.

Step 4:

A day prior to the next meeting date for the collection of the filled or answered questionnaire, the researcher called the respondent to check if every thing is on course and whether it is possible to visit on the date initially agreed upon. Due to the heavy schedule of the respondent we have to agree on two days delay to enable him to complete the questionnaires before my visit.

Step5:

This could not yield the needed result and for that matter the researcher have to spent close to eight hours at Wadoma Royale Hotel, Abuakwa just to wait for the questionnaires.

Step 6:

Having collected the questionnaire, this is then coded for analysis and interpretation.

Step 7:

On coding, few issues arose;

- a) ambiguity of some answers i.e the sentences constructed
- b) some responses provided not related to the questions asked
- c) for some questions, no responses were provided

This compelled the researcher to call and book for another meeting with the respondent. The purpose of this new visit was to address the above issues mentioned. This was achieved by the follow up personal interviews.

Step 8:

Upon the completion of the personal interview the data were finally put together for analysis to enable proper conclusion to be drawn.

3.2. SECONDARY DATA

Secondary sources of data like the Company's financial reports and publications were explored as well as journals and magazines on the respondent company studied.

Regrettably time could not allow the researcher to conduct opinion pool on people considered to be respected authorities in the area of studies.

3.3 DATA PRESENTATION

The data so collected is first presented using tables as a statistical tool for giving vivid pictorial presentations (see appendix D in page 61).

The purpose is to make presentation easily understood by the readers.

3.4 DATA ANALYSIS TOOLS AND TECHNIQUES

The method of data analysis used by the researcher was mainly descriptive. To the researcher, this best describes and gives a clearer picture of situations. Tables were used for analysing the data so collected using both questionnaire and personal interviews. The analysis also looked at the main criteria or techniques as well as the policies and procedures used by the respondent for its investment appraisal decisions (see pages 44-47).

3.5 PREVIEW OF WADOMA ROYALE HOTEL, ABUAKWA THE RESPONDENT

Wadoma Royale Hotel, Abuakwah is a limited liability company with closed family ownership which comprises of five shareholders. Wadoma Royale Hotel is a registered Ghanaian owned business. It is engaged in Hotel and hospitality industry. Wadoma Royale Hotel was established in the year 2005. It has annual turnover of

about Three billion five hundred million cedis (GHC 3,500,000,000) in terms of sales revenue.

Wadoma Royale Hotel is currently having about fifty (50) employees, five members Board of Directors (BOD) which strategically constituted. The chairman of the BOD is the majority shareholder, supported by members who have vast experiences in tourism and hospitality industry, venture capital and investment banking.

Wadoma Royale Hotel is located at Manhyia off the Kumasi-Sunyani truck road near Abuakwa in the Atwima Nwabiagya District. It is surrounded with peaceful and beautiful vicinity which is quite tranquil and free from the hassle and bustle of the Kumasi metropolis. The hotel is well housed in carefully built compound with a very spacious car park at the front view, beautifully designed swimming pool to the west of the premise, bar terrace to the north east, restaurant at the south west and the main rooms stretching from the middle to the east.

The hotel is ranking as the only three star hotel in the Atwima Nwabiagya District and one of the best in the Ashanti and for that matter the ultimate choice of it's clientele.

From the personal interview with the respondent, it is the preferred destination because among other reasons;

- a) being customer aware
- b) unique services
- c) closeness to its corporate clients in the district
- d) competitive pricing
- e) excellent facilities

More than any other hotel in the Atwima Nwabiagya District, Wadoma demonstrated the ability to quickly and appropriately respond to what customers demanded from her, by offering services which provide value for money.

However, currently due to the need to adequately satisfy the accommodation needs of all their client and as well as inadequate number of the rooms available and the desire to house all clients within the same premises, there is plans in action to expand the facility to house about three hundred guest at a point in time.

3.6 ORGANISATIONAL STRUCTURE AND FUCTIONAL AREAS OF WADOMA ROYALE HOTEL, ABUAKWA

The organizational structure of Wadoma Royale Hotel is as depicted in appendix G page 64.

The Board of Directors (BOD) occupies the top of the organizational chart with the highest authority. The BOD is the representative of the sharcholders seeing to the general organization of the company.

Below the BOD is the General Manager (GM) who is assisted by the Deputy General Manager (DGM) just below the GM as depicted in the organizational chart. The GM serves as the chief executive seeing to the general day to day administration of the company. His main duty is to properly coordinate the activities of the company. He is answerable to the BOD.

Immediately just below the DGM is the various functional Managers with various functional responsibilities. The functional divisions as shown in the chart above are

- Marketing Manager
- Food and Beverage Manager
- Client Service Manager
- Security
- Finance and Admin Manager
- House Keeping Manager

The departmentalization is strategically created to ensure alignment of policies, provision of best customer services and to ensure quick response to customers' needs.

Key to Wadoma's management style is team building which look like matrix organization where there is cross transfer of skills especially on event organizations and seminar hosting. This achieve by building a team which comprises of representatives from various departments and sections to coordinate and organize events with full responsibilities and accountability.

CHAPTER SUMMARY

The chapter discusses the methodological issues like primary sources of data, presentation and analysis tools used in the research.

It however concluded with preview of the respondent company and the discussion of its organizational structure. The next chapter on the other hand outlines the research findings and analysis.

CHAPTER FOUR

RESEARCH FINDINGS, ANALYSIS AND INTERPRETATIONS

4.0 INTRODUCTION

The purpose of this chapter is to outline and analyse (discuss) the research findings. The data collected is then presented, analysed and interpreted to enable useful conclusions be drawn. The chapter is thus organized in the following sections as outlined below:

4.1 Administration of investment proposals in Wadoma Royale Hotel, Abuakwa

4.2 Evaluation of investment Proposals by Royale Hotel, Abuakwa

4.3 Financing investment projects in Wadoma Royale Hotel, Abuakwa

4.4 Effects of General uncertainties in the Economy on the projects selected and undertaken

4.5 Post Implementation Audit and Reviews by Royale Hotel, Abuakwa

4.1 ADMINISTRATION OF INVESTMENT PROPOSALS IN WADOMA ROYALE HOTEL, ABUAKWA

The research revealed that the respondent has been using capital budgeting techniques when considering alternative investment projects. The investment projects normally considered are usually land and buildings. This is partly due to the nature of Wadoma's business which is hotel and hospitality. The investment in land and buildings is for the provision of accommodation facilities for the hotel business.

In Wadoma, investment proposals are usually generated by finance and administration department. This is contrary to Van Horne (1995) findings that operating and production department is responsible for the investment proposal generation. This might be due to the fact that Wadoma is in service industry as compare with production and manufacturing.

The approving authority of every capital projects in Wadoma is the BOD with no exception since the BOD is the highest authority in the organizational chart. This empirical evidence is consistent with Van Horne (1995) conclusion that investment proposals must be submitted to a higher authority for approval.

4.2 EVALUATION OF INVESTMENT PROPOSALS

Wadoma Royale Hotel has a systematic and a unique system and procedure for investment evaluation which is outlined as follows;

- Initial generation of investment proposal
- Collection of data necessary for evaluation including cash flow estimation
- Actual investment evaluation and appraisal
- Ranking and approval of investments proposal selected
- Financing options
- Implementation
- Post implementation Review

This is consistent with earlier researchers Pike (1983), McIntyre and Conulthurst (1986), Lapsley (1986), Drury et al (1983) findings.

Having identified and generated the investment proposal (opportunity), the next step is to collect all the relevant data necessary to appraise and evaluate the project to know its viability (profitability) which is very crucial to the accept-reject criteria.

The main evaluating method normally employed at Wadoma Royale Hotel is a some what combination of the Net Present Value technique (NPV) with the pay back technique. This is shown in appendix D page 61.

Though, the respondent indicates that the technique adopted is accepted on account of its simplicity which confirms Drury (1983) reports or findings, this approach is chosen because having selected the project based on its viability, management will always want to know the project life span before undertaken. To the researcher, this is very important and for that matter a prudent concept of efficient planning and allocation of financial

resources since pay back indicates the length of time that is required for the stream of cash proceeds from the project to recover the initial investment outlay.

4.3 FINANCING INVESTMENT PROJECTS IN WADOMA ROYALE HOTEL, ABUAKWA

Wadoma Royale Hotel has many sources of financing its capital investment proposals. The main ones identified by the research during the investigation are;

- Shareholders fund by equity
- Shareholders loan
- Plough back of profit (retained earnings)
- Debts (mid term bank loans)

Many sources of financing is explored in order to avoid the situation where by there might be shortage or non availability of funds for project financing.

It was indicated to the researcher that financing option is usually not plan several years ahead to be sure of having funds required for projects. This is in contrast to Weston et al (1985) findings. This suggests why many sources must be depended upon.

The discounting factor (cost of capital) is depended upon the source of funding. This is consistent with literature which says when sources of funding become necessary weighted average cost of capital (WACC) is usually used.

4.4 EFFECTS OF GENERAL UNCERTAINTIES IN THE ECONOMY ON THE PROJECTS SELECTED AND UNDERTAKEN

During the study, attempts were made to assess the effects of general uncertainties in the economy on the projects selected and implemented but unfortunately, this was not made available to the researcher.

It is important to note that the effects of uncertainty for that matter risk is very crucial for the success of capital projects. This must be properly addressed (this is because the

researcher suspect management does not see the need to include risks in the project appraisals).

4.5 POST IMPLEMENTATION AUDIT AND REVIEWS BY ROYALE HOTEL, ABUAKWA

Wadoma indicated that the post implementation audit and review is key and part of the strategic planning process of the capital budgeting decision. This coincides with Drury (1996) suggestions.

To effectively deal with this, monitory and implementation team is usually instituted as and when the need arises. The purpose is to provide a sound system of reviewing and controlling capital expenditures, improving the future performance and transfer of experience and skills gained in one project to another.

It was found out that post implementation reviews are very important to gathering more relevant information on the project which was not available at the time of proposal idea generation and estimation of project cash flow data necessary for the project evaluation and appraisal. Well planned and implemented post implementation review will help to enhance the quality of the subsequent projects which consequently improves upon shareholders wealth.

Again, the experiences gathered help to avoid the situation of project abandonment on mid way through the projects life as a result of either change in conditions used in appraising the projects or non availability of financial resources.

CHAPTER FIVE

SUMMARY OF RESEARCH RESULTS, RECOMMENDATIONS AND RESEARCH CONCLUSIONS.

5.1 INTRODUCTION

This chapter gives the summary of the research findings. It went on to discuss the conclusions and finally makes recommendations. The chapter is thus organized as follows:

5.1 Introduction

5.2 Summary of research findings

5.3 Conclusions and recommendation for further studies

5.4 Recommendations

5.2 SUMMARY OF RESEARCH FINDINGS

Wadoma Royale Hotel, Abuakwa has been using capital budgeting decisions (techniques) since its establishment for evaluation of investment projects. Projects normally considered are land and buildings for its hotel business. Finance and Admin department is responsible for generation of investment opportunities (proposals).

Board of Directors (BOD) is responsible for the final approval of the investment projects proposed.

It was found that Wadoma Royale Hotel, Abuakwa uses a combination of NPV and Pay back techniques for the evaluation and appraisal of its investment projects. The appropriate cost of capital (discounting factor) depends on the source of funding adopted since the company do not depend on only one source of funding.

However, data was not readily available on effects of general uncertainty on investment projects of Wadoma Royale Hotel, Abuakwa.

Post implementation audit and review is very fundamental and forms part of the strategic planning process of Wadoma Royale Hotel's capital budgeting decisions.

5.3 CONCLUSIONS AND RECOMMENDATION FOR FURTHER STUDIES

This research seeks to investigate into the capital budgeting decisions of Modern Ghanaian Enterprise: a case of Wadoma Royale Hotel, Abuakwa. In consonance with theoretical bases Wadoma Royale Hotel, Abuakwa's capital budgeting decisions do not deviate significantly. This indicates that investment projects must leads to shareholder value maximization which at the long-run must improve upon the profitability of the company.

However, it was found out that Wadoma Royale Hotel, Abuakwa do not include risk and uncertainty in its capital budgeting decisions. This is highly disastrous and might have catastrophic effects. This is a possible area of further research and study in the near future.

5.4 RECOMMENDATIONS

1. From the study, three main critical stages were identified namely;

- cash flow estimation and project evaluation and appraisal
- determination and inclusion of effects of risks (general uncertainties in the economy) in capital budgeting decisions
- post implementation audit and reviews

These stages must be approach with caution and diligence since they have much impact on the profitability and delivery of the projects selected and undertaken. Also, the outcome of capital budgeting decisions determines the input from these stages.

2. It was found that Wadoma Hotel, Abuakwa employs capital budgeting decisions for its land and building investment decisions only.

To ensure corporate goal congruence, the capital budgeting decision must be extended to the other aspect of the company's investment decisions like acquisition of other assets like vehicles, equipments etc.

3. It was found that investment projects funding are not arrange several years ahead. This might leads to unavailability of funds when the project must take off. Also, it could results in acceptance of an expensive financing option since this might be the only source available at the time for project execution. This should be seriously addressed.
4. It was again found out that Wadoma Royale Hotel, Abuakwa does not include risk and uncertainty in its capital budgeting decisions. This may be highly disastrous and might have catastrophic effects on the post implementation cash flows or results. Management should serious look at this for possible remedy in the near future.
5. Further, it was found that finance and Admin department is responsible for generation of investment opportunities (proposals). Although, reasons were not stated, to the researcher this must be look at again, since finance and Administration department is far from the point of action unlike operations department which is close to point of action and can readily identify needs and opportunities.

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APPENDIX A

INTERVIEW QUESTIONNAIRE

The researcher is a Student of KNUST School of Business pursuing MBA in Finance. He is researching into the topic "An investigation into Capital Budgeting decisions of Modern Ghanaian Enterprises". The questions are designed to gather information (data) on the above mentioned topic. The researcher will therefore be grateful if you could please take time off your busy schedule to answer the following questions.

1. Name of Company
2. Year of establishment
3. Ownership
4. Nature of Business
5. Number of employees
6. Annual turnover
7. Does your company use capital budgeting techniques when considering alternative capital projects? A) Yes b) No
8. If no, what techniques are used?
9. When did the company start using capital budgeting techniques?
10. What kind of capital projects (investments) is normally considered?
f) Land and Building b) Equipment c) Plant Expansion d) Foreign
Subsidiary e) Others (specify)
11. Which department is responsible for initiating project proposals?
a) Production b) Marketing c) Finance d) Plant and Engineering
12. Which of the following is responsible for approval of investment proposal? a) Management b) Financial Controller c) Investment committee
d) Board of Directors e) any other (specify)
13. Have there ever been more proposals for capital investment in projects than the company is willing or able to finance? A) Yes b) No
14. If yes, what was the course of action(s) opened to the company?

- a) Capital rationing strategy b) abandonment or deferment of projects that cannot finance now
- c) arrangement of new funding
- d) any other(specify)

15. How are the cash flows of the investment proposal defined?

16. How relevant is this estimates to the actual benefits from the project? A) as per the initial estimates b) significance variation in the actual and initial estimates c) less variation of between 5% to 20%

17. Which method is normally used to appraise the projects? A)

- NPV(Net Present Value) b) IRR (internal Rate of Return)
- c) ARR (Accounting Rate of Return)
- d) PI (Profitability Index) e) PB (Pay Back)

18. Why do you select the method above?

- a) Simple and easy to adopt b) as established evaluation tool
- c) unique to our circumstance

19. Do you think other methods are also useful? a) Yes b) No

20. What is the appropriate cost of capital used to discount cash flow? A) Bank interest rate b) WACC (Weighted Average Cost of Capital) c) Expected Rate of return d) Any other (specify)

21. Is capital budgeting decisions part of strategic planning process of the organization? A) Yes, b) No c) As and when the need arises

22. Is there any assigned manager (team/committee) responsible for this?

- a) Yes b) No c) as and when the need arises

23. Is post implementation audit key in the capital budgeting process?

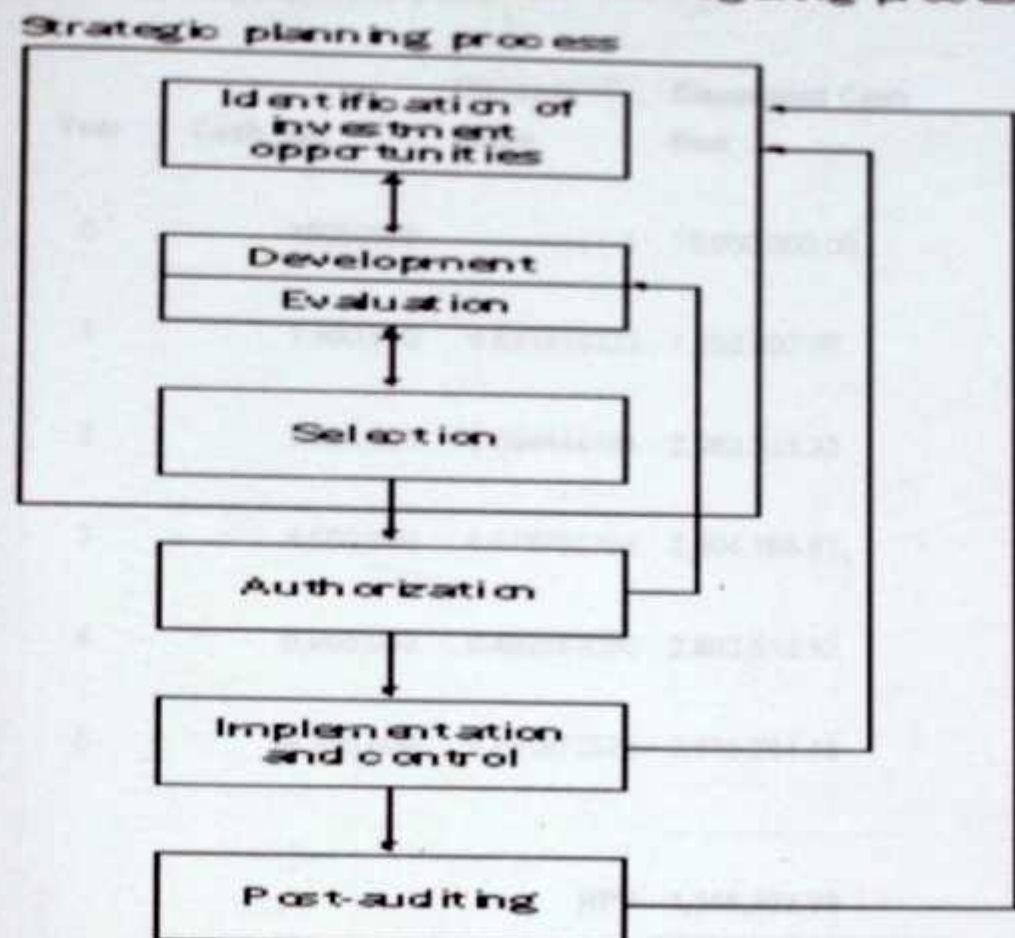
- a) Yes b) No

24. What actions do you take in case of variances in the post implementation audit?

- a) No action b) back to the drawing table c) abandoned the project

Figure 1.

The structure of the capital budgeting process



Appendix C

Table 8 Firstly using interest rate of 20%

Year	Cash flow	Discount factor	Discounted Cash flow
0	-15000000	1	15,000,000.00
1	1,500,000	0.833333333	1,250,000.00
2	3,000,000	0.694444444	2,083,333.33
3	4,500,000	0.578703704	2,604,166.67
4	6,000,000	0.482253086	2,893,518.52
5	18,750,000	0.401877572	7,535,204.48

NPV 1,366,222.99

Table9 Firstly using interest rate of 25%

Year	Cash flow	Discount factor	Discounted Cash flow
0	-15000000	1	15,000,000.00
1	1,500,000	0.8	1,200,000.00
2	3,000,000	0.64	1,920,000.00
3	4,500,000	0.512	2,304,000.00
4	6,000,000	0.4096	2,457,600.00
5	18,750,000	0.32768	6,144,000.00

NPV (974,400.00)

Table 10 Firstly using interest rate of 23%

Year	Cash flow	Discount factor	Discounted Cash flow
0	-15000000	1	(15,000,000.00)
1	1,500,000	0.81300813	1,219,512.20
2	3,000,000	0.66098222	1,982,946.66
3	4,500,000	0.537383918	2,418,227.63
4	6,000,000	0.436897495	2,621,384.97
5	18,750,000	0.355201215	6,660,022.78

NPV (97,905.76)

Thus, IRR of project C is approximately 23%.

Table 11 IRR for all the four mutually exclusive projects

Project	NPV
A	-200.00%
B	21.00%
C	23.00%
D	25.00%

Table 12 Selected projects for each criteria

CRITERIA	PROJECT			
	PROJECT A	PROJECT B	C	PROJECT D
PAYBACK	<u>2 Years</u>	4 Years	4 Years	3 Years
ARR	-8%	<u>26%</u>	25%	22%
PI	0.59	1.51	<u>1.53</u>	1.52
NPV	6,109,500	7,660,500	<u>7,962,750</u>	7,788,000
IRR	-200%	21%	23%	<u>25%</u>

Appendix D

Figure 2: Projects Evaluation Techniques

Evaluation Technique	Response
NPV	Applicable
IRR	Not Applicable
ARR	Not Applicable
PB	Applicable
PI	Not Applicable

Appendix E

Profile of Respondent

Wadoma Royale Hotel, Abuakwa Kumasi

The main service or products offer are

- a) Accommodation for leisure, conferences & seminars
- b) Delightful swimming pool and bar
- c) An ultra-modern restaurant and pizza hut
- d) Luxurious and elegantly appointed bedrooms offering true comfort
- e) Large and state of the art conference facilities, ideal for corporate and social events.

The core values of Wadoma Royale Hotel is to be acclaimed for its quality and culture of services that brings to its clientele ultra modern three star hotel in the vibrant garden city, Kumasi to enhance the image of Ashanti.

Wadoma offer true hospitality that makes smiles to linger (trade brochure).

Appendix F

Contacts

Person 1: Albert (Financial Controller)

Person 2: Richard (Marketing Manager)

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Appendix G: Organisational Structure of Wadoma Royale hotel

