THE EFFECTIVENESS OF COST BENEFIT ANALYSIS IN MANUFACTURING ORGANIZATIONS: A SURVEY OF SELECTED MANUFACTURING ORGANIZATIONS IN DELTA STATE

Orife, O. C.
Department of Accountancy
Delta State Polytechnic, Ozoro, Delta State, Nigeria

ABSTRACT

This study aims at examining the effectiveness of cost benefit analysis in manufacturing organization. A survey of selected manufacturing firms in Delta State was conducted. The study spotlighted the usefulness of cost benefit analysis, objectives, features and disadvantages of cost benefit analysis. Structured questionnaire was employed in the course of gathering relevant data for the study and administered on 100 employees of five (5) manufacturing firms in Delta State. The results indicated among others that there is significant relationship between the effectiveness of cost benefit analysis with ascertaining the financial implications of projects and knowing about the social benefit derivable from a project. The study therefore recommended among others that cost benefit analysis valuations should represent consumers or producers valuations as revealed by their actual behaviour, double courting of benefits or costs must be avoided and a common unit of measure should exist and a host of others for the effectiveness of cost benefit analysis in organizations.
Keywords: Effectiveness, Cost, Benefit, Analysis, Manufacturing organizations

INTRODUCTION

Cost-benefit-analysis is a way of assessing the desirability of projects when it is important to take along and wide view. It implies the enumeration of all the relevant costs and benefits. The economy is divided into private sector and public or government sectors. Ezirin and Nwokah (2005) citing Norman (1983) state that cost benefit analysis is an investigation into the social cost and social benefit of public/private investment project. They consider the gains and loses of every life endeavour or activity involved in business operations/ project realization. Cost-benefit-analysis is concerned with the formulation of policies, investment decision, and resource allocation criteria of the government. Government investment is a macro economic decision based on the availability of monetary, physical and natural resources. Braide (2002) agures that the motivational factors in establishing a business is to make profit.

The business managers are to do only those things that will foster and facilitate the attainment of the profit objective. These actions and activities ultimately result in some cost being incurred consistent with the level or volume of activities (Ezirim and Nwokah, 2005). It is here that the cost-benefit-analysis can be regarded as an attempt to measure the costs and benefits from alternative courses of action. More specifically, cost benefit analysis weights up social benefits and costs, when making choices between alternative investment/ project. Cost-benefit-analysis takes into account externalities in assessing projects, a field not covered in the calculation of private costs and benefits.

Ajibola (2005) views cost-benefit-analysis as an analytical tool, which enables a systematic comparison to be made between the estimated cost of undertaking a project and the estimated value and benefits, which may arise from the operation of such a project. It is a methodology of appraising the worth or economic viability of a project. It involves measuring overtime the total cost of the project against the total benefit derivable from it Ajibola (2005). "Cost-benefit-analysis as a technique, which enables a systematic comparison, which enables a systematic comparison to be made between the estimated costs of undertaking a project and the estimated value and benefit which may arise from the implementation of such a project". It is regarded as an analytical tool in decision making.

Cost benefit analysis takes into account not only the private cost and benefits of a project but also the social costs and revenue. Jhingan (2004) defines cost-benefit-analysis as a way of assessing the desirability of projects when it is important to take along and wide view i.e. it implies the enumeration of all the relevant costs and benefits. Cost-benefit-analysis is concerned with the policies of the public sector, the investment decision and resource allocation criteria of the government.

Government investment decision based on the availability of monetary, physical and natural resources: Aborode (2005) sees cost-benefit-analysis as estimates and totals up the equivalent money value of the benefits and costs to the community of projects to establish whether they are worthwhile. These projects maybe dams and highways or can be training programmes and health care systems. According to Ajibola (2005), some of the usefulness of cost-benefit-analysis includes; (a) to ascertain whether or not a specific project should be undertaken or it can be used to ascertain which project or projects should be selected from a possible array of projects.

Thus, it is very useful in a capital rationing situation; (b) Cost-benefit-analysis facilitates decision about whether a project is worth undertaking or not, and also helps in the privatization of public projects; (c) In the public sector, it is particularly useful in allocating scarce resources between such public services as education, environment, and health; (d) Cost-benefit-analysis is an aid to better or more rational decision making, providing data upon which choices can be based; and (e) Cost-benefit-analysis provides information to help evaluate the pros and cons of a programme, but it is only a guide towards making what is ultimately a normative decision.

Salawu (2005) listed the objectives of cost-benefit-analysis to include; (a) To determine the best decision as regards the selection of competing alternative projects; (b) To assist in appreciating and making the projects under review for implementation; (c) To allow externalities to be taken into account in appraising investment projects; and (d) The determination of the ways in which the most efficient one can be made of scarce resources. The main features of cost-benefit-analysis according to Ajibola (2005) are; (i) It is a methodology of rational choice in this case involving public programme decision; (ii) Cost-benefit-analysis is an analytical tool in decision-making requiring a systematic identification and comparison of the possible benefits and cost associated with a project; (iii) It is monetary valuation exercise requiring the estimation in money terms the cost of undertaking a project and the value and benefits that could arise from the operations of such projects; and

(iv) Discounting is an integral aspect of cost-benefit-analysis, introduced to take care of time value of money of the streams of cost and benefits of a project. The disadvantages of cost-benefit-analysis according to Salawu (2005) are: (a) Cost-benefit-analysis is limited by the quality of data used in the analysis; (b) Estimated costs and benefits are difficult to forecast especially when benefits may not be easily quantifiable; (c) There is also the problem of valuation especially of intangible benefits and costs having no market value; (d) There is also the problem of predicting the value pattern of costs and benefits over the period of the public projects; and (e) It could be expensive way of appraising projects, requiring the expertise of highly trained personnel. The research hypotheses formulated in the null form for this study are: the effectiveness of cost-benefit-analysis has no significant relationship with ascertaining the financial implications of the projects, and the effectiveness of cost-benefit-analysis has no significant relationship with knowing about the social benefits derivable from a project.

PARTICIPANTS AND PROCEDURES

The design of this study is survey with population comprising all the manufacturing firms in Delta State, Nigeria. Five Manufacturing firms were purposively selected from the study's population. Twenty respondents were selected from each of the selected manufacturing firms through stratified random sampling technique, making a total of one hundred respondents in all. Structured questionnaire was designed and administered on the respondents. Simple percentage and frequency count was used to analysis data collected for the study. The tables presented below contain the analytical details relating to the findings from the respondents.

RESULTS AND DISCUSSION

Table 1: Manufacturing firms studied with member of respondents in Delta State

S/N	**Organizations**	**No. of Respondents**
1.	Beta Glass Plc, Ughelli	20
2.	Nigerian Engineering Work Ltd, Warri	20
3.	Vita foam Plc, Sapele	20
4.	Delta Steel, Aladja	20
5.	Eternit Plc, Sapele	20
	Total	100

Source: Research Data, 2011

Table 2: Effectiveness of cost-benefit-analysis and the ascertainment of the financial implications of projects

Option	Frequency of Occurrence	Percentage (%)
Yes	95	95
No	5	5
Total	100	100

Source: Survey, 2011.

Table 3: Effectiveness of cost-benefit-analysis and its relationship with social benefits derivable from a project

Option	Frequency of Occurrence	Percentage (%)
Yes	96	96
No	4	4
Total	100	100

Source: Survey, 2011

Table 2 shows that 95% of the respondents are of the view that effectiveness of cost-benefit-analysis has significant relationship with the ascertainment of the financial implications of projects in manufacturing organizations while 5% say "No". Table 3 above reveals that ninety-six (96) respondents agreed that effectiveness of cost-benefit-analysis has significant relationship with social benefits derivable from a project. The respondents stood for "Yes" at 96% against "No" at 4%. It indicates that the respondents perceived that there is significant relationship between effectiveness of cost-benefit-analysis with the ascertainment of the financial implication of projects in organizations.

The effective management of finance is necessary for the success of any business organization. Cost-benefit-analysis is essential for the ascertainment of the financial implications of any organization. Therefore it is obvious to state that the effectiveness of cost-benefit-analysis has significant relationship with knowing about the social benefits derivable from a project. The effectiveness of cost-benefit-analysis is necessary in knowing about the social benefits derivable from a project in organizations. For any organization to achieve adequate social benefits there must be effective cost-benefit-analysis.

CONCLUDING REMARK

The major purpose of this study was to identify the effectiveness of cost-benefit-analysis din manufacturing organizations - A survey of selected manufacturing firms in Delta State. The results obtained showed that there is significant relationship between effective cost-benefit-analysis and the ascertainment of the financial implications of project and with knowing about the social benefit derivable from a project. Based on the findings/conclusion of the study, the following recommendations are necessary for effectiveness cost-benefit-analysis in organizations.

1. There must be a common unit of measurement. In order to reach a conclusion as to the desirability of a project, all aspects of the projects, positive and negative, must be expressed in terms of common unit i.e., there must be a "bottom line". This means that all benefits and costs of a project should be measured in terms of their equivalent money value.
2. Cost-benefit-valuation should represent consumers or producers valuations as revealed by their actual behaviour.
3. The analysis of a project should involve with versus without comparison. When a project is being evaluated the analysis must estimate not only what the situation would be with the project but also what it would be without the project.
4. Double counting of benefits or costs must be avoided. Sometimes an impact of a project can be measured in two or more ways.

For example, when an improved highway reduces travel time and the risk of injury, the value of property in areas served by the will be enhanced. The increase in property values dues to the project is a very good way, at least in principle, to measure the benefits of a project. But if the increased property values are included then it is unnecessary to include the value of the time and lives saved by the improvement in the highway. The property value went up because of the benefits of the time saving and the reduced risks. To include both the increase in property values and the time saving and risk reduction would involve double counting.

REFERENCES

Aborode, R. (2005). *Strategic Financial Management* (1st ed). Lagos: Eltoda Ventures Limited.

Ajibola, R. (2005). *Public Finance Principle and Practice* (1st ed). Lagos: B. Print Publishing.

Braide, J. J. M. (2002). The Theory and Practice of Management Accounting. Owerri: Springfield Publishers.

Jhingan, M. L. (2001). *Managerial Economics* (1st ed). New Delhi: Virinda Publication Ltd.

Ezirin, A. C. and Nwokah, N. G. (2005). Application of Cost Benefit Analysis to Waiting Line/Queuing Model for University of Port Harcourt Students' Registration. International Journal of Business and Common Market Studies, 3(1), 54 - 61.

Kojo, E. R. (2001). *Public Finance in Nigeria: An Indigenous Approach* (1st ed). Agbor: Sky Publications.