Capital Budgeting Practices and Economic Development: A Comparative Study of Companies in Western Europe and West Africa

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“Capital Budgeting Practices and Economic Development: A Comparative Study of Companies in Western Europe and West Africa”

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DEDICATIONS

This book is dedicated to my wife, Mrs Doris Beauty Ekeha and my children, Mr Walter Norris Kafui Ekeha; Ms Suzzy Selase Ekeha; Mr Bright Mawusi Ekeha and Ms Urielle Jorgbenue Ekeha.

Also, to a very special person who impressed on me to enrol in a new Secondary School he was a Headmaster some years ago in my village (Logba), which really changed my life to what I am today, Mr Jim Bourton (of Blessed Memory), a Volunteer of Canadian University Students Union (CUSO)
ABSTRACT

Over the years, efforts have been made to increase the developmental strides of African countries. Many projects move from donor countries like the United Kingdom and the United State into Africa to help improve the lives of the people. However, these efforts have not been able to redeem Africa from abject poverty and indebtedness to the West. Various projects that are targeted towards the reduction of poverty are normally completed with no changes in the lives of the people. These projects, in my opinion, have not been scrutinised to assess their capabilities of meeting some stated target.

Capital budgeting practices are some of the vital inputs in the decision-making process of embarking on investment projects. A very good analysis, scrutiny, implementation and monitoring of such projects could yield the expected results for the stakeholders (people of the country). According to Dayananda et al (2002), the capital budgeting practices are used to make investment decisions so as to increase shareholders value. Capital budgeting is primarily concerned with sizable investments in long-term assets, Brealey & Myers (2003). These assets may be tangible items such as property, plant or equipment or intangible ones such as new technology, patents or trademarks. Investments in processes such as research, design, development and testing – through which new technology and new products are created – may also be viewed as investments in intangible assets (ibid).

Dayananda et al (2002), argued that irrespective of whether the investments are in tangible or intangible assets, a capital investment project can be distinguished from recurrent expenditures by two features. One is that such projects are significantly large. The other is that they are generally long-lived projects with their benefits or cash flows spreading over many years. Sizable, long-term investments in tangible or intangible assets have long-term consequences (ibid). This implies that today’s investment will determine the overall corporate strategic position over many years. These capital investments also have a considerable impact on the future cash flows of the organization and the risk associated with those cash flows. Capital budgeting decisions
thus have a long-range impact on the strategic performance of the organization and are also critical to its success or failure.

This paper compares the use of capital budgeting techniques by companies in Europe and West Africa, using data obtained from a survey between 225 European and 120 West African companies. The main aim is to analyse the use of capital budgeting techniques by companies in both economic blocs from a comparative perspective to see whether economic development matters in the choice of which technique to use.

The empirical analysis provides evidence that European CFOs on average use more sophisticated capital budgeting techniques than their counterparts in West African. At the same time, however, the results suggest that the differences between European and West African companies is smaller than might have been expected based upon the differences in the level of economic development between both economic blocs. At least, this is evident with respect to the use of methods of estimating the cost of capital and the use of CAPM as the method of estimating the cost of equity.
1.0 INTRODUCTION
This paper reports the results of a survey with respect to the current practices of capital budgeting techniques in two different economic blocs at two different levels of economic development: Europe and West Africa. The main aim of this paper is to analyse the use of capital budgeting techniques by companies in a comparative perspective to see whether economic development matters in the choice of techniques. Whereas several papers in the past have investigated the use of such techniques, this is one of the very few studies that use such a comparative perspective, comparing a more developed with a developing economy. This analysis was carried out using standard differences of mean tests and multivariate regression analysis to see whether there is a so-called “country effect” on the choice of capital budgeting technique. This means that the research tried to establish whether capital budgeting practices differ significantly between companies in the two economic blocs and whether these differences can be explained by differences in levels of economic development.

Again, only very few papers have addressed the determinants of capital budgeting practices using these types of analyses, let alone in a comparative economic perspective. Notable exceptions, among others, are Brounen, et al. (2004) and Payne, et al. (1999). Yet, both studies analyse the determinants of capital budgeting practices for a number of developed countries (The Netherlands, Germany, France, Canada, the U.S. and the U.K.). West Africa and Europe have been chosen for this comparison for the following reasons. The researcher was a Finance Manager in a government department of one West African country and considers West African countries as strongly emerging, yet still less-developed economy in many respects, which has received a lot of attention in the economic and financial development literature during recent years. Moreover, the researcher also considers Europe as a typical example of a developed economic bloc and also most companies in this bloc have various investment interests in Africa. Finally, the researcher believes that most CFOs in African countries do not utilise the sophisticated capital budgeting techniques to scrutinise projects very well before selection. This resulted in various mismanagement and failure to achieve economic heights.
1.1 Motivation of the Study

Capital budgeting involves making investment decisions concerning the financing of capital projects by organisations. Making a good investment decision is important since funds are scarce and the investment is expected to add to the value of the organisation especially in Less Developed Countries (LDCs) and Third World poor nations. Capital investment decision is thus one of the requirements, if properly applied, that can help accelerate economic development. All countries of the sub-Saharan Africa expend an upward of 13.5 billion dollars per annum on foreign debt payment to rich foreign creditors, World Bank report (2005). Many countries in the third world borrowed huge sums of money in expectation that interest rates would remain stable. Many African countries accepted these loans for political and economic stabilization in the post independence era, however prominent problems such as corruption make these loans ineffective to save the recipients countries from their economic woes.

For example in Ghana, a governance and corruption survey was commissioned by the World Bank, which was conducted by the Centre for Democratic Development (CDD – GHANA). Evidence from the survey showed that public concern about corruption in the country is very high and that there is a widespread public perception that corruption has had a negative toll on productivity and efficiency of both the public and private sectors and consequent effects on popular welfare, CDD Ghana (2000). The Ghana Integrity Initiative (GII), a local chapter of Transparency International, has also on various occasions undertakes some educational programs on corruption and good governance through seminars and workshops for various interest groups in the country. One recent study on administrative costs faced by private investors in 32 developing countries most from Africa reported that it takes up to two or three years to establish a new business in many developing countries (Morisset and Lumenga Neso: 2002). Their study found that the most delays occurred in securing land access and obtaining building permits. The associated administrative costs were found to be positively correlated with estimates of the level of corruption and negatively correlated with the quality of corporate governance, degree of openness, and public wages, among others (Morisset and Lumenga Neso: 2002). The authors finally argued that the level of corruption or the lack of good governance is expected to influence administrative costs as bureaucrats and politicians are more likely to capture the extra rents (ibid). In fact, the corrupt practices of most executives in both public and the private sectors of these developing West African countries have led to
increases in debts to their borrower countries with the intended targets of the loans not met. On the side of the creditors as well, many of these loans were given in order to gain and or retain the loyalty of those corrupt regimes, which is the characteristic of African governments.

1.2 The Debt Servicing Cycle of Less Developed Countries

These debt-trapped nations were under-developed and their debt crisis further plunge them into deeper economic crisis and abject poverty due to excessive borrowing. Most executives of these developing countries have the selfish tendency of mismanaging the various project assigned to them. Some managers of the projects are eager to satisfy their personal needs before thinking of the implementation of whatever projects has been assigned to them. This leads to poor budgeting, poor monitoring and hence poor implementation of the project. Governments of the nations have to then borrow more funds in order to complete and maintain the existing projects. Due to the fact that these loans were thoughtlessly accepted, and collected by most African governments, they had neither little implications for development nor benefit for the masses.

Finally the unreliable market prices in the world’s market for agricultural products and low-technologically manufactured goods, which make it particularly difficult for African countries to diversify and increase exports to hard currency markets. Thus making it difficult for them to earn their way out of the debt trap. In my opinion, the developed countries, like the USA and UK who have been prophesising their lengthy plans to alleviate Africa from its economic woes must endeavour to ensure some monitoring system such that the aids will go a long way to improve the investment capacity of the continent. International markets should also be opened to the African manufacturers in the said developed countries. Finally, loans must be channelled towards the transformation of the primary products into products worthy for the international market.

Notwithstanding, however, the researcher believes that these debt-ridden nations in the Sub-Saharan Africa are expected to make attempts at improving their economic status themselves through huge research and development leading into economic productivity. The concerns of the developed nations may be to no avail if these less
developed nations do not take steps that will help relief their situation. The capital investment decision is thus one of the most critical and crucial decisions that any country or organisation can take to achieve economic development—thus by adding economic value. Since economic development depends on the multiplicity of viable corporate organisations and enterprises in the country, the approach adopted here is to demonstrate how capital budgeting, as an investment decision can help African countries promote corporate organisational growth by using acceptable techniques to identify viable projects. In other words, capital budgeting is an integral part of the corporate plan of an organisation, which reflects the basic objectives of an organization. The capital investment decision involves large sums of money and may introduce a drastic change in companies as well as the whole economy, when it is well scrutinised. For instance, acceptance of a project may significantly change a company’s operation, profitability and create more jobs within the country. These changes might also affect investors’ evaluation of a company (Osaze, 1996:40-44).

1.3 The Problems and Research Hypothesis
Most third world countries depend excessively on importation. They do not develop an enduring technological base that can support the growth of their economies. Their capital investment decisions are not usually well articulated. This may be due to the fact that their governments do embark on white elephant projects that gulp huge sums of money and are useless in terms of utility to the people. The projects often are abandoned halfway and in some cases, are only executed on papers. The current efforts of some African governments like those of Ghana and Nigeria, towards privatisation of hitherto government-owned firms and corporations is an indirect concession to the fact that the former investment decision pattern of the national government is not wise enough to alleviate their countries from poverty. In fact, most of the diversified companies have improved productivity and quality with enormous benefits to their countries. Considering the matter from the corporate perspective therefore, the researcher believes that capital budgeting decision is one of the decision-making areas of a financial manager that involves the commitment of large funds in long-term projects or activities. And these projects have a huge impact on the county’s economic development.
This study therefore seeks to examine the importance of capital investment decisions; the basic steps in making capital investment decisions and the techniques used in evaluating capital investment projects so that the overall country's economy can grow from the corporate sector investments. It is also expected to show that the use of sophisticated techniques by both corporate and governmental CFOs will help in the development efforts of Africans and other poor nations. The researcher believes that most developed countries in Europe have achieved highs in today's competitive international market because they put money where it adds value. Investments are well scrutinised using various sophisticated techniques, both qualitative and quantitative, before final decision is arrived and such projects are well monitored until fully completed. It is my believe also that most African Countries remain in the low economic growth and poverty zone because CFOs don’t make use of technical tools to analyse various investment projects, which have significant impact on the economic development. These differences might be due to the level of education, technology and economic development between the two economic blocs. Therefore, the researcher hypothesizes that CFOs of European companies will use net present value (NPV) and internal rate of returns (IRR) methods more often than their counterparts in West Africa, whereas the opposite will be true for the pay back (PB) and accounting rate of returns (ARR) methods.

An additional contribution of this paper to the existing empirical literature on capital budgeting practices is in terms of the countries for which the researcher had gathered data. Most previous studies focus on the United States and the United Kingdom and there are some few studies available for the Netherlands (Herst, Poirters and Spekreijse, 1997; Brounen, De Jong and Koedijk, 2004). The researcher is also aware of study on “Capital Budgeting and Economic Development in the Third World Countries” (Elumilade, et al 2006) but there were no comparisons with any developed economy.
1.4 Organisation of the study
The paper is organised in seven different sections, with section one dealing with introduction, hypothesis and motivations of the study. Section two discusses literature review on capital budgeting practices and further discussed the capital budgeting process, classification of investment projects and alternative determinants of capital budgeting practices in sections three and four. This was followed by a discussion of the design of the survey in section five. Section six then provides the results of the survey and a discussion of the empirical analysis of determinants of capital budgeting practices. The paper ends with a summary and discussion of the results in the final section.
2.0 LITERATURE REVIEW

In this section the researcher tries to outline previous studies relevant to this study. The section discussed various studies on economic development, capital budgeting among CFOs from various countries and if there is any comparative study between developed and developing countries.

2.1 Economic Development in Africa

Economic development in Africa has not been steady. In fact, when compared to the situation in the Western countries like Europe, the conclusion is that countries of the third world are either qualified as undeveloped or mildly put underdeveloped. African scholars have tended to heap the blame on the Europeans; saying that colonialism or neo-colonialism is the bane of Africa’s economic woes. This notion is referred to by Onigbinde (2003:21-25), as the “Original Sin Fallacy”. The present economic woe of underdeveloped countries (UDCs) according to this fallacy is that UDCs’ condition is original “in relation to a so-called non-achievement, the present condition of the underdeveloped world is a historical product of capitalist expansion (ibid).

The crisis of underdevelopment in Africa is also captured in the “Africa at the Doorstep of Twenty-First Century” by Adebayo Adedeji as sited by Onigbinde, 2003. According to him, African within the world is, …poverty increased in both the rural and urban areas: real earning fell drastically; unemployment and underemployment rose sharply; hunger and famine became endemic; dependence on food aid and food imports intensified; disease, including the added scourge of AIDS, decimated population and became a real threat to the very process of growth development; and the attendant social evils-delinquency, there is a mess vengeance (Onigbinde, 2003: 78-79).

The United States Assistance for International Development (USAID), 1988-1992 (cited from Onigbinde, 2003:79-80), stated among other things that, ... approximately 180 million of sub-Saharan Africa’s 500 million people could be classified as poor, of whom 66.7 percent, or 120 million, are desperately poor. By every international measure, be it per capital income ($330), life expectancy (51 years), or the United Nation’s Index of Human Development (0.255 compared to 0.317 for South Asia, the next poorest region), Africa is the poorest region in the world, Onigbinde 2003. The solution to all these problems lies in the fact that firms are to embark on projects that would give rise
to company’s value which will by extension enhancing the desired economic
development for the country. In the course of achieving these development efforts, the
company’s activities become more complex and corporate management assumes a
sound financial position in the handling of problems and decisions therein.

In his study of “The obstacles to investment in Africa…”, Professor Peter Montiel of the
World Bank concluded among other things that “One set of explanations is based on
the view that investment projects with high economic rates of return are not as plentiful
in Africa as the simple neoclassical growth paradigm would seem to imply. One
argument is that for a variety of reasons, aggregate production functions may be
characterized by lower levels of productivity in Africa than in creditor countries. An
alternative or complementary story is based on generalizing the aggregate production
function to include roles for human capital, public capital, and institutional capital”
Montiel (2006). He continued to say “These effects raise questions about the
abundance of investment opportunities yielding high economic rates of returns in Africa
at the present time”, (ibid). This conclusion suggests that, though not abundant,
investment opportunities with high returns exist in African countries and when applied
properly, it could bring economic growth to Africa. One of the best ways to scrutinise
these opportunities is by using various techniques like the capital budgeting techniques,
to access the profit potentials.

2.2 The Capital Budgeting Decision
Capital budgeting decisions are among the most important decisions the financial
manager of a company has to deal with. Capital budgeting refers to the process of
determining which investment projects result in maximisation of shareholder value,
Dayananda et al, 2002. Generally speaking, there are four main capital budgeting
techniques the manager may use when evaluating an investment project. In fact, there
are other techniques that could have been considered, such as sensitivity analysis, real
options, book rate of return, simulation analysis, etc. (Graham and Harvey, 2001,
pp.196-197). However, the researcher has chosen to focus on the most well known
techniques to keep the study simple. The net present value (NPV) and internal rate of
return (IRR) methods are considered to be discounted cash flow (DCF) methods. The
payback period (PB) and average accounting rate of return (ARR) methods are so-called non-DCF methods, Brealey and Myers, 2003. From a pure theoretical point of view the NPV is considered to be the most accurate technique to evaluate projects. Yet, it is also the most sophisticated of the four, followed by the IRR method. Both non-DCF methods are considered to be less accurate, of which the PB method is the least sophisticated (ibid).

In the past, several studies of capital budgeting practices have been carried out. Most studies focus on companies in the U.S. Comparing survey results of capital budgeting practices in the U.S. over time generally seems to show that the analytical techniques used by executives have increased in terms of sophistication. For example, in one of the earliest studies reporting the results of questionnaires on capital budgeting practices, Klammer (1972) shows that in 1959, based on a sample of 184 large U.S. companies, 19 per cent indicated that they used DCF methods as their primary method to evaluate projects. The majority of companies used either PB (34 per cent of the total sample) or ARR methods (34 per cent) as their primary method of evaluation. In 1970, the picture had changed drastically: DCF methods were used by 57 per cent of the companies; 26 per cent used ARR and only 12 per cent used PB as their primary method of project evaluation (ibid). In a later study, Hendricks (1983) reports that in 1981 76 per cent of the companies in his sample studied used DCF methods as their primary tool. Only 11 per cent stated they used the PB method as their primary tool. Trahan and Gitman (1995) show that, based on a 1992 survey of 58 of the Fortune 500 large companies and 26 of the Forbes 200 best small companies, most companies used DCF methods as their primary evaluation tool, although these methods were more important for the large companies (88 per cent for NPV and 91 per cent for IRR) than for the small companies (65 and 54 per cent for NPV and IRR respectively).

A recent study by Graham and Harvey (2001), a comprehensive survey published on capital budgeting practices (using answers from a 1999 survey among 392 Chief Financial Officers (CFOs) of companies in the U.S. and Canada) showed that the NPV and IRR techniques are the most frequently used capital budgeting techniques. Their survey reported that 75 per cent of the CFOs always use NPV and 76 per cent always
or almost always use the IRR method. Their survey results also show, however, that even though over time the use of the PB method has declined as a primary tool for project evaluation, it remains to be an important secondary instrument CFOs normally use. According to Hendricks (1983), in his 1981 survey 65 per cent of the companies in his sample used PB as a secondary measure. Trahan and Gitman (1995) show that in 1992, 72 per cent of the large and 54 per cent of the small companies used PB as one of the evaluation tools. In the 1999 survey of Graham and Harvey (2001) 57 per cent indicated they use the PB method as one of their evaluation tools.

The general picture that emerges from the previous short discussion also emerges from survey studies based on other U.S. as well as U.K., European and Australian companies (Gitman and Forrester (1977); Schall, et al. (1978); Kim and Farragher (1981); Shao and Shao (1996); Pike (1996) and Brounen, et al. (2004); Freeman and Hobbes (1991) and Truong, et al. (2005); Herst, et al. (1997) and Brounen, et al. (2004). A comparison of the results of these survey studies also showed an increasing sophistication with respect to the use of evaluation techniques over time. At the same time, however, it seems that companies in European countries report lower rates of the use of DCF techniques as compared to U.S. companies.

Brounen et al (2004) replicate the Graham and Harvey (2001) survey in four European countries (U.K., France, Germany and the Netherlands; total sample was 313 companies) in 2002-2003 and find that for the U.K. companies in their sample 47 per cent states that NPV is (almost) always used as a tool of evaluating projects, whereas 69 per cent (almost) always use the PB. For the Netherlands these figures are comparable (70 and 65 per cent, respectively); for France and Germany the figures are even lower (42-50 per cent and 44-51 per cent, respectively).

2.3 Studies on Capital Budgeting Practices in Developing Countries

A few studies have reported survey evidence on capital budgeting practices in the Asia-Pacific region. These studies show a somewhat different picture. Wong, et al (1987) used information from a survey among a large number of companies in Malaysia, Hong Kong, and Singapore in 1985 and found that in these countries the PB method was the
most popular primary measure for evaluating and ranking projects. For Malaysia this picture was confirmed in Han (1986). In a recent paper by Kester, et al. (1999), based on information from surveys of 226 companies in Australia, Hong Kong, Indonesia, Malaysia, The Philippines and Singapore in 1996-1997, it was reported that the PB method was still an important method. Yet, DCF methods seem to have increased in importance as well. Excluding Australia from the sample of the countries studied, 95 per cent of the companies in the five Asian countries indicated that they use the PB method and 88 per cent of them said they use the NPV method when evaluating projects. In terms of importance (on a scale from 1 to 5, where 1 = unimportant and 5 = very important) both methods are rated almost equally important (3.5 versus 3.4) (ibid). When comparing these results to the results of studies for companies in Western economies, these figures seem to be very high. Comparing the results of the study by Wong, et al. (1987) with those of Kester, et al. (1999) does seem to suggest that the level of sophistication of capital budgeting techniques has increased quite rapidly during a period of just one decade within the developing countries in Asia.
5.0 SURVEY DESIGN AND METHODOLOGY

The data for the analysis have been obtained by using the results of structured questionnaires. The questionnaires were sent to 225 Europe and 120 West African listed and non-listed companies in the period between August 2006 and January 2007. The questionnaires consisted of a number of multiple choice questions related to capital budgeting practices of companies, questions specifying firm characteristics, such as size, foreign sales and industry, as well as questions asking for the age and educational background of the respondent.

With respect to the questions related to capital budgeting practices the researcher asked companies to indicate the frequency of the use of different project evaluation techniques (running from 0 to 4, where 0 = never and 4 = always), the cost of capital estimation method used most frequently, the use of methods to estimate the cost of equity. To increase the chances of getting responses from the companies, the researcher decided to keep the survey as short as possible. In total, I included only fifteen questions. The same set of questions was sent to European and West African companies. The questions were all structured in English and were sent by post. To increase the level of response, two reminders were sent to the companies: the first one was two weeks and the second three weeks after the original questionnaires were sent, all by email. The questionnaire was to be completed by the CFO of the company or any person in financial authority. The researcher received 36 responses, 28 from Europe and 8 from West African companies, resulting in a response rate of 12 per cent for the European and 6 per cent for the West African companies sampled. These response rates are somewhat on average to those found in other studies. For example, Graham and Harvey (2001) report a response rate of 9 per cent; Trahan and Gitman (1995) have a rate of 12 per cent and Brounen, et al. (2004) reports a rate of 5 per cent. Kester, et al. (1999) shows an average response rate for the five Asian countries of 15.5 per cent.
7.0 SUMMARY AND DISCUSSION

In this paper, it was argued that the use of capital budgeting practices might be related to the level of economic development. The researcher has given a number of arguments to support this argument. First, financial markets have developed over time, making the use of DCF methods more applicable, convenient and necessary. Due to the development of financial markets (and especially stock markets) shareholder maximization has gained its importance, which has pressured CFOs of companies to use DCF methods over other, more simple and less accurate alternatives. Secondly, training of CFOs has improved over time, which may have enabled them to better understand and therefore use more sophisticated techniques. Thirdly, tools and packages that help the CFO to determine which investments are beneficial to the company have become increasingly sophisticated, which may also have stimulated the use of more sophisticated techniques. Finally, the increased use of computer technology and the related reduction in the cost of technology may have stimulated the use of more sophisticated techniques.

This paper has investigated this hypothesis using information on the use of capital budgeting techniques by companies in the Europe and West Africa. This information was obtained from a survey among 28 European and 8 West African companies, who responded to the questionnaires sent to 345 companies. This minimum response was, in my opinion, due to the limited time allowed for the return of the questionnaires and some financial constrains. With this information, the researcher carried out the analysis using standard differences of mean tests and multivariate regression analysis to see whether the level of economic development matters for the use of capital budgeting practices. I focused on whether there was a so-called “country effect”, i.e. whether capital budgeting practices differed significantly between European and West African companies and whether these differences can be explained by differences in levels of economic development. The researcher was not aware of any other study in the literature that has looked at this issue.

The main findings of the analysis can be summarized as follows. First, European CFOs use the NPV method significantly more often than their West African colleagues do.
Second, West African CFOs use the ARR method significantly more than European CFOs do. Third, CFOs of West African companies less often make cost of equity estimations as compared to European CFOs. These results may be explained by the fact that there is still a gap with respect to the level of economic, financial, human and technological development between the two continental blocs. At the same time, however, the study also found that the use of the IRR method does not seem to differ significantly between European and West African companies. The same is true for the estimation of the cost of capital and the use of CAPM as a method of estimating the cost of equity. The latter three results do not lend support to the central hypothesis of this paper.

Therefore, the researcher will restrain himself from drawing too strong conclusions with respect to the importance of the "country effect" as an explanation for differences in capital budgeting practices between the European and West African companies. However, the researcher still believes that there are some levels of economic factors among the determinants of the choice of capital budgeting practices.

It is therefore proposed that further research into this issue is required and that more and larger data sets should be created, in terms of the number of companies and individual company observations, as well as in terms of the selected countries included in the research.
LIST OF REFERENCES


