Empirical Study of the Relationship between Available Forms of Finance and Performance of Intermediate Cocoa Processing Firms in Lagos state-Nigeria

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Abstract
Studies have confirmed strong and positive correlation between finance sources and the performance of agricultural sectors. However the shift of the Nigeria Government attention to oil sector after her independence has caused a major setback in the finance of agriculture and agro allied industries. The thrust of this study is to investigate the relationship between available forms of finance and performance of cocoa processing firms in Lagos State, Nigeria. The study used purposive sampling technique to select six (6) out of eleven (11) intermediate cocoa processing firms identified on the registered list of Nigerian Export Promotion Council (NEPC) in south western part of Nigeria. The Pearson correlation analysis conducted indicated that there is strong association (R = 0.916) between the two main variables of cocoa export performance and available forms of finance. From the regression analysis, it was discovered that available forms of finance were able to account for up to 84% changes (R^2 = 0.840) in cocoa export performance of Nigerian intermediate cocoa firms. While the funds sourced through commercial banks inform of loans have strong effect on the changes in the performance of intermediate cocoa processing firms in Nigeria, retained profits have an effect that can be described as moderate. The contribution of funds sourced from NEXIM banks in a form of loan was less than satisfactory. The study suggested that Policy makers should route their intervention funds/assistance to agricultural sector through commercial banks for effectiveness but that interest rates charged by these commercial banks should be well monitored and controlled.

Keywords: Non – Oil Export; Performance; Cocoa Processing; Intermediate firms; Agro finance; Finance source

1. Introduction
Before the advent of crude oil, agriculture used to be the mainstay of the Nigerian economy. In the sixties, it provided over 80% of total earnings but from the seventies and up till today more than 85% of foreign exchange and government revenue is accounted for by the petroleum thus resulting into the emergence of mono-cultural economy (Daisi, 2001; Daramola et al 2008). The inherent weakness in this mono-cultural structure of the economy manifested when crude oil price per barrel fell drastically to lower ebb of $44 per barrel in the early part of year 2009 thus sending panic to the orbit of preparation and implementation of fiscal budget for that year. Furthermore, the decline of foreign reserves from $57.48b to $45.39b between November, 2008 and June 2009 (Nigerian Tribune, 2009) explains the effect of the dwindling in crude oil prices on a mono-cultural economy, like Nigeria.

With over five thousand exportable products identified by the Nigerian Export Promotion Council (NEPC, 1997) and less than 5% of these actually making any official presence in the world market; with the large, yet-to-be-exploited solid minerals deposits and; over 30% of available agricultural land yet to be cultivated (Owofemi, 2008), the need for concerted and articulated efforts at developing non-oil exports and promoting a virile export base becomes significantly imperative. Thus, diversification of the economy from one that is predominantly mono-cultural, which largely depends on crude oil for its foreign exchange earnings to the revitalized economy with a non-oil export base becomes alternative strategy for Nigeria. This was recognized by Akingbola (2008) when he observed that the concerns for the revamping and development of non-oil export sector are motivated by the need for the realization of the enormous potentials of the sector to improve and accelerate national development.

In this regard, a crucial policy variable in government export drive, which has been given special recognition and emphasis, is the availability of timely and appropriate finance for non-oil export. Therefore, a number of policy measures and appropriate reforms are being strengthened and deepened to achieve this objective as the various reforms in the Nigerian banking sector was part of the efforts to strengthen the economy, and reposition the banking sector and encourage all financial institutions, export-facilitating institutions and companies to coordinate efforts and pool resources (finance) together to upscale the transformation of the non-oil export sector
(Babalola, 2008). Oshopitan (1989) put it more precisely that the financial sector and indeed other relevant institutions have to be the catalyst to provide the fuel in financing the engine of growth and development desired in the value added non-oil exports. Generally, finance is a process of channeling funds in the form of credit, loans or invested capital to those economic entities that need them most or can put them to the most productive use (CBN, 2004a). Finance is a critical variable in investment since without funds no reasonable investment in export can take place. More precisely, export finance was defined by Ahmed, 2008 “as the totality of funds available to an exporter including the net worth (paid-up and internally generated funds), debts, subsidies and grants as well as other miscellaneous funds.” Export finance consists of the various options and facilities available to the exporter in securing needed funding for his export business. Non-oil export is any export business other than crude oil. It includes products and services of Nigerian origin not related to petroleum and petroleum products to the exclusion of items on the prohibition list as defined by the Nigeria Custom service (Borodo, 2008). It is against this background that this study intends to empirically ascertain the relationship between available forms of finance and Nigerian non-oil export performance.

2. Problem Statement
Studies have confirmed strong and positive correlation between finance sources and the performance of agricultural sectors. However the shift of the Nigeria Government attention to oil sector after her independence has caused a major setback in the finance of agriculture and agro allied industries. The extent to the available sources of finance have been utilized by Cocoa processing firms in Nigeria is worthy of investigation. There is paucity of reseach in this regards especially in a developing economy like Nigheria. This paper attempted to ascertain the relationship between available forms of finance and performance of Intermediate cocoa processing firms in Lagos State, Nigeria with a view to profer solutions to problems and issues. Specically the following objectives shall be pursued in the course of the study:

- To identify and evaluate available sources of finance to cocoa processing firms in Nigeria
- To examine the relationship between available sources of finance and Intermediate Cocoa Processing Firms
- To assess how available sources of finance influence the performance of Intermediate Cocoa Processing Firms

3. Review of Literature and conceptual Clarification
Non oil Export
Evidence from the literature confirmed the significance of Non oil sector to economy of a nation. For example, Owofemi, 2008 opines that Non-oil export is any export business other than crude oil. It includes products and services of Nigerian origin not related to petroleum and petroleum products to the exclusion of items on the prohibition list as defined by the Nigeria Custom service (Borodo, 2008). Non–oil export has been recognized as a basis for promoting rapid economic transformation of a nation. Generally, various empirical studies have been conducted to establish the strong link between export growth and the rate of growth of the gross domestic product (Idowu, 2005; World Bank, 1987; Krueger, 1985) at the macro level and at the micro level, Falvey et al, 2004 and Lall, 2000. However, an analysis of the components of the Nigerian export portfolio in the last decades reveals that export sector has been dominated by oil. For example, non-oil contribution to total export earnings was less than 20% between 2003 and 2006 (CBN, 2006). This does not only portray the economy of the country as a mono-cultural one but also expose the economy to the vagaries of activity in oil sector. The search by the developed countries who constitute the major buyers of Nigeria crude oil for alternatives to oil energy, the fear of exhausting oil reserves that will not be forever and even the activities of the militants at the oil creek in Niger Delta region of Nigeria are enough compelling factors for Nigeria to begin to diversify her export base, not only as an hedge against those factors but also as a means of increasing export earnings and strengthening the Naira value. This can only be effectively realized through the revitalization and promotion of non-oil exports. It is in realization of this that Babalola (2008) submitted that, government is fully committed to the diversification of the economy in order to reduce its over-dependence on a single, non-renewable commodity, oil.

Export Performance Measurement
Export performance is an indispensable guide for any firm/nation analyzing its level of success, in both the domestic and international arenas. Studies on export performance were initiated in the pioneering work of Tookey, 1964 (Cited in Lages, Lages and Lages 2004). Thereafter, researchers have adopted many different ways to assess export performance, as no consensus opinion exists about its conceptual and operational
definitions (Cavusgil and Zou, 1994; Shoham, 1998) thus suggesting the fact that assessing exports performance is a complex task (Lages, 2000).

This has resulted in situations whereby different measures are been adopted to assess export performance. For instance, Sousa, 2004 identified 50 different performance measures from a reviewed study of 43 empirical literatures published between 1998 and 2004 concerning the measurement of export performance where it was discovered that export profitability was among the few frequently utilized export performance indicators. Export profitability is the gain earned by the firm from exporting activities (Lages, Lages and Lages, 2004; Schroder, 2001). This indicator is generated by applying the ratio of net profits to total sales of individual firms. This ratio was derived from the financial statement of the only quoted firms on Nigerian stock exchange from among the firms in consideration.

Concept of Finance

Every individual as well as institution has a definite source of income and a particular way of expenditure, all of which come under the domain of finance. Finance is the process of channeling funds in the form of credit, loans or investible capital to those economic entities that need them most or can put them in the most productive use (CBN, 2004b). Generally, the concept of finance theory involves studying the various ways by which businesses and individuals raise money, as well as how money is allocated to projects while considering the risk factors associated with them. In simple terms, financing also means provision and allocation of funds for a particular business module or project. However, this paper is concerned with the aspect of the various ways by which businesses and individuals raise money, since the allocation of funds is already a determined one, which, is into cocoa processing sector. Finance is used synonymously as export finance in this study. Ebong (2008) opines that export financing is the provision of credit facilities for promoting exports and export-related transactions. NEXIM (1997) sees export finance as the availability of funds to the exporter at favorable terms in all stages of investment, production and export. Ahmed (2008) broadly defines export finance as “the totality of funds available to an exporter including the net worth (paid-up and internally generated funds), debts, subsides and grants as well as other miscellaneous funds”.

Export finance consists of the various options and facilities available to an exporter in securing needed funding for his export business activities. That is, ways and means by which the exporters financial needs or financing requirements can be met. The availability of export finance has become an important tool for export promotion nowadays simply because the competition to sell abroad has lead to an increasing shift of bargaining power from the seller to the buyer who tends to dictate terms with regards to price, quality and delivery schedules (NEXIM 1997). So awareness of source of finance is a vital knowledge to an exporter as export financing is often a key factor in any effort to promote exports (Ebong, 2008). Although, CBN, 2004b grouped sources of finance into domestic sources and external sources which could be short term, medium term or long term in nature. Externally sourced finance comprise of funds obtained from outside the country while domestically sourced finance are funds generated from within the country. This study focuses on domestic source of finance available to Nigerian exporters. Ahmed, 2008 categorised available source of export finance into Self finance (Savings, retained profit), Money Market finance (Commercial Bank Loans and advances), Development Market finance (NEXIM Bank Loans) and, Capital Market finance (IPOs, Equity etc).

Self-financing relates to funds sourced from Private savings which are categorized into individual savings and corporate savings. Individual savings accumulate both from current income and abstinence from consumptions while corporate savings emanate from increases in the retained profits of Corporations and firms (CBN, 2003), thus unappropriated profit is a proxy for self-financing. Money market financing comprises of all short-term loans and advances granted to the exporter for exporting activities by the commercial banks while development Bank financing is a reflection of all short and medium-term export loans and other export facilities provided by NEXIM Bank to Nigerian non-oil exporters. Capital market provides a mechanism for mobilizing private and public saving and making such funds available for productive purposes (CBN, 1993). The contribution of capital market to investment finance in any period is measured in terms of the amount of fresh funds raised through new issues rather than volume of transactions or market capitalization (CBN, 2004; Ahmed, 2008). New issues can be through initial public offers (IPO), Rights Offers, Bonds and offer for sale.

4. Methodology

The study covers the population of eleven (11) intermediate cocoa processing firms on the registration list of Nigerian Export Promotion Council (NEPC) out of which nine (9) firms were selected through balloting-without-replacement random sampling technique on the basis of yard formula (Obodoze, 1996; Avwokeni, 2005) to form the sample size. The study covers a ten-year period of 1999 – 2008. Eleven (11) intermediate cocoa processing firms that have registered with the Nigerian Exports Promotion Council (NEPC)
constituted the population of this study. The choice of NEPC as appropriate source to determine the population size is informed from one of the primary duties of NEPC which requires that the agency should maintain a register of Nigerian exporters along with the provision of information on export procedures and documentation (NEXIM, 1997). The Yard formula \( n = \frac{N}{1+Ne^2} \) was applied on the population size \( N \) of eleven (11) to obtain the sample size \( n \) of nine for the study. The study made use of Balloting-without-replacement random sampling technique (Obodoewe, 1996; Avwokeni, 2005) to select the nine (81.8%) out of eleven (100%) intermediate cocoa processing firms located in the study area. The names of the eleven Cocoa-processing firms were written on separate slip of papers, which were folded and deposited in bin. The bin was shaken very well to mix the slips thoroughly and nine slips were drawn out one after the other without replacement, thereby forming the sample size of the study.

The data for this study were sourced through the administration of copies of questionnaires to the nine (9) exporting firms multiple informant technique (Sousa, 2004) was used to gather relevant information from each firm. The following class of people constitutes the key informants: Finance Director/Accountant, Marketing Director and Chief Executive Officer/Managing Director in order to grasp more fully the information required for the study.

The statistical method adopted for this study was Pearson Product Moment Correlation (PPMC) model in order to test the hypothesis that states that there is no relationship between available forms of finance and performance of Intermediate cocoa processing firms in Lagos State, Nigeria. Thus the two main variables involved in this study are export profitability as a proxy for cocoa export performance and available forms of finance. The research model is stated thus:

\[ Y = f(x) \]

Where \( Y = \) Cocoa Export Performance.

\[ X = \text{Export Finance (a construct comprising naira value of finance sourced from unappropriated profit, Money market and Development Bank).} \]

Stated more explicitly, we have

\[ Y = \text{Export Profitability (gains from exporting activities of the firm)} \]

\[ x_1 = \text{Self-financing – this is proxy by firm’s profit plough back i.e. retained/unappropriated profits} \]

\[ x_2 = \text{Money Market financing : short-term loans and advances secured from Commercial Banks} \]

\[ x_3 = \text{Development Bank financing comprise of loans/facilities benefited from NEXIM Bank directly}. \]

**Data presentation and analysis**

**Table 1: Average values of the raw data**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>( Y_{XP} ) (₦'b)</th>
<th>( X_{UP} ) (₦'b)</th>
<th>( X_{BL} ) (₦'b)</th>
<th>( X_{NL} ) (₦'b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>0.105</td>
<td>0.063</td>
<td>0.257</td>
<td>1.178</td>
</tr>
<tr>
<td>F2</td>
<td>0.146</td>
<td>0.052</td>
<td>0.212</td>
<td>0.968</td>
</tr>
<tr>
<td>F3</td>
<td>0.392</td>
<td>0.130</td>
<td>0.461</td>
<td>1.375</td>
</tr>
<tr>
<td>F4</td>
<td>0.222</td>
<td>0.071</td>
<td>0.322</td>
<td>0.791</td>
</tr>
<tr>
<td>F5</td>
<td>0.177</td>
<td>0.063</td>
<td>0.257</td>
<td>0.924</td>
</tr>
<tr>
<td>F6</td>
<td>0.548</td>
<td>0.322</td>
<td>1.056</td>
<td>1.338</td>
</tr>
<tr>
<td><strong>Industry Mean</strong></td>
<td><strong>0.265</strong></td>
<td><strong>0.117</strong></td>
<td><strong>0.428</strong></td>
<td><strong>1.096</strong></td>
</tr>
</tbody>
</table>

**Source:** Field Survey, 2010

**Keys**

\( X_{UP} \): Un-appropriated profit

\( X_{BL} \): Commercial Bank loans

\( X_{NL} \): NEXIM Bank loans

\( X_{CM} \): Capital market funds
Export Profitability

In Table 1 above, average industry profit between 1999 and 2009 was ₦0.265 billion. Interestingly, only 2 out of the 6 firms sampled recorded above the industry’s average profits during this period. It was observed that these 2 firms (F3 and F6) happen to be owned by private individual as against the other 4 firms that have some proportion of government ownership. Firm F6 had the highest average profit of ₦0.548 billion for this period. The lowest average profit of ₦0.105 billion was recorded by F1 during the same period.

Unappropriated profits

Within this period of study, 2 of the respondent firms (same firms as in table 1 above) had their individual average unappropriated profits above the industry average of ₦0.117 billion. Specifically, in Table1 Firms 3 and 6 had ₦0.130 billion and ₦0.322 billion respectively. However, every other firm in the study recorded figures below the industry average. The 2 firms are individually owned as against government owned firms. This tells a lot about the efficiency level of privately owned companies as against the publicly owned companies as observed in the study conducted by Obadan (2000).

Commercial Bank Loans and Advances

According to Table 1 average industry commercial bank loans and advances for cocoa exporting operations for the period in coverage is ₦0.428 billion, while the usual 2 firms (F3 and F6) were observed to have obtained loans above the industry average during the period under consideration. When one considers this finding, one can conclude that no reasonable investment can take place without funds (CBN, 2004b; NEXIM, 1997). On the average, Firm 2 obtained the lowest volume of loans and advances (₦0.212 billion) just as Firm 6 was the highest beneficiary of commercial bank loans and advances to the tune of ₦1.056 billion within the period under consideration.

NEXIM Bank loans and advances

₦1.096 billion was the average NEXIM bank loans benefited by the intermediate cocoa processing industry for export operations between 1999 and 2009. Within this period of study, Firm F3 was the highest beneficiary of this category of loan averagely to the tune of ₦1.375 billion, while the lowest average value of ₦0.924 billion was obtained by Firm 5 within this period. On the whole, just the usual 2 out of 6 firms (F3 and F6) had firm average value that is more than the industry average value with respect to this class of loans.

Table 2: Correlation Results showing the relationship between available forms of finance and Nigerian cocoa export performance (Export Profitability)

<table>
<thead>
<tr>
<th></th>
<th>Export Profitability</th>
<th>Retained Profits</th>
<th>Commercial Bank Loans</th>
<th>NEXIM Bank Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export Profitability</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retained Profits</td>
<td>.617**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Bank Loans</td>
<td>.815**</td>
<td>.435**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NEXIM Bank Loans</td>
<td>.528**</td>
<td>.325**</td>
<td>.570**</td>
<td>1</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

When Export Profitability was regressed on finance, generally the result reflected a very strong association between export performance and finance. This is evidenced from the high R value of 0.916 and F value of 104.826. More specifically, un-appropriated profit and commercial bank loans had strong relationship of the value 0.617 and 0.815 respectively with export profitability, while NEXIM Bank loans had an association that could be described as average (0.528) with export Profitability. The relationship between funds sourced from capital market and finance could not be ascertained again due to inadequate data.
Conclusion and Recommendation
The study attempted to identify and evaluate available sources of finance to cocoa processing firms in Nigeria, examine the relationship between available sources of finance and Intermediate Cocoa Processing Firms and assess how available sources of finance influence the performance of Intermediate Cocoa Processing Firms in non export businesses.

Results from data analysis and the hypotheses tested showed that there exist a correlation between dependent variables of export profitability and the three independent variables of un-appropriated profits, commercial bank loans/advances and NEXIM bank loans.

In view of the above, the study suggest as a matter of policy recommendations as follows

- Intensification of current agricultural development programmes, but with emphasis on influencing the majority of farmers comprising the peasants
- Government should pursue programmes with objectives of solving the problems of agricultural producers and not necessarily those of agricultural production per se
- Encouraging the private sector, non-governmental and community-based organizations to participate fully in the agricultural development process
- Establishment of a network of functional agro-service centres in each state of the federation

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