

Share capital of firms: is there any difference among non-oil exporting firms in Nigeria?

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Abstract

It is severally argued that smaller size of internal funds and the risk of failure make smaller exporters to be more cautious in terms of taking additional risks associated with increased export intensity. Small firms typically serve only one or two foreign markets with a handful of products because of finance constraint. The study targeted the 644 registered performing non-oil exporting firms in Nigeria. Five point likert scale questionnaire was constructed ranging from strongly agree =1, agree =2, undecided =3, disagree =4, strongly disagree =5. Costs of bank finance to non-oil exporting firms, the effects of exchange rates on non-oil exports, the volume and the access of non-oil to credit facilities for non-oil exports were measured along with the firm share capital characteristics. It was found that share capital of firms as it relates to cost of bank finance and firms' perception of banks attitude to risk of financing to non-oil exporting firms in Nigeria are not different among the firms, while share capital of firms as it relates to exchange rate fluctuations and volume and access to credit facilities to non-oil exporting firms in Nigeria are different among the firms.

Introduction

Share capital of exporting firms can be a major source of difference between them as it indicates their sizes. Only exporting firms that have sufficient liquidity will find it easy to export (Chaney, 2005; Greenaway, Guariglia and Kneller, 2007; Bellone, Musso, Nesta and Schiavo, 2008, Zia, 2008). Firm size is shown to be positively correlated with the new exporter's expansion dynamics as revealed by the finding of a study by (Damijan, Kostevc and Polanec, 2010). In Nigeria non-oil exporting firms are larger both in terms of capital and other wise. They are also having prêt-à-porter market for their products. Smaller size of internal funds and the risk of failure will make smaller exporters to be more cautious in terms of taking additional risks associated with increased export intensity. Eaton, Eslava, Kugler and Tybout (2007); Bernard, Jensen, Redding and Schott (2007, 2009) and Damijan, Kostevc and Polanec (2010), report that small firms typically serve only one or two foreign markets with a handful of products because of finance constraint. The study targeted non-oil exporting firms in Nigeria. The methods adopted and analysis were discussed in the preceding sections of this paper.

Population of the Study

The target population of this study is the 644 registered performing non-oil export firms in Nigeria obtained from Nigerian Export Promotion Council. Simple random sampling and Judgmental sampling techniques were used; Lagos, Kano and Port Harcourt, Kaduna, Jos and Abuja cities will used to reach these export firms: Based on the information that over 70% of Nigerian export activities take place in Lagos and about 7% in Kano and 2% each in kaduna, Jos and Abuja (NEPC, 2010). In all, the sample size for the study was 193 firms (Lagos 131, Kano 17, Port Harcourt 4 Kaduna 5, Jos 4 and Abuja 5 respondents each). This is determined by using Israel (1992) formula.

Data Collection Instruments

Primary source of data Collection was used in this study. Data were sourced from questionnaire where 120 Non-oil exporting firms (NEF) as representing 62.17% of the sample size were served the questionnaire. Nigerian Export-Import Bank (NEXIM) and the Central Bank of Nigeria (CBN) also filled and returned a questionnaire each.

Actual number of questionnaires distributed were 160 (70%) in Lagos, 20 in Kano 4 in Kaduna, others are Porthacourt 6, Jos 3 and Abuja 5, many of the Nigerian states have no non-oil exporting firms or have very few according to the data provided by (NEPC, 2010). Actual numbers of questionnaire returned are as presented in table 2 giving a total number of questionnaires actually returned as 120 which were 62.17% of the actual sample size. The sample of 193 could not be attained because of the apathy of respondents in returning the questionnaires, more so some of the firms listed by the NEPC as registered exporting firms were actually not found at the address they provided as contained in the list of non-oil exporting firms. Personal visits to most firms confirm this as some cannot be found at their addresses or anywhere.

Response rate was affected by the inability to locate some of the firms. The response rate is in the range of 60 -70 percent specifically 62%. This is regarded as acceptable as in general the most rigorous surveys conducted in the private and non-profit sectors generally achieve response rates in the range of 60 percent to 70 percent. Some surveys conducted for media organizations to gauge public response to current events usually have response rates of about 30 percent. Response rates between 40 percent and 50 percent are common for surveys that form the basis of much of what we know about public attitudes and behavior (Papadopoulos 2003). More so most of the firms are located in Lagos and Kano metropolitan areas where response rate are usually low as posited by (Frederik, Filip, Eveline and Beata, 2010) that large metropolitan areas have lower response rates than small metropolitan areas and rural areas; this needs to be taken into account when estimating the cost of surveys to be conducted in large cities and in highly urbanized states. In addition response rates between 60 or 70 per cent are generally regarded as good in most surveys (Papadopoulos 2003; Frederik, Filip, Eveline and Beata, 2010).

Tests for Validity and Reliability of Data Collection Instruments

Expert review was used to establish validity of the research instrument. Pearson correlation was used to measure the validity of the constructs used in the study. Table 3 displays the result statistics showing the relationship between the 4 independent variables and the dependent variable. The correlation among constructs is as follows:- the cost of bank finance (CBF) -0.309, foreign currency exchange rates (ERN) -0.110, and exporting firms' perception of bank attitude to risk of financing non-oil exports (FPBARF) -0.362 another variable is the access to credit facilities to non-oil exporting firms (ACN) -0.079. The correlation indicates the reliability of the constructs measures.

Table 3 Pearson Correlation

	Cost of Bank Finance to Non-oil Exports	Effect of Exchange Rate on Non-oil Exports	Firms Perception of Bank's Attitude Risk of Financing Non-oil Exports	Access to Credit Facilities For Non-oil Exports
Pearson Correla Cost of Bank Finance to Non-oil Exports	1.000	.409	.469	.309

tion	Effect of Exchange Rate on Non-oil Exports	.409	1.000	.305	.279
	Firms Perception of Bank's Attitude Risk of Financing Non-oil Exports	.469	.305	1.000	.267
	Access to Credit Facilities For Non-oil Exports	.309	.279	.267	1.000

Source: Field survey, 2011

3.6.2 Tests for Reliability of Data Collection Instruments

The reliability quotient is expressed as correlation coefficient having value ranging from 0.00 (low reliability) to 1.00 (perfect reliability an Alpha score of 0.5 to 0.75 is generally accepted as indicating reliable scale a score below this is regarded as a low reliable scale) as observed by experts like (Hinton, Brown, McMurray and Cozens, 2004). Cronbach's alpha was calculated for the data using SPSS software package which revealed alpha values ranging from .503 to .724. Since alpha ranges from moderately reliable to highly reliable (.503-.724) regression was then conducted.

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Table 4: Reliability statistics

S/No	Construct	Cronbach's alpha	Cronbach's alpha based on standardized items
1	Cost of bank finance to non-oil exports	.503	.502
2	Effect of exchange rate on non-oil exports	.527	.530
3	Volume and access to credit facilities to non-oil exports	.511	.513
4	Firms perception of bank's attitude risk of financing non-oil exports	.723	.724

Source: Field survey

The reliability of individual constructs was tested and following results were obtained (see table 4) in line with the view of (Hinton et al, 2004) as provided below:-

- 1) A Cronbach's alpha value of .502 and Cronbach's alpha value based on standardized items of .503 for the 5 items measuring the cost of bank finance to non-oil exporting firms.
- 2) A Cronbach's alpha value of .527 and Cronbach's alpha value based on standardized items of .530 for the 5 items measuring the effects of exchange rates on non-oil exporting firms.
- 3) A Cronbach's alpha value of .511 and Cronbach's alpha value based on standardized items of .513 for the 8 items measuring the volume and access credit disbursement to non-oil exporting firms.
- 4) A Cronbach's alpha value of .723 and Cronbach's alpha value based on standardized items of .724 for the 3 items measuring the firm's perception of banks attitude to risk of financing non-oil exporting firms.

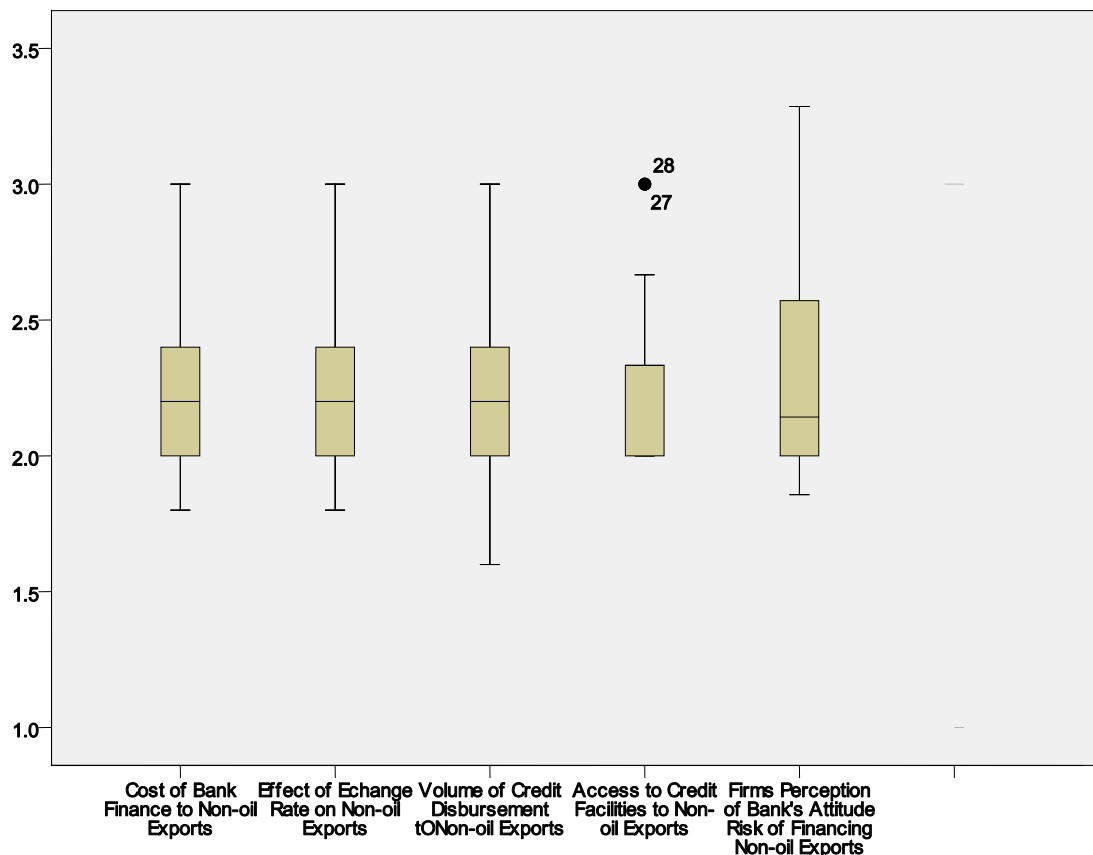
Methods of Data Analysis

Five point likert scale questionnaire was constructed ranging from strongly agree =1, agree =2, undecided =3, disagree =4, strongly disagree =5. The cost of bank finance (CBFN), foreign currency exchange rates (ERN), exporting firms' perception of bank attitude to risk of financing non-oil exports (FPBARF) and the volume and access to credit facilities to non-oil exporting firms (ACN) were examined against the share capital of non-oil exporting firms. The variables were derived based on the views of experts like (Oyejide, 1986; Seyed, 2004; Torkamani and Tarazkar, 2005; Yusuf and Yusuf, 2007; Masoud and Fatemeh, 2008). SPSS software package was used to find the reliability, normality and conformity to regression assumptions of the data. In addition one way ANOVA was used to find out the differences between the exporting firms experience and share capital as it relates to the four constructs measuring the non-oil exports financing by banks.

Data Normality

Two constructs were combined ie volume and access to credit facilities (renamed access to credit facilities) to eliminate extreme values or outliers, means, and significant differences. This gave normal box plots that encourages carrying out the research.

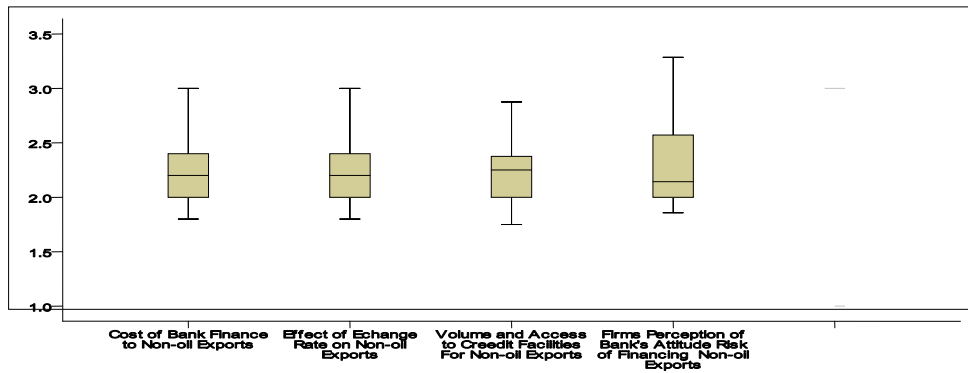
Figure 1: Box Plot before Combining the 2 Constructs



Source: Field survey

Having done that, the data exhibits no outlier and the shape of the box plot indicate some degree of normality.

Figure 3.2 Box Plot after Combining the 2 Constructs

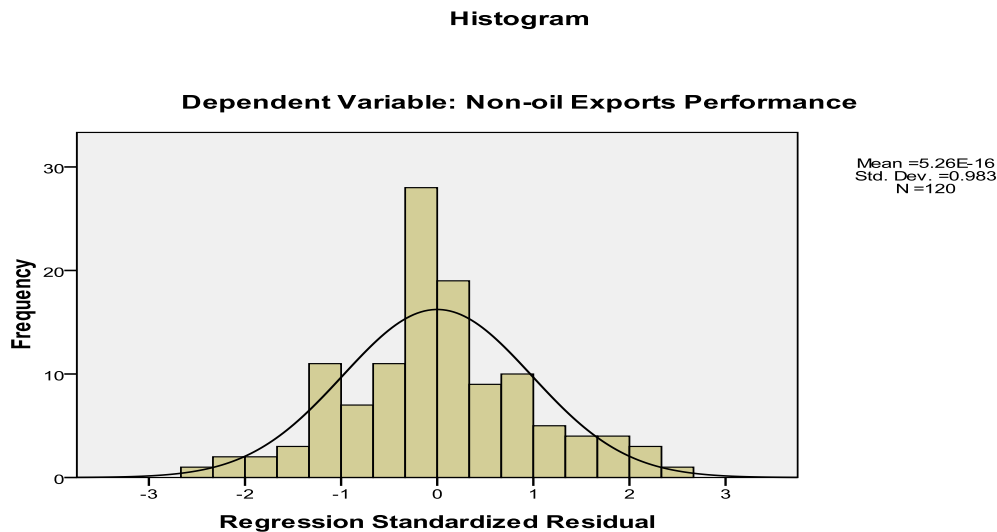


Source: Field survey

Test for normality is critical in statistical methods, because when assumptions of normality are violated interpretations and inferences may not be reliable. The shape of the distribution should correspond to normal distribution approximating itself to a bell-shaped curve, (Bernardo and Smith, 2000).

The graphical methods used included box plots which were examined in figure 1 and 2 it also included the histogram examined in figure 3, as explained earlier all outliers detected were cleaned and for the histogram it exhibits a high degree of normality as it is bell-shaped as with all normal curves (Brian, 2007).

Figure 3: Histogram with Normal curve



Source: Field survey

Descriptive statistics is essential for arranging and displaying data and form the basis of rigorous data analysis. It is much easier to work with, interpret, and discuss than raw data. It help examine the tendencies, spread, normality, and reliability of a data set especially in numerical form, including useful techniques for summarizing data in visual form and it form the basis for more advanced statistical method.

In table 5 the means of the distribution of the various constructs varies from 2.283 for cost of bank financing of non-oil exports to 2.2100 for the effect of exchange rate on non-oil exports. Firm's perception of banks attitude to risk of financing non-oil exports has a mean value of 2.3202 as oppose to volume and access to credit facilities to non-oil exporting firms with a mean of 2.1885. The skewness and kurtosis statistics for the variables cost of bank finance which are 0.875 and 0.271 respectively, effect of exchange rate on non-oil exports 0.501 and -0.345, firms perception of banks attitude to risk of financing non-oil exports has a skewness value of 1.011 and kurtosis of -.122. For volume and access to credit facilities to non-oil exports skewness and kurtosis values are 0.518 and -.455. The dependent variable is also having skewness and kurtosis of -0.024 and .035 respectively. A variable whose skewness exceeds an absolute value very much above 1 and high values of kurtosis also are worrisome, since they often indicate that there are outliers in the distribution. Based on the descriptive statistics displayed the data is normal to an acceptable degree.

Table 5: Descriptive statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
Cost of Bank Finance to Non-oil Exports	120	1.20	1.80	3.00	2.2083	.31048	.096	.875	.221	.271	.438
Effect of Exchange Rate on Non-oil Exports	120	1.40	1.60	3.00	2.2100	.32781	.107	.501	.221	-.345	.438
Firms Perception of Bank's Attitude Risk of Financing Non-oil Exports	120	1.43	1.86	3.29	2.3202	.34943	.122	1.011	.221	-.122	.438
Access to Credit Facilities For Non-oil Exports	120	1.25	1.63	2.88	2.1885	.30789	.095	.518	.221	-.455	.438
Valid N (listwise)	120										

Source: field survey

Assessing Group Difference: share capital of Firms

The major aim is to assess the share capital of non-oil exporting firms in Nigeria, is there any difference among them in terms of securing export financing from banks.

1) Cost of bank finance

From Table 4.17 we can see that the F value in share capital of firms as it relates to Cost of bank finance to non-oil exporting firms in Nigeria is 1.811 with a corresponding significant P-value of $0.131 > 0.05$. Hence, the null hypothesis is not rejected and concludes that there is statistically significant evidence that share capital of firms as it relates to cost of bank finance to non-oil exporting firms in Nigeria is not different.

2) Effect of exchange rate on non-oil exports

From Table 4.14 we can see that the F value in share capital of firms as it relates to exchange rate fluctuations to non-oil exporting firms in Nigeria is 2.580 with a corresponding significant P-value of $0.041 < 0.05$. Hence, rejecting the null hypothesis and concluding that there is

statistically significant evidence that share capital of firms as it relates to exchange rate fluctuations to non-oil exporting firms in Nigeria is different.

3) Firms' perception of banks attitude to risk of financing non-oil exports

From Table 4.14 we can see that the F value in share capital of firms as it relates to firms' perception of banks attitude to risk of financing non-oil exporting firms in Nigerian is 1.674 with a corresponding significant P-value of $0.161 > 0.05$. Hence, the null hypothesis is not rejected and concluding that there is statistically significant evidence that share capital of firms as it relates to firms' perception of banks attitude to risk of financing non-oil exporting firms in Nigerian is not different.

4) Volume and access to credit facilities of financing non-oil exports in Nigeria

From Table 4.17 we can see that the F value in share capital of firms as it relates to volume and access to credit facilities of financing to non-oil exporting firms in Nigeria is 1.958 with a corresponding significant P-value of $0.045 < 0.01$.

Table 6: ANOVA- Share Capital of firms

		Sum of Squares	Df	Mean Square	F	Sig.
Cost of Bank Finance to Non-oil Exports	Between Groups	.680	4	.170	1.811	.131
	Within Groups	10.792	115	.094		
	Total	11.472	119			
Effect of Exchange Rate on Non-oil Exports	Between Groups	1.053	4	.263	2.580	.041
	Within Groups	11.735	115	.102		
	Total	12.788	119			
Firms Perception of Bank's Attitude Risk of Financing Non-oil Exports	Between Groups	.800	4	.200	1.674	.161
	Within Groups	13.731	115	.119		
	Total	14.530	119			
Volume and Access to Credit Facilities For Non-oil Exports	Between Groups	29.161	10	2.916	1.958	.045
	Within Groups	162.306	109	1.489		
	Total	191.467	119			

Source: field survey

Hence, rejecting the null hypothesis and concluding that there is statistically significant evidence that share capital of firms as it relates to volume and access to credit facilities of financing non-oil exporting firms in Nigeria is different.

Post Hoc Test: Share Capital of Firms

Having established statistical significant difference on the effect of exchange rate and the volume and access to credit facilities between non-oil exporting firms share capital and export financing from banks, Tukey's Honestly Significant Difference (Tukey HSD) test is used to examine where the difference lies as recommended by Coakes (2005) and Pallant (2001). More

so, Tukey HSD test has the benefit of comparing different group “without increasing the risk of making a Type I error”. The result of Tukey’s HSD test for the four variables under study is presented in Table 7

Table 7: Effect of Exchange Rate on Non-oil Exports
Tukey HSD^{a,b}

Share capital	N	Subset for alpha = 0.05	
		1	2
21-30M	23	2.0435	
11-20M	27	2.1926	2.1926
1-5M	11	2.2182	2.2182
6-10M	37	2.2486	2.2486
31M and above	22		2.3364
Sig.		.246	.603

Source: field survey

Table 7 presents the significant differences between firms with share capital ranging from N21 - 30 million from those with share capital of N11-20 million, N6-10 million and N1- 5 million. Those with share capital N31 million and above have higher means signifying favourable disposition as per as effect of exchange rate is concern.

Table 8 Volume and Access to Credit Facilities for Non-oil Exports
Tukey HSD^{a,b}

Share capital	N	Subset for alpha = 0.05	
		1	
21-30M	23		2.1141
11-20M	27		2.1157
6-10M	37		2.2095
1-5M	11		2.2273
31M and above	22		2.3011
Sig.			.291

Source: field survey

Surprisingly table 8 indicates no significant differences between firms in share capital disposition as per as volume and access to credit facilities is concern. Nevertheless a closer look at the mean score of the various sub-group of firms share capital indicate a more positive effect as different from firms that have share capital of N31 million and above. Absence of clear-cut difference may be due to a relatively similar mean score among the non-oil exporting firms in the five categories.

There is statistically significant evidence that share capital of firms as it relates to cost of bank finance and firms’ perception of banks attitude to risk of financing to non-oil exporting firms in Nigeria is not different. All the non-oil exporting firms in Nigeria faces similar financing problem of costs and all the firms have negative perception of the banks attitude to risk of financing them regardless of size. But bigger size firms face fewer problems as it relates to exchange rate fluctuations and volume and access to credit facilities in Nigeria. smaller firms need to source their raw materials at home as much as possible to reduce the effect of exchange rate fluctuations. A more workable policies should be put in place assist smaller size firms to encourage export by smaller firms.

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