

EFFECT OF PRODUCT DIVERSIFICATION ON FINANCIAL PERFORMANCE OF NON-FINANCIAL FIRMS LISTED ON NIGERIAN STOCK EXCHANGE, 2007-2017

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Abstract

This study sought to evaluate the effect of corporate diversification on financial performance of listed firms on Nigeria Stock Exchange. Specifically, the study evaluated the effect of product diversification on financial performance measures of Tobin Q for the period 2007-2017. Ex-post facto research design was adopted for the study. A sample of 41 manufacturing companies was randomly selected from a population of 119 manufacturing companies quoted on the Nigerian Stock Exchange. Data for the study were obtained from the annual reports and accounts of the sampled companies. Correlation and multiple regression analysis were used to test the formulated hypotheses with the aid of SPSS version 20.0. Based on this, the study revealed that the variable of product diversification strategy was seen to produce insignificant relationship with the Tobin Q measures of firm performance during the period under analysis. This evidence is quite apprehensive and do not agree with the agency theory of corporate diversification which recognizes the possibilities of improved performance in a multi-product diversification strategy regime. However, the policy implication from these findings suggests that, most firms do employ the wrong combination of strategies in the process of diversifying its business. We therefore recommended among other things that management policies should not be lavished towards encouraging product diversification strategies based on the evidence produced by this study.

Keywords: Product Diversification, Non-Financial Firms and Financial Performance

1. Introduction

The sustainable competitive strategy of the firm in the business environment characterized by uncertainties in the market is an important management decision, hence the strategy should focus on minimizing risk and maximizing profit (Kotler & Armstrong, 2008). In line with this assertion, Kotler (2008) opines that a firm can achieve this by means of diversification.

Diversification is one of the fundamental strategic alternatives available to organizations to sustain growth and search for higher profits. Li and Greenwood (2004) opined that companies whose products are threatened by environmental uncertainty or by declining phase of their life cycle curve will prefer to engage in diversification to overcome the risk arising from current industries. Furthermore, firms may engage in expanding its product line and activities to different sectors where environmental uncertainty is reduced and, profitability is higher, such that a company may confirm its survival which will make its cash flow more reliable.

This corporate strategy of diversification is crucial for any firm to succeed in a highly competitive and turbulent market environment. The gains from diversification in reducing volatility and subsequently investment risks have been widely accepted. Diversification strategy is an important component of the strategic management of a firm, and as suggested by Kotler and Armstrong (2008), the relationship between a firm's diversification strategy and its economic performance is an issue of considerable interest to managers and academicians.

While most of the empirical studies on product diversification and firm performance focused on foreign countries like UK, China, United States of America etc, the studies on developing nations like Nigeria appeared to focus on an aspect of diversification and firm performance using other performance indices other than Tobin Q. So this study is set to fill the gap by determining the effect of product diversification on financial performance of non-financial firms listed on the Nigeria Stock Exchange using Tobin Q as the performance indices.

2. Review of Related Literature

2.1 Product Diversification Performance Relationship

Research on product diversification–performance linkage has recently gone beyond an examination of product diversity at the corporate level, to a more micro level of study, such as within-industry and within-business (Li & Greenwood, 2004; Stern & Henderson, 2004).

A need to better understand the value-creation mechanisms of product diversification strategy prompted this refocus.

In contrast, research on the product line diversification strategy of multinational firms has tended to remain at the corporate level, focusing only on its impact on corporate performance without considering the possible variations of such a strategy in a firm's individual host-country markets. Although multinational firms enjoy a competitive advantage in integrating a global value chain, national environments and institutions remain as powerful constraints on a concerted global strategy, and exert strong influences on the survival of foreign subsidiaries (Kostova&Zaheer, 1999).

2.1.1 Measuring Diversification

Following Rumelt (1974), in this study we define a single specialized business to mean a company that derives more than 95% of its revenues from a single business while a related diversified business is defined as a company that derives less than 70% of its revenues from a dominant business with all the businesses in the portfolio sharing product, technological and distribution linkages. An unrelated diversified business is defined here as a company that derives less than 70% of its revenue from its dominant business with the businesses having no common link between them. Four types of firms, (i) single, specialized business, (ii) related diversified (iii) unrelated diversified, and (iv) mixed strategies were identified using cluster analysis based upon the emphasis that a company placed upon different types of diversification. Related diversification measures the extent of diversification arising from operations in several industries of the same industry group. Unrelated diversification measures the extent of diversification arising from extending operations into different industries. The sum of related diversification and unrelated diversification is a measure of total diversification. The concentric index measures the degree of distance or relatedness between industries. The weight for a company is given based on industry sales shares. The weight is equal to zero if a company's operations are in four different SIC code industries or more, the weight is equal to one if the firm's operations are in three different SIC code industries, and equal to two if they are in two different SIC code industries.

2.1.2 Measuring Firm Performance (Tobin Q)

Measuring performance is very important because it builds on the results and enables management make different decisions in economic units. Performance measures are used as the indicators to evaluate the success of economic units in achieving stated strategies, objectives and critical success factors (Katja, 2009).

Tobin Q as a type of performance indicator is the market-based measurement which is categorized as long-term. The market-based measurement is characterized by its forward-looking aspect and its reflection of the expectations of the shareholders concerning the firm's future performance, which has its basis on previous or current performance (Wahla, ShahSyed& Hussain, 2012; Shan & McIver Ron, 2011; &Ganguli& Agrawal, 2009). Tobin Q refers to a traditional measure of expected long-run firm performance (Bozec, Dia&Bozec, 2010). The employment of market value of equity may represent the firm's future growth opportunities which could stem from factors exogenous to managerial decisions and this is indicated by the companies' level (Shan & McIver, 2011; Demsetz&Villalonga, 2001).

In addition, a high Tobin Q ratio shows success in a way that the firm has leveraged its investment to develop the company that is valued more in terms of its market-value compared to its book-value (Kapopoulos&Lazaretou, 2007). Moreover, market-based expectations for firm performance may result in management incentive to modify their holdings on the basis of their expectations of the future performance of the firm (Sánchez-Ballesta&García-Meca, 2007). As a result, when the company's market-based performance is higher than the results of Tobin Q, this indicates that the company has succeeded in achieving its planned high performance (Nuryanah& Islam, 2011) but if it is less than Tobin's Q, then the company needs to revisit its plans to enhance its short-term performance. The negative performance leads to investor's loss (local and foreign) and hence, it is important for the company to update its objectives from time to time if it is desirous of competing in the market place.

2.2 Review of Empirical Literature

Meador, Ryan and Schellhor (2000) focus on the relationship between a firm's output choice and measures of X-efficiency. Using data for the life insurance industry for the period 1990–1995 they find that diversification across multiple insurance and investment product lines resulted in greater X-efficiency than a more focused production strategy.

Choi and Cowing (2002) analyzed the relationships relating corporate diversification, concentration and performance for a group of 25 of the largest business groups (Korean chaebols) during the period of 1985–1995. In order to measure the impact of member firm concentration within the group, the authors used a Herfindahl-Hirschman index (HHI) of group concentration (HHFS). As a measure of chaebols diversification across industries, two variables were used: an HHI based on the chaebol asset shares for each industry within which the chaebol operates (HHDV) and the number of member firms in the group. Performance was measured as annual after-tax chaebol profit rate on total assets. The authors reported regression results using various model specifications. However regardless of model specifications chaebol concentration (HHFS) coefficient was always negative and generally significant at the 10 percent level, while HHDV was insignificant signaling that operating in a few versus many industries, did not appear to affect group profits.

Andrew, Dean and Paul (2008) examine the product diversification of a multinational firm within each of its host-country markets. Based on a sample of 12,992 foreign subsidiaries of Japanese multinational firms, they find that higher levels of within-country product diversity led to higher subsidiary performance where the institutional strength of the local market was weak, and where a firm's corporate product diversity level was high. Their study highlights the importance of examining a multinational firm's strategy in its individual host-country markets, as influenced by the institutional characteristics of a host-country market and the corporate-level strategy of the multinational firm.

Elango Ma and Pope (2008) examine the relationship between product diversification and firms' performance in the U.S. property–liability insurance industry for the period 1994–2002.

They find that the extent of product diversification shares a complex and nonlinear relationship with firms' performance and that performance benefits associated with product diversification are contingent upon an insurer's degree of geographic diversification.

Ojo (2009) examined the impact of corporate diversification on firm performance of selected Nigerian companies. Survey design was adopted for the study with application of simple random sampling technique in selecting case study companies as well as the respondents. Primary data was collected through questionnaires. The hypothesis was tested using data analyzed through descriptive statistics, correlation and coefficient of determination. The

study concluded diversification positively impacted on performance of firms in Nigeria. The study focused on the diversification strategies on selected firms.

Cummins, Weiss, Xie, and Zi (2010) examine economies of scope in the U.S. insurance industry over the period 1993–2006. They analyze whether it is advantageous for insurers to offer both life–health and property–liability insurance or to specialize in one major industry segment. They find that property–liability insurers realize cost scope economies, but they are more than offset by revenue scope diseconomies. On the other hand, they find that life–health insurers realize both cost and revenue scope diseconomies and conclude that strategic focus is superior to conglomeration in the insurance industry.

Meric, Gishlick, Taga and Meric (2011) in explaining risk, returns and diversification in selected bear and bull markets, concluded that Malaysia, Japan, U.S., and Switzerland country index funds had the best performance in both markets (bear and bull markets). But, positive returns are only possible only when the economic condition is positive. Investors in international settings usually consider market indices as one of the asset class in their portfolios. So under normal economic conditions, portfolio diversification normally yields positive returns for the investors while during bad economic conditions the returns are badly affected. During crisis period, portfolio benefits decreases and during post-crisis period, portfolio benefits increases.

Iqbal, Hameed and Qadeer (2012) examined the Impact of Diversification on Firms' Performance in Pakistan. The data was collected through secondary research and Stock Exchanges sites were the source of information to collect the data of the companies. Total 40 companies were selected on the basis of Specialization Ratio (SR). Companies whose information were available and remained in the same category for the entire 5 years (2005–2009) were included in sample. The results of this study showed that there is no positive relationship between diversification and firms' performance. All firms are performing equally whether they are highly diversified firms, moderately diversified firms or less diversified firms with respect to their return and risk dimensions.

Odhiambo (2013) studied the association between portfolio diversification and financial performance of deposit taking savings and credit cooperative societies in Kenya authorized to operate in Kenya by Nairobi County. Portfolio diversification was measured by working capital management represented by financial conversion cycle, current ratio, and debt ratio

and turnover growth. The study concluded that portfolio diversification influences the performance of SACCOS positively.

Kareem, Bakare, Raheem, Olagumela, Alawode and Ademoyewa (2013) examined the macroeconomic factors (such as food import value, interest rate, commercial bank loans on agriculture, GDP growth rate and foreign direct investment) influencing agricultural output in Nigeria. Using multiple regression analysis technique, the result shows that foreign direct investment, commercial bank loan, interest rate and food import value have positive relationship with agricultural output.

Enyim, Ewno and Okoro (2013) applied econometric tests such as unit root, cointegration, error correction model and Grange causality test to examine the relationship between banking sector credit and performance of the agricultural sector in Nigeria. The findings show that government expenditure on agriculture has insignificant impact on agricultural productivity. It also revealed that commercial banks' credit to the agricultural sector has a positive impact on agricultural productivity.

Bahr and Maas (2014), noted that international investing can play an important role in portfolio diversification and increasing returns in international markets. In their research work, they studied the international equity markets in comparison with US stock market.

Muttaka (2015) examined the effect of Nigeria's oil dependency on economic growth. He observed that Nigeria has wasted much of its opportunities to break away from underdevelopment despite its massive natural and human resources endowment due to heavy reliance on her huge crude oil resources, regrettably mismanaged, as the major source of revenue. He identified and discussed on some key drivers of economic diversification such as investment, governance and regional dimensions of economic diversification as well as human and natural resources. He found that of all the other drivers, good governance remains a prerequisite in building an enabling environment for such diversification.

Karthik, George and Singla (2015) takes a step forward to address that call by arguing that the underlying relationship between ID and P is contingent upon product diversification (PD) of the firm. In particular, we hypothesize and provide evidence that the ID and P relationship is positively moderated by PD when the firm has both high levels of both ID and PD or low levels of both ID and PD.

Manyuru, Wachira and Amata (2017) investigated the impact of corporate diversification on the value of firms listed at the Nairobi Securities Exchange (NSE). Panel regression techniques were used as the estimation methods. The overall findings of the study were somewhat mixed. The study finds that industrial diversification reduces firm value, but geographical diversification does not have a significant impact on firm value. When examining each industry individually, the study established that industrial diversification enhanced firm value in the agricultural industry but did not significantly influence firm value in the other industries.

Maurizio, Tiziana and Javier (2018) evaluated the effect of diversification strategy on corporate value for a sample of Italian companies. It accounts for both the level of diversification and relatedness components. Empirical analyses show a U-shaped curvilinear relationship between diversification and value. In contrast to the main-stream literature, our results highlight that related diversification has a negative effect, while unrelated diversification is a value-creating strategy.

Odeleye and Olunkwa (2018) examined the relationship between export diversification and economic growth in Nigeria. The study used an annual time series data for the period 1981-2015 and employed Ordinary Least Square (OLS) methods involving Error Correction Mechanism (ECM), Co-Integration, and Over-Paramatization and Parsimonious model. Johansen co-integration test revealed that the variables are co-integrated which confirm the existence of long-run equilibrium relationship between the variables. The results of the study revealed that contributions of agriculture and manufacturing sectors to export is negative; signifying that export diversification has negative effects on Nigeria's economic growth. It suggests that for meaningful diversification of the export base of the economy, government should promote semi-finished and finished goods exportation in order to create an attractive manufacturing sector that can prompt local and foreign investment.

3. Methodology

The study adopted the Ex-post facto design based on secondary data that was collected from annual financial reports of the selected non-financial firms quoted on the Nigerian Stock Exchange. The study is based on ex-post facto since the event has taken place.

A total of forty-one (41) non-financial firms were randomly selected out of the one hundred and nineteen (119) non-financial firms that are diversified.

3.1 Method of Data Analysis

The secondary data collected were analyzed using descriptive statistics, correlation and regression analysis. The descriptive statistics was used to evaluate the characteristics of the data: Mean maximum, minimum, and standard deviation and also checks for normality of the data. The correlation analysis was used to evaluate the associational relationship between the variables. The regression analysis was used to evaluate the effect of product diversification on Tobin q. It reveals the degree of influence and effect product diversification has on the performance of the non-financial firms using Tobin q as performance indices. Regression analysis was employed to analyze the data for the study and also to test the corresponding hypothesis.

3.1.1 Model: Tobin Q Model

$TOBINQ = f(PRODIV)$

This is econometrically expressed as: $TOBINQ_{it} = \beta_0 + \beta_3 PRODIV_{it} + \varepsilon_{it}$

Where:

TOBINQ = Tobin Q

PRODIV = Product Diversification

4. Test of Hypothesis

Ho: Firm product diversification has no significant effect on corporate performance

The fixed panel effect model from the regression shows that Product Diversification (PRODIV) result is (coeff. -29.46, t= -1.75 P >t/0.081), thus the result revealed that the relationship between product diversification and Tobin Q among quoted non-financial firms in Nigeria is negative but statistically significant at 10%. Based on the result, the study accepts the alternative hypothesis thereby rejecting the null hypothesis. The study concludes that product diversification has a statistical effect on firm performance in Nigeria.

5. Conclusion and Recommendation

This study examined the nexus between the strategy of product diversification and firm performance drawing evidence from quoted non-financial firms in Nigeria. The unique performance variable that the researchers employed here is the use of Tobin Q. While most other prior studies in the Nigerian setting have used return on equity (ROE) or other indices as a measure of performance, the researchers employed the firm value benchmark of Tobin Q. From the study, the researchers conclude that product diversification strategy was

observed to be significantly related to firm performance of Tobin Q among quoted non-financial companies in Nigeria.

Drawing from the findings, the researchers recommend that employing more emphasis on product diversification among quoted non-financial companies in Nigeria should be sustained. In any case we recommend specialization strategy against multi product strategy.

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