

## Effects of Product – Market Diversification Strategy on Corporate Financial Performance and Growth: An Empirical Study of Some Companies in Nigeria.

Ade Oyedijo Ph.D.

Department Of Business Administration And Management Technology  
Lagos State University, Ojo  
Lagos, Nigeria.

### Abstract

*This study takes diversification research to a new level of analysis by examining the performance of a sample of Nigerian companies in relation to specialization, related, unrelated and mixed product-market strategies. It was proposed that firms that pursue related or unrelated diversification strategies outperform and grow faster than those that attempt to pursue both. Using the triangulation analytical technique involving correlation, multiple regression, ANOVA, independent sample test and Scheffe Ad Hoc test, it was found that there is a high and positive correlation between financial performance and related diversification strategy. Related diversifiers had a relatively higher level of financial performance than unrelated and mixed diversifiers. A marginal correlation was found between unrelated and mixed modes of diversification and financial performance and sales growth. The regression analysis showed that related diversification has a significant impact on performance ( $t = 3.380$ ;  $p < 0.05$ ) while unrelated diversification has a negative but non-significant impact on performance and growth. The result of the analysis of variance (ANOVA) showed that there were significant performance differences between firms utilizing only related diversification strategies and those utilizing only unrelated diversification strategies ( $F = 3.110$ ,  $p < 0.05$ ). The Scheffe's Test further confirmed that there is a significant difference between the performance of firms using mixed (related and unrelated) diversification strategies and the performance of firms pursuing either of the two strategies exclusively with firms pursuing either of the two strategies exclusively outperforming the firms that are pursuing mixed (related and unrelated) diversification strategies. A significant difference was also found between the performance of firms that develop through related or unrelated diversification and the performance of firms that remained specialized, with firms that remained specialized performing better on all parameters and growing faster in sales than those that develop through related and unrelated diversification only. The study concludes that the financial performance and sales growth of firms in Nigeria are significantly affected by the mode of diversification used and recommends that Nigerian firms that are seeking a sustainable fast growth and superior performance should pursue a related product-market diversification strategy or a specialization strategy but not both.*

**Keywords:** Diversification, Strategy, Performance, Product-Market

### 1. Introduction And Purpose

The study of diversification has long attracted the interest and attention of strategic management scholars and is one of the most frequently researched areas of business (e.g. Channon, 1983; Dyas and Thanheisers, 1976; Constable, 1986; Reed and Luffman, 1986; Salter and Weinhold, 1982). Among others, researchers have examined the antecedents of diversification and the financial performance outcomes of these strategies (e.g. Rumelt, 1974, Porter 1987; Ramanujam and Varadarajam, 1989; Elango, Ma and Pope, 2008). Despite several attempts however, strategic management research has failed to establish a consistent and clear relationship between patterns of diversification and performance and most of such attempts are inconclusive (Johnson and Scholes, 2007) with conflicting results reported from some of the investigations. For instance, while Lei and Schmit (2009) have found that more diversified insurers have better financial performance, Hakrabarti (2007), concluded that diversification is associated with poorer performance for both affiliated firms and independent firms. Apart from the fact that the various attempts to demonstrate the effects of diversification on performance are inconclusive because of the conflicting evidence emerging from such studies, most of the investigations carried out so far are based on the experiences of companies in industrialized economies.

The impact of diversification on the performance of firms in other institutional environments especially the less developed economies has not received much attention thus limiting the generalizability of findings and the development of a global theory of diversification. The extent to which firms in the less developed countries are using the diversification option, the nature of the diversification strategy they are pursuing and the extent to which such diversification moves help to improve the firms' financial performance and growth are not yet extensively explored. With particular reference to Nigeria, many firms operating in different sectors of the country's economy have sought to diversify their product-market portfolios in an effort to spread the risks of their businesses, improve their performance and cope with the hardship and challenges of competing in a transition and deregulated economy. The outcomes of such diversification moves remain to be tested and examined empirically. Despite the assumed benefits of diversification such as the spreading of risks and cost, the advantage of synergy arising from economics of scope and the pooling and/leveraging of resources, the organizational, managerial and investment challenges of diversification appear enormous for companies in a third world nation such as Nigeria to bear. Companies in third world nations can ill afford the experiences of corporate product-market diversification failure. Thus, an empirical investigation of the performance impact of diversification strategy offers the potential benefit of adding to the existing body of knowledge on this subject in addition to generating information that can assist managers to improve policy decisions especially in the context of developing countries where resource allocation and utilization is a major challenge.

Much of the work that has been done to date on diversification and performance has largely taken the form of anecdotal reports and case study analysis. Large sample studies are needed to demonstrate how diversification strategies may or may not enhance the performance of organizations. The present study aims to bridge the gap by examining the impact of diversification strategies on two organizational performance measures (profitability and growth) in a sample of 48 large scale companies in Nigeria. Besides, most of the studies on this topic focus exclusively on a comparison of performance in firms that are using related diversification with those using unrelated diversification with many of such studies suggesting that performance defined in terms of profitability, growth, earnings per share, market share, etc is better in firms pursuing related diversification than in those pursuing unrelated diversification. However, empirical evidence suggests that there are several firms across many industries that simultaneously pursue a mix of (perhaps contradictory) strategies (Bowman and Ambrosini, 1997; Whittington, Pettigrew, Peck, Fenton and Conyon, 1999). Yet, it remains to be seen whether firms that pursue only related diversification strategies or unrelated diversification strategies outperform or underperform those that attempt to pursue both strategies simultaneously. This is an issue that is largely overlooked in the strategic management literature. Thus, four questions are raised in this study. The questions are:

1. Is product market diversification positively or negatively associated with growth and financial performance in a transition economy?
2. Does a related product market diversification strategy in a transition economy result in a better organizational performance than an unrelated product market diversification strategy? Are there significant differences in performance between firms utilizing only related diversification strategies and those utilizing only unrelated diversification strategies?
3. Will firms that mix related and unrelated diversification strategies significantly underperform or outperform firms that are pursuing either of the two strategies exclusively?
4. Will firms that develop through related or unrelated diversification perform better and grow faster than those firms that remain specialized?

## **2. Literature Review**

One of the managerial contingencies that are assumed to be contributing positively to the economic performance of organizations is the degree of diversification (Grinyer, McKiernan and Yassai – Ardekani, 1988). According to Shin (2001), firms diversify by extending the scope of their operations into multiple markets.

A diversification strategy is pursued according to Chandler (1977), when firms have opportunities embedded in market structures and technology as well as opportunities for growth in the firm's basic business. This means that firms diversify into other businesses if after consolidating their positions in their base industry or market they still possess underutilized resources which can be applied in other sectors of low opportunity (Chandler, 1962). The assumption is that diversification may raise economic benefits through a more efficient utilization of organizational resources across multiple markets (Clarke, 1985).

A review of the literature reveals a great deal of effort by many economics and business policy and strategy researchers to examine the impact of product-market diversification strategy on the corporate performance of firms (e.g. Rumelt, 1974, 1982; Caves, Porter, Spence and Scott, 1980; Lecraw 1984; Montgomery 1985, 1994; Pelepu 1985; Grinyer et. al; 1988; Montgomery and Wernerfelt, 1988; Wernerfelt and Montgomery, 1988).

Early research (Rumelt, 1974) suggested that firms which developed through related diversification outperformed both those that remained specialized and those which developed through unrelated diversification. These findings were later questioned (Montgomery, 1982). The results of empirical studies linking patterns of diversification to financial performance remain unclear. Some of the specific evidence available from the research on diversification shows that profitability increases with diversity but only up to the limit of complexity (Grant, Jamine and Thomas, 1988). Results from other studies suggest that the management of the process of diversification may be a more important influence on performance than the type or mode of diversification itself (Varaderajam and Ramanujam, 1987). For instance, Nesbit and King (1989) examined the progress of 1800 US companies between 1978 and 1988 and concluded that corporate performance is dependent on strategy implementation rather than the strategy itself.

From a review of the literature, it is clear that a universal prescription of the benefits of diversification may be unlikely to be found. From a contingency perspective, the likely success or otherwise of diversification may be greatly dependent and determined by the circumstances of an organization such as the level of industry growth, market structure, the firm size, the resource situation of the organization and the firm's institutional environment. It has been found for example that underutilization of physical resources or intangible resources such as brand name is likely to encourage related diversification whereas excess financial resources may well predispose an organization to pursue unrelated diversification (Chartejee and Wernerfelt, 1991).

The general conclusion from these previous studies is that diversification improves corporate performance although unrelated diversification is negatively correlated with firm performance (Grinyer, et. al; 1988). Firms pursuing related diversification built around firms' strengths in their basic activities have been found to be generally more profitable and more successful than firms that pursue a strategy of unrelated diversification. Empirical research indicates that the most profitable firms are those that have diversified around a set of core resources and capabilities that are specialized enough to confer a meaningful competitive advantage in an attractive industry, yet adaptable enough to be advantageously applied across several others (Collins and Montgomery, 1997; McKinsey, 2001a; and McKinsey, 2001b). The least profitable are broadly diversified firms whose strategies are built around very general resources (e.g. money) that are applied in a wide variety of industries but are seldom instrumental to competitive advantage in those settings (ibid). Wernerfelt and Montgomery (1988) explain the differences in performance by pointing to the increased efficiency firms realize from transferring and leveraging competencies to widely varying markets. Unrelated diversification may increase market related risks, but it can achieve efficient capital management.

On the other hand, related diversification can lead to higher corporate performance when compared to unrelated diversification. According to Hill (1994), by pursuing a strategy of related diversification, firms can focus on core organizational capabilities and exploit the interrelationships between business lines to achieve economies of scope by sharing physical business resources and economies of scale through increased coordination and the sharing of marketing, information and technological knowhow and capabilities across related industries all of which result in lower production, selling, servicing and distribution costs, better market coverage, stronger brand image and company reputation and lower order processing costs.

### ***3. Theoretical Background***

#### **3.1 The Concept and Theory of Diversification**

The literature mentions different types of strategies at the corporate level that take into account different directions and types of corporate development (Grant 2005; Mintzberg, Ahlstrand and Lampel 2009; Rue and Holland, 1989). Among them are concentration and diversification strategies. Concentration strategy is a grand strategy in which a firm directs its resources to the profitable growth of a single business or product in a single market, with a single dominant technology (Pearce and Robinson, 2007). This strategy involves focusing on doing better what a company is already doing well by using existing strengths in new and productive ways without taking the risk of great shifts in direction. On the other hand, diversification is the strategy whereby a company sets up or acquires businesses outside its current products and markets (Kotler and Armstrong, 2008).

The literature on diversification suggests both efficiency and agency rationales for diversification. In the agency or “managerial attachment” view, managers diversify, especially by acquisition, primarily to increase their compensation, job security, or span of control (Amihud and Baruch, 1981; Born, Eisenbeis, and Harris, 1988). In the efficiency view, product and market diversification allows firms to reduce firm specific risk by holding a greater variety of services (Saunders, Strock and Travlos, 1990). However, risk reduction is not a satisfactory efficiency rationale for diversification. Shareholders in publicly traded firms can always reduce their risk by holding a diversified portfolio of non-diversified firms, gaining the risk reduction advantages of diversification without incurring the costs of managing a large organization. For this reason, diversification would be beneficial only if it provides some kind of economies of scope that support growth and better performance.

Economic theory proposes that a firm is a collection of physical, human and intangible resources put together for the performance of many separate activities. Some resources may be relatively product – specific. They are thus utilized to produce a particular good or service through one business line. However, other resources may have the potential to increase production of goods or services in multiple business lines. If such resources are insufficiently utilized in the firm’s current operations, then it may be worthwhile to expand their use. In this case, the firm will use the resources by diversifying its operations into multiple markets (Caves, et. al., 1980; Clarke 1985).

A firm can diversify its operations into related markets in order to achieve economic benefits by sharing human and physical resources across markets. A firm can also diversify its operations into unrelated markets in order to realize economic benefits from the exploitation of an internal capital market (Shin, 2001). This is possible because capital can be more efficiently allocated in an internal market than in external markets (ibid).

### **3.2 The Concept of Transition Economy**

Traditionally, a transition society or economy is one which is changing from a centrally planned to a free market. Transition societies necessarily undergo economic liberalization, where market forces set prices rather than a central planning organization and trade barriers are removed accompanied with privatization of government – owned enterprises and resources and the creation of a financial sector to facilitate resources and the creation of a financial sector to facilitate the movement of private capital. The definition of transition economy refers to all countries which attempt to change their basic economic philosophy towards market-style fundamentals.

## **4. Hypotheses**

### **4.1 Hypothesized Relationship between Mode of Diversification and Performance**

The literature suggests that the mode of diversification is related to performance. Rumelt (1974), Collins and Montgomery (1997) and McKinsey (2001b) for example argue that profitability is positively related to the use of common core skills. This explained the low profitability of ‘unrelated’ businesses which they found in their studies with the relationship becoming more continuous once industry effects are taken into account. This supports the view that the degree of relatedness of business activities is a reflection of exploitation of particular capital, human or other assets which give the company what Bain (1956) has called absolute cost advantages. This thesis suggests that the higher the degree of relatedness of business activities, the higher the chances of a company to make more profits. This is the first hypothesis to be tested in this study.

### **4.2 Hypothesized Relationship between Mode of Diversification and Growth**

Diversification has been perceived as the expansion path for large companies (Penrose, 1963; Marris, 1964; Hill and Jones, 2007; Thompson and Strickland, 2008). However, diversification into unrelated business is not a pre-requisite for growth. According to Grinyer, et al., (1988) expansion is still possible in single dominant or related businesses which may be more profitable and so grow faster than unrelated ones. In general however and on the basis of previous studies, a positive correlation between diversification, whether related or unrelated, and growth may be hypothesized. In other words, diversification is positively associated with growth although growth in related businesses is faster than in unrelated diversified ones.

## **5. Operationalisation and Measurement of Variables**

### **5.1 Diversification**

A review of the literature reveals a great deal of variation in the way the extent of diversification is conceptualized, defined, and measured. Ramanujam and Varadarajam (1989) identify at least sixty different taxonomies which have been developed to classify business organizations according to extent of diversification.

The best known typology, particularly in its organizational performance applications, is that developed by Rumelt (1974, 1977). In the Rumelt framework, extent of diversification is defined according to a fourfold taxonomy based on percent of revenue derived from various products. These include single-product firms, dominant-product firms, related product firms and unrelated product firms. The two types of diversification strategies that are of interest to us in this study are related – product diversification and unrelated –product diversification. Related diversification is development beyond the present product and market, but still within the broad confines of the industry (i.e. value chain) in which the company operates. Unrelated diversification occurs where the organization moves beyond the confines of its current industry.

According to Rumelt (1977), related – product firms derive less than 70 percent of their revenues from a single product domain and the remainder of their revenues is from a related product domain. These firms are characterized by medium heterogeneity of customers, some product similarity, medium unit interdependence, both internal and external acquisitive diversification modes and a fast rate of diversification growth. Unrelated product firms receive less than 70 percent of their revenues from a single-product domain and the remainder of their revenues from an unrelated – product domain. These companies are characterized by a high heterogeneity of customers, little or no product similarities, low unit interdependence, an acquisitive diversification mode, and a fast rate of diversification growth (Rumelt, 1977). When a firm earns more than 30 percent of its sales revenue outside a dominant business, and when its businesses are related to each other in some manner, the company is classified as a related diversified firm.

Following Rumelt (1974), we define in this study, 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 links 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. All the 48 manufacturing firms used are publicly quoted on the Nigerian Stock Exchange (NSE) and they represented different industries. The industries covered are food and beverages processing, building materials, machinery and equipment, textiles, plastics, publishing, breweries and the pharmaceutical industry. The studied firms were selected according to the following criteria: production/manufacturing activity, publicly quoted on the NSE, employing over 250 persons within the last five years, realization of the growth strategy reflected in substantial expansiveness such as entry into new markets and diversification of production and investment activities. The characteristics of the studied firms are presented in Table I.

In terms of growth direction, the strategy of specialization (concentration on one business) was pursued by 18 firms (37.5% of total number of firms), related diversification strategy by 13 firms (27.1%) and unrelated conglomerate diversification by 17 firms (35.4%). The different types of diversification were chosen based on a review of the literature and previous conceptualizations (e.g. Rumelt, 1974). Two diversification indexes used in previous research are employed in this study to capture different aspects of diversification: the Entropy index (Jacquemin and Berry, 1979), and the concentric index (Caves, et al. 1980; Montgomery and Wernerfelt 1988). The Entropy index distinguishes between related and unrelated diversification.

The three separate sales – weighted entropy indexes (total diversification, related diversification and unrelated diversification) were obtained directly from the companies. The total diversification index is a weighted average of the sales shares of a company in different industries. 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 zero if a company's operations are in four different SIC code industries or more, the weight is one if the firm's operations are in three different SIC code industries, and two if they are in two different SIC code industries.

**Table 1: Characteristics of the sampled firms**

| Description: Type of Strategy used          | No of entities |        |
|---|----------------|--------|
|   | N              | %      |
| Specialization                              | 15             | 31.24  |
| Related Diversification only                | 11             | 22.92  |
| Unrelated Diversification only              | 14             | 29.17  |
| Mixed Diversification (related & unrelated) | 08             | 16.67  |
| Total                                       | 48             | 100.00 |

Source: Own Survey (2010-2011)

## 5.2 Performance

Performance was assessed using four financial performance ratios i.e. ROE, ROA, sales growth, and profit margin. These measures had been used in previous studies by Rumelt (1987), and Lusch and Brown (1996). Our use of more than one measure of performance is in consonance with past research that has advocated the use of multiple rather than single measures of organizational performance (Naman and Slevin, 1993; Signaw, Simpson and Baker, 1998).

## 6. Method of Data Collection and Analysis

### 6.1 Sample and Data Collection

Questionnaires were distributed to top level managers in the 48 companies used made up of 15 specialized, 11 related, 14 unrelated firms and 8 mixed diversified firms. The firms were selected using a convenience sampling method from a list of companies maintained by the Nigerian Stock Exchange (NSE). The questionnaire was used to obtain information about the strategic direction of the firms and to measure the extent and nature of their diversification strategies.

The questionnaire instructed the key informants to focus on recent strategic diversification decisions in their organizations. This request was made because a recent incident is more salient and provides clarity. The subjects were asked to focus on strategic diversification rather than operational routine maintenance decisions. Informant competence was evaluated along three criteria. All the key informants included in this study were expected to be General Manager/CEO or persons indicated by these representatives, engage in top management strategic planning to a considerable extent, and have not less than five years of length of service with the target organization. Criteria similar to these had been used in related previous studies by Day and Nedungadi (1994) and Menon, Bharadwaj, Adidam and Edison, (1999). The questionnaires were distributed in Lagos, Ibadan, Kano, Kaduna and Enugu in October and November, 2010 with follow up visits to some of the companies in Lagos, Ibadan and Kaduna in December 2010 and January, 2011. Of the 398 surveys distributed, 257 were returned from all the 48 companies. Based on the eligibility criteria stated above, 26 respondents were deemed unqualified and removed from the study leaving a usable response rate of 89.9%. The remaining 231 responses were used to assess the measures and propositions. Financial performance data on ROE, ROA and Profit margin were obtained from the published financial statements of the firms. Data on sales growth were obtained from the sales record of the firms.

### 6.2 Analytical Procedure

The combined data set for five years (2006 – 2010) were analyzed using an Ordinary Least Square (OLS) regression. To analyze the relationship between diversification and performance the combined five year sample was divided into five groups of the equal numbers based on the type of diversification. Then OLS regressions were run for the four groups (specialized, related, unrelated and mixed). Since we used four diversification indexes (three Entropy and one concentric), the regressions are run for eight groups (two groups for each diversification index).

### 6.3 Model Specification

The basic model measures the relationship between diversification and ROE, ROA, sales growth, and profit margin while controlling for year – specific effects. This model is run for four groups of samples: specialized, related diversification, unrelated diversification and mixed.

$$PERF_{it} = \beta_0 + \beta_1 DIV_{it} + \beta_2 YEAR_{it} + \Sigma 1$$

Where

- PERFit = ROE, ROA, sales growth, and profit margin of the ith firm in the year t
- DIVit = Diversification index (Entropy and Concentric) of the ith firm in year t
- YEARit = A dummy for year
- e = An error term for zero mean

Since this model employs performance ratio measures as dependent variables and mode of diversification as an explanatory, independent variable, firm size was not employed as a control variable. In order to control for year – specific effects, dummy variables for each year are included.

### 7. Empirical Results and Discussion of Findings

#### Results

Table 2: Mean standard deviations correlation matrix

| Table 2:       | M    | SD    | 1      | 2      | 3      | 4      | 5     | 6      | 7    | 8 |
|----------------|------|-------|--------|--------|--------|--------|-------|--------|------|---|
| 1. PM          | 4.32 | 0.321 | -      |        |        |        |       |        |      |   |
| 2. ROE         | 3.76 | 0.623 | 0.06   | -      |        |        |       |        |      |   |
| 3. ROA         | 3.57 | 0.693 | 0.88** | 0.25   | -      |        |       |        |      |   |
| 4. G sales     | 3.33 | 0.519 | 0.36   | 0.64** | 0.33** | -      |       |        |      |   |
| 5. Specialized | 3.12 | 0.744 | 0.45   | 0.45** | 0.48** | 0.33** | -     |        |      |   |
| 6. Related     | 4.78 | 0.297 | 0.89** | 0.65** | 0.78** | 0.62** | 0.17  | -      |      |   |
| 7. Unrelated   | 3.74 | 0.552 | 0.20   | 0.08   | 0.03   | 0.05   | 0.24  | 0.49** | -    |   |
| 8. Mixed Diver | 3.63 | 0.575 | 0.05   | 0.04   | 0.28   | 0.02   | 0.30* | 0.08   | 0.02 | - |

\* P < 0.05

\*\* P < 0.01

The means, standard deviations, and correlation coefficients are reported in Table 2. Based on Table 2, related diversified firms had a relatively high mean (m = 0.25). The mean scores of profit margin (PM), return on asset (ROA), return of equity (ROE) and sales growth (Gsales) were 4.32, 3.76, 3.57, and 3.33 respectively. Generally, the mean index of financial performance is 3.88. Based on Table 2, result of paired-wise correlation shows that there is a high and positive correlation between financial performance and related diversified firms (RDF). For instance, the correlations between ROA, ROE, and PM were 0.78, 0.69, and 0.89 respectively. Correlation between GSales and related diversified firms is 0.62 (p<0.05). However, there were marginal correlation between other modes of diversification and financial performance and sales growth (see Table 2). The analysis of research questions three and four are presented in Tables 3, 4, 5, 6 and 7 respectively. Research question three was analyzed by conducting a Regression Analysis (Cohen and Cohen, 1975, see Table 3). The results indicated that related

Table 3: Coefficients

| Model                     | Unstandardized Coefficients |            | Standardized Coefficients | T      | Sig.  |
|---------------------------|-----------------------------|------------|---------------------------|--------|-------|
|                           | B                           | Std. Error | Beta                      |        |       |
| (Constant)                | 12.330                      | 2.610      |                           | 5.283  | 0.000 |
| Related Diversification   | 0.792                       | 0.274      | 1.947                     | 3.380  | 0.000 |
| Unrelated Diversification | -1.236                      | -3.543     | 0.541                     | -1.654 | 0.091 |

- a. Dependent Variable: Financial performance
- b. Independent Variable: Related diversification; unrelated diversification

Diversification has a significant impact on financial performance (t = 3.380; p < 0.05) while unrelated diversification has a negative non-significant impact on performance. The multiple regression by Beta value may also help us to distinguish which variable between the independent variables affects the dependent variables most.

If the value of Beta is high, the effect of independent variable on dependent variable will have greater effects in response. By looking at the column beta, we notice that beta has the highest number 1.941 for related diversification. This suggests that the related diversification firms were able to get better financial performance (i.e. PM, ROA, ROE) and sales growth than unrelated diversification firms during this time period. The results of this study support the hypothesis stating that related product-market diversification strategy in a transition economy would lead to a higher organisational performance than related product-market diversification strategy. Thus, the null hypothesis is rejected. The result is line with the findings of Rumelt (1974) who conclude that profitability is positively related with related diversification strategy while there is a low profitability for unrelated diversification businesses. This is also in line with the absolute cost advantage theory that the degree of relatedness of business activities is a reflection of exploitation of particular capital, human or other assets.

Analysis of variance was applied to know whether there are differences in performance between firms utilizing only related diversification strategies and those utilizing only unrelated diversification strategies. From Table 4, it was found out that there were significant performance differences between firms utilizing only related diversification strategies and those utilizing only unrelated diversification strategies ( $F= 3.110$ ,  $p<0.05$ ). The significant ANOVA result indicates that there are differences in the means, but does not tell us which means are different from the others. In order to determine in which groups there were significant

**Table 4: ANOVA**

| Model |            | Sum of Squares | DF | Mean Square | F     | Sig. |
|-------|------------|----------------|----|-------------|-------|------|
| 1     | Regression | 17564.687      | 1  | 1.049       | 3.110 | .000 |
|       | Residual   | 16221.677      | 29 | 0.337       |       |      |
|       | Total      | 33786.364      | 30 |             |       |      |

\* $p<0.05$

differences, Scheffé Test was applied and the result is reported in Table 5.

**Table 5: Scheffé Post Hoc Test: Significance Mean Difference between Related And Unrelated Diversification Strategies**

| (I) Firms                       | (J) Firms                       | Difference (I-J) | p.    |
|---------------------------------|---------------------------------|------------------|-------|
| Related Diversification Firms   | Unrelated Diversification Firms | 0.02             | 0.29  |
| Unrelated Diversification Firms | Related Diversification Firms   | -0.83            | 0.00* |

\* $p<0.05$

The result in table 5 shows that there is a significant difference between related and unrelated diversification strategies. Scheffé methods provide strong evidence of significant difference in the mean level of related diversification firms.

Research question three was analyzed using Independent Samples Test. The results of the independent sample t-test as revealed in Table 6a show that performance mean index (3.27) of firms with mixed (related and unrelated) diversification strategies is different from the performance mean index (4.02) of firms pursuing either of the two strategies exclusively. This difference between the two mean was found to be statistically significant at  $p<.05$  (Table 6b). Therefore, we conclude that there is a significant difference between the performances of firms with mixed (related and unrelated) diversification strategies and the performance of firms pursuing either of the two strategies exclusively. The outcome of the analysis indicates that firms pursuing either of the two strategies exclusively outperform firms with mixed (related and unrelated) diversification strategies.

**Table 6a: Independent samples test on performance of firms that have mixed (related and unrelated) diversification strategies and those that are pursuing either of the two strategies exclusively.**

|                       | Diversification Strategies                               | N  | Mean   | Std. Deviation | Std. Error Mean |
|-----------------------|--|----|--------|----------------|-----------------|
| Financial Performance | Mixed (Related and Unrelated) Diversification Strategies | 08 | 3.2795 | .69442         | 0.03726         |
|                       | Either Strategies  | 25 | 4.0221 | .34601         | 0.01667         |



**Table 6b: Independent samples test**

|                          | t-test for Equality of Means |    |                    |                    |  |          |
|--------------------------|------------------------------|----|--------------------|--------------------|--|----------|
|                          | T                            | Df | Sig.<br>(2-tailed) | Mean<br>Difference | 95% Confidence Interval of the<br>Difference |          |
|                          |                              |    |                    |                    | Lower  | Upper    |
| Financial<br>Performance | -12.725                      | 32 | .000               | -.67465            | -0.77036                                     | -0.57854 |

Research question four argued whether firms that develop through related or unrelated diversification perform better and grow faster than those firms that remain specialized. The results of the independent sample t-test as revealed in Table 7a show that there is a significant difference between performance mean index (2.176) of firms that develop through related or unrelated diversification and performance mean index (3.823) of firms that remain specialized. This difference between the two means was found to be statistically significant at  $p < .05$  (Table 7b). The analysis indicates that firms that remain specialized perform better and grow faster in sales than those that develop through related or unrelated diversification. This result could imply that the managements of firms that develop through related or unrelated diversification are not very effective at utilizing their assets to generate profit and may not be efficiently utilizing investors' funds (i.e. ROE). The finding also supports the theory of Peters and Waterman (1982) that successful companies are those that stick to the knitting i.e. they know what they do well and concentrate on doing it well.

**Table 7a: Independent samples test on performance of firms that develop through related or unrelated diversification and those that remain specialized**

|                          | Diversification<br>Strategies                                   | N  | Mean   | Std. Deviation | Std. Error<br>Mean |
|--------------------------|---|----|--------|----------------|--------------------|
| Financial<br>Performance | Mixed Related<br>and Unrelated<br>Diversification<br>Strategies | 08 | 2.1767 | .68382         | 0.07831            |
|                          | Specialized<br>Businesses                                       | 15 | 3.8235 | .54301         | 0.04777            |

### Hypothesis Testing

*Hypothesis one* ( $H_{01}$ ) was tested through correlations coefficients test. The Pearson's Product Moment Correlations Coefficient (0.733\*\*), Table 8a, indicates that mode of diversification and financial performance are significantly and positively correlated with each other at 0.05 level of significance. It means that an increase or decrease in diversification will bring a corresponding change in performance. Therefore, the null hypothesis of no significant relationship is rejected. Thus, there is a significant relationship between mode of diversification and financial performance.

*Hypothesis two* ( $H_{02}$ ) was also tested through correlations coefficients test. The Pearson's Product Moment Correlations Coefficient (0.721\*\*), Table 8b, indicates that mode of diversification and sales growth are significantly and positively correlated with each other at 0.05 level of significance. Therefore, the null hypothesis of no significant relationship is rejected. Thus, there is a significant relationship between mode of diversification and sales growth.

**Table 8a: Regression Analysis of the mode of diversification and financial performance**

| Model | R     | R Square | Adjusted R Square | Std. Error of the<br>Estimate |
|-------|-------|----------|-------------------|-------------------------------|
| 1     | 0.733 | 0.620    | 0.596             | 4.929                         |

\* $p < 0.05$

The outcome of the present study shows that there is a significant relationship between mode of diversification and financial performance and growth. The findings revealed that firms that diversified into related businesses performed better than those that diversified into unrelated businesses. This is as expected because when firms diversify into related business, they build around their strengths in basic activities.

**Table 8b: Regression Analysis of the mode of diversification and sales growth**

| Model | R     | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|----------------------------|
| 1     | 0.721 | 0.521    | 0.497             | 3.896                      |

\*p&lt;0.05

### 8. Implications of Findings for Policy and Theory

The results of this study imply that diversified firms in Nigeria that seek a sustainable fast growth and superior performance should review their strategies and refocus their strengths and resources on a specialized product or in the alternative pursue a strategy of related product diversification.

The result also shows that, specialization and related diversification are more successful in Nigeria, an economy that is characterized by several elements of a society in transition. Theoretically therefore, the effectiveness of a diversification strategy may be related to the nature of the institutional environment of a firm.

### 9. Conclusion

On the basis of the results of this study, we may conclude that the financial performance and sales growth of firms in Nigeria are affected by the mode of diversification used. Because there was a high, positive and statistically significant correlation between financial performance and sales growth and related diversification and significant differences in performance between the firms utilizing only related diversification and those utilizing only unrelated diversification and mixed strategies in favour of related diversifiers, it may be concluded that related diversification is better than unrelated diversification and a mixed strategy in a developing economy like Nigeria.

### 10. Limitations And Suggestions For Future Research

Conducting a research on diversification and performance in Nigeria is particularly difficult because of problems with data availability. Any attempt to study the change in a company's performance before and after a diversification move requires several years of data to ensure that longer-term effects are captured and studied once any teething problems of implementation are overcome. Another problem with this study is that the comparison of the performance of the sampled companies that we classified as specialized, related, unrelated and mixed, might be affected by the performance of firms which might have changed category in the course of the study as a result of the strategies they follow. Therefore, more research is needed on this subject. Such future studies can include more companies and cover several years of data to ensure that original sample is adequate at the time of data analysis despite the change in diversification category by firms. This will ensure that longer-term effects are studied.

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