The Impact of Firm Size on Financial Decision Making in Nigeria

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The study empirically investigated the impact of firm size on financial decision-making in 30 companies listed on the Nigerian stock exchange with a panel data set spanning the years 2010 to 2020. Total revenue is used as the proxy for firm size, and the total debt to total assets and total assets are used as the proxies for financial decision-making. Consistent with the pecking order theory, the results reveal a significant positive relationship between the size of a firm and financial decision-making in Nigerian firms. The empirical results show that bigger firms make significant financial decisions; bigger firms make better financing and investment decisions. Return on assets and leverage have positive implications for financial decision-making. As a response, the study proposes that businesses should concentrate on growing their size by increasing turnover and expanding into new markets for existing and new products.

Keywords: Firm Size, Financing Decision-Making, Investment-Decision Making, Total Revenue, Pecking Order Theory

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1. Introduction

The users of a business enterprise's financial report, as well as everyone with a direct or indirect interest in a business enterprise, are considered stakeholders (Murya, 2010). Accounting provides a quantitative account of all the numerous actions that occurred in the company entity within a certain period of time to the various stakeholders of the business (Chih-Fong and Yen-Jiun, 2009). Financial statement information is used by businesses to analyze and produce opportunities to invest (Breen, Sciulli, and Calvert 2004), gather information for business management, and run their operations efficiently and effectively (Shields, 2010). The content and layout of accounting records have changed dramatically in recent years. The principles of organization and accounting and reporting methods are continually changing in tandem with the growth of economic interactions. At international accountants' congresses and other professional forums, the topic of reforming a company's financial statements is frequently discussed. The usefulness of financial reports is determined by their capacity to suit the needs of their users (Uadiale, 2012). Due to the phenomena of economies of scale, a firm's size refers to the number and variety of production capabilities and the potential it possesses, or the quantity and diversity of services it can make available concurrently to its clients (Shaheen et al., 2012). The size of a company has a big impact on the kind of relationships it has both inside and outside of its working environment. The bigger a firm is, the more power it has over its stakeholders. Again, the growing impact of conglomerates and multinational firms in today’s dynamic business environment (and in the regional economies where they operate) demonstrates the importance of scale in the business world.

2. Review of Related Literature

Theoretical Literature

The managerial theory and the pecking order theory are two of the core theories in the literature that explain firm growth and decisions.

The Pecking Order Theory

Myers (1984) developed the pecking order theory in the course of understanding the logic of corporate behavior. Despite the constraints of information asymmetry, the firm is presented with the challenges of optimizing its performance. As a result, a company will choose internal financing over external financing. Myer and Majjluf (1984) popularized the pecking order theory, which states that corporations will prefer internal finance to a riskier debt before issuing stock. A firm’s size and leverage are negatively related and can be compared (Titman and Wessels, 1988). Smaller and younger companies pay fewer dividends, take on more debt, and invest more than larger businesses (Cooley and Quandrini, 2001). Small firms rely significantly on bank loans to meet their financial needs and therefore become more indebted than larger firms (Mat Nor and Ariffi, 2006).

The Managerial Theory

The managerial theory emphasizes the modern firm's complexity. However, according to Baumol (1967), one of the primary objectives for hiring managers is to boost sales or maximize revenue rather than to maximize profit. The manager's role as a revenue maximization agent is central to managing theory. According to the principle, firms should strive to grow their output and gain the highest market share, which will lead to increased sales and the firm's size.

Firm Size and Financial Decision Making

Financial statements contain critical information that must be incorporated into any firm’s operational and strategic decision-making processes. The use of financial statements is directly related to and supportive of the firm's strategic goals, because decisions made without respect for their financial impact can result in a fragmented company focus and financial difficulties (Horngren et al. 2009).
Proper analysis of the meaning and application of information provided in financial statements may thus assist owners in making better, more informed decisions. Because inadequate financial management is a primary source of financial stress and business failure, accurate understanding and use of financial statements are extremely crucial (Carter and Van Auken, 2005). The character, behavior, and performance of a firm are determined by the coordination and control of the simultaneous interaction of different components of the complex entity (Olawale, Ilo, and Lawal, 2017). The size of a company has an impact on many aspects of its operations, including reputation, customer retention, loyalty, as well as its level of response to stakeholders and financial decision-making. The size of the company determines the number of shareholders as well as the capital base, which informs the level of stewardship expected of the company's managers and board of directors. According to Babalola (2013), the larger a company is, the more influence it has over its stakeholders, and so large companies outperform small companies. Financial statements are essential for understanding how revenue levels affect small businesses. Larger enterprises, on the other hand, might result in increased coordination requirements, making managerial tasks complex and resulting in inefficiencies (Baumol, 1959).

Small businesses may not be required to publish their reports, and when they do, it may be due to legislative restrictions. Small businesses frequently lack strong financial abilities and may not completely comprehend the consequences of their decisions; as a result, their poor decisions jeopardize their small business’s existence and cause severe operational issues (Timmons and Spinelli, 2004). Big organizations, on the other hand, will be required to reveal all relevant information in order to keep and enhance their reputation, investment, and attract additional investors due to their large number of shareholders and various backgrounds. Many small businesses' actions, both operational and strategic, are influenced by revenue, which can be used as a proxy for company size. Increased income indicates that the company has more resources and access to them. Small firms' decisions are influenced by income, according to Neeley and Van Auken (2010), while Busenitz and Barney (1997) noted that organizational size is influenced by the fact that bigger firms have more information and expertise on which to make their judgments.

Based on the literature review, the objective of this study is to examine the impact of firm size on financial decision-making in Nigerian firms. For this empirical study, financial decision-making will be divided into two categories: financing decision-making and investment decision-making. As a result, we propose testing the following null hypothesis:

\[ H_{01} \]: There is no significant relationship between firm size and financing decision-making

\[ H_{02} \]: There is no significant relationship between firm size and investment decision-making

**Empirical Literature**

Saquido (2003) highlighted that liquidity and firm size are not significantly related to investment. Ezeooha (2008) explored the nature and significance of business size as a driver of corporate financial leverage from the perspective of a developing market. Their findings reveal certain pecking order trends in the firms' financing decisions, with larger and more lucrative enterprises relying on other sources of funding rather than debt finance. Bokpin and Onumah (2009) explored micro factors that influence investment decisions, such as past investment, firm size, investment opportunities, cash flow, and growth opportunities. Their findings show that all factors are significant in forecasting investment decisions.

Ruiz-Porras and LopezMateo (2011) investigated the implications of firm size, cash flow, and investment prospects. They discovered that they all have a beneficial impact on investing decisions. Therefore, this study is set to investigate the impact of firm size on financial decision-making in Nigerian firms from 2004 to 2017. Moreover, the study will also look at the impact of firm size on the financing decision-making of...
Nigerian firms and the impact of firm size on the investment decision of firms in Nigeria. Gala and Julio (2016) investigated the size impacts of business investments empirically. Their findings offered strong evidence that small enterprises invest much more than large firms, even after controlling for Tobin's Q and cash flow.

Phan and Nguyen (2020) used Generalized Least Squares (GLS) to evaluate the determinants influencing business investment decisions in 39 economic groups listed on the Vietnam stock exchange from 2009 to 2019. The findings reveal that cash flow and sales growth have the same influence on economic groups' investment decisions in Vietnam, while investment opportunities have a negative impact on economic groups' capital investment decisions. They further found that fixed capital intensity, leverage, firm size, and business risks have a minor and insignificant influence on economic groups' capital investment decisions in Vietnam.

3. Methodology

The data used in the study were collected from the financial statements of 30 Nigerian firms listed on both the Nigerian stock exchange in the period 2010 – 2020. Financial decision-making is measured by two indicators: total debt to total assets will measure financing decision making as indicated by Doan (2020), and investment rate (total asset) will measure investment decision-making. The independent variable includes firm size, Investment opportunities (ROA), and Leverage. To generate empirical results for the paper, a linear econometric model is formulated based on the previous empirical studies (Phan and Nguyen, 2020; Doan, 2020). It captures firm size as a function of financial decision-making.

\[ \text{FIND} = F(\text{SIZE, ROA, LEV}) \]  \hspace{1cm} (1)
\[ \text{INVD} = F(\text{SIZE, ROA, LEV}) \]  \hspace{1cm} (2)

To analyze the study's model, multiple regression is used. The model outlined in this research is empirically analyzed using the least square panel regression analysis to test the degree of the relationship between the variables. The pooled OLS models were estimated with cross-section effects and corrected for cross-section correlation, period arbitrary serial correlation, time changing variances in the disturbances, and observational heteroskedasticity.

The results of the test for multicollinearity, heteroscedasticity, cross-sectional dependence, the test of serial correlation, Hausman specification, and histogram test of residuals were conducted to improve the authenticity of all statistical inferences for the study reveal favourable outcomes, but they are not reported due to brevity. The functional relationship between firm size and financial decision-making is expressed as follows in the panel OLS model specifications:

\[ \text{FIND}_{it} = \alpha_0 + \alpha_1 \text{SIZE}_{it} + \alpha_2 \text{ROA}_{it} + \alpha_3 \text{LEV}_{it} + \mu_{it} \] \hspace{1cm} (3)
\[ \text{INVD}_{it} = \beta_0 + \beta_1 \text{SIZE}_{it} + \beta_2 \text{ROA}_{it} + \beta_3 \text{LEV}_{it} + \mu_{it} \] \hspace{1cm} (4)

Where:
FIND= Financing decision (total debt to total assets)
INVD= Investment decision (total asset)
SIZE= Firm size (total revenue)
ROA= Return on asset (profit after tax/ total asset)
LEV= Leverage (the ratio of long-term debt to total book value of equity)
4. Empirical Results and Discussion of Results

The descriptive statistics for the variables are presented in Table 1.

Table 4.1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>FIND</th>
<th>INVD</th>
<th>SIZE</th>
<th>ROA</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>20.48610</td>
<td>-0.388412</td>
<td>1.001864</td>
<td>5.612924</td>
<td>19.32263</td>
</tr>
<tr>
<td>Median</td>
<td>12.00000</td>
<td>-0.229185</td>
<td>1.010940</td>
<td>6.548434</td>
<td>14.38940</td>
</tr>
<tr>
<td>Maximum</td>
<td>76.75887</td>
<td>0.557585</td>
<td>1.885129</td>
<td>7.576555</td>
<td>76.75887</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.084600</td>
<td>-1.925574</td>
<td>-1.072630</td>
<td>1.716540</td>
<td>0.693300</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>16.92897</td>
<td>0.580212</td>
<td>0.533055</td>
<td>1.780213</td>
<td>16.64334</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.853688</td>
<td>-0.528222</td>
<td>-0.988214</td>
<td>-0.758056</td>
<td>1.351884</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.337394</td>
<td>2.431393</td>
<td>4.939274</td>
<td>1.913747</td>
<td>4.361288</td>
</tr>
</tbody>
</table>

Source: Authors’ computation

The mean, median, standard deviation, skewness, and kurtosis of the variables utilized are shown in the table above. Financing decisions and leverage are positively skewed, implying that they have more extreme values, whereas investment decisions, company size, and return on assets are negatively skewed, implying that they have less extreme values. Furthermore, the kurtosis of all variables in the table, except company size and leverage, is less than three (3), implying that their probability distributions are all relatively low peaked.

Table 4.2: Panel Unit Root Test Result

<table>
<thead>
<tr>
<th>Variables</th>
<th>Levin et al</th>
<th>Im et al</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Levels</td>
<td>First Diff.</td>
</tr>
<tr>
<td>FIND</td>
<td>1.83469</td>
<td>2.74166**</td>
</tr>
<tr>
<td>INVD</td>
<td>-39.4242**</td>
<td>-</td>
</tr>
<tr>
<td>SIZE</td>
<td>-7.28261**</td>
<td>-</td>
</tr>
<tr>
<td>ROA</td>
<td>-40.3816**</td>
<td>-</td>
</tr>
<tr>
<td>LEV</td>
<td>-3.19884**</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Authors’ computation, 2022

Notes: Values reported are t-statistics value.
** denote significance 5 percent.
The test was conducted with the assumption of intercept and no trend in both Levin et al (2002) and Im et al (2003) specification

Since both unit root tests yielded different findings, it's unclear if most of the variables are integrated at levels (I(0)) or first difference (I(1)), as shown in Table 2. As a result, it's necessary to look for a long-term relationship between the variables. The co-integration test will be used to see if the variables have a long-term relationship. To analyze the long-term association between the variables, the Kao cointegration approach for the panel cointegration test is utilized.
Table 4.3: Kao Residual Cointegration Test Result

<table>
<thead>
<tr>
<th></th>
<th>Dependent Variable: FIND</th>
<th></th>
<th>Dependent Variable: INVD</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ADF t-statistic</td>
<td>Probability</td>
<td>ADF t-statistic</td>
<td>Probability</td>
</tr>
<tr>
<td></td>
<td>-2.091801</td>
<td>0.0182**</td>
<td>-1.655119</td>
<td>0.0490</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation, 2022
Note: Null Hypothesis: No cointegration.
** denotes significance at 5 percent

The ADF t-statistic probability value is less than a 5% level of significance, showing that the variables in the model have a long-term relationship, as shown in Table 3. The null hypothesis is thus rejected, implying that the variables are cointegrated. The findings show that the variables have a long-term relationship, verifying the validity and consistency of empirical findings. The panel OLS estimate approach is used to study the association between firm size and financial decision-making because the model comprises a long-run relationship. The results of the panel OLS method are shown in Table 4.

Table 4.4: Panel Regression Results

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>MODEL 1 FIND</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE</td>
<td>-0.406009 (0.0000)</td>
</tr>
<tr>
<td>ROA</td>
<td>0.106808 (0.0131)</td>
</tr>
<tr>
<td>LEV</td>
<td>0.037669 (0.0114)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.703420 (0.0000)</td>
</tr>
<tr>
<td>R²</td>
<td>0.253257</td>
</tr>
<tr>
<td>F statistics</td>
<td>36.85426 (0.000000)</td>
</tr>
<tr>
<td>Auxiliary Parameters</td>
<td>6.253502 (0.0999)</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation, 2022
Standard errors are in parenthesis.
t-statistics is in square bracket.
** denotes significance at 5 percent.

At the 5% level of significance, the model's F-statistics are significant. The model's explanatory power, as assessed by the value of r², is 0.25 percent, implying that it can explain roughly 25% of the variations in financing decision-making. In model 1, the firm size variable has a negative coefficient of -0.406009, showing that as a firm's size grows, so does its forecast of financing decisions. As a firm grows, the lower its debt funding. The firm size variable has a p-value of 0.0000, which suggests significance at a level of 5% significance. The regression coefficient for the firm size variable was found to be significantly different from zero. It means that the variable has a significant impact on financing decision-making.

In the model, the return on asset variable has a positive coefficient of 0.106808. The return on asset variable's coefficient in the model implies that as the return on asset improves, so does the forecast of financing decisions. The coefficient's P-value is less than the 5% level of significance, indicating that the return on the asset has a significant influence on financing decision-making. In the model, leverage has a positive coefficient of 0.037669. The probability value of leverage is lower than the 5% level of significance, indicating that leverage has a significant impact on financing decision-making.
At the 5% level of significance, the model's F-statistics is significant. The model's explanatory power, as evaluated by the value of $r^2$, is 0.14 percent, implying that it can explain roughly 14 percent of investment decision-making variations. The coefficient of firm size in this model is positive at 1.029767, and the probability value of 0.0002 is statistically significant at the 5% level of significance. The regression coefficient for the firm size variable was found to be significantly different from zero. It means the variable has a significant impact on investment decision-making.

In the model, the return on asset variable has a positive coefficient of 0.727256. The return on asset variable's coefficient in the model implies that as the return on asset improves, so does the forecast of investment decision making. The coefficient's P-value is less than the 5% level of significance, indicating that the return on assets has a significant impact on investment decision-making. In the model, leverage has a positive coefficient of 0.141470. In the model, the probability value for leverage is 0.5753. This indicates statistical insignificance in the model at the 5% level of significance. This indicates that leverage has an insignificant impact on investment decision-making.

Overall, the aforementioned empirical results reject the first null hypotheses presented previously, indicating that a firm's size has a significant impact on its financing decision-making based on model 1. This demonstrates that as a company expands in size, or as revenue grows, it becomes more capable of making sound financing selections. Firms would be able to seek out better financing options, which would have a direct impact on the quality of their financing decisions. This means that bigger, more lucrative, and older firms are less likely to rely on debt funding. The results of model 2 also show that business size has a positive and significant impact on investment decision-making. The empirical result of model 2, on the other hand, rejects the second hypothesis by demonstrating that firm size has a positive and significant impact on Nigerian firms' investment decision-making. The findings are consistent with past studies (Bokpin and Onumah, 2009; Ruiz-Porras and LopezMateo, 2011).

5. Conclusion

The focus of this study examined the impact of the size of a firm on financial decision-making in Nigeria. It examines how the firm affects financing and investment decision-making in Nigerian firms. The panel least square method of estimation was used to estimate data from 30 non-financial companies listed on the Nigerian stock exchange. Data was acquired from the companies' annual reports and consolidated accounts. The findings imply that firm size, return on assets, and leverage have a significant impact on a firm's financing decision making while the firm size and return on assets have a significant impact on a
firm's investment decision making, across the whole sample. According to the findings of this study, larger companies with a higher return on assets and leverage make better financing and investment decisions. When compared to larger enterprises, smaller firms will make poor financing and investment decisions. The results show that larger and more profitable tend to rely less on debt financing as opposed to smaller firms. Furthermore, the positive relationship between firm size and financial decision-making is backed by the fact that managers increase sales or maximize revenue, which enhances the firm's growth and positions it to make better investment and financing decisions. This study's findings have important policy implications for Nigerian firms looking to increase their growth to make better financing and investment decisions. As a result, the study recommends that firms focus on improving turnover and expanding into new markets for existing and new products in order to expand their size.
References


