

Innovation Accounting and Innovation Entrepreneurship

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DOI: 10.56201/wjimt.v8.no2.2024.pg31.49

Abstract

This study investigated innovation accounting and innovation entrepreneurship in the manufacturing enterprise in Nigeria from 2011-2022 using Panel Data from annual financial statement of quoted companies. Data for the study were obtained from secondary sources and analysed using Eview10 statistical package namely: Unit Root Test, Cointegration test; among others. Data for the work were drawn with purposive sampling techniques from samples of observations in Nigeria stock exchange statistical Bulletins. The co-integration .test revealed a long-term relationship among the explanatory variable (discretionary accruals and related party transaction) and response variable (return on equity). Therefore, overall we reject null hypothesis and alternate that there is significant (short-run and long-run) relationship between employed variables but in favour with innovation accounting and creative entrepreneurship strong correlates. It can be recommended that accountants should absorbed product innovation, process innovation and market innovation in the enterprise to boost the return on equity in the long-term and short-term. Enterprise should provide all necessary resources needed to understand the impact of creative innovation on stimulating growth and development on entrepreneurship sensitivity in the firms. Extrapreneur, ultrapreneurs and co-entrepreneurs should work together to tighten compliance in the firms in order to enhance possible innovation strategies on product, process and market to increase the return on equity of the enterprise. Innovation entrepreneurship training should be conducted frequently among accountants.

Keywords: *Innovation Accounting, Return on Equity, Innovation Entrepreneurship, Discretionary Accruals, Related Party Transactions*

1.1. Background

Innovation is the key to the performance effectiveness and efficiency of any enterprise. Supportive of the above assertion is the notion that highlights the innovation entrepreneurship of this sector (Ovharhe, 2022a,b; 2023a,b). Ovharhe (2024a,b) argues that creativity and innovation the paramount anchor to any firms sustainability, survival and success. Innovation in the field of entrepreneurship should interface with performance oriented with positive result. According to Naz (2016), the concept “performance” is a word that is coined from the original French word “parfounir”; which means to bring through, to carry out, to do or to bring forth. Khan, *et al.* (2015) asserts that performance is used to indicate work towards the attainment of a particular goal, which include the combination of human, fiscal and natural resources. Chibuike and Ovharhe (2022); Chibuike, Ovharhe and Abada (2022) posits that innovation not only indicates the demonstration of an action but also connotes the satisfactory monetary output of an organization.

Social entrepreneurs and serial entrepreneurs, ultrapreneurs, serial extrapreneurs are innovators. Yet Social entrepreneurs, enterprises struggle to sustain qualified and committed resource persons. Though social entrepreneurs are trying to mitigate and control the world's most pressing issues for mankind sustainability, survival and success, they must also confront skepticism and stinginess from the very society they seek to serve.

Vital aspect of innovate entrepreneurship in management sciences such as accounting, business management, marketing, actuarial sciences and corporate business in the introduction of frugal innovation alliances with social innovators known as social entrepreneurship.

Frugal innovation is a compassionate driven people centre problem-solving concept which assists in the need assessment challenges that will be beneficial to the community, society and countries. Compassionate is a vital for all entrepreneurs that delve into frugal entrepreneurship because having the same sense of emotional feelings that is in align with the challenges creates engagement and involvement to solve problems associated with the resource-constraints and environmental munificence.

However, frugal innovation deals with simplicity, flexibility, low-cost effectiveness, affordability, durability and comfortability of product, services and process on positioning to the unmet needs in the emerging markets (Ratten, 2023).

The frugal innovation is supported by the Based of Pyramid (BOP) that Business Model to fine-tune how the developing communities problem can be solve by value creation, value caption and wealth creation which is among the best ways of eliminating hunger and poverty. Frugal innovation contributes immensely to promote quality design that is beneficial to people on basis of needs assessment (Qin, 2024).

Customer needs is paramount because it's the propeller and fusion of frugal innovation.

Deep learning, AI and IoT enhances efficiency in critical aspect of mankind which includes

infrastructure, agriculture, primary and secondary healthcare, and infrastructure, optimizing resource optimization and cost minimization (Ovharhe & Chibuike, 2024). It facilitates remote monitoring and control of instrumentation that augments predictive maintenance and enhances lifespan. In healthcare, innovative technology empowers telemedicine, e-health and remote patient monitoring, bringing it services to unmet needs clusters in the community (Ovharhe *et al*, 2024). Furthermore, Ovharhe (2024) argued that by synchronizing innovation technology (Data science, deep learning, IoT, clearer services, personalized solutions, affordable automation, data analytics, data virtualization, machine learning and AI) been aligned with frugal innovation in the communities the simplicity, affordability, cost minimization and quality product solutions can be on measureable metrics, as advantage to marginalized communities which is capable of providing possible remedies to global issues in resource-constrained and environments munificence. This enumerates that innovation technology plays imperative roles in frugal engineering as competitive edge and means of social mission accomplishment in the resource-constraint environment for sustainability, survival and success of mankind livelihood (Ovharhe & Abada, 2024; Qin, 2024).

For innovation to be authenticated in dealing with limited resources and tackling environmental challenges for better livelihood of individuals, communities, national and global economics issues, the social entrepreneurs need to synchronize frugal innovation for accomplishment of social mission (Ovharhe & Akandu, 2024; Ovharhe & Chibuike, 2024).

For innovation to be authenticated in dealing with limited resources and tackling environmental challenges for better livelihood of individuals, communities, national and global economics issues, the social entrepreneurs need to synchronize frugal innovation for accomplishment of social mission.

Frugal innovation considered a valuable source of sustainable entrepreneurship as rendered by ultrapreneurship and social extrapreneurship. This is obtainable, because ultrapreneur and social extrapreneur as frugal enterprises and social innovator are ventures that develop affordable products and services for low-income customers who are typically not deemed worthy of attention by multinationals, corporations and conglomerates. Over recent decades, meaningful high-value sustainable development has arisen as a means for addressing the issues of poverty, zero-degree hunger, inclusive entrepreneurship, environmental damage, and social inequality. It essentially means that enabling communities and developing nations should satisfy their current needs without sacrificing the ability of future generations to satisfy their needs (Ovharhe & Chibuike, 2024; Millers, 2024).

Frugal innovation is an inclusive entrepreneurship concept that focuses on making life suitable for less privilege, inequitable salary gap and unnerved community and individual with quality, abundance, comfort, care and social proof on the drive of social entrepreneurs' dreams and mission to accomplish in the globe. Social entrepreneurs are fundamental in trying to wipe hunger and achieved zero poverty as social innovator, but limited resources are fundamental pitfalls and bottlenecks act as syndrome. To overcome this syndrome the concept of frugal

innovation must emerge to orchestrate the activities of the social entrepreneurs to accomplish its entrepreneurial journey and social mission. This is while community need assessment and baseline study is of extremely necessity before the commencement of Frugal engineering optimum process startup. This function as a development guide and direction to achieve targeted goals that is specific, while innovative accounting creeps in (Ovharhe & Akandu, 2024).

No community, challenging environment and nation can prosper efficiently in her ecosystem without the role of social extrapreneurship and ultrapreneurship (Ovharhe & Abada, 2024)

Business modeling has emerged as an important topic in management scholarship, with it gaining significant momentum in recent years. A business model's significance can be understood through the central role it plays in explaining an enterprise competitiveness and leading edge instead of bleeding edge, numerous evidence between business model and entrepreneurship opportunity (Ovharhe & Chibuike; Ovharhe & Woko, 2024a,b).

Closely related to innovation entrepreneurship is the phenomenon of innovation accounting. Accounting, generally referred to as the language of business is a process by which data relating to economic activities of an organization are recorded, classified, selected, measured, interpreted and communicated to intended users through financial reports. Bankole, *et al.* (2018) posits that financial reports are produced to show the true and fair state of affairs of business entities so that shareholders and other users of such information can make informed decisions. What has become worrisome, however, is that the validity of the reporting objective is questioned by the users of accounting information as meeting and beating earnings benchmarks has become very important to Chief Finance Officers (CFOs) and managers (Graham, *et al.* 2006). Certain loopholes in the accounting standards provide avenues for the use of innovation accounting techniques, such as the flexibility in the International Financial Reporting Standards (IFRS) that allow companies to choose method and rate of depreciation of assets (Bankole, *et al.* 2018; Ovharhe & Abada, 2023a,b). According to Deegan (2014) accounting processes and choice of policies resulting from many judgments at the same time are capable of manipulations which have resulted in innovation accounting. Companies show different depreciation method, life of assets and residual value of assets within the purview of applicable laws and prevailing accounting standards (Bhasin, 2016).

The concept of innovation accounting is widely used to describe accepted accounting techniques which permit corporations to report financial results that may not accurately portray the substance of their business activities (Akenbor & Ibanichuka, 2012). Innovation accounting has also been defined as the deliberate distortion of the communication between entities and shareholders by the activities of financial statement preparers who wish to change the content of the information being transmitted. Thus, innovation accounting does not violate the law or the standards of accounting. It is mainly based on finding loopholes in accounting rules that enable the professional accountant to alter the financial income of companies. When no fraud is involved, innovation accounting in its strict sense involves the transformation of financial accounts using accounting choices, estimates and other practices allowed by accounting regulations (Ovharhe, Chibuike and Abada, 2023). Most importantly, innovation accounting

practice described the application of inappropriate accounting policies or entering into complex or “special purpose” transactions with the objective of making a company’s financial statements appear to disclose a more favourable position, particularly in relation to the calculation of certain “key” ratios (Ovharhe & Abada, 2023a,b). Following the regulations, standards (IASs, IFRS) and the recommended practice and even with the results audited by external companies, the scope for innovation accounting remains large. This is because shareholders and market reactions depend more and more on manager’s actions as directors are increasingly judged on profit and growth of their company.

Based on these problems, this research therefore investigates the relationship between innovation accounting and innovation entrepreneurship of listed manufacturing companies in Nigeria during the period 2011 to 2022.

Aims and Objectives of the Study

The main aim of this study is to investigate the degree of relationship between innovation accounting and innovation entrepreneurship of listed manufacturing firms in Nigeria. The specific objectives of the study are:

- i. examine the relationship between discretionary accruals and return on equity of listed manufacturing firms in Nigeria;
- ii. identify the relationship between related party transactions and return on equity of listed manufacturing firms in Nigeria;

CONCEPTUAL/THEORETICAL PARADIGM

Conceptual Review

Although there are differences between definitions of ‘innovation’, it is generally agreed that being innovative involves successfully bringing new ideas to market, in the form of products or services that customers wish to buy. Innovation can be radical and disruptive, gradual and incremental, but it always involves doing something differently in a manner that meets an existing, new or previously unidentified need. In effect, it is the opposite of doing ‘more of the same’ (Brassell & Reid, 2016).

The importance of innovation at the national policy level is recognised and documented in many countries. Also, it is clear that successful companies do innovate, and that their market leadership is attributable to the competitive advantage such activity creates (Ovharhe & Chibuike, 2023). Nonetheless, it is less clear how an individual business can measure the overall amount of innovation it is conducting, and identify the gains it is realising as a result of not simply doing ‘more of the same’. Accountancy has an important contribution to make in addressing this issue, on a number of level (Brassell & Reid, 2016; Ovharhe & Abada, 2023)..

Thus, the primary role of the accountancy function is to advise an organisation on how it can trade successfully, profitably and sustainably. Increasing competitiveness is an important dimension in this discussion, which by definition means that accountants must care about

innovation (Ovharhe 2024; Ovharhe & Woko, 2024a,b). The practice of accountancy includes 'keeping score' for an organisation not simply by monitoring trading performance, but also by benchmarking progress against a range of financial and non-financial targets and stakeholder expectations. Strategic investments in innovation are hard to track and manage because many of them are typically absorbed in the profit and loss account rather than being shown on the financial position of the enterprise (Ovharhe & Saturday, 2024).

Innovation Entrepreneurship

Based upon developing long-term customer relationships, innovation is the foundation of the modern entrepreneurship concept. In accepting this point of view innovation must be defined as anything that people perceive as new regardless of the objective novelty of the given idea or product (Roggers, 1995). Through the assumption of this point of view we are inclined to combine innovation with the introduction of a new product, or changing an existing one, technology or process. One should keep in mind that innovation is becoming an integral part of the functioning and development of every organization. Since clear integration of innovative functions with other functions of the enterprise can be observed, the process of identification and isolation of entrepreneurship innovations within the sphere of innovative activity of a company becomes difficult (Ovharhe, 2024).

Entrepreneurship innovation is not a uniform conceptual category and defining it should be done through the use of various perspectives. The most common approach is to treat entrepreneurship innovations as activities and processes improving the entrepreneurship tool mix (Ferreira de Lara, 2014). This attitude is confirmed in the methodology of the Oslo Manual according to which entrepreneurship innovations include changes to the product (that do not affect its function), introduction of new distribution channels, new promotional methods and new pricing schemes to improve communication with the consumer (Podręcznik Oslo, 2005; Ilić, 2014). A different definition of entrepreneurship innovation describes it as the use of a new entrepreneurship method encompassing significant changes in the way the product looks, is packaged, positioned, promoted, changes in the pricing policy or the business model resulting from the enterprise's new entrepreneurship strategy (Wziętek Kubiak, Balcerowicz, 2009). Entrepreneurship innovations cannot be fully separated from technological innovations. (Gochhait, 2014). In accepting this attitude, it should be stressed that the contemporary concept of innovation in entrepreneurship is not only limited to the improvement of tools or processes. Innovation has become the fundamental premise in building lasting relationships with customers (Toma, 2014). According to the notion of relationship entrepreneurship innovations are judged from the point of view of customers – providing them with new values through new products, technologies, ideas, means and systems in a way that aims to increase the consumers' level of satisfaction and loyalty (Dobiegała-Korona, 2010). Development of innovation, therefore, can be determined not only by knowledge about customers but foremost through the use of the knowledge which they possess (Mikuła, 2006). Within the concept of entrepreneurship customers are not only the recipients and direct users of the products but also become creators of new ideas about products and technologies (Mahr, 2014). Management of relationships with the customer (CRM) is more often replaced with management of consumer knowledge (CKM)

(Mroziwski, 2008).

Discretionary Accruals

Discretionary accruals models have been widely used in the literature, and are often considered to be a proxy for earnings management, or earnings quality. Jones (1991) defines the accrual process as a function of sales growth (ΔREV) and PPE. While sales growth and investment in PPE are reasonable and intuitive drivers of firm value, and the estimation of the Jones model confirms a correlation between these fundamental firm attributes and accruals, the explanatory power of the Jones model is low, explaining only about 10% of the variation in accruals. One interpretation of the low explanatory power is that managers have considerable discretion over the accrual process, which they use to mask fundamental performance.

Jones model was modified to adjust for growth in credit sales ($\Delta REV - \Delta REC$) in an attempt to reduce Type II errors, the failure to detect earnings management when it is present. Credit sales are frequently manipulated; thus, this modification increases the power of the Jones model to yield a residual that is uncorrelated with expected (normal) revenue accruals and better reflects revenue manipulation. However, the modified Jones model still suffers from Type I errors, the identification of earnings management when it is not present.

To combat concerns about the correlations between performance and the Jones, and modified Jones models, suggest controlling for the normal level of accruals conditional on ROA. They identify a firm from the same industry with the closest level of ROA to that of the sample firm and deduct the control firms' discretionary accruals from those of the sample firm to generate 'performance-matched' residuals. Because the models of normal accruals that generate the residuals explain only 10-12% of the variation in accruals, this approach is likely to add noise to the measure of discretionary accruals.

In addition, the performance matching can extract too much discretion when earnings are being managed, resulting in low power tests. Rather than applying the matching, however, many studies simply include ROA (or lagged ROA) as another variable into the modified Jones model (Alayinasab, Nadiri & Behzadi, 2018).

Related Party Transaction

Al-Awawdeh and Al-Sakini (2017) supported that related party transactions is the common term for deals between a company and one (or more) of its controlling entities (that is, major shareholders and or management). Related party transactions have equally been explained as the transfer of resources, services or obligations between a reporting entity and a related party (IASB, 2009 cited in Pizzo, 2011). However, according to (IAS) -24 cited in Beerbaum and Piechocki (2017), a related party transactions is defined as "transfer of resources, services or obligations between related parties, regardless of whether a price is charged". The definition. of related party transactions substantially includes controlling shareholders, directors and every other group which can exercise a degree of influence over the company (such as affiliates, joint ventures and close members of the related party's family). A related party may enter into transactions with the related company using different economic terms compared to an

independent party. In other words, a related party may use these transactions to transfer resources in or out of the company (Venuti & Pozzoli, 2014). When related party transactions are carried out properly and with good purpose, it can increase organizational efficiency by reducing transaction costs. However, related party transactions are also used by companies to commit fraud (Magdalena & Dananjaya, 2015). According to Coase (1937), related party transactions between group members might be cost effective as they help in reducing transaction costs and enhance the enforcement of contracts and property rights (Tudor & Corlaci, 2011). When this happens, the related party transactions are “propping” in nature. Some related party transactions can be problematic because they can be potentially value destroying such as “tunnelling” and squeeze outs (Khanna, 2015).

Theoretical Review

Signalling theory

Signalling theory is fundamentally concerned with reducing information asymmetry between two parties (Spence, 2002). For example, Spence’s (1973) seminal work on labour markets, demonstrated how a job applicant might engage in behaviours to reduce information asymmetry that hampers the selection ability of prospective employers. Spence illustrated how high-quality prospective employees distinguish themselves from low-quality prospects via the costly signal of rigorous higher education. This work triggered an enormous volume of literature applying signalling theory to selection scenarios that occur in a range of disciplines from anthropology to zoology (Bird & Smith, 2005). Management scholars have also applied signalling theory to help explain the influence of information asymmetry in a wide array of research contexts. A recent study of corporate governance, for example, shows how CEOs signal the unobservable quality of their firms to potential investors via the observable quality of their financial statements (Zhang & Wiersema, 2009).

Diversity researchers use signalling theory to explain how firms use heterogeneous boards to communicate adherence to social values to a range of organizational stakeholders (Miller & Triana, 2009). Signalling theory is frequently used in the entrepreneurship literature, where scholars have examined the signalling value of board characteristics, top management team (TMT) characteristics, venture capitalist and angel investor presence and founder involvement. Signalling theory is also important to human resource management, where a number of studies have examined signalling that occurs during the recruitment process (Suazo, *et al.* 2009).

The use of signalling theory has gained momentum in the management literature in recent years as scholars have expanded the range of potential signals and the contexts in which signalling occurs. Despite the emergence of signalling theory in management research, as of yet there exists no concise review in the management literature. As a result, management scholars almost universally refer to either Spence’s (1973) examination of signalling in job markets or Ross’s (2007) study of managerial incentives as signals to describe the theory’s central tenets.

Over time, however, the key concepts underlying signalling theory have become blurred (Highhouse, *et al.* 2007), causing some to argue that signalling theory is ill defined (Ehrhart &

Ziegert, 2005). Although a number of studies integrate signalling concepts with related management theories (Sanders & Boivie, 2004), no existing management research has systematically described the core ideas of signalling theory and how management scholars have applied them.

At the essence of signalling theory is that signallers are insiders (e.g., executives or managers) who obtain information about an individual (Spence, 1973), product (Kirmani & Rao, 2000), or organization, that is not available to outsiders (Ross, 2007). At a broad level, insiders obtain information, some of which is positive and some of which is negative, that outsiders would find useful. This information could include, for example, specifics about the organization's products or services. Such information might include early-stage research-and-development results or later stage news regarding preliminary sales results reported by sales agents. Insiders also obtain information about other aspects of the organization such as pending lawsuits or union negotiations. Simply stated, this private information provides insiders with a privileged perspective regarding the underlying quality of some aspect of the individual, product, or organization.

Insiders obtain both positive and negative private information, and they must decide whether to communicate this information to outsiders. Signalling theory focuses primarily on the deliberate communication of positive information in an effort to convey positive organizational attributes. With that said, some scholars have examined actions taken by insiders that communicate negative information about organizational attributes. For instance, issuing new shares of a firm is generally considered a negative signal because executives may issue equity when they believe their company's stock price is overvalued (Myers & Majluf, 2004). It is important to note, however, that insiders generally do not send these negative signals to outsiders with a view toward reducing information asymmetry, but this is often an unintended consequence of the insider's action. In contrast, signalling theory focuses mainly on actions insiders take to intentionally communicate positive, imperceptible qualities of the insider. Insiders could potentially inundate outsiders with observable actions, but not all of these actions are useful as signals.

There are, however, two chief characteristics of efficacious signals. The first is signal observability, which refers to the extent to which outsiders are able to notice the signal. If actions insiders take are not readily observed by outsiders, it is difficult to use those actions to communicate with receivers. Observability is a necessary but not sufficient characteristic of a signal; signal cost represents the second characteristic of efficacious signals. Signal cost is so central to signalling theory that some refer to it as the "theory of costly signalling" (Bird & Smith, 2005). The notion of cost in the signalling context involves the fact that some signallers are in a better position than others to absorb the associated costs. The costs associated with obtaining ISO9000 certification, for example, are high because the certification process is time consuming, and these costs make cheating, or false signalling, difficult. However, ISO9000 certification is less costly for a high-quality manufacturer as compared with a low-quality manufacturer because a low-quality manufacturer would be required to implement considerably

more change to be awarded the certification.

If a signaller does not have the underlying quality associated with the signal but believes the benefits of signalling outweigh the costs of producing the signal, the signaller may be motivated to attempt false signalling. If this were to happen, misleading signals would proliferate until receivers learn to ignore them. Thus, to maintain their effectiveness, the costs of signals must be structured in such a way that dishonest signals do not pay.

The receiver of the signal is the third element in the signalling timeline. According to signalling models, receivers are outsiders who lack information about the organization in question but would like to receive this information. At the same time, signallers and receivers also have partially conflicting interests such that successful deceit would benefit the signaller at the expense of the receiver (Bird & Smith, 2005). For signalling to take place, the signaller should benefit by some action from the receiver that the receiver would not otherwise have done, that is, signalling should have a strategic effect; this usually involves selection of the signaller in favour of some alternatives. For example, the receiver may make a choice about hiring, purchasing, or investing.

The signalling environment, either within an organization or between organizations, can also affect the extent to which signalling reduces information asymmetry. Environmental distortion occurs whenever the medium for propagating the signal reduces the observability of the signal. For example, press releases serve as signals (Carter, 2006), but media outlets reporting on those releases introduce potential distortions. Branzei, *et al.* (2004) When a signal is interpreted by others in a particular way, an individual who is unsure about how to interpret the signal may look to imitation as a means of decision making (Sliwka, 2007). This could result in a bandwagon effect, where signals are interpreted in a certain manner that may or may not be accurate (McNamara, *et l.* 2008). Other signallers are also important insofar as more honest signallers increase signal reliability and larger numbers of deceptive signallers decrease signal reliability.

3. METHODOLOGY

The study adopted descriptive study and correlation design. The descriptive study is based on quantitative analysis in order to achieve the desired research objectives. The researcher utilizes secondary data from the published annual reports and accounts of manufacturing listed companies in the Nigeria` stock. This method is consistent with other research in the literature. The use of secondary data is justified by the fact that written or printed document are more accurate and reliable in ascertaining compliance to principles in research work than primary data gathered through personal interview or questionnaire administration.

Thus, this study will be base on time horizon with longitudinal design because it is structure on the stochastic models and pool empirical data from value added statement of companies. The sample frame of this study entails the selected period of the pool data in form of staked and empirical data. This period is slated from 2011-2022 with data generated from the six selected firms annual financial position. The study adopted the co-integrated method to analyze the panel data on the predictor variable dimensions (discretionary accruals, related party transactions), while the criterion variable measure is return on equity.

The population of this study comprises of all the listed companies in the manufacturing companies of Nigeria that are quoted firms with the Nigeria Stock Exchange. The study targeted population is generated from corporate quoted companies listed and included in the Nigeria Stock Exchange as per December 31st 2022. Non-probability sampling method in form of availability sampling technique was used in selecting the listed quoted companies as only companies that meet the criteria of being listed on the Nigeria Stock. A reasonable size of the population of firms' space was randomly selected for the study using purposive sampling techniques. This includes manufacturing enterprise that exhibits high level of creativity and innovativeness in their product, process, service, market and administrative. This study covers 22years financial statements using 22years financial statements from 2011 – 2022. The six years each represents a sufficient time period to factor in seasonality and full reporting cycles.

Model Specification

The Multiple Regression Model is appropriate for our analysis because all the variables in this study are measured in ratio scale.

Where; Return on Equity (ROE), Discretionary Accruals (DAC), Related Party Transactions (RPT)

Thus, $ROE_t = f(DAC_t, RPT_t, \dots) \dots \dots \dots (1)$

-Linear Equation

$ROE_t = a_0 + a_1(DAC_t) + a_2(RPT_t) + U_t \dots \dots \text{equ}(2)$

-Log Linear Equation

$\log ROE_t = \log a_0 + a_1 \log(DAC_t) + a_2 \log(RPT_t) + U_t \dots \text{equ}(3)$

The dimension of the predictor variable being used in the study is DAC and RPT, whereas the determinant of the criterion variable is based on the ROE. The subscript t represents the time period whereas Logn indicates natural log - the parameters to be estimated and u_t is an error term. The variables are transformed into logarithmic form if necessary to minimize the scale effect of numbers. The test of relevant research hypotheses is also carried out trying to give answers to the research questions. Using tools such as the descriptive statistics utilizing charts and graphs, the ordinary least square regression estimate, the co-integration estimation.

4. RESULTS AND DISCUSSION

The results and discussion are as followed

4.1 Presentation of Data

Table 4.1:Return on equity (PAT), Current asset (CRT), Total asset (TTA), Current Asset (CRT) and Equity (EQT) in Nigeria Over the period of 2006 to 2017.

-Pre IFRS Stacked Data from 2006-2011

Source: Annual Financial Reports and Nigeria Stock Exchange statistical Bulletin (2017).

Data Analysis (Stochastic Statistics)

In analysing the above data set, it is just right to determine the successful capture of the model by the employed variable towards determining the relevance and worthiness of employed variables. We therefore utilize the Preceded by unit root testing, and proceed towards the Co-integration..

Results of Co-integration Test (Johansen Co-integration)

Date: 11/28/23 Time: 09:54
Sample (adjusted): 6 650
Included observations: 627 after adjustment
Trend assumption: Linear deterministic trend
Series: ROA ROE PE RPT DAC BDI IAQ
Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic
None *	0.399131	746.8141
At most 1 *	0.180909	427.4342
At most 2 *	0.129015	302.3100
At most 3 *	0.095225	215.7023
At most 4 *	0.084326	152.9588
At most 5 *	0.061286	97.72356
At most 6 *	0.046571	58.06925
At most 7 *	0.043930	28.16753

Trace test indicates 8 cointegrating eqn(s) at the 0.10 level
* denotes rejection of the hypothesis at the 0.10 level
**MacKinnon-Haug-Michelis (1999) p-value

Unrestricted Cointegration Rank Test (Max)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic
None *	0.399131	319.3799
At most 1 *	0.180909	125.1242
At most 2 *	0.129015	86.60768
At most 3 *	0.095225	62.74356
At most 4 *	0.084326	55.23522
At most 5 *	0.061286	39.65431
At most 6 *	0.046571	29.90172
At most 7 *	0.043930	28.16753

Max-eigenvalue test indicates 8 cointegrating eqn(s) at the 0.10 level
* denotes rejection of the hypothesis at the 0.10 level
**MacKinnon-Haug-Michelis (1999) p-value

Source: E-view 10 Output (Authors Computation).

The co-integration test seeks to empirically define the Long-run association/relationship between a given set of variables i.e. identifying the stochastic drift amongst variable (to know if the variables move together). Carried out using the johansencointegration output. Assuming all study variable as endogenous using the trace and Eigenvalue test.

From the trace test output above, it can be seen that the exists more than one credibility of co-integrating equation, which were all signed respectively, judging by the signed rank, there exist a long run association and movement amongst employed variables, indicating that there is a presence of long run cointegration amongst employed variable since the probability level exhibit values greater than 0.05 level of significance in which case we do not proceed to Vector Error Correction.

Although the Maximum Eigenvalue denotes rejection of the null hypothesis at all cointegration equation level going against the output of the Trace statistics, as it could therefore be established that there exist evidence of long run relationship amongst employed variables, the study therefore chooses the trace statistics.

Testing of Hypotheses One

H₀₁: Discretionary accruals does not significantly relates to return on equity in Nigeria

H₁₁: Discretionary accruals does significantly relates to return on equity in Nigeria

Interpretation of Results

From the result of the regression estimates the outcome is less than the 0.05 alpha level of significance; when considering on the plight of co-integration output. This shows the presence of long-term impact of the explanatory variable on response variable. Hence, it is advisable in the long-term consideration to reject the null hypotheses and accept the directional hypotheses which states that discretionary accruals does significantly relates to return on equity in the long-term.

Testing of Hypotheses Two

H₀₂: Related party transactions not significantly relates to return on equity in Nigeria

H₁₂: Related party transactions does significantly relates to return on equity in Nigeria

Interpretation of Result

From the result of the regression estimates the outcome is less than the 0.05 alpha level of

significance; when considering on the co-integration output. This shows the presence of long-term impact of the explanatory variable on response variable. Hence, it is advisable in the long-term consideration to reject the null hypotheses and accept the directional hypotheses which states that related party transactions does significantly relates to return on equity in the long-term.

5. CONCLUSION AND RECOMMENDATIONS

This study examined the relationship between innovation accounting and innovation entrepreneurship to show the value relevance of accounting information in Nigeria for the period 2011–2022. The study investigated the long run and short run relationship between the variables by using Johansen Co-integration approach. It was held that accounting innovation is a credible means of sharpening the entrepreneurship innovations on product, process and market via return on equity.

5.2. Recommendations

Base on the findings of this study, the following recommendations are advanced:

1. Accountants should absorbed product innovation, process innovation and market innovation in the enterprise to boost the return on equity in the long-term and short-term.
2. Enterprise should provide all necessary resources needed to understand the impact of creative innovation on stimulating growth and development on entrepreneurship sensitivity in the firms.
3. Extrapreneur, ultrapreneurs and co-entrepreneurs should work together to tighten compliance in the firms in order to enhance possible innovation strategies on product, process and market to increase the return on equity of the enterprise.
4. Innovation entrepreneurship training should be conducted frequently among accountants.

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