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THE IMPACT OF INTANGIBLE ASSET ON CORPORATE FINANCIAL PERFORMANCE OF TELECOMMUNICATION COMPANIES IN NIGERIA (2018-2021)

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ABSTRACT

The study assesses the impact of intangible asset on corporate financial performance of telecommunication companies in Nigeria for a period between 2018-2021. The specific objective this study was to determine the extent to which computer software goodwill operative license. this study adopt ex-post facto research design because the study relies on historic accounting data and as such data shall be collected from annual report and account of the selected telecommunication companies for the period of three (3) years, data was also be obtain from bureau of Statistics and Central Bank, data collected was subject to statistical analysis and the end result recommend for best way of managing the impact of intangible asset on corporate financial performance of telecommunication companies.

KEYWORDS: Intangible asset, computer-software, goodwill, telecommunication, financial performance

INTRODUCTION

In recent times, it is generally belief that sustainability of business has become a major focus of corporate organizations due to the intense competition in global trading today. Of course, there is also a lingering discourse on the impact of intangible asset on corporate performance to the extent that most organisations in the world; Telecom firms inclusive, are beginning to doubt their management style towards the intangibles and the resultant performance. In running modern businesses, a combination of both fixed and intangible assets are used. Considering that the fixed assets are always visible while, the intangible assets are not seen in most organisations, many have argued that the intangible assets drive performance but cause expenditure to the organisations. Flignor and Orozco (2006) pointed out that intangible assets abound throughout the world, touching nearly all aspects of companies, from product development to human capital and staff functions such as legal, accounting, finance, research and development, marketing and general management. The essence of the huge investment in intangible assets no doubt is to ease and engineer operations that would possibly enhance corporate performance. It is in this perspective that Gamayuni (2015) argues that in the modern business era, intangible assets are vital strategic resources and extremely important in creating corporate value and improving company performance.

Intangible assets also known as organisational capabilities are goods of a nonphysical nature such as technology of information and data bases; science of knowing what to do, patents, trademarks, and copyrights. It is important to note that in the last few decades, business activities have "progressively moved into a knowledge-based, fast-changing and technology intensive economy in which investments in human resources, information technology, research and development, and advertising have become essential in order to maintain the firm's competitive position and ensure its future viability" (Leandro, García-Ayuso and Sánchez, 2000). Therefore, the source of economic value and wealth is no longer the production of material goods but the creation and manipulation of intangible assets. This is often referred to as earnings management.

Bayaraa (2017) argued that the application of the intangible assets is for improved financial performance which is a measure of an organization's financial condition financial outcomes resulting from management decision taken by the organization. This suggests that financial performance is also seen as part of financial statements which indicates the position of resources of companies during the period through the generation of revenue from resources (intangible assets inclusive) available to it.

Telecommunication firms often operate using Operating Lincense, Information Technology, Patents, Trademarks, Computer Software and other Intangible Assets. It is against the above background therefore, that the implications of Intangible Assets on corporate financial performance of Telecommunication firms in Nigeria become imperative.

Literature review

The Nigeria economy is fast growing with firms and organizations struggling to survive and keep up with the high competition in their industries. Economists consider that the main feature of this new economic environment is the essential role played by intangibles as a fundamental determinant of value creation of business companies (Meritum, 2001). Intangible assets (AI) have become the focus of companies, financial analysts, investors, accountants, and regulations alike in recent time and this has initiated attempts to understand and narrow the gap between a company's book and market value (Barton, 2005).

As intangible assets are a part of accounting information, many prior studies examine the effect of these assets on some variables. Glova and Mrazkova (2018) found a positive effect of IAs on firm value. Zhang (2017) and Rahman et al. (2020) found a positive association between IA and financial performance. Behname et al. (2012) found a positive relationship between IA and share price. Also, Solikhah et al. (2020) found that intellectual capital disclosure as IAs affects positively the market value and improve stock investment decision. Fukao et al. (2009) found a negative relationship between IAs and economic growth. Thornhill and Gellatly (2005) found a positive relationship between IAs and entrepreneurial finance.

The observations of these studies have it that firms now greatly invest in IAs because IAs play an effective role in sustaining the success of the firms. Córcoles (2010) pointed out that IAs are one of the most important factors in the development and success of the firms. Moreover, Todericiua and Stanit (2015) have discussed how intangible assets contribute to a real and sustainable competitive advantage of SMEs as they play a key role in long-term development.

Besides, studies about the relationship between IAs and financial performance of organizations accounting information were conducted worldwide (Kimouche & Rouabhi, 2016; Hayati et al., 2015; Aulia et al., 2020; Kalantonis et al., 2020). Most of these studies were of the view that intangible assets positively improve the performance of accounting information. Therefore, the financial statements become increasingly useful for the stakeholders, who can make credit and investment decisions based on accounting information including intangible assets.

Generally, in the Middle East and specifically in the Gulf Cooperation Council (GCC) region, attempts to investigate the effect of intangible assets (one specific component, such as R&D or all components together) on performance of accounting information are very limited. Ismail and Abdul Karem (2011) examined the relationship between IAs and financial performance in Bahrain. They found that financial performance is positively associated with IA. Satt and Chetioui (2017) found a positive effect of goodwill (a part of IAs) on firm value in the MENA region. Al-Sartawi (2018) found a weak relationship between IAs and corporate governance in the GCC region. Ousama et al. (2019) found a positive effect of intellectual capital on the financial performance of Islamic banks in GCC.

According to Zeghal and Maaloul (2011), the lack of recognition of intangibles has affected the value-relevance of financial information. As such, if financial statements must become value relevant in this modern time, recognition of intangibles in the statements must be of essence. Similarly, Kampanje, 2012, asserted that the increasing importance of intangibles can be attributed to information age, an age where information is what drives performance and not just the possession of physical assets. He further noted that businesses are being challenged by the rapid industrialization and globalization to develop and acquire intangible assets as a survival strategy and means of gaining competitive advantage amidst the dynamic business environment. Thus, the significance of intangible assets as well as its appropriate recognition and measurement for the purpose of adequate financial reporting is of paramount necessity. Furthermore, (Lee, 2010) asserts that a measure aimed at improving financial reporting is the adoption of fair value estimates in the measurement of intangibles. Thus, the understanding of the concept of intangibles is of immense importance.

Intangible assets are unique assets because they are knowledge based which are capable of giving uniqueness to an entity. Nijun, (2017) described intangible assets as the companies' competitive advantage which is hard to imitate. Intangible Asset as a factor of production plays an important role in company value creation process in order to compete successfully. Husnal et al (2013), Intangible assets reflect core competitive competence of firm's operation. Appelbaum et al (2017) is also of the view that intangible assets affect agility and business performance as well.

IAS (38) identifies intangible asset as an identifiable non-monetary asset without physical substance. Intangible Assets are past transactions or events which have no physical form but seen as future economic benefits controlled by the entity. Cham (2015) posits that internally generated Intangible assets primary comprised internally developed software. Such software as well as other internally generated assets for internal use are valued at cost and amortized over their useful lives. Impairments are recorded if the carrying amount of the asset exceeds the recoverable amount.

Definitions of intangible assets seem to draw from the definition as given by the International Accounting Standard Board. Ghamari *et al.* (2012) in their study, described intangible assets as assets that are latent, non-monetary and do not have a physical nature while IAS 38 defines intangible assets as assets that are identifiable, non-monetary assets, and without physical substance. The standard asserts that intangibles should be recorded and recognized if they fall within the bounds of the definition given and if the assets meet the recognition criteria. The recognition criteria is twofold viz the probabilities that the expected future economic benefits attributable to the asset will flow to the entity; and that the cost of the asset can be measured reliably. Furthermore, the definition of asset by the standard is given as anything that is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract or arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

NASE 31, also tow the same line of definition as IAS 38. The classes of intangible asset based on NAB 31 include; brand names, masthead and publishing, computer software, license and franchises, copyrights, patents and industrial property rights, services and operating rights, recipes, formulae, models, designs and prototypes, intangible assets under development. (Collings, 2011) in his review opine intangible assets to comprise assets such as licenses and quotas, patents and copyrights, computer software, trademarks, franchises, and marketing rights. Still on the types of intangibles, Wyatt and Abenethy (2003) tend to focus on four broad classifications of intangibles: acquired intangible assets- this includes acquired identifiable intangible assets (IIA) such as acquired patents and trademarks, brands, and purchased goodwill that is acquired in business combinations; research and development (R&D)- this includes expenditures associated with R&D activities performed within the firm. Expenditures for exploration, evaluation and development costs in mining and other resource-based firms are usually accounted for separately to R&D because of the specific risk profile of these expenditures; internally generated intangible assets (IGI)- this includes identifiable intangible assets produced by the firm, and internal goodwill that is not easily attributable as to its source of value. Identifiable intangible assets and internal goodwill relate to such things as the firm's information systems, its administrative structures and processes, market and technology knowledge, trade secrets, customer and supplier networks; intellectual property- these are a sub-set of acquired and internally generated intangible asset classifications that

have legal or contractual rights (i.e. patents, trademarks, designs, licenses, copyrights, firm rights, mastheads).

Despite the long list of assets that might be categorized as intangibles, it is argued that not all these have allowable recognition on the financial statement. According to Collings (2011), IAS 38 prohibits the group of intangible deemed as internally generated from being recognized on the balance sheet. He further opines that customer lists, brands, mastheads, and publishing titles are examples of intangibles that should not be recognized on the statement. Also, IAS 38 specifically mentions the use of either the cost model or revaluation model in the measurement of intangibles. It however noted that for the revaluation model to be used there must be an active market and the revaluation must be at fair value. For a market to qualify as active, the items traded in it must not be heterogeneous, effective buyers and sellers are ever present in the market and information about the prices are available to the public.

2.1 Determinants of Intangible Asset Disclosure

There are numerous determinants or motives for firms' disclosure of intangible assets in their annual financial reports. In this sub-heading, a review of literature on some of the popular determinants which includes auditor type, industry type, profitability, leverage, company with foreign activities and age of the firm is given. These variables and their relationship with intangible asset disclosure as discussed below.

2.1.1 Goodwill

Goodwill is defined in FIRS 8 as the excess of the cost of acquisition over group's interest in the net fair value of the identifiable assets, liabilities contingent liabilities of the acquired subsidiaries at the rate of acquisition. Goodwill on acquisition of subsidiaries is included in intangible assets.

As defined by IFRS 3, goodwill represents expectation of future economic benefits that emanate from the acquisition of the assets of another business. It indicates that there is expectation of profits that will arise synergistically from combination of the acquirer's assets with those of the target firm. Given this nature of goodwill, it becomes a useful vehicle for conveying signals of future profits and other economic gains derivable by the acquirer. This is probably why goodwill values affect investors' perception of businesses in Nigeria

The importance of goodwill as an asset which contributes substantially to the survival of a number of firms has been noted in the literature. The value of goodwill provides an informative perspective on the quality of a firm's asset, and is positively valued by the market15. But when goodwill value was analysed based on the age of the asset to determine whether recently purchased goodwill has the same or different levels of information content as goodwill values that have been in the books for a number of years, the results showed that recently purchased goodwill possesses more information content than older goodwill values. Goodwill is sometimes viewed as consisting of different components based on how the resource was derived. In one three-component analysis, goodwill was distinguished into going concern goodwill, synergy goodwill and residual goodwill. A research that tested the market valuation of these components (using the Ohlson model) found that the market positively values the going concern and synergy goodwill component, but the relationship between residual goodwill and market value was significantly negative. This led the study to conclude that investors respond favourably to going concern and synergy component of goodwill (Oliveria, Rodrigues, and Crag, 2010). In the view of the International Accounting Standards Board (IASB) it is not possible to measure goodwill directly; therefore, goodwill

should be measured as a residual18. In framing IFRS 3 the Board evaluated documents from the Financial Accounting Standard Board (FASB) which identified six components of goodwill; four of which (the first, second, fifth and six components) were not goodwill in the opinion of the IASB (IFRS, 18). The Board, however, accepted the third component (fair value of the going concern) as part of goodwill since it reflects the excess assembled value of the net assets of the target company18. The IASB also accepted the fourth component, the expected synergies from combination since it reflects the excess assembled value of the acquirer and the acquiree that the combination is expected to create18. Put together, the views of the IASB are not inconsistent with those of researchers who examine goodwill using the going concern component, synergy component and the residual component. Historically, accounting practice subjected goodwill to annual amortisation for a number of years. However, current accounting standards (such as International Financial Reporting Standards {IFRS} number 3 and Statement of Financial Accounting Standards {SFAS} number 142) require that goodwill should be tested for impairment annually. The justification of replacing annual amortisation with annual impairment was tested empirically using different sample sizes of annual report data from Compustat. Results indicate that the switch was justified. The study also found that the desire to obtain synergy was one of the most important motivations for business acquisition (Churyk, 2005). A number of studies on the relationship between goodwill and firm performance did not examine the separate components of goodwill. A study on the usefulness of intangible assets to equity investors in Portugal, found that goodwill had a significant relationship with firm performance measured by stock price19. But an earlier study found that intangible assets are significantly, negatively related to market value, suggesting that investors perceive capitalised intangible assets as accounting values that should be expensed, not capitalized.

As noted by the IASB, direct measurement of goodwill is difficult; thus, by extension, measurement of the contribution of goodwill to firm performance is difficult. To overcome this problem, return on assets of firms with goodwill was compared to that of firms without goodwill in an analysis involving 38,519 firm year observations drawn from forty eight industries in the US. Results of the study indicate that for many industries, the return on assets of firms with goodwill values was higher than that of firms without goodwill values, suggesting that purchased goodwill contributes to profitability.

2.1.2 Computer Software

It is a general belief that computer software drives the world. Businesses use softwares to account for transactions, communicate with colleagues and customers, design and manufacture new products. Wehner (2019) asserts that without software, we would be lost.

Computer software enables a computer to perform specific tasks as opposed to the physical components of the system hardware. It increases efficiency and speeds up performance which builds Microsofts control the global software marketing by their intangible assets such as trademark rights, and software copy right (Zhang & Guan, 2010).

Accounting software has never been static, the historical perspective of accounting software has been excavated by Eamonn (2012) from 1974 when accounting was performed manually on paper-based trial balances and rapidly transformed into spreadsheets on Lotus 123 as the original double entry system during the early era of PC. During this era, Turbo Cash was launched around 1987 with an automated system for trial balance, balance sheet. It took 15 days of consolidating ledgers. It was the first software for consolidating trial balance and this

software was limited with some important features like calculating tax or invoicing for organization.

Later the first era of accounting software was revolutionized from 15day process of consolidating ledgers was reduced to minutes and seconds. Important features were included to calculate client tax and invoices and also web-based software where accounting information can be stored and integrated with other API or mobile device.

This greatly had a great impact in the reporting of financial information to its various users but before this revolutionized era of accounting software, DOS based accounting systems were highly stable, but lacking in updating features (Eamonn, 2012). Accounting has now become more inventive in the form of business intelligence (BI) and also clouds computing in which financial information are being stored in the cloud. In this era, accounting software has revolutionized beyond just mere accounting packages of inventory and client's invoices. Accounting software in this period according to Lea (2007) can now integrate with each other, in which other non-accounting features similar to enterprise resources planning, Customer relation management CRM and Point on sale POS are been added.

The additional functionalities been added to accounting software made it more intuitive to multi users beyond just accounting users. Business intelligence has globally become a major factor in the business world, in which the smallest system need to adopt as a major feature to be included as a standard in developing an intuitive software like data mining, dashboards, monitoring business transaction and alerts to features for upselling and giving staff real ways of improving sales. According to Chapman and Kihn (2009) it captured the global wind of change with the inclusion of internet and mobile devices integrations know as cloud computing. The increasing number of mobile users has greatly influence the developing of accounting software in providing mobile resolution to financial management and insolvency.

In the sphere auditing world, cloud computing has great influence on bigger auditing firms in which a client in Nigeria can be audited by an audit firm in the United Kingdom. Cloud computing allows audit firms to perform their audit engagements as an independent operation. It also allows audit firms to interact with the client on terms of engagement (Alzolu, 2011; Kamil, 2012). After the terms of engagement have been agreed and next the audit clerk visits the client, the audit clerk is opportuned to take with them the client's financial and tax data on a phone or tablet. This allows facilitation of closer relationship with client through interaction, which reduces agency cost.

Accounting software infiltrating business software to make it highly intuitive to multi-users has numerous advantages especially towards the resolution to financial insolvency of organizations in Nigeria in terms of controlling economic activities of the organizations. Accounting software fosters easy correction of nonconformity and Brynjothson and Hin (2003) empirically discovered that accounting software and investment in IT has a positive effect on productivity growth in the long run. Also in the empirical study of Akanbi (2017), he supported that accounting software and IT `influences organizational performance positively.

2.1.9 History of Telecom Industry in Nigeria

Rapid changes in the business world did not skip Telecom firms in Nigeria. Consequently, Telecommunication networks have enormously changed the way we conduct business in Nigeria. The life of the poor people has been affected by these great changes. The Nigeria

Telecommunication Limited (NITEL) was founded in the year 1985 to aid the country in the improvement of the telecommunication industry.

The telecommunications industry in Nigeria was undersized pending the deregulation of the industry in the year 1992 and the establishment of the Nigerian Communications Commission. Since the introduction of telecommunication networks, they have experienced considerable acceptance worldwide. The Global System for Mobile Communication (GSM) in Nigeria is noticeable to the deregulation of the Telecommunications industry which gave birth to the GSM Revolution from the year 2001 under the civilian administration of President Olusegun Obasanjo, GCFR. Since then, the GSM has witnessed a phenomenal growth in the number of subscribers from barely over one hundred million (100, 000,000) subscribers (Nkordeh et al., 2017). The investigation carried out on the rebased Gross Domestic Product (GDP) statistics disclosed that the telecommunications industry has accounted for 8.69% of six trillion, nine hundred and seventy million (N6, 970,000, 000) of the Nigeria total GDP (Akintola et al., 2015). According to the Nigeria communications commission (2020) the telecommunication industry subscriber statistics revealed that the industry has an active lines of one hundred and ninety nine million, three hundred and seven thousand, seven hundred and ninety six (199,307,796) and connected lines of two hundred and eighty six million, five hundred and twenty two thousand, nine hundred and twenty six (286,522, 926) as at April, year 2017 to July, year 2020 which showed that it has an impact in the revenue generation of the Nigeria economy.

Before the advent of Global System for Mobile Communication (GSM), the Nigeria Telecommunication Limited was saddled with the responsibility of providing means of communication, basically the Landline which was bedeviled by gross inefficiency and corruption. ECONET (Airtel) was the first GSM network provider that came into Nigeria, it was formally launched on 6th August, year 2001 and followed by MTN, Globacom (Glo) and Etisalat (9 mobile). In Nigeria, the GSM revolution has enhanced the Information and Communications Technology (ICT). Since the introduction of the GSM, mobile networks have swiftly become the general way of voice communication in Nigeria with the aid of mobile phone. The growth of the industry has been so swift that Nigeria has been mentioned in various media as “one of the fastest rising GSM markets in the world”. These developments have been actually explosive: according to the year 2004 statistics of the Nigeria Communication Commission compared to about four hundred and fifty thousand (450,000) working lines of NITEL in the year 2001. Around August in the year 2004, the GSM operators had recorded over seven million (7,000,000) subscribers. In fact, as at April year 2008 the number of telephone lines were put at about forty two million five hundred thousand (42, 500,000) lines, forty two million (42, 000,000) was credited to GSM and five hundred thousand (500,000) to Code Division Multiple Access (CDMA). Each of these telecommunication networks have been developing over time, based on successive influenced of innovation, such as wireless “generations” (second (2G) mobile cellular networks, third (3G) mobile cellular networks, forth (4G) mobile cellular networks, and fifth (5G) mobile cellular networks (International Telecommunication Union (ITU), 2020, p1-35). The floor of mobile telecommunication is not just about GSM or CDMA, companies like GLO mobile and MTN already operating Third Generation Telephone Technology (3G), Fourth Generation of mobile Technology (4G), General Packet Radio Service (GPRS) and High speed packet Access, the upgraded version of 3G mobile networks.

Considering therefore, the number of communication network brands in Nigeria and the importance of sales to the various manufacturers, it is expedient for organizations to engage

in programmes that can influence consumer's decision to purchase their products (Obiekwe, 2012).

Research Design

This study adopted the *Ex-Post Facto* research design because the study relied on historic accounting data. According to Agbadudu (2002), the justification for adopting *Ex-Post Facto* research design is that it is a realistic approach to solving business and social science problems which involves gathering records of past events, analyzing the records and using the outcome of the analysis to predict future events.

Sources of Data

The required data for this study shall be gathered from annual reports and accounts of the selected Telecom companies for a period of seven years (2017 – 2020). Data will also be obtained from the National bureau of statistics and central bank annual statistical bulletin.

3.4 Model Specification

In order to find the impact of intangible assets on corporate performance, the following research models will be formulated in line with the study hypotheses:

$Y = a + bx$..... (1)

$ROA = \alpha + \beta_1 COSW + \beta_2 GOWI + \beta_3 OPLI + \beta_4 HDCA + \beta_5 BORC + \varepsilon_t$ ……(2)

Where:

ROA = Return on Assets (Corporate financial performance)
COSW = Computer Software
GOWI = Goodwill
OPLI = Operating License
HDCA = Human development capital
BORC = Borrowing Cost
α = constant
β_1 - β_5 = coefficients
ε_t = error term

Table 1: Correlation Matrix

	ROA	LCOSW	LGOWI	LHDCA	LOPLI	LBORC
ROA	1.000000	0.602663	0.547316	0.589234	0.669954	-0.562349
LCOSW	0.602663	1.000000	0.857847	0.983074	0.940909	0.485250
LGOWI	0.547316	0.857847	1.000000	0.884166	0.807988	0.715131
LHDCA	0.589234	0.983074	0.884166	1.000000	0.931528	0.536862
LOPLI	0.669954	0.940909	0.807988	0.931528	1.000000	0.430116
LBORC	-0.562349	0.485250	0.715131	0.536862	0.430116	1.000000

Source: Empirical Analysis, 2022 From E-view 9.0 version

The correlation test result in table 1 above indicates that COSW has positive relationship with ROA of TELECOM firms in Nigeria. This is confirmed by the value of the coefficient estimate of 0.602663. This implies that Computer software has direct relationship with return

on assets of TELECOM firms in Nigeria meaning that increase in the level of computer software cost leads to the increase in profitability of TELECOM firms in Nigeria. The correlation test result also shows that goodwill (GOWI) has positive relationship with the performance of TELECOM firms in Nigeria. This is confirmed by the value of the coefficient estimate of 0.857847. This implies that goodwill has direct relationship with the performance of TELECOM firms in Nigeria indicating that increase in the level of the performance of TELECOM firms in Nigeria. Likewise, the correlation test result shows that Operating Licenses (OPLI)has positive relationship with the performance of TELECOM firms in Nigeria. This is confirmed by the value of the coefficient estimate of 0.669954. This implies that Operating Licenses (OPLI)has direct relationship with the performance of TELECOM firms in Nigeria indicating that it could lead to increase in the level of the performance of TELECOM firms in Nigeria. Also, the correlation test result shows that Human Development Capital (HDCA) has positive relationship with the performance of TELECOM firms in Nigeria. This is confirmed by the value of the coefficient estimate of 0.589234. This implies that Human Development Capital has direct relationship with the performance of TELECOM firms in Nigeria indicating that proper handling of Human Development Capital could lead to increase in the level of the performance of TELECOM firms in Nigeria. Conversely, Borrowing Costs (BORC) has inverse relationship with the performance of TELECOM firms in Nigeria suggesting that increase in the size ofborrowing costsnot necessarily increase the return on assets of TELECOM firms in Nigeria.

Table 2: Summary of Panel Regression Results

Series	Pooled OLS	FE OLS	RE OLS
	(1)	(2)	(3)
C	10.8512	13.5822	19.1579
	[0.0000]	[0.0000]	[0.0000]
LCOSW	-0.5299	-1.7116	-1.4221
	[0.6051]	[0.1477]	[0.1786]
LGOWI	1.0887	1.6670	1.4851
	[0.2961]	[0.1564]	[0.1614]
LOPLI	-2.2045	-3.6041	-4.2000
	[0.0461]	[0.0155]	[0.0010]
LHDCA	0.8538	2.3232	2.2074
	[0.4087]	[0.0678]	[0.0459]
LBORC	-2.5108	-3.1787	-4.1318
	[0.0261]	[0.0246]	[0.0012]
Observations	42	42	42
R-Squared	0.64025	0.9781	0.8449
Adj. R-squared	0.50188	0.9211	0.7852
F-Value	4.6271	17.1551	14.1604
	[0.0121]	[0.0028]	[0.0001]
Hausman Test =	10.1417	p-value =0.0713	

Sources: Empirical Analysis, 2022 From E-view 9.0 version

In table 5, the study considered the pooled regression result, fixed effect and random effect ordinary least square (OLS) regression results. Observing this result, the study pools all the 42 observations together and ran the regression model, neglecting the cross section and time series nature of the data. It was found that the R-squared value for the pooled regression model was 0.64025 indicating that 64.02% of the total variation in return on assets (ROA) of

quoted TELECOM firms in Nigeria is explained by the explanatory variables such as computer software (COSW), goodwill (GOWI), Operating Licenses (OPLI), Human Development Capital (HDCA) and Borrowing Costs (BORC). None of the five variables; Computer Software (COSW), Goodwill (GOWI), Operating Licenses (OPLI), Human Development Capital (HDCA) except for Borrowing Costs (BORC) were found to have significantly influenced the performance (return on assets) of quoted TELECOM firms in Nigeria. This is confirmed by their respective P-values - (0.6051), (0.2961), (0.0461), (0.4087) and (0.0261) for Computer Software (COSW), Goodwill (GOWI), Operating Licenses (OPLI), Human Development Capital (HDCA) and Borrowing Costs (BORC). The major problem with pooled regression model is that it does not distinguish between the various quoted TELECOM firms that are in the sample. In other words, by combining different quoted TELECOM firms by pooling, the heterogeneity or individuality that may exist among the five (quoted TELECOM firms is not considered.

In order to allow for heterogeneity or individuality among the quoted TELECOM firms by allowing the quoted TELECOM firms to have its own intercept value; the fixed effect model (FEM) was applied. Fixed effect model was therefore applied because it is time invariant indicating that although the intercept may change across the quoted TELECOM firms, it however does not change over time. The R-squared value of 0.9781 indicates that 97.81.71% of the total variation in return on assets (ROA) is explained by the explanatory variables namely Computer Software (COSW), Goodwill (GOWI), Operating Licenses (OPLI), Human Development Capital (HDCA) and Borrowing Costs (BORC). However, two of the explanatory variables Operating Licenses (OPLI) and Borrowing Costs (BORC) were found to have significant influence on performance (return on assets) while, Computer Software (COSW), Goodwill (GOWI) and Human Development Capital (HDCA) were found not to be significant as confirmed by their P-value of (0.1477), (0.1564), ([0.0155), (0.0678), (0.0246) for computer software, goodwill, operating license,human development capital, and borrowing costs respectively.

The random effect regression model was also applied in order to account for the unobserved effects in fixed effect model. The random effect model shows that the R-squared value of 0.8449 indicates that 84.49% of the total variations in return on assets (ROA) is accounted for, by the explanatory variables, computer software, goodwill, operating licenses, human development capital, and borrowing costs. Furthermore, it was found that three of the explanatory variables, operating licenses, human development capital, and borrowing costs have significant influence on ROA as confirmed by their P-values of (0.0010), (0.0459) and (0.0012) respectively.

The study applied the Hausman test. The Hausman test was used to select the model (fixed effect or random effect) that will be mostly appropriate for estimation. Hausman test null Hypothesis states that Random effect model was appropriate while its alternative hypothesis states that fixed-effect model was appropriate. The selection of either fixed effect model or random effect model is based on the statistical significance of the P-value. From table 2 above, the Hausman test statistics P-value is [0.0713]. It implies that its P-value is not significant because it is greater than 5% (0.05) chosen level of significance. Thus, the null hypothesis cannot be rejected. Therefore, it is concluded that random effect model was desirable for prediction.

The panel (random effect) regression result presented in tables 1 and 2 above, reveals that Computer Software (COSW) and Goodwill (GOWI) not significantly impact on return on

assets while, Operating Licenses (OPLI), Human Development Capital (HDCA) and Borrowing Costs (BORC) significantly impact on return on assets of quoted TELECOM firms in Nigeria. Although, this result shows partial conformity with the expectation that rising level of intangible assets affects the net income and profitability of quoted TELECOM firms in Nigeria in the cases of Operating Licenses (OPLI), Human Development Capital (HDCA) and Borrowing Costs (BORC) while the reverse is the case for Computer Software (COSW) and Goodwill (GOWI). The result shows that a unit increase in the value of Operating Licenses (OPLI) paid or renewal by TELECOM firms will lead to -0.003119 unit decreases in the profitability of TELECOM firms in Nigeria. It is an indication of inverse relationship between Operating Licenses (OPLI)and return on assets (ROA) of TELECOM firms in Nigeria.

The panel (random effect) regression result presented in table 1 and 2 also revealed that Human Development Capital (HDCA) has positive and significant impact on return on assets (ROA) of TELECOM firms in Nigeria. This result is in conformity with the apriori expectation that rising level of human development capital brings about incentives and positive outcome which consequently affects the net income and profitability of TELECOM firms in Nigeria. The result shows that a unit increase in the level of human development capital will lead to 0.004111 unit increase in the profitability of TELECOM firms in Nigeria. It is an indication of direct relationship between Human Development Capital (HDCA) and return on assets of TELECOM firms in Nigeria.

Also, the panel (random effect) regression result revealed that Borrowing Costs (BORC) has negative and significant impact on return on assets (ROA) of TELECOM firms in Nigeria. This result is in conformity with the expectation that rising level of Borrowing Costs (BORC) brings about decrease and negative outcome which consequently affects the net income and profitability of TELECOM firms in Nigeria. The result shows that a unit increase in the level of Borrowing Costs (BORC) will lead to -0.002999unit decrease in the profitability of TELECOM firms in Nigeria. It is an indication of indirect relationship between Borrowing Costs (BORC) and return on assets of TELECOM firms in Nigeria.

DISCUSSION AND RECOMMENDATION

The major discussions, significance, and objective of this study are such that will enable the Telecom industry to have a good understanding of the effects of intangible assets on corporate financial performance of Telecom firms in Nigeria. It is expected that the above mentioned stakeholders in the Nigerian private sector upon appreciation of the findings of this study would have a need to pay attention it deserves to intangible assets with regards to corporate financial performance in Nigeria.

5.1 Computer Software and Corporate Financial Performance of Telecom Firms in Nigeria.

The research seeks to determine the extent to which computer software affects corporate financial performance of Telecom Firms in Nigeria. Thus, from the findings of the study had it that the computer software has no statistical significant effect on corporate financial performance of Telecom Firms in Nigeria. The table also unveils that the variables made good representation in the model and as such, accounted for the percentage therein. This suggests that although, the computer software is quite useful and apt for running business entities not just in Nigeria but, internationally, it does not statistically account for changes in the corporate performance in the Telecom firms in Nigeria.

Goodwill and corporate financial performance of Telecom Firms in Nigeria.

This research seeks to ascertain the extent to which Goodwill significantly affects corporate financial performance of Telecom Firms in Nigeria. Thus, from the findings of the study had it that the companies' goodwill has no significant effect on corporate financial performance of Telecom Firms in Nigeria. The table also unveils that the variables made good representation in the model and as such, accounted for the percentage therein. This suggests that although, the corporate goodwill is quite useful and needed in running business entities in Nigeria and internationally, it does not statistically account for changes in the corporate performance in the Telecom firms in Nigeria. Undoubtedly, method of calculating the goodwill can influence its value in a given organization.

The above findings corroborated the studies of Omeje, Chukwuani, and Ezeh (2019) which indicate that intangible assets (goodwill inclusive) have positive but insignificantly with financial performance. It was on the basis of the findings that the study (Omeje, Chukwuani, and Ezeh, 2019) recommends strategic investment in intangible asset to drive the needed growth for achieving better financial performance in Nigeria brewery sector. Likewise, the above findings corroborated the studies of Odunko (2017) results which indicate that goodwill of the firms has negative and insignificant effect on the Earnings per Share of the firm. It was on that basis that the study recommended that the firms should invest more in goodwill so that it can have positive effect on the earnings per share. It further suggests that more investments is encouraged in the intangible to give rise to cutting–edge technologies that will enhance the organizational reputation/ goodwill and the creation of more business relationship that will enhance the distribution.

Based on the analysis and research, the following findings were made:

1. Computer software has negative and no significant effect on financial performance (Return on Assets) of Telecom firms in Nigeria.
2. Goodwill has positive but not significant effect on financial performance (Return on Assets) of Telecom firms in Nigeria.

Conclusion

Intangible assets are not accorded the same relevance as tangible assets. In Nigeria, the value of total intangible assets (less than 1%) for all the manufacturing firms studied results from the volatility of this asset. This is so as the relationship between intangible assets and financial performance is significant and negative in some cases. However, it is important for managers not to neglect the impact of intangible assets, since reported intangible assets shape investor's perception of company value. This is because, in the context of a business combination, the acquiring firm can take into consideration the impact goodwill and other intangible assets have on companies in their industry to meet investor preference.

Recommendations

Based on the findings of this study, the following recommendations were made which may be useful to stakeholders and Telecom Firms in Nigeria.

1. In view of the negative and not significant effect of Computer Software on financial performance, Telecom firms in Nigeria should therefore work towards reduction of cost of Computer Software in order to increase the financial performance of Telecom Firms in Nigeria.
2. Telecom firms in Nigeria should be cautious of goodwill valuation so as to enhance their level of financial performance.

In order to deepen the scope and achieve more objective generalization of the findings, conclusions, and recommendation arrived at in the course of this study, the following are hereunder suggested for further studies:

a. That another research should be conducted on the same topic in other industries of the country, Nigeria.
b. The same research topic could be replicated anywhere in the Telecom industry but with different objectives of the study.

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