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s/n	Contents	Pages
1	Workplace Spirituality and Employee Performance of Manufacturing Firms in River State, Nigeria, Ebikebina Tantua, (Jr) Ph.D and Osuamkpe Nelly Ernest	1-12
2	Wage Differentials and Employee Engagement in Federal Agencies in Rivers State, Dappa, Owajimam Isaiah, Dr. J.M.O. Gabriel and Dr. M.D. Tamunomiebi	13-24
3	Resuscitating the Educational Sector in a Depressed Economy: Relying on Transformational Leadership for Effective National Development, ULE Prince Alamina and IDEMUDIA Sunday Aliyu	25-34
4	Feasibility Analysis and New Venture Performance in Rivers State, Nigeria, Okochi, Kinikanwo	35-50
5	Corporate Governance Structure and Financial Reporting Quality of Quoted Manufacturing Companies in Nigeria, Amah Kalu Ogbonnaya	53-70
6	Effective Information Technology Communication: A Panacea to Business Success, Gift J. Eke (Ph.D), MNIM, MABEN, MTAMN, IIPRDS and Florence Aniambrade Kenekara, MNIM, MABEN, IORMS	71-81
7	Big Data Analytics and Performance: Evidence from Retail Supply Chains in Rivers State of Nigeria, Ikegwuru, Mac-Kingsley (Ph.D) and Beatrice Chinyere Acee-Eke (Ph.D)	82-96
8	Socio-Economic Problems of Teenage Pregnancy of Victims in Secondary Schools of Oyo State, OJETOLA, Abigail Joke	97-102
9	The Relationship between Style of Administration and Educational Innovation in Public Universities in Nigeria, Okoro Blessing Chineme, Ph.D, Blessing Anukaenyi, Ph.D and Prof. Donatus Nwobodo	103-120



Workplace Spirituality and Employee Performance of Manufacturing Firms in River State, Nigeria

Ebikebina Tantua, (Jr) Ph.D¹ and Osuamkpe Nelly Ernest²

¹Department of Office and Information Management, Faculty of Management Sciences, Rivers State University, Nkpolu-Oroworukwo, P.M.B. 5080, Port Harcourt, Nigeria

²Post Graduate Student, Department of Office and Information Management, Faculty of Management Sciences, Rivers State University, Nkpolu-Oroworukwo, P.M.B. 5080, Port Harcourt, Nigeria

Abstract: *This study examined the relationship between workplace spirituality and employee performance of manufacturing firms in Rivers State. The study was carried out using a cross sectional survey and was obtained based on an estimated sample of 302 workers within the manufacturing firms. In this study, workplace spirituality was operationalized using sense of community while employee performance was operationalized using creativity and efficiency. The tests of hypotheses were carried out using the Spearman Rank order correlation coefficient at a 0.05 level of significance. The reliability of the instrument was achieved using the Cronbach Alpha Coefficient with all the items being above 0.7. The results from the tests reveal that there is a significant relationship between workplace spirituality and employee performance. We therefore recommended that supportive systems and collaborative work should be encouraged through the development of work groups or teams within the workplace. Employees should be allowed to contribute and partake as a significant member within the groups and the organization as a whole. Effort should also be made to offer support and encouragement towards employees with regards to their work and role expectations.*

Keywords: *Workplace Spirituality, Employee Performance, Sense of Community, Creativity and Efficiency*

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INTRODUCTION

Organizations are facing increased competition due to globalization, changes in technology, political and economic environments (Evans, Pucik & Barsoux, 2002) and therefore prompting these organizations to address issues related to their employees as one of the ways to prepare them to adjust to the increases above and thus enhance their performance. It is important to not ignore the prevailing evidence on growth of knowledge in the business corporate world in the last decade. This growth has not only been brought about by improvements in technology nor a combination of factors of production but increased efforts towards development of organizational human resources.

The success of any organization is closely tied to the job performance of its employees. The quality of the employees' workplace environment impacts on their motivation level and hence performance (Heath, 2006). When employees have the desire, physically and emotionally to work, then their performance shall be increased (Boles *et al.*, 2004). Armstrong (2006) defines performance as the development of quantified objectives. Performance is not only a matter of what people achieves but how they achieve. Performance defined by Sultana *et al.* (2012) as the achievement of specified tasks against predetermined or identified standards of accuracy, completeness, cost and speed.

High performance is a step towards the achievement of organizational goals and tasks. Frese and Sonnentag (2001) opined that an individual performance is highly important for an organization as a whole and the individuals working in it. Organizations need highly performing employees in order to meet their goals and to deliver the products and services they are specialized in and finally to achieve a competitive advantage. They also stated that having a proper workplace environment helps in reducing the number of absenteeism and as a result can increase the performance in today's competitive and dynamic business world.

Various authors have identified and pointed out that spiritual development can meet the challenge of distressing employees for various individual factors; (Benson & Roehlkepartain, 2008; Flaxmana & Bonda, 2010; Locander & Weinberg, 2014). Only in recent times have the value of workplace spirituality weighed in on the minds of managers, Sheng and Chen (2012) indicated that Spirituality in the workplace is a new field, and significantly related to individuals, organizations, and social physical and mental health, including organizational support, organizational commitment, and internal work satisfaction. Yogesh and Srishti (2010) concluded that Workplace spirituality plays a significant role in establishing a strong, well understood, and encouraging positive organizational culture by enhancing employee motivational level and in improving employee productivity, and organizational performance.

Spirituality is defined by Myers, Sweeney and Witmer (2000) as personal and private beliefs that transcend the material aspects of life and give a deep sense of wholeness, connectedness, and openness to the infinite. In the work situation there is horizontal spirituality which is the desire to be of service to other people and is demonstrated by service orientation and a deep concern for one's fellow workers (Ajala, 2013). Consideration towards others (showing concern) and the existence of high quality interpersonal working relationships lead to high levels of job satisfaction, low staff turnover, and enhanced group cohesion, group performance and group efficiency (Ajala, 2013). Ultimately, these circumstances increase productivity. Spirituality at the workplace, according to Petchsawange and Duchon (2012) has a positive effect on human activity and enhances personal development, compassion, meaningfulness and joy at work simultaneously promoting honesty, trust, job commitment, and wellbeing of employees. Spirituality in the workplace can be called spiritual work wellness and is often included as one of the dimensions of employee wellness programmes identified as spiritual wellness.

Many may take spirituality in the form of religious observance, prayer, meditation or a belief in a higher power and for others, it can be found in nature, music, art or a secular community. Workplace spirituality may have certain benefits; it can help a person in focusing on personal and later to organizational goals. Spirituality gives employees concern for that which is unseen and intangible, as opposed to physical or mundane. According to Albanese (1990), spirituality has to do with the human beings' awareness of details in existence and it revealed in-depth

connections. Workplace spirituality may help employees to uncover what's most meaningful in their life. This Spirituality provides the realization of being connected to oneself and with the world; this will in turn lead to inner peace during difficult times. Moreover, spirituality helps in releasing control, expanding one's support network and above all live a healthier life.

In recent times the business environment is a place where the society spends most of its time in the workplace, therefore an understanding of the connection between spirituality and work value could provide a better picture to prepare managers on how best to handle the relationship. And it could also provide educational institutions a better picture as to how best to prepare future managers. Biberman and Whitty (1997) in examining spirituality in workplace indicated that workers have to understand their role and how they can add-value to the organization rather than expecting the organization to provide a lifetime employment. Many years ago, Harari (1993) has already predicted that the future will be a period where workers who can add value to the organization will stand better chance/opportunities than those who cannot.

This piece of research is spurred by the void left by previous research works on workplace spirituality in connection to employee performance in the Nigerian context. And will contribute to efforts towards the pool of knowledge on the total business environment. Mojinyinola (2012) discussed spirituality in the recovery of patients in health care sector, while (Mojinyinola & Ajala, 2012; Ajala & Mojinyinola, 2013) discussed the place of spirituality in the curriculum of Social Work Courses in Nigeria. Research has not been done on the impact of workplace spirituality on employee performance in Nigeria. On this note, there exists a literature gap which our study tends to cover. Our point of departure therefore, is to empirically investigate the impact of workplace spirituality on employee performance of manufacturing firms in Port Harcourt, Rivers state, Nigeria.

This study was guided by the following research questions:

- i. What is the relationship between sense of community and creativity in manufacturing firms in Port Harcourt, Rivers State?
- ii. What is the relationship between sense of community and efficiency in manufacturing firms in Port Harcourt, Rivers State?

LITERATURE REVIEW

Theoretical Foundation

Spiritual Leadership Theory

Spiritual leadership theory is concerned with the creation of an intrinsically motivated, learning organization. The theory of spiritual leadership was developed within an intrinsic motivation model that incorporates vision, hope/faith, and altruistic love, theories of workplace spirituality, and spiritual survival/wellbeing.

Having received increased attention in the organizational sciences, workplace spirituality is a fast-growing area of research and inquiry, with important implications for leadership theory, research, and practice (Hill, 2013). To date, the most developed and tested theory of workplace spirituality is the model of spiritual leadership proposed by Fry (2008), Fry and Nisiewicz

(2013), and Fry, Matherly and Ouimet (2010). Fry's (2003) initial model of spiritual leadership was developed within an intrinsic motivation framework that incorporated spiritual leadership (i.e., vision, hope/faith, and altruistic love) and spiritual well-being (i.e., calling and membership).

The purpose of spiritual leadership is to create vision and value congruence across the strategic, empowered team and individual levels. Ultimately, it should foster higher levels of important individual and organizational outcomes such as organizational commitment and productivity, financial performance, employee life satisfaction, and corporate social responsibility (Fry *et al.*, 2010; Fry & Nisiewicz, 2013).

Essential to spiritual leadership are the key processes of:

1. Creating a transcendent vision of service to others whereby one experiences a sense of calling so that one's life has purpose and meaning and makes a difference.
2. Establishing or reinforcing an organizational culture based on the values of altruistic love whereby one has a sense of membership, feels understood and appreciated, and has genuine care, concern, and appreciation for *both* self and others.

Fry (2005b) extended spiritual leadership theory by exploring developments in SRW, character ethics, positive psychology, and spiritual leadership. He argued that these areas provide a consensus on the values, attitudes, and behaviours necessary for health, psychological and ethical well-being, and, ultimately, corporate social responsibility.

Fry (2008) further revised the spiritual leadership model to include inner life and life satisfaction. One's inner life, or spiritual practice, as a fundamental source of inspiration and insight, positively influences development of (a) hope/faith in a transcendent vision of service to key stakeholders and (b) the values of altruistic love. Inner life affects individuals' perceptions about who they are, what they are doing, and what they are contributing (Vaiil, 1998).

Workplace Spirituality

"Spirituality" as explained by Shen and Chen (2013) is an abstract concept and not easily defined, thus, there were various definitions. Spirituality does not necessarily refer to religious doctrines. It could be some one's philosophy, values, or meaning of life, Farangai (2016) sees Spirituality as a force energy, motivation, inspiration, spirit and life the constant search for meaning, purpose, destiny, particular. Many researchers considered spirituality as a source of stability for the organization which can realize the performance and the effectiveness of Divine help for different people depending on their attitude or worldview has several meanings. Here the spiritual life, necessarily belong to one of the established religions historically, it means having an attitude to the world and people to people peace, happiness and hope.

Workplace spirituality can be defined as "the recognition that employees have an inner life that nourishes and is nourished by meaningful work that takes place in the context of community" (Ashmos & Duchon, 2000 as cited by Charoensukmongkol *et al.*, 2015). In line with Ashmos and Duchon (2000) workplace spirituality encompasses three dimensions: sense of community, meaningful work, and inner life. They noted that the first dimension is as regards the connection that the employee has with other human beings in the workplace, the second dimension is about

conducting activities at work that give meaning to the person's life and the third one is concerning the understanding of one's power and its use in the workplace.

Workplace spirituality emerged as a crucial factor for organizational development and effectiveness in past few years. Although, the subject of workplace spirituality is relatively new to organizational studies, interest in it has grown significantly over the past two decades and researchers, academicians, professional and psychologists has started to focus on it as an interesting phenomenon of study. Spirituality at workplace plays an important role for any organization's success in present scenario (Kumar & Kumar, 2015).

In research, workplace spirituality has been found to contribute positively to some individual outcomes. Kolodinsky (2003) noted that this contribution can be understood as a person organization fit (P-O fit), which is defined as "judgments of congruence between an employee's personal values and an organizational culture" (Cable & DuRue, 2002: 875). Kolodinsky, (2008) stated that when a strong fit exists between the employee's values and the organization's values, a positive relationship with individual outcomes will be seen. Milliman *et al.* (2003) reported that workplace spirituality dimensions are not only positively related to organizational commitment but also negatively related to the intention to quit.

Contemporary evidence supports the statement that many employees in today's workplaces feel unappreciated, unconnected, lost and insecure in their jobs (Sparrow and Cooper, 2003; Meyer & Allen, 1997). Several researchers found that employees began to feel distanced, vulnerable, and cynical as a result of downsizing, restructuring, reengineering, delaying, layoffs, and other current changes in organizations (Biberman & Whitty, 1997).

Research suggests that the development and expression of the spirit at work may indeed solve these problems of stress and burnout, as well as have beneficial consequences for the well-being of employees. Reave (2005) mentions the review of Emmons (1999) that summarizes seven studies that have reported "a significant correlation between spirituality and mental health indices of life satisfaction, happiness, self-esteem, hope and optimism, and meaning in life" (p. 667).

There is growing evidence in spirituality research that workplace spirituality programs result in positive individual level outcomes for employees such as increased joy, serenity, job satisfaction and commitment (Burack, 1999; Krishnakumar and Neck, 2002; Fry, 2003, 2005). There is also evidence that these programs improve organizational productivity and reduce absenteeism and turnover (Fry, 2003, 2005). Milliman, Czaplewski, and Ferguson (2003) found a positive correlation between workplace spirituality and employee attitudes such as commitment to the organization, intrinsic work satisfaction, and job involvement. Neck and Milliman (1994) claim spirituality values have positive effects on both personal well-being and job performance.

Sense of Community

This refers to interpersonal and profound connections and relationships. In other words, the employees had in-depth interactions with others, which enhanced mutual inner feelings and even sympathy with others' inner selves. Brown (2003) indicated that in the workplace, community development or work group consultations tends to result in workplace spirituality. However, this

community relationship should be based on trust, support, communication, and sincere care. Thus, the employees in the organization would care for and support each other as families.

Sense of community, could be considered a key factor that encourages employees to perform both OCBI and OCBO. As mentioned earlier, sense of community is about working in a place where employees can feel that there is a strong connection among the coworkers (Ashmos & Duchon, 2000). From this definition, employees with a high sense of community are more likely to demonstrate pro-social behavior, which is the willingness to help, protect, or promote the welfare of others (Schwartz & Bilsky, 1990). Therefore, this pro-social behavior that employees have in their workplace can motivate them to make discretionary contributions to help their co-worker and the organization beyond their regular responsibilities (Li *et al.*, 2010). Also, Manion and Bartholomew (2004) noted that when a sense of community exists in a workplace, individuals and groups will be characterized by inclusivity, commitment of the members, the ability to form consensus, a sense of realism, a contemplative nature, and a sense of safety.

As a result of the failure of trust in institutions; employees are searching for a sense of community, high quality connections (Dutton and Heaphy, 2003) and compassion at work (Frost, 2006). Because of the decline of local communities and social groups that establish a sense of connectedness (Conger, 1994) and the dissolution of traditional support systems such as the church and family (Leigh, 1997); workplaces have replaced them as primary sources of community for many people. It is also known that employees are seeking ways and means to connect to each other and to be united in a common vision that goes beyond materialistic aims (Miller, 1998). According to them, these characteristics will help create the environment of mutual trust that encourages employees to devote themselves to help other employees and the organization.

Employee Performance

Workers performance is of great importance to the organization because it communicates the overall performance and development of the organization to its members as well (Bohlander *et al.*, 2001). In the discipline of human resource management, different writers suggest the following indicators for measuring employee performance and they include: efficiency in terms of cost, effectiveness with regards to quality that can be measured by percentage of work output that must be redone or is rejected; Customer satisfaction that can be measured by the number of royal customers and customer feedback. Also, timeliness, measured in terms of how fast work is performed by the employee when given a certain task; absenteeism/tardiness observed when employees absent themselves from work; and achievement of objectives measured when an employee has surpassed his/her set targets, he/she is then considered to have performed well to achieve objectives (Hakala, 2008; Armstrong, 2006).

Various studies have been carried out on workplace environment as a factor that determines employee performance. In his study, Tamessek (2009) analyzed the extent to which employees perceive their workplace environment as fulfilling their intrinsic, extrinsic, and social needs and their need to stay in the organization. He also analyzed the impact of perception of workplace environments on employee commitment and turnover in the organization, he concluded that if the employees are provided with enabling workplace environmental support, they will be highly satisfied and show high level of commitment towards their organization and hence low turnover rate.

Armstrong (2009) focused especially on those factors involved in stimulating an individual to put effort into something, since this is the basis of motivation. Cole (2004) indicates that management can achieve high performance when employees see their membership of a work group to be 'supportive', that is to say when they experience a sense of personal worth and importance from belonging to it. High producing managers and supervisors tend to foster just such relationships with and within their groups.

A performance appraisal system is important to any organizational work performance because it determines the organizational success or failure (Nyaoga, Simeon & Magutu, April 7, 2010). Managers design an environment for performance when they see that verifiable goals are set, strategies are developed and communicated, and plans to achieve objectives are made (Wehrich & Koontz, 2001). They create an effective environment when they make sure that control tools, information and approaches furnish people with the feedback knowledge they must have for effective motivation (ibid).

Performance feedback creates opportunities for learning and the energy so critical for a culture of thriving (Gretchen & Christine, Jan/Feb 2012). By resolving feelings of uncertainty, feedback keeps people's work-related activities focused on personal and organizational goals and the quicker and more direct the feedback is the more useful it is (ibid). According to Nyaoga, Simeon & Magutu (April 7, 2010) employees should be appraised at least once a year as this will contribute to increased employee efficiency, productivity and morale. The appraisal process offers a valuable opportunity to focus on work activities and goals as well as identify and correct existing problems and to encourage better performance.

Measures of Employee Performance

Employee Creativity

According to conventional wisdom, creativity is something that creative people have or do (Amabile, 1997). Creative individuals have several features that distinguish them from their less creative peers, that is, they have a rich body of domain-relevant knowledge and well-developed skills; they find their work intrinsically motivating; they tend to be independent, unconventional, and greater risk takers; and they have wide interests and a greater openness to new experiences (Amabile, 1997). Creativity is derived from an individual's accumulated creative thinking skills and expertise based on their formal educations and past experiences (Gong, 2009).

In some studies, creativity is considered to be a personal characteristic with features that include broad areas of interest and high energy levels (King & Gurland, 2007). An understanding of organizational creativity will necessarily involve understanding (a) the creative process, (b) the creative product, (c) the creative person, (d) the creative situation, and (e) the way in which each of these components interacts with the others (Amabile, 1997). Creativity is important to organizations because creative contributions can not only help organizations become more efficient and more responsive to opportunities, but also help organizations adapt to change, grow and compete in the global market. Researchers have mentioned that some level of creativity is needed in almost any job (Amabile, 1997).

Employee efficiency

Employees' efficiency is deemed to be the fulfillment of employees' obligation, in a manner that releases the firm from all liabilities. Employees' efficiency measures show firms' employees are able to convert inputs into useful outputs within standard time (Damson & Maguire, 2003). Employees' efficiency is measured by sales revenue per employee ratio. This ratio serves as a gauge of personnel productivity that simply measures the amount of revenue generated per employee (Lewis, 1972). Companies that operate on labour intensive could face the challenge of poor productivity when employee's earned wages or salaries are defaulted. As a result, financial decision would be made in order to be efficient in operating expenses, which is one of the key determinants of a firm's productivity (Sandeep, 2012).

From the foregoing point of view, we hereby hypothesized thus:

H₀₁: There is no significant relationship between sense of community and employee creativity in the manufacturing firms in Port Harcourt, Rivers State.

H₀₂: There is no significant relationship between sense of community and employee efficiency in the manufacturing firms in Port Harcourt, Rivers State.

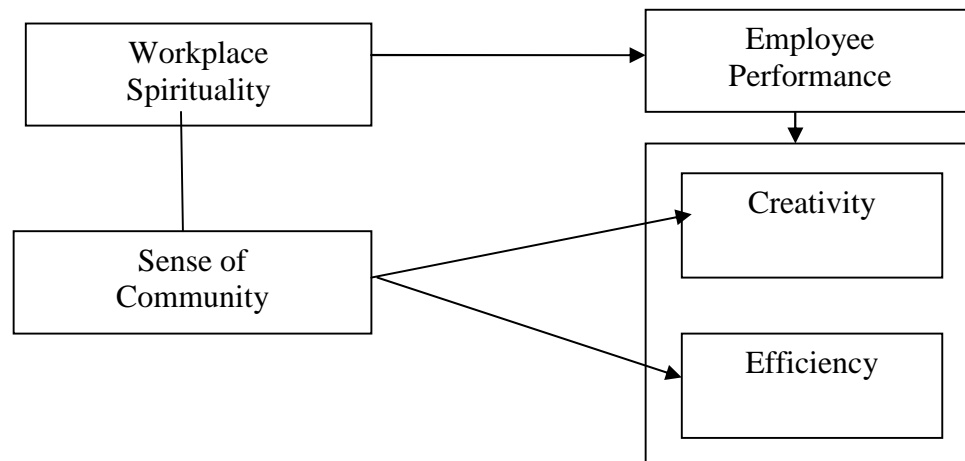


Fig.1: Operational Framework for the hypothesized relationship between work place spirituality and employee performance.

Source: Author's Desk Research, 2018

METHODOLOGY

The population for this study comprises all registered and functional manufacturing firms in Port Harcourt, Rivers state which numbers 39 drawn from the directory of the Manufacturers Association of Nigeria (MAN), but since it is not possible to access all 39 firms given the extremely large population size, the accessible population will be made up of 5 manufacturing firms in Port Harcourt. Rivers state chapter, which totals a number of 1226 of workers drawn from their Human Resource Based data culled by the researcher. The sample size for the study therefore was 302. Descriptive statistics and Spearman Rank Order Correlation Coefficient for data analysis and hypothesis testing with the help of the SPSS version 23 package.

RESULTS AND DISCUSSIONS

Bivariate Analysis

Data analysis was carried out using the Spearman rank order correlation tool at a 95% confidence interval. Specifically, the tests cover a H_0 hypothesis that was bivariate and declared in the null form. We have based on the statistic of Spearman Rank (ρ) to carry out the analysis. The level of significance 0.05 is adopted as a criterion for the probability of accepting the null hypothesis in ($p > 0.05$) or rejecting the null hypothesis in ($p < 0.05$).

Table 1 Sense of community and the employee performance

			Sense	Creativity	Efficiency
Spearman's ρ	Sense	Correlation Coefficient	1.000	.634**	.701**
		Sig. (2-tailed)	.	.000	.000
		N	242	242	242
	Creativity	Correlation Coefficient	.634**	1.000	.607**
		Sig. (2-tailed)	.000	.	.000
		N	242	242	242
	Efficiency	Correlation Coefficient	.701**	.607**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	242	242	242

Source: Research survey, 2018

H_{01} : There is no significant relationship between sense of community and employee creativity in manufacturing firms in Port Harcourt:

The result for this hypothetical statement indicates that there is a significant relationship between the variables. The evidence shows that at a $\rho = .634$ and a $P < 0.05$, sense of community significantly impacts on employee creativity. Consequently, the hypothesis is considered as false and therefore rejected based on the lack of statistical evidence to prove otherwise.

H_{02} : There is no significant relationship between sense of community and employee efficiency in manufacturing firms in Port Harcourt:

The result for this hypothetical statement indicates that there is a significant relationship between the variables. The evidence shows that at a $\rho = .701$ and a $P < 0.05$, sense of community significantly impacts on employee efficiency. Consequently, the hypothesis is considered as false and therefore rejected based on the lack of statistical evidence to prove otherwise.

Discussion of Findings

The evidence from the analysis reveals the variables as being substantial characteristics which are apparent within the manufacturing firms in Port Harcourt. The results show that workplace spirituality through its dimension sense of community is an evident and well recognized feature

of the manufacturing firms. This goes to indicate that there exists within this organizations practices and activities that promote and encourage spirituality expressions and practices.

In this vein, employee performance is also observed to be well expressed and thus significant features of the manufacturing firms as well. Workers within the organization identify behaviour such as creativity and efficiency as dominant and significantly characterizing their functions within the organization. The descriptive statistics for both measures are revealed to be significant and strongly reflected in the actions and behaviour of workers within the manufacturing firms in Rivers State.

In essence, sense of community is well represented and manifested within the context of the study. The results reinforce the assertions and models presented by scholars (Brown, 2003; Schwartz & Bilsky, 1990; Li *et al.*, 2010) which consider community and workplace support systems as integrating platforms which enhance employees' sense of belongingness and as such improves performance. Although, the cluster of hypotheses for this relationship are all rejected, the evidence serves as a strong empirical base for previous observations which link employees' sense of community to their increased capacities for creativity and efficiency within the workplace. It also ensures and drives the bonding and openness to cooperation between the workers (Brown, 2003).

CONCLUSION AND RECOMMENDATION

In conclusion, this study affirms that workplace spirituality is important and critical for employee performance within manufacturing firms in Port Harcourt. The study asserts that the support and evidence of sense of community significantly impact and enhance the extent to which employees within manufacturing firms in Port Harcourt are creative and efficient in their work and roles within the organization.

Based on the findings obtained from summary of discussion and empirical findings the following recommendations are made:

- i. Supportive systems and collaborative work should be encouraged through the development of work groups or teams within the workplace. Employees should be allowed to contribute and partake as a significant member within the groups and the organization as a whole. Effort should also be made to offer support and encouragement towards employees with regards to their work and role expectations.

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Wage Differentials and Employee Engagement in Federal Agencies in Rivers State

*Dappa, Owajimam Isaiah, **Dr. J.M.O. Gabriel and **Dr. M.D. Tamunomiebi

*Postgraduate Student, Department of Management, Faculty of Management Sciences, Rivers State University, Nkpolu-Oroworukwo, P.M.B. 5080, Port Harcourt, Nigeria

**Lecturer, Department of Management, Faculty of Management Sciences, Rivers State University, Nkpolu-Oroworukwo, P.M.B. 5080, Port Harcourt, Nigeria

Abstract: This paper examined the relationship between wage differentials and employee engagement in federal agencies in Rivers State. The study adopted a cross-sectional survey in its investigation of the variables. Primary data was gathered through structured questionnaire. The population of the study was 1019 employees of five (5) selected federal agencies situated in Rivers State. A sample size of 287 was determined using Taro Yamane sample size formula. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Statistics. The tests were carried out at a 95% confidence interval and a 0.05 level of significance. The finding revealed that there is a significant relationship between wage differentials and employee engagement in federal agencies in Rivers State. The study recommends that policies should be designed to address the gender wage gaps within the organization in such a manner that supports the equality of wage distribution across both genders. This can be achieved through a de-emphasis of the gender category and a strengthening of collaboration and cooperation between the gender groups through adequate policies and work arrangements that allow for collaboration and joint effort.

Keywords: Wage Differentials, Employee Engagement, Dedication, Vigour, Absorption

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INTRODUCTION

Employee engagement is considered a significant and highly critical aspect of the functionality of organizations, not only because of the benefit it offers the organization, but also due to the implications of its absence within the organization (May, Gilson & Harter, 2004; Sonnetag, 2011). This is as employee engagement is considered a complex and multidimensional issue that affects various stakeholders and organisational outcomes.

The positive relationship between employee engagement and organisational outcomes such as increased performance, organisational effectiveness, customer satisfaction, employee satisfaction, productivity and reduced staff turnover has been widely reported (Hicks, O'Reilly &

Bahr, 2014). According to Wrzesniewski, McCauley, Rozin and Schwartz (1997), individuals spend more than a third of their lives in their work. Engaged employees are willing to involve themselves in their work entirely and employ emotional, intellectual and physical resources to achieve and complete their work tasks (Schaufeli & Bakker, 2004).

In Nigeria, there exists a growing clamour for improved service quality, performance and organizational effectiveness (Omolayo, & Owolabi, 2007). This is most apparent within public agencies at various levels (federal, state and local) which as Ladipo and Olufayo (2011) noted, have gained a notoriety for the lackadaisical behaviour of the workers and as a result, the poor levels of effectiveness of the agencies. This problem, despite the abundance of research in the area has remained a substantial feature of the Nigerian public sector.

Considering the importance of engagement from an organisational and individual point of view, it is clear that serious fluctuations in engagement levels can potentially have serious consequences for business and organizational outcomes as has been observed in several studies (Rothmann, 2015). Research has also shown that engagement levels within most developing nations such as Nigeria are at critical levels (Omolayo, & Owolabi, 2007; Gallup, 2013). This is as Ladipo and Olufayo, (2011) described the features of the workplace and the work itself as a definitive factor, blameworthy for the attitudes of behaviour of employees.

In their study, Ladipo and Olufayo, (2011) observed that in most food companies and organizations of Ogun State, Nigeria where such logical wage and salary differentials have not been established, compensation patterns are often irregular and chaotic since they have evolved from favouritism and arbitrary decisions. In such cases jobs that call for greater effort skill and responsibility may pay less than jobs requiring fewer of these attributes; and individuals in the same or similar occupations may receive widely varying compensation; morale is consequently low and performance poor since employees keenly see these inequities, unfairness and also management cannot explain the inconsistencies on a logical basis. Literature suggests that positive work-related behaviour and attitudes such as employee engagement largely depends on employee perceptions on the extent to which their employer values their contribution and cares about their wellbeing (Allen, Shore & Griffeth, 2003). Paying employees fairly is considered to be also in a company's best interest.

There is a significant body of research suggesting that organizations with a more balanced and equitable distribution of wages have workers who trust and identify with the organization (Harter, Schmidt, & Hayes, 2002). Turnover intentions may also be reduced, and the hefty cost of replacing an employee may be avoided by paying employees fairly (McMullen, 2010). Worldat Work (2010) reported in a global study that pay and benefits had a weaker relationship to encouraging work engagement than recognition, incentives and intangible rewards. A recent study by Hewitt (2015) also reported that employees' perceptions of total rewards are related to their levels of engagement. He found that engaged employees had a far more positive view of the total rewards their employer offered in comparison with their less engaged counterparts.

According to McMullen (2010), quality of work, pay equality, career development, organisational culture and work-life balance all have a significant impact on employee engagement. Literature reveals an abundance of studies (McMullen, 2010) which have addressed the relationship between wage differentials and employee engagement, nonetheless, these studies have tended to adopt a broad approach towards investigating the relationship between the

variables. This is as it is evident from Spector and Jex (1991) study that the forms of wage differentials differ on a substantial level and each dimension (nationality-based, gender-based and experience-based wage differentials) has obvious implications for employee within the workplace. Unfortunately, little has been done in assessing the relationship between each of these dimensions effect on employee engagement.

Furthermore, most of the theories and models on the relationship between wage differentials and employee engagement are built and designed based on the lifeworld and experiences of organizations within developed contexts. This is as a significant difference exists between the cultural orientations of organizations, especially between those of developed and developing contexts (Gallup, 2010). It is therefore justified as a point of departure to assess this relationship between experience-based wage differential and employee engagement operationally by examining the effects on measures such as dedication, vigour and absorption, especially within the context of Nigerian federal government agencies based in Rivers State.

This study was guided by the following research questions:

- i. To what extent does experience-based wage differential influence dedication in federal agencies in Rivers State?
- ii. To what extent does experience-based wage differential influence vigour in federal agencies in Rivers State?
- iii. To what extent does experience-based wage differential influence absorption in federal agencies in Rivers State?

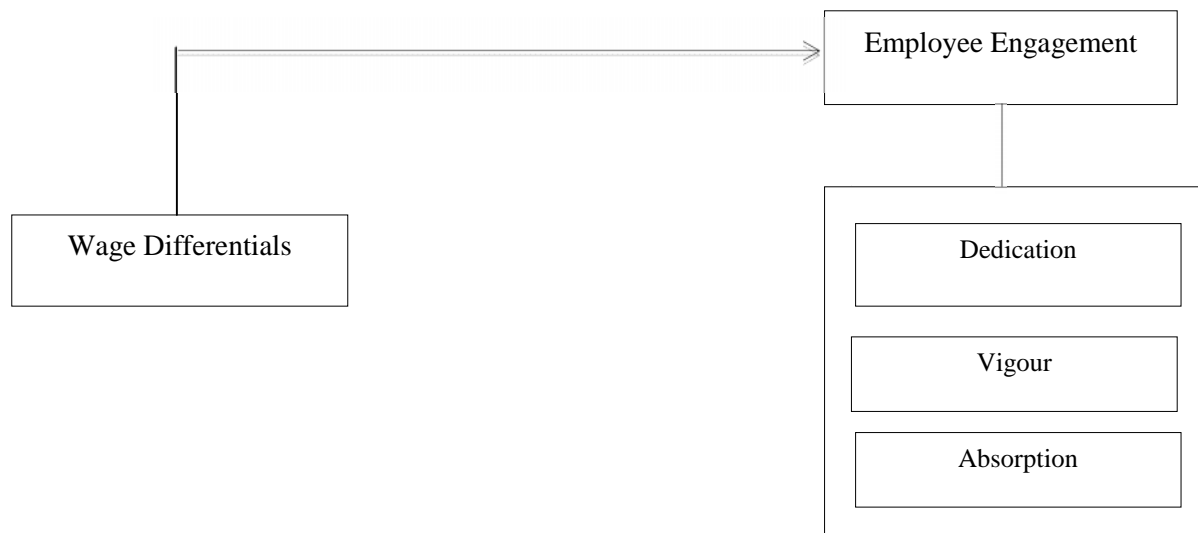


Fig.1 Conceptual framework for the relationship between wage differntials and employee engagement

Source: Author's Desk Research, 2020

LITERATURE REVIEW

Theoretical Foundation

The Social Exchange Theory (SET)

The Social exchange theory (SET) is among the most influential conceptual paradigms for understanding work place behaviour (Croponzano & Mitchell, 2005). The theory has its roots in the anthropological works by Malinowski. It was popularised by Blaus (1964) who differentiated between economic and social exchange and is therefore credited as the founder of the social exchange theory. The theory has been advanced by other researchers such as; Das and Teng (2002) who introduced alliance building which are self-centred in to the theory. Similarly, Globerman and Nielsen (2007) introduced trust as the cornerstone of interacting between parties in to the theory.

The Social exchange theory was initially developed to analyse people's social behaviour in terms of exchange of resources. Blaus (1964) posited that individuals voluntarily exhibit certain behaviour or may do certain things because of motivation of expectation for positive reciprocal behaviour from others. The expectations of payback are not explicitly expressed. Therefore, Blaus (1964) argued that social exchange requires trusting others to reciprocate. Humans in social situations choose behaviour that maximises their likelihood of meeting self interest in those situations.

Eisenberger, Armeli, Rexwinkel, Lynch and Rhoades (2001) posited that employees' feeling an obligation at work is important as it compels them to repay advantageous treatment received from employer. Perceived organisational support concerns the extent to which employees perceive that their contributions as valued by the organisation. Justice at workplace is perceived as creating conditions necessary for employee engagement. Further, Croponzano and Mitchell (2005) posited that greater justice perception is related to employees performing effectively and contributing to organisational success. Engaged employees invest time and energy in the belief that their investment will be rewarded in a meaningful way.

Concept of Experience-Based Wage Differentials

The usual starting point for reasoning about a possible wage gap between experienced and unexperienced workers is the theory of compensating wage differentials (Rosen, 1986). According to this theory, different working conditions for workers with the same level of experience should result in a wage premium for those workers with the less favourable conditions. Therefore, experienced workers should be compensated with higher wages given the longer job tenure that is inherent in the employment contracts. Over time, unexperienced workers can also be expected to become more experienced. Since workers in temporary jobs, almost by definition, have relatively short expected job tenures at time of hire, the incentive to invest in training, both by the employer and the workers themselves, will be low (Draca & Green, 2004; Nienhuser & Matiaske, 2006).

Employers may use temporary jobs as probationary or screening device given uncertainty about workers' abilities (Faccini, 2014). And indeed studies of both the UK and Germany have reported evidence of relatively large fractions of fixed-term contract workers subsequently

receiving a permanent employment contract with the same employer (Boockmann & Hagen, 2005). Workers will be willing to accept lower wages during the 'probationary' period given the prospect of being moved on to a permanent contract based on acquired experience. Second, temporary work might allow workers to accumulate a greater variety of labour market experience. For example, temporary jobs may be part of a search process during which workers, who are still unsure about their career and location preferences, gradually learn about which types of jobs best suit their skills and interests (Booth Francesconi, & Frank, 2002).

Employee Engagement

The terms engagement and disengagement were introduced by Khan (1990) who posited that, employees who are engaged immerse themselves physically and emotionally in work while disengaged employees though physically present are psychologically absent while performing their work. Further, Khan (1990) posited that three conditions are necessary for engagement to take place; meaningfulness (feeling the job is worthwhile), safety (feeling that the work environment is one of trust and supportiveness) and availability (having emotional and physical means to engage). According to this line of reasoning, it is only if the three conditions are met that employee engagement take place.

Dedication

The term employee dedication has no one distinct definition accepted by scholars in the field. But then, employee dedication simply refers to the type of engagement in which the employee engaged due to the feeling that his services are retained in the organization, and there will be no need to think of looking for job elsewhere (Williams, Maha & Zaki, 2010). Also, employee dedication is characterized by a strong psychological involvement in one's work, combined with a sense of significance, enthusiasm, inspiration, pride, and challenge (Mauno, *et al.*, 2007, Schaufeli, *et al.*, 2002). Employee dedication is ones' sense of significance, enthusiasm, inspiration, pride and challenge. Employee dedication is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge. Employee dedication is about being inspired, enthusiastic and highly involved in your job (Rayton & Yalabik, 2014). Employee dedication is an individual's ability to derive a sense of significance from work, feeling enthusiastic and proud about the given job, and feeling inspired and challenged by the job (Song, Kolb, Lee & Kim 2012).

Vigour

The term vigor also refers to employees' engagement resulted from the satisfaction derived from key drivers such as leadership style, organizational justice, work policies & procedures of the organization (Williams, Maha & Zaki, 2010). Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in ones' work and persistence in the face of difficulty. Vigor also refers to energy, mental resilience, determination and investing consistent effort in job (Rayton & Yalabik, 2014). Vigor is one of the aspects of work engagement that implies high levels of energy and mental resilience while working. There is also a determined investment in the actual work, together with high levels of persistence even when faced with difficulties. This aspect can be determined based on Atkinson's motivational theory. Motivation is strength of doing work or resistance against that. So, strength and

resistance are addressed as aspects of work engagement and their concept is constant with popular definition of motivation (Latham & Pinder, 2005).

Absorption

Absorption refers specifically to total concentration on and immersion in work characterized by time passing quickly and finding it difficult to detach oneself from one's work (Mauno, Kinnunen & Ruokolainen, 2007). Absorption is further defined as "being fully concentrated and deeply engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work (Schaufeli *et al.*, 2002). Absorption means concentration and being engrossed in people's work, whereby passing time will be intangible and being detached from the job has some difficulties for them. Furthermore, it is pleasurable to have job experience for individuals. They do that, only for having that and paying high expenditure for job is not such important issue which it is for the others (Hayati, Charkhabi & Naami, 2014).

Wage Differentials and Employee Engagement

Employees who are engaged in their work and committed to their organizations give companies crucial competitive advantages including higher productivity and lower employee turnover. Thus, according to Vance (2006) it is not surprising that organizations of all sizes and types have invested substantially in policies and practices that foster engagement and commitment in their workforces. Though different organizations define engagement differently, some common themes emerge.

These themes include employees' satisfaction with their work and pride in their employer, the extent to which people enjoy and believe in what they do for work and the perception that their employer values what they bring to the table. The greater an employee's engagement, the more likely he or she is to "go the extra mile" and deliver excellent on-the-job performance. In addition, engaged employees may be more likely to commit to staying with their current organization. Clearly, engagement and commitment can potentially translate into valuable business results for an organization (Vance, 2006).

Firms are able to improve worker productivity by paying workers a wage premium- a wage that is above the wage paid by other firms for comparable labour. A wage premium may enhance productivity by improving nutrition, boosting morale, encouraging greater commitment to firm goals, reducing quits and the disruption caused by turnover, attracting higher quality workers and inspiring workers to put forth greater effort (Goldsmith, Veum & Darity, 2000). As a result, people are attracted to well-paying jobs, extend extra effort to perform the activities that bring them more pay, and become agitated if their pay is threatened or decreased (Stajkovic & Luthans 2001).

Financial rewards are used to show that the company is serious about valuing team contributions to quality. The monetary rewards consist of a cash bonus allocated to each team member. The team bonus would be given separately from the salary. On the other hand, team rewards must be used in ways that avoid destroying employees' intrinsic motivation to do their job. The need for continuous improvement requires employees to be innovators; devising novel solutions that improve a work process or that delight the customer. The use of extrinsic rewards that are tightly

linked to team performance may teach team members to become money hungry and undermine their intrinsic interest in the work itself (Balkin & Dolan, 1997).

Merchant, (2007) argue that a cash bonus is usually based on performance measured on a time period of one year or less. Why a company primarily uses a variable pay is to differentiate it among the employees, so that the most successful employees will be rewarded. They further argue that, by recognizing the employee's contributions to the company it makes it easier for the organization to encourage excellent performance. They further argue that employees appreciate the possibility of receiving a reward for their performance.

Using the variable pay can also be an advantage for the company in terms of risk-sharing. This means that the expense for compensation vanes more with company performance when the compensation is partly variable, making the cost lower when no profit is made and when there is as profit this can be shared with the employees. Rewards based on performance measures over time periods larger than one year are long term incentive rewards. By using this, a company can reward employees for their outstanding work performance to maximize the firm's long-term value (Kreitner & Kinicki, 2008).

From the foregoing point the study hypothesized thus:

Ho₁: There is no significant relationship between experience-based wage differential and dedicationin federal agencies in Rivers State.

Ho₂: There is no significant relationship between experience-based wage differential and vigour federal agencies in Rivers State.

Ho₃: There is no significant relationship between experience-based wage differential and absorpion federal agencies in Rivers State.

METHODOLOGY

The study adopted a cross-sectional survey in its investigation of the variables. Primary data was gathered through structured questionnaire. The population of the study was 1019 permanent and full-time staff of five (5) selected federal agencies situated in River State, Nigeria. These agencies are: Federal Inland Revenue Service, National Oil Spill Detection and Response Agency, Nigerian Maritime Administration and Safety Agency, National Agency for Food Administration and Control, and National Information Technology Agency. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Statistics. The tests were carried out at a 95% confidence interval and a 0.05 level of significance with the aid of Statistical Package for Social Sciences version 23.0.

DATA ANALYSIS AND RESULTS

Bivariate Analysis

Secondary data analysis was carried out using the Spearman's Rank Order Correlation Statistics at a 95% confidence interval. Specifically, the tests cover a Ho₁ hypothesis that was bivariate and declared in the null form. We have based on the statistic of Spearman's Rank Order Correlation Statistics to carry out the analysis. The level of significance 0.05 is adopted as a

criterion for the probability of accepting the null hypothesis in ($p > 0.05$) or rejecting the null hypothesis in ($p < 0.05$).

Table 1: Experience-based wage differentials and employee engagement

			WorkExp	Dedication	Vigour	absorb
Spearman's rho	WorkExp	Correlation Coefficient	1.000	-.476**	-.523**	-.678**
		Sig. (2-tailed)	.	.000	.000	.000
		N	266	266	266	266
	Dedication	Correlation Coefficient	-.476**	1.000	.661**	.442**
		Sig. (2-tailed)	.000	.	.000	.000
		N	266	266	266	266
	Vigour	Correlation Coefficient	-.523**	.661**	1.000	.657**
		Sig. (2-tailed)	.000	.000	.	.000
		N	266	266	266	266
	absorb	Correlation Coefficient	-.678**	.442**	.657**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	266	266	266	266

Source: Research result, 2020

Ho₁: There is no significant relationship between experience-based wage differential and dedication in federal agencies in Rivers State.

The correlation coefficient (r) shows that there is a significant and negative relationship between experience-based wage differential and dedication. The *rho* value -0.476 indicates this relationship and it is significant at $p = 0.000 < 0.05$. The correlation coefficient represents a moderate correlation. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant and negative relationship between experience-based wage differential and dedication in federal agencies in Rivers State.

Ho₂: There is no significant relationship between experience-based wage differential and vigour in federal agencies in Rivers State.

The correlation coefficient (r) shows that there is a significant and negative relationship between experience-based wage differential and vigour. The *rho* value -0.523 indicates this relationship and it is significant at $p = 0.000 < 0.05$. The correlation coefficient represents a moderate correlation. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant and negative relationship between experience-based wage differential and vigour in federal agencies in Rivers State.

Ho₃: There is no significant relationship between experience-based wage differential and absorption in federal agencies in Rivers State.

The correlation coefficient (r) shows that there is a significant and negative relationship between experience-based wage differential and vigour. The *rho* value -0.678 indicates this relationship and it is significant at $p = 0.000 < 0.05$. The correlation coefficient represents a moderate correlation. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant and negative relationship between experience-based wage differential and absorption in federal agencies in Rivers State.

DISCUSSION OF FINDINGS

This study using inferential methods, empirically examined the correlation between experience-based wage differentials and employee engagement. The results of the analysis revealed significant and negative relationship between experience-based wage differentials and employee engagement in Federal Agencies in Rivers State. The results of the analysis revealed that an experience-based wage differential is significantly associated with employee engagement; this implies that an experience-based wage differential is considerably important in enhancing employee engagement in an organization.

Over the past several decades in many developed countries, there has been an effort to tie experienced workers and top executive compensation more closely to metrics of firm performance. In particular, across many countries, compensation schemes increasingly include equity compensation, whereby options to purchase shares of stock at a set price are granted to management on the basis of firm performance (Murphy, 2013). Where firm performance outpaces wage growth – such as in the US where between 1990 and 2005 when average worker wages increased 4 percent while corporate profits increased 107 percent – inequalities in income will increase. Specifically, the upper tail of the income distribution will shift outward.

Potentially, a firm could set wages for all its workers via external benchmarking; however, for a number of reasons, it is unlikely this would curb rising income inequality. First, in many settings, because compensation is tied more closely to firm performance than it is for most workers, to the extent that corporate profits exceed workers' returns to their marginal product, income inequality will increase.

Second, because the wages of experienced workers are considerably higher than those of the recent or new workers, new worker wages would have to increase at a higher rate than that of experienced workers to prevent inequality from growing. Third, the incentive for firms to set worker wages above the median and to use a biased benchmark group is likely to be lower than when benchmarking for experienced or older staff. Therefore, to the extent that firms use external benchmarking to set pay, we should see higher rates of income inequality at the societal level as the right tail of the income distribution will grow and shift outward.

Much in the same way that external hiring of workers alters the demand for observable skills, the utilization of external hiring represents a shift in the reliance on general managerial versus firm specific skills. Such a shift increases competition for skilled labour in the executive labour market, driving up wages (Murphy & Zaboynik, 2008). To compensate executives for the loss in future value of their firm-specific investments, the hiring organization may also need to pay a premium to entice an executive to switch firms (Harris & Helfat, 1997). In fact, many of the more generous executive compensation packages have been the result of contracts negotiated with external candidates at the time of hire, not deals reached with incumbents (Murphy, 2013).

CONCLUSION AND RECOMMENDATIONS

The findings of this study signify that although there exists a significant relationship between experience-based wage differentials and employee engagement, the relationship is a negative one and as such suggests that actions and practices which tend to recognize or prioritize particular groups or categories of workers over others in terms of wages, has a negative impact on the engagement levels of the workers within the organization. This is also as the culture of the

organization is noted to support such practices as norms of the organization, thus amplifying their influence on the engagement levels of the workers within the organization.

In view of the above, the study concludes that the practice of experience-based wage differentials has a negative impact on employee engagement, hence for organizations to effectively drive and stimulate their employees to be more dedicated, vigorous and absorbed in their work, there is the need for the adoption of practices and processes that emphasize on equity and equality in wage distribution even on basis such as nationality, gender and experience. In the same vein, the organizational culture should focus on offering workers a conducive work environment premised on wage equity and as such equal levels of recognition within the workplace.

Based on the discussion and conclusion above, the following recommendations are hereby made:

- i. Policies should be designed to address the gender wage gaps within the organization in such a manner that supports the equality of wage distribution across both genders. This can be achieved through a de-emphasis of the gender category and a strengthening of collaboration and cooperation between the gender groups through adequate policies and work arrangements that allow for collaboration and joint effort.
- ii. The organization should emphasize more on work outcomes using appraisal methods that focus on workers actual contributions rather than the length of time spent with the organization. The Work arrangement between recent and older staff should be supportive and allow for mentoring and supervision in a way that recent or younger staff are able to learn from older and more experienced staff, while the older ones are able to gain the support and assistance of the younger staff.

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Resuscitating the Educational Sector in a Depressed Economy: Relying on Transformational Leadership for Effective National Development

ULE Prince Alamina¹ and IDEMUDIA Sunday Aliyu²

Doctoral Scholars, Department of Management, Faculty of Management Sciences, Niger Delta University, Wilberforce Island, Amassoma, Nigeria

Abstract: Education remains an indispensable tool for effective social transformation and economic prosperity of nations yet, it remains unfortunate that this all important sector is been toiled with by political leadership in Nigeria. This has marred developmental trend occasioned by leadership challenges due to failures to identify core values that could sustain the economy for national growth and development. However, some factors are responsible for this mischief which include among others; ethnicism and nepotism, political corruption, accountability challenge, poor leadership recruitment and promotion of mediocre to leadership positions of authority. The paper concluded that relying on leadership who would inspire subordinates to work for the wellbeing of their organization as well realize the individual need for self development, accomplishment and growth becomes the way forward to restore the lost glory in our educational system. The study suggested for the training of leaders ahead of the herculean task of leadership since no meaningful growth and development can be achieved by organizations without a clear vision and focus of its leadership. It further suggest for adequate funding and equipment of educational institutions with required facilities and manpower needed to be effective, if national development is to be achieved.

Keywords: Accountability challenge, ethnicism and nepotism, leadership crises, political corruption, repositioning education.

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INTRODUCTION

The deterioration in the standard of education and lack of leadership commitment towards revitalizing the sector for national growth has become a thing of worry. There is a clear indication to the fact that the Nigerian economy is at the verge of collapse considering the prevailing breakdown and lack of moral and social values among citizens. This has contributed to the declining quality of education in the Nigerian state and the negative impact on its economic sustainability (Kingdom & Maekae, 2013). Education is presupposed key to unlocking dwindling economies such that no nation talks of development without recourse to its educational system as it is the bedrock of development but the reverse becomes the case in Nigeria, where inequalities and double standards of operation seems prevalent. A situation where

indigenes of a particular zone are given free assesses to education and others from different zones deprived or given different standard to assess same standard and level of education in the same country.

Yekini (2013) argued that rather than becoming an instrument for effective national development, education in Nigeria had become the tool for mass destruction as most beneficiary of education are found to pawn frequently incited or mobilized into violence by political leadership due to their disadvantaged economic situation. Nevertheless, this failure is widely attributed to weak leadership roles and function as Eketu and Edeh (2019) contended that leadership in Nigeria has experienced sequential failures in all aspect of life thereby giving credence to depleting socioeconomic, cultural and political values in the entire system. Thus, this paper tends to seek for modalities to resuscitate the educational sector within the depressed Nigerian economic quagmire using transformational leadership approach as a way out of the ugly menace bedeviling the country. Hence, the call for a clear analytical approach that appreciates the inherent complexities that stand to proffering workable solutions for revamping the system other than politicizing it becomes inevitable (Kingdom & Maekae, 2013) if national development is to be achieved and or discussed in Nigeria.

EDUCATIONAL SECTOR

State of the Nigerian educational system

Illiteracy remains the leading factor widening the gap between developing and advanced nations of the world (Ofoha, 2012) which some scholars believed societies with high literacy rate boast economic growth and development and are somewhat the most wealthiest nations as they come close to controlling the global economy (Gabbar, Honarmand & Abdelsalam, 2014). However, it remains difficult to develop when greater percentage of a nation's population are excluded and or deprived of access to basic education. Nevertheless, this notion intensified efforts to the call for concern as there remain inequalities in term of access to education as several millions of indigent Nigerians are been denied or excluded from the process and outcome of education (Ofoha, 2012).

Unfortunately, the state of the Nigerian educational system is crumbling despite the abundant rich resources at the nations' disposal. This, Gbenu (2013) noted that school structures are dilapidating, infrastructures decay and collapse, poor method of quality assurance, declining teachers quality, etc. Yet leaders clamoured for national development without perceiving the educational need of the country on daily and annual basis. Also, Ugwu (2015) argued that in the past, Nigerian graduates were highly sorted due to their excellent performance globally but unfortunately the story made a u-turn from 1980s when the system started degenerating to the extent of it becoming drowsy and prostrate. The ugly scenario has even gone to the extent of primary school pupils not having seats to sit in classrooms and secondary schools hardly conduct practical while tertiary institutions lack infrastructure and are poorly funded as a result of mass corruption, poverty, politicization of the system to favour personal and group interest, etc (Ugwu, 2015). Hence, these are attributed to placing emphasis on certification than the required skills and knowledge in the individual. However, the question on how to bail Nigeria out of these shackles considering the kind of leadership we have in position of authorities that rather perceived corruption as a way into governance than evil to humanity becomes questionable while begging for critical answers.

Quality of education in Nigeria and the need for adequate funding

A nation's quality of education speaks laud of its access to the world body of knowledge (Gbenu,

2013) which by implication raises the level of individual skills and efficiency to express capabilities and potentials. Education in a civilized setting equip recipients to create jobs other than seeking job as it enable beneficiaries to explore and manipulate their environment to their advantage. However, the heart of national building hinges on the standard and quality of its educational system (Ugwu, 2015) therefore it becomes vital for nations to educationally equip its citizens in order to provide the needed foundation for genuine sustainable development.

A nations quality of education determine the quality of manpower as it reduces unemployment rate which impact positively on the individual quality of life and moral rectitude of society (Thom-Otuya & Inko-Tariah, 2016) as poor quality of education misplaces values. Iwundu and Inko-Tariah (2015) argued that it can only be feasible in an uncivilized setting that a rich trader becomes more recognized than a professor. However, the falling standard in Nigerian educational system is widely attributed to the high premium placed on certification than the quality of knowledge acquired by individuals (Uzorka, Uzorka & Okobia, 2011). Nevertheless, factors ranging from poor funding, incessant strikes, infrastructural decay, politicization of the system, bribery, double standards of operation, pulling down syndrome, etc (Thom-Otuya & Inko-Tariah, 2016; Iwundu and Inko-Tariah, 2015; Etesike, 2011) are responsible for the decline. Hence, Nigerian government need to adequately fund and equip its institutions of learning in order to avert the continual strike and provide the needed manpower to occupy strategic positions as well correct the issues of double standards of operation in-terms of admissions into tertiary institutions and employment among others in order to stimulate growth and development since quality educational system reflect on the quality of national workforce.

Repositioning education system in Nigeria

Education remains an indispensable tool for the attainment of national development (Amakiri & Igani, 2015) therefore concerted effort is required to bring about functional policies in the system in order to foster the needed growth and development. Nevertheless, the Nigerian nation need functional system of education to equip citizens with the requisite knowledge, skills and attitude to enable individuals adapt to the change rapidly engulfing the political space (Ako & James, 2018). However, the nation can only surmount the intractable challenges facing its educational sector when political leadership changes the attitude of politicizing the system for personal gains and aspirations.

Hence, repositioning the sector for national growth becomes pivotal as scholars believed emphasis be placed on technical and vocational training of citizens as well as adequate funding by government to enhance easy accessibility becomes prominent (Abbah & Rifkatu, 2019) considering the serial failures of stakeholders in showing sincere concern and commitment to the development of the system despite its relevance to societal development.

STATE OF NIGERIAN ECONOMY

The crises ridden the Nigerian economy has evoked a lot of responses from scholars to the fact that the nation is under siege as it is driven by mass poverty, endemic corruption, economic stagnation, weak institution, political instability and social conflict (Lewis, 2014; Okeke & Aniche, 2013). However, the country's restiveness, social conflict and economic deterioration have placed the nation as a depressed economy considering the mismanagement of resources by political leadership. Recently, World Bank Report (2019) assert that the economic growth of the Nigerian economy remains muted since 2015 as 1.9% growth average was recorded in 2018 that remained stable at 2% in the first quarter of 2019 and domestic demand remains stagnated with private consumption at an inflation rate of 11%. Nevertheless, agricultural growth remains below

expectation due to herdsman farmer's conflict in the northeast and production has dropped as a result of power challenge.

Given the restrictions on importation of foreign goods, food items are expected to sky rocket thereby raising the standards of living to an unbearable strand. However, Olaopa, Ogundari, Akindele and Hassan (2012) attribute this shortfall to failed economic reform policies that couldn't guarantee dividends of democracy thereby worsen the socioeconomic fortunes of Nigerians who perhaps become victims to unfulfilled expectation and untold hardship with loss of confidence in the system thereby resolving to take solace in the political situation for survival while avoiding the government. Also, coupled with series of industrial actions and incessant killings in some part of the country without government taking moderate actions proves that, Nigeria as a sovereign nation lacks the political will for national development at the moment. Hence, it is believed with these indices that the Nigerian economy is under siege and this study seeks to come up with practical solutions that could aid policy makers develop workable policies that would address these inherent challenges via transformational leadership approach and models. However, considering the fact that Nigeria claims to be the giant of Africa with an estimated population of about 180 million people, she is still ranked 152 of 157 nations in the globe in terms of human capital index due to underinvestment with an unemployment rate of 23% and another 20% of its labour force underemployed as at 2018 (World Bank, 2019). The need becomes inevitable to resuscitate the educational sector if developmental stride is to be achieved.

LEADERSHIP

Owing to the fact that no entity survive without a leader, spell out the relevance of leadership to organization and survival of any nation which cannot be taken away from the development and advancement of Nigerian State. The concept is a crucial activity that requires the functioning of an individual called a leader who attempt to obtain co-operation and compliance from others in order to solve problems or accomplish an assigned task (Jaja, 2003). This individual must possess some basic skills to function effectively in the task and responsibility assigned. Amah (2010) sees leadership as the process of providing suitable environment that give rise to influencing people behaviour to strive willingly and enthusiastically towards the attainment and achievement of an organizational or group goal. McShane and Von Glinow (2018) view leadership as the process of influencing individuals as well providing an enabling environment for such individual to achieve organizational and team objectives. Also, Jones and George (2008) define leadership as the process by which an individual exerts influence over other people and inspires, motivate and directs their activities to help achieve group or organizational goals.

Central to these definitions is the theme of an individual called a leader who acts to convince or influence others to support and work for the accomplishment and achievement of an organizational goal (Jones & George, 2008; Jaja, 2003). However, Amah (2010) contended that the leader cannot be effective, if the working environment is not suitable for the smooth functioning of such individual to effectively execute his/her responsibility. Worthy of note is the theme of power and ability to command influence from subordinate hence, leaders need to be persistent with clear vision on goals it tends to pursue using the power within his/her control in an ethical manner.

Leadership Crises and Challenges in Nigeria

Undoubtedly, leadership in Nigeria has remained an elusive challenge since independence due to continuous failures to recognize core values that could sustain and position the economy for

national growth and development. The lack of identification to these core values had robbed Nigeria of its place of meaningful development such that it had rather become a blockage to the nation's wheel of progress (Kayode, Samuel & Isa, 2014). However, several factors account for these retrogression ranging from poor leadership recruitment and the promotion of mediocre to leadership position to political corruption, ethnicism and nepotism, accountability challenge, etc (Godwin, 2017). Interestingly, the need for value re-orientation to curb these menace among leadership in Nigeria becomes inevitable, considering the fact that leadership ineptitude has become pronounced to the extent that the nation is foisted with leaders who lack effective and efficient ingredient for good governance in order to turn the wheels of Nigerian for good.

a. Poor leadership recruitment and the promotion of mediocre

One of the greatest challenges causing the slow pace of growth and development in Nigeria is the selection and promotion of mediocre into leadership positions. It is a fact that no institution runs on its own without an individual being in charge (Kayode, *et al.*, 2014) thus, a flaw in the leadership recruitment process leads to emergence of unqualified or ill-prepared leaders. Hence, Eketu and Edeh (2019) argued that the neglect on the culture of accountability by Nigerian public officers hinges on the promotion of mediocrity through political, religious and ethno-tribal bigotry. Nevertheless, it becomes a developmental tragedy and against the principles of development for an unqualified or person of no repute to oversee the activities of intellectuals as seen in the Nigerian State where illiterates and uncivilized citizens are placed in exalted positions to govern and lead the enlightened.

b. Political corruption

Corruption has remained an endemic global challenge that has marred development in all spheres of human endeavour. As an illegal and unethical exploitation of individual for personal gains, corruption thrives in a politically weak institutional setting that is why developed economies put in effort towards its eradication from their environment in order to enhance progress and development. However, it is regrettably unfortunate that the democracy practiced in Nigeria had rather brought about retrogression, retardation, underdevelopment and poverty (Godwin, 2017) which had reduced Nigerians to endless misery. This proves the fact that leadership failures and their inability to rise up to their responsibility is a function of weak institutions which sets the template for leaders' desire for luxuries as a result of the erodent of moral values.

Eketu and Edeh (2019) noted that selective positions of honour within the Nigerian polity are mostly given to individuals with grievous allegations of public fund embezzlement or trial related cases. This behaviour tends to enhance corrupt practices among leaders that rather perceived the act as a way of life leading to political relevance than evil to mankind. Nevertheless, Nigeria can only surmount corruption challenges when honest analytical approach is taken (Kayode, *et al.*, 2014) and institutions strengthened with transparency through rudiment procedures.

c. Accountability challenge

Leadership failures in Nigeria are partly orchestrated by lack of accountability which has rather given impetus to corrupt practices among public officers. As a prerequisite for sustainable development and growth, leaders in organization need to account for their actions in order to build mutual trust among subordinate. Thus, the Nigerian environment

lack this due to weak political institution which has rather given rise to corrupt practices as most leaders in Nigeria see every given opportunity as a call to amass wealth rather than service to human need. Unfortunately, those held accountable for misbehavior often see the action as cruel and witch-hunt by an unfriendly successor in position of authority (Eketu & Edeh, 2019) rather than normality.

d. Nepotism and ethnicism

Nation building is near impossible in a State beleaguered with nepotism and ethnicism due to the diverse dialectical barriers. The development of the Nigerian State is not far from the above as the duo concept continues to cause colossal damage to its progress both in political, economic and social life of its existence. A situation where meritocracy is replace for favoritism, language, friendship, relations, etc, rather than competencies and individual abilities. Godwin (2017) noted that the issue in Nigeria has been exalted beyond comparison as political appointment has been brazenly skewed in favour of certain region to the expense of others thereby reducing to nothingness the Federal Character Principles as enshrined in the constitution. Thus, the nation need a transformational leader with a shared vision and purpose (Kayode, *et al.*, 2014) that would enable subordinates to be aware of the relevance of their jobs and performance (Jones & George, 2008) towards the growth and development of the economy and that of their own personal need of growth for the benefit of all. However, leaders must be chosen on the basis of moral and ethical standard through rudiment and transparent process.

TRANSFORMATIONAL LEADERSHIP

Given the deteriorating state of the Nigerian economy and its educational sector occasioned by incessant strikes due to poor funding and the deplorable state of facilities in our institutions of learning, national development seems to be near impossible unless leaders with the requisite knowledge emerges to literally transform the system by making sweeping changes to revitalize this all important sector for renewed operation, Nigeria would remain underdeveloped. Leaders who would be ready to stimulate and inspire subordinate without considering the consequences it might face from political leadership. AlQatawenh (2018) believed that organizations in contemporary time require leadership with the potentials to inspire subordinates to get the best out of them in order to develop their skill and deliver these subordinate to advanced level of intellectualism. However, Weiping, Xianbo and Jiongbini (2017) noted that transformational leadership is a useful tool and strategy to achieving sustainable development.

The concept according to Cogner (2002) goes beyond incentive for performance to encourage and develop workers intellectually by transforming employee concern into significant part of organizational mission. Danguole (2013) believed that transformational leader understand the need for change in order to create certain ideal and get individuals to reach this ideal as well create cultures that could support the needed change and watch for signals requiring the new change. However, in the context of this paper, transformational leadership entails visionary leadership that inspires and motivates subordinates to accomplish an assigned task for the benefit of organization and its entire whole while ignoring self interest. Taking this definition to heart, transformational leadership requires an individual with an exceptional ability to deal with changes effectively. These changes according to Bass (1985) in Jones and George (2008) occur when managers transform their subordinate mindset and behaviour in three significant approaches.

- a. Leaders who would make subordinates to be aware of how relevant their assigned duties are to the organization and how necessary it is for them to immerse themselves in the job in order that the organization achieve its goal.
- b. Leaders who would make employees' realize the need for individual growth, development and self accomplishment.
- c. Leaders who would stimulate employees to work for the wellbeing of the entire organization and not just for their personal gains and benefit.

These behaviours need coincidence with assigned responsibility in order that the desired change comes to be effective as desired. Nevertheless, scholars have identified four mechanism, components or dimensions to measure transformational leadership (Warrilow, 2012; Bass, 1999; Bass & Avolio, 1994).

Idealized influence: The extent to which a leader engage in promotion of clear vision that engender followers trust, respect and loyalty. The leader provides a role model for high ethical behaviour, instill pride, gain respect and trust (Igbokwe-Ibeto & Fatile, 2013).

Intellectual stimulation: The extent to which the leader encourages subordinates to be creative thereby challenging themselves to creatively overcome problems in cause of executing their task. These followers are encouraged and empowered by the leader to take personal responsibility for solving organizational problems in their groups and organizational level in consistency with the leader's vision.

Individualized or developmental consideration: The extent to which the leader encourages and support followers by giving them opportunity to improve on their capabilities and skills in order to grow and contribute independently to the success of the team. This enhance and fulfils individual need for self fulfillment, self worth, further growth and achievement (Odumeru & Ifeanyi, 2013).

Inspirational motivation: The extent to which the leader present vision that inspires and spur followers to achieve future goals. In this context, the subordinates need to have a strong sense of purpose and meaning in the assigned task as this provides the compelling energy that drives success among the team or group.

CONCLUSIONS AND THE WAY FORWARD

Nigeria undoubtedly boasts among the community of nations to be the giant of Africa whereas its teeming population wallows in abject poverty, penury and wants in all aspect of life yet, the country is flourished with abundance of resources. Unfortunately, these resources end in the custody and control of few who perhaps lack moral and social value orientations of life to sustain the nation for economic growth and prosperity. The implication of these maladies is that, despite the abundance Nigerian educational system lacks the quality and standard to compete with its contemporaries in Africa as none of its tertiary institutions is listed among the best ten institutions, yet we clamoured for development.

Regrettably, education has been universally acclaimed as an instrument for economic prosperity and social transformation such that no nation survives without recourse to its educational system but it remains unfortunate that this important sector is been toiled with by political leadership in Nigeria. However, it is not to the fact that the relevance of education is not felt in Nigeria but the challenge lies in the fact that unqualified and or mediocre are placed in

exalted positions of authority to oversee the qualified and most experienced. This becomes a developmental tragedy and suicidal for the desired growth and development of the nation hence, the dwindling state of the nation.

Given the above situation, hope is not lost if individuals with the requisite knowledge are given positions of authority to literally transform the system by making changes to revitalize the system for renewed operation. These individuals must be leaders who would remain an index for social change and be willing to motivate and inspire subordinates without expecting a beneficial consequence for their personal gains. Leaders that would go beyond personal incentive gains to encourage subordinates to achieving sustainable development for the entire system and not mediocre are what Nigeria need for effective national development. The paper concludes that relying on leadership who would spur individuals to work for the wellbeing of the entire system in congruence with their individual need for growth, development and self accomplishment remains the only way out of the dwindling economic situation as well as restoring the lost glory in our educational system.

In line with the stated conclusions above, we suggest the following as way forward in restoring the lost glory in our educational system;

1. Considering the relevance of education in nation building, the sector should be well funded and equipped with adequate facilities and requisite manpower needed to be effective, if national development is to be achieved.
2. Since no meaningful development can be achieve without efficient and effective leadership, mediocre in leadership positions should be discouraged or eradicated and replace with qualified individuals, experienced with sound minds.
3. Organizations at all level should endeavour to train leaders ahead of the herculean task of leadership since no meaningful growth and development can be achieved without leadership with clear vision and focus.
4. The promotion and placement of leadership positions in all sectors of the Nigerian economy should be on merit, moral and ethical standard rather than tribal and ethnicity background and orientations.

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Feasibility Analysis and New Venture Performance in Rivers State, Nigeria

Okochi, Kinikanwo

Department of Management, Faculty of Business Studies, Ignatius Ajuru University,
Rumuolumeni, Port Harcourt

Abstract: *This study examined the influence of feasibility analysis on new venture performance in Rivers State, Nigeria. The study adopted a descriptive research design, and collected data via a cross-sectional survey, using questionnaire as the instrument of inquiry. The population of the study comprised twenty five (25) new ventures that have been in operation for one to five (1-5) years. A sample of fifty (50) top management personnel was obtained from the study population on a sample frame of two (2) respondents per firm. The test units were arrived at, using the purposive sampling technique. The final analysis of the study was however, based on forty-seven (47) properly filled and returned questionnaire. Regression analysis was used as the test statistic; relying on the Statistical Package for Social Sciences (SPSS) version 22.0. The study found that feasibility analysis boosts new venture performance through sustained patronage, new venture survival and new venture growth. Feasibility analysis is thus a key factor in the achievement of new ventures performance. The study therefore, concludes that feasibility analysis influences new venture performance and that new venture performance rests of thorough feasibility analysis; and recommends that entrepreneurs should ensure that appropriate feasibility analysis is done before launching new ventures.*

Keywords: *Feasibility analysis, new venture performance, sustained patronage, venture survival, venture growth.*

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1. INTRODUCTION

New ventures establishment often anchors on the revolving order of creativity, innovation and entrepreneurship, which are essential to new venture survival and business growth; although launching a new business by starting with an idea of new business concept and launching into new ventures (Scarborough, 2013) is a normal routine for many entrepreneurs. No doubt, entrepreneurs are fecund with creativity or business idea, and are responsible for some of the world's most important innovations. In fact, the social and economic value of new business enterprises brought about the models leading to an improved understanding of the determinants of new venture performance that have made significant contributions to literature on entrepreneurial praxis (Birch, 1987; Reagan, 1985; Schumpeter, 1934). However, business

success and survival transcends than just an alluring business idea. Once an entrepreneur develops a business idea, the next expected step is to subject such an alluring business idea to a preliminary investigation (feasibility analysis or studies) to ascertain the viability of the idea, in other words, the possibility of transforming the idea into marketable reality in terms of product (Cashman & Rosenblatt, 2000). It is well known that the establishment of new ventures drives entrepreneurs toward realizing their entrepreneurial ambitions and personal goals (Gregory, 2017). Therefore, in pursuit of new venture performance, entrepreneurs consider the importance of resources and organizational structure, processes and systems to be developed to enable the implementation of strategies, and achieve objectives (Chrisman, Bauerschmidt & Hofer, 1999).

Regardless of the purpose of a ventures (profit or nonprofit) (Majumdar, 2008), all ventures seek survival, success, and efficiency, often achieved through innovative and careful management of operations and resource expenditure. Studies have shown that regardless of purpose or mission, about one third of all new ventures in the United States fail within the first few years of operation, while another significant percentage fail within four years (Barringer & Gresock, 2008). An obvious and significant factor that contributes to new venture success or failure is planning or lack thereof (Delmar & Shane, 2003). Strategic, tactical, and functional planning are different planning options entrepreneurs can deploy to significantly assist in new venture performance improvement. These planning approaches use financial and economic parameters to evaluate ongoing performance.

Prescreening of new business ideas through feasibility analysis and writing of a business plan (Barringer & Gresock, 2008) are the most essential tasks of new venture creation. Contrary to the opinion of Hofstrand and Holz-Clause (2009), that feasibility analysis gives focus to proposed business idea, most entrepreneurs still give little or no time for a thorough examination of the merits of business ideas before writing a business plan or launching the new venture. It should also be understood that feasibility analysis is not the same as business plan; though both play important, but separate roles in the start-up process of a new venture. In business plan, the entrepreneur is expected to document in writing a summary of the business they intends to venture into, clearly stating it's operational and financial details, its marketing possibilities or opportunities and strategy, and its managers' skills and abilities. Whereas, in feasibility analysis, the focus is on investigating whether or not, a given business idea can be transformed into a marketable product based on cost and benefit analysis (Gofton & Ness, 1997). In the event that the feasibility studies indicate that a business idea(s) will not result in a successful business, such is better dropped, irrespective of how strategic the organization may be, because one essential role of feasibility analysis is to safeguard against wastages of investment or resources (Hoagland & Williamson, 2000). On the other hand, should the feasibility study indicate that the business idea is sound and will result in a profitable venture, but advises the entrepreneur to re-strategize the organization, then the entrepreneur should heed the advice before progressing to the stage of business plan development (Mohammed, 2014). It is imperative to mention that this approach is applicable to start-up business, acquired and inherited businesses, as well as to expansion of existing business operation or a strategic business unit (SBU) of an existing business (Hofstrand, 2009).

New venture promoters should be aware that a feasibility study is only one stage in the business idea evaluation and business development process (Nicholas & Chinedum, 2017). And when this business idea evaluation and business development is in tandem with the goals and objectives of the entrepreneur, it will lead to positive enterprise performance. The potential success of a new venture depends on its performance, which means the ability to correctly apply

strategies that will enable it achieve its laid down objectives (Randeree & Al Youha, 2009). Several variables contribute to venture performance, these may include but not limited to, business model effectiveness, efficiency in resource utilization, timeliness in delivery and outcomes (Deshpande *et al*, 2013; Boyatzis & Ratti, 2009; Ryan, Tipu & Zeffane, 2011). The performance of most organizations whether big or small, profit or non-profit is largely anchored on the leadership skill of the promoters or managers, especially when it comes to the area of strategy implementation. Thus, Silva (2014) views leadership as an essential variable in the venture promoter-venture performance equation.

A new venture is the complete result of the process of building and organizing a new business that develops, produces, and promotes products to satisfy unfulfilled market needs for the purposes of profit and growth (Gartner, 1985; Normann, 1977; Sandberg, 1986). It is a new business innovation that is launched within one to five (1-5years) for the purpose of satisfying unfulfilled needs and wants of target customers for profit. Entrepreneurship is the creation of new ventures, and entrepreneurs are the creators of new ventures (Gartner, 1988). Within the context of this article, it is assumed that new venture performance is made up of the results of the activities of the new venture as weighed against its intended outcomes. In the view of Richard, Wu & Chadwick (2009), firms' performance includes three main areas of firm outcomes: (a) financial performance (profits, return on assets, return on investment, etc); (b) product market performance (sales, market share, etc); (c) shareholders return (total shareholders return, economic value added, etc). It is pertinent to mention, that performance is a contextual concept relative to the phenomenon under study (Sandberg & Hofer, 1987).

A discourse on new venture performance without adequate consideration to venture feasibility analysis will be wanting, as such will amount to an incomplete presentation on the subject. This is because feasibility analyses precede business plan development and new venture implementation (Nicholas & Chinedum, 2017). It also covers financial outcomes, industry/market attractiveness, product, and organization. Based on the aforesaid, this study critically examines the correlation between feasibility analysis and new venture performance; looking venture performance through the lenses of survival, patronage and business growth.

Statement of the Problem

Embarking on a careful planning through feasibility analysis is an essential tool in achieving new ventures survival and success (Delmar & Shane, 2003). But more often than not, very little time is given to thorough examination of the merits of a business idea before the business plan is written or the new venture is launched. It has also been observed overtime that entrepreneurs who do not engage in detailed feasibility analysis covering the four main areas of product, target market attractiveness, organization, and financial feasibility fail within the first few years of their operations, while another significant percentage fail within four years of operation (Barringer & Gresock, 2008). This insensitive approach to feasibility analysis has made new firms not to perform optimally. A rush into launching a new venture once entrepreneurs discover that significant market potential exist for an intended products, surely will undermine the huge fund invested, blindfold the entrepreneurs to the inherent risks and uncertainties associated with the potential business and this result in total waste of time, energy and start-up capital. In order to reverse this trend of launching new ventures without a feasibility analysis that will help determine the viability of a business idea, and further enhance the performance of new venture, this study seeks to determine the nexus between feasibility analysis and new venture performance in Port Harcourt metropolis, Rivers State. This result f this study, it is expected, will

vacate the gap in knowledge and establish a tested result of the predictive power of feasibility analysis on new venture performance.

Conceptual Framework

Conceptual framework shows a graphic illustration of the predictor variable and the criterion variable. Ahiauzu and Asawo (2016) are of the view that conceptual framework is largely the foundation upon which academic studies are based. In addition, conceptual framework is regarded as a veritable tool used in organizing and analyzing data (Saunders, Lewis & Thornhill, 2003). The conceptual framework of this study consists of two main variables: i.e. a predictor (feasibility analysis) and criterion (new venture performance) variables. For the purpose of this study, the criterion variable shall be decomposed into sustained patronage, venture survival and venture growth.

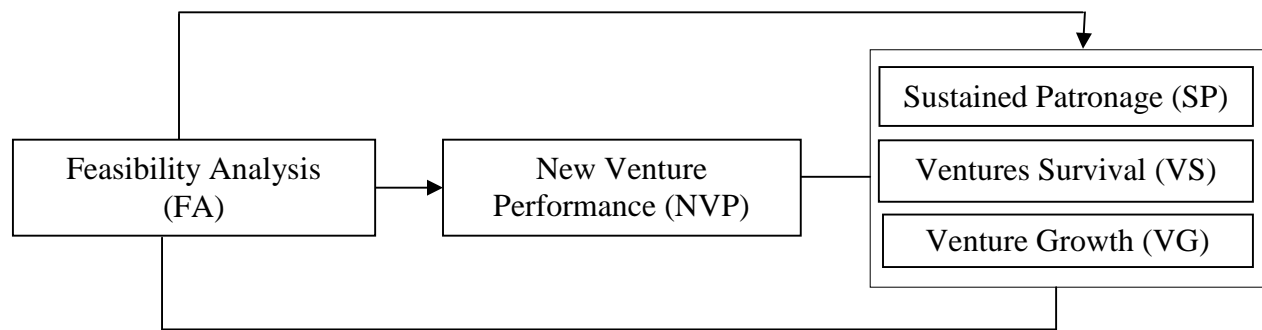


Fig. 1: Conceptual framework of feasibility analysis and new venture performance

2. REVIEW OF LITERATURE

2.1 Baseline theories

Theories are formulated to explain, predict, and understand phenomena and, in many cases, to challenge and extend existing knowledge within the limits of critical bounding assumptions (Howe, 2009). Theoretical framework is the structure that holds or supports the foundation of a research study. The theoretical framework introduces and describes the theory that explains why the research problem under study exists. Different theorists have postulated various theories that can aid studies in feasibility analysis. The theories that will be utilized as the foundation for this study will include: Systems theory, business concept theory, and structural contingency theory.

System theory

The systems theory (Bertalanffy, 1951) suggests that new venture creation is not all about the psychology or character of entrepreneurs nor the mysterious ‘flash of genius’ often ascribed to wealth creators (Ottih, 2016); but should be designed into a system which can be applied by anyone and any organization (Drucker, 1985). Apparently, different venture start-ups are done differently with different scopes relating to how things are done. But the system theory advocates that there should be a systematic order in which entrepreneurs should follow to achieve success in launching a new venture. This suffices to say that before a new venture is launched, efforts should be made to ensure that a proper business idea that is promising has been developed, followed by a feasibility analysis, and then writing of business plans before other ingredients necessary to launch a new business can come into play. The theory supports a systematic approach that will interrelate to achieve a common purpose which is the launching of a new venture that will perform optimally. Drucker (1985) stuns at why entrepreneurship enjoys the

reputation of being risky or wanting to take risk when they can do the same thing better and maintain a less risky enterprise. The systems theory maintains that doing things the old way may easily lead to missed opportunities and threats, and run the new ventures aground. Drucker argued that entrepreneurship is not necessarily high-tech. it can just be a simple, systematic, purposeful and well managed activity.

Business concept theory

The theory assumes that in preparation for the launch of a new venture, several issues are taken into cognizance (Laamanen, 2016). The major issue to be considered according to Laamanen (2016) is “thinking businesswise”, which explains that the prospective entrepreneur has to critically review necessary documents or subject matters that are related to the type of business opportunities open to the entrepreneur to have a better and full understanding of business opening. The business concepts theory advocates a methodical approach to new venture creation that is anticipated to provide suitable direction for prospective business owners or individuals with multiple business ideas to understand how to go about implementing their business ideas to make it a reality and possibly remain sustainable, even in the face of environmental challenges in today’s business space. The most common order associated with the business concept theory is that of business idea development or generation, feasibility study otherwise known as feasibility analysis that has passed the test, business plan development and realization of prospective venture. This is schematically illustrated below by the researcher.

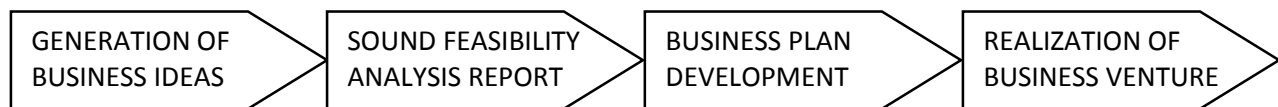


Fig. 2: Simple schematic model for launching a new venture

Going by both the system and business concept theories as explained above, the simple schematic model in fig. 2 has been proposed by the researcher to be applied by prospective entrepreneurs in an effort to launch a new enterprise. Hence, the generation of a new business idea should be followed by an extensive feasibility study covering all the components or elements of feasibility analysis such as product, target market attractiveness, organization and finance. Where the feasibility analysis is favourable, the entrepreneur could proceed to develop a full business plan, which could help to transform a successful business idea into a viable business reality (Scarborough, 2013). The plan is expected to indicate how to acquire funds, clearly capture and explain to lenders and investors, all issues relating to the five Cs of credit: capital, capacity, collateral, character and conditions (Scarborough, 2013).

Structural contingency theory

The structural contingency theory explains the difference between successful and unsuccessful businesses from the standpoint of survival and profitability (Clark, 2001). The main idea of the theory is the absence of one best approach to success in business, but that means of achieving result depends on the contingencies facing the venture (Burns & Stalker, 1995; Rumelt, 1974; Child, 1973; Galbraith, 1973; Blau, 1970; Thompson, 1967; Woodward, 1965 Chandler, 1962). The theory specifically holds that enterprises will be more effective if entrepreneurs or those managing them align the operations of the enterprises with the contingencies in their respective environments (Donaldson, 2001). The contingency theory

believes that businesses fail, not because of lack of start-up capital or lack of opportunity in the market for a given business line; but because entrepreneurs often enter a business because others in similar businesses in other climes are flourishing, without properly weighing the business idea through the instrumentality of feasibility analysis to see if the business idea will be viable, given the peculiarity of their own business environment. In this regard, Inegbenebor (2006) suggested that entrepreneurs should have the skill to analyze the environment before launching a new venture.

2.2 Concept of feasibility analysis

Business opportunities such as adding a new product, opening a new location, acquiring another business or changing an area of internal operations may be an affordable option that offers guaranteed sales increases or decreased costs, but each opportunity in business requires a feasibility analysis to determine if it is promising enough to be ventured into (Shah, Nazir, & Zaman, 2013). This clearly indicates that entrepreneurship is a process where intentionality is central (Katz & Armhein, 1998). Feasibility analysis involves knowing all the necessary actions to be taken and questions to ask concerning the basic concepts for identifying the tangibles and intangibles related to business decisions which will help entrepreneurs determine if an opportunity or business idea will succeed or not (Nicholas & Chinedum, 2017). A detailed feasibility study carried out in line with business opportunities or business idea can determine whether an entrepreneur should proceed with the business idea, review it, or drop it to pick up another possible option (Lohrey, 2013).

Feasibility analysis is essential to the extent that it presents itself as a tool to study and evaluate the possibilities inherent in a new business idea, based on a far-reaching enquiry and examination to enhance decision making. Feasibility analysis unbiasedly and rationally reveal the strengths and weaknesses of a current or proposed venture, opportunities' and threats existing in the business environment, resources availability, and more importantly the prospects for success and survival (Kreigsmann, 1979). Feasibility analysis further describes the process for determining whether or not an entrepreneur's idea is a viable foundation for creating a successful business (Scarborough, 2013). Barringer and Ireland (2013) define feasibility analysis as the process of determining if a business idea is viable. This definition supports the opinion of Scarborough (2013). Again, Barringer and Ireland (2013) further opined that the most effective businesses are those that emerge from the process that include recognizing a business idea, testing the feasibility of the idea, writing a business plan, and launching the business.

Arguably, the above steps required or rather significant to business success. According to University of Wisconsin Center for Cooperatives, a feasibility study is designed to provide an overview of the primary issues related to a business idea (Nicholas & Chinedum, 2017). One essential fact about feasibility analysis is that it provides a reliable springboard for the preparation of a well-articulated business plan. For instance, a good industry/target market attractiveness analysis, product analysis, organizational and financial analysis will be necessary to determine a new venture viability or feasibility. The information gained from such analyses could offer a strong foundation for writing a business plan. Preparing a business plan involves a reasonable amount of time, energy and money, therefore, requires all the necessary information that feasibility analysis can offer to circumvent flaws that may likely endanger the business idea. Identifying such flaws is the basis for a feasibility analysis.

Components of feasibility analysis

Feasibility analysis is better considered when an entrepreneur has multiple business ideas or concepts and needs to select the best option(s). To perfect a feasibility analysis, both primary and secondary research is required. Primary research concerns the field work, where the researcher(s) collects data from the respondents they need for the study, while the secondary research has to do with collecting information from existing records. Barringer and Ireland (2013) demonstrated four (4) important components of feasibility analysis which include;

Product feasibility analysis: This component of feasibility analysis evaluates the overall appeal of a proposed product (Klink & Athaide, 2006). There are several other things to consider when launching a new venture, but primarily the acceptability of the product, which a new venture wishes to offer has to be considered. Nothing else will matter if the product does not sell or appeal to the prospective buyers (Barringer & Ireland, 2013; Scarborough, 2013). Two major components exist for the product feasibility analysis: Product desirability and product demand. The desirability aspect of the product is an affirmation that the product is desired and serves a need in the marketplace. This affirmation can be achieved through a concept statement, showing a preliminary description of the product idea. The concept statement enables the entrepreneur to get feedback from industry experts and prospective buyers. The demand element of the product feasibility analysis determines whether or not there will be demand for the prospective product. The techniques to determine the demand intentions are, administering a buying intention survey and conducting library, internet and gumshoe research.

Industry/target market attractiveness feasibility analysis: This component assesses the industry/target market overall appeal to the product being proposed. This phase tries to evaluate whether the industry and target market segment is a good starting point for the proposed venture. This component tries to identify the *niche market* that the proposed product can occupy profitably, and the openness of the market to accommodate new ventures (Allen, 2016). The basic reason for conducting industry/target market attractiveness feasibility analysis hinges on industry challenges or threats to be addressed as proposed by Porter's Five Forces (1980) model. Porter (1980) identified five threats to any new venture: Bargaining power of suppliers; alternative or substitute products; new entrants, bargaining power of buyers; and industry competitors in terms of aggressive rivalry among existing ventures. It is incumbent on this study to clarify the distinction between industry and target market. An industry is an aggregation of firms involved in the manufacture or production of homogenous or similar product; while a target market is a segment of the entire market in the industry that a firm intends to serve or appeal to, with its product. In carrying out the industry/target market attractiveness feasibility analysis, two main areas to focus are: The industry attractiveness and the target market attractiveness.

Organizational feasibility analysis: This phase of feasibility analysis is conducted to determine whether or not a proposed new venture has sufficient management expertise or prowess, organizational competences, and resources to successfully launch the new venture. This will involve doing strength and weakness analysis to ascertain the possibility of launching the new venture successfully. Personal commitment is advised, and the entrepreneur needs to ensure they have a realistic and factual understanding of the chosen market niche, and further understand how their talents and the product of the new venture "fits" in that niche (Gregory, 2017). Other factors to take into account when conducting organizational feasibility analysis include resource

sufficiency, facility availability, availability of quality staff, and receptivity of the community (potential clients or volunteers perhaps) to the proposed venture (Barringer & Gresock, 2008; Barringer & Ireland, 2013).

Financial feasibility analysis: This component is regarded as the final phase of a comprehensive feasibility analysis. It focuses on assessing the financial feasibility of the proposed venture. The most important factor to consider here is the total start-up cash required, financial performance of similar businesses, and the overall financial performance or attractiveness of the proposed venture (Scarborough, 2013). Financial feasibility analysis include among others; initial capital requirement, estimated earnings, and the resulting returns on investment.

In addition to the foregoing four components of feasibility analysis, Ifechukwu (2006) identify: Technical, economic, legal, operational and scheduling considerations as other areas of skills to be considered feasibility analysis. The technical feasibility is centered on gaining an understanding of the technical resources needed in establishing a new venture and their applicability to the expected needs of the proposed venture (Thomson, 2003). It is an evaluation of the hardware and software and how it meets the need of the proposed venture (O'Brien & Marakas, 2011; Wickham, 2004). Economic feasibility assessment attempts to determine the costs and benefits of the proposed venture (Shane, 2019), using projected revenues and costs as a guide. Legal feasibility analysis tries to determine whether the proposed business conflicts with legal requirements, e.g., alcoholic beverages production and distribution must comply with the local alcoholic beverages protection regulations, and if the proposed venture is acceptable in accordance to the laws of the land. It also includes study concerning contracts, liability, violations, and other legal traps frequently unknown to technical staff. Operational feasibility is conducted to determine how well a proposed system solves problems, and takes advantage of opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development (Bentley & Whitten, 2007). To ensure success and operational outcomes, all ingredients of operational feasibility, such as reliability, maintainability, supportability, sustainability, usability, disposability, affordability and others should be factored from the design and development stage (Benjamin & Wolt, 2010). Schedule feasibility assesses the probability that a project will be completed within its scheduled time limits. It is mainly concerned with the degree to which a deadline for a strategy, plan, project or process is realistic and achievable.

The concept of new business venture performance

By creating a new venture, the entrepreneur has access to increased resources, which assist in increasing the point of differentiation and competitiveness of the new venture. Entrepreneurs then utilize specific skills and capabilities to help themselves in making rational decisions which lead to achieving success through new venture creation (Ozdemir, Simonetti & Jannelli, 2015). Therefore, in an attempt to sustain success, it becomes very important that entrepreneurs, understand how to measure the performance of their business ventures, whether they be new or existing. To measure business venture performance, it is essential to have at least knowledge of what works and what does not, given the original plans put in place. In today's business there are several key performance indicators used by various professionals to measure performance, some are universal, while others are specific to the form of business venture. But for the purpose of this study, which is investigating how feasibility analysis influences new venture performance, we have adopted new venture survival, sustained patronage and profit growth. Business is

dynamic and unpredictable; as a result everything continuously changes. To meet up with the changes that occur all the time, you need to constantly measure your business performance to ascertain what's successful and what isn't.

To this end, new venture performance is referred to as the routine activities carried out by businesses to achieve set goals, monitor progress in the achievement of those goals, as well as make necessary adjustments that would lead to the effective and efficient ways of achieving those goals (McNamara, 2012). Some authors have researched the positive relationship that lies between human capital and its success or improved performance in the firms that deal with entrepreneurial issues (Rauch, Wiklund, Lumpkin & Frese, 2009; Baron & Markman, 2000). Brush and Chaganti (1999) found that upcoming firms have increased performance that is related to the resources of the firm other than the approaches it employs. The intangible resource of the human capital cannot add value to the organization without back up from the entrepreneurs or managers as an important type of human capital. Pennings, Lee and Witteloostuijin (1998) found that human capital is highly related to firms' survival and growth. To measure performance therefore, it is advisable to compare quantitative data, like production rate, average level of customers' patronage, length of time of payback, customer wait time, etc to target measurements in those areas. Alternatively, gauge performance by assessing more qualitative information, like customer feedback. Measuring the performance of new ventures is of interest because they are a major source of job creation and because improvement in performance is critical to their survival and growth. In this paper, performance will be measured in terms of sustained patronage, survival, and growth.

Sustained patronage: the word patronage could imply differently to various authors. For the purpose of this study, sustained patronage means the continuous purchase of goods or services provided offered by a business venture (store, saloons, cyber café, hotel, airline, banks, mobile communication providers, or the like), by customers, clients, or paying guests. Studies have shown that when customers are satisfied, they tend to repeat purchase (Ahmad, Nawaz, Usman, Shaukat & Ahmed, 2010; Bolton & Lemon, 1999; Patterson & Spreng, 1997; Selnes, 1998). Also, Henkel, Houchaime, Locatelli, Singh and Zeithaml (2006) argued that satisfied customers in the service industry have a high future repurchase intentions. Hence, it is important to conduct a buyer intention survey at the feasibility analysis level.

Venture survival: Venture survival refers to a state of being familiar to startups that have weathered the recession, and to entrepreneurs who kept their companies afloat by postponing spending, hiring and long-term goal-making to focus on staying alive. In other words, performance of new ventures is described as the ability of the venture to remain alive in the face of turbulent environmental challenges that confront businesses in different climes. This is made possible by entrepreneurs learning or applying the skill of adapting to the environment. The strength of the venture which is internal should be used to cushion the threats which often are external. Some common options available to the entrepreneur to keep new ventures afloat include; cutting costs, laying off employees, tightening profit margins and saving cash.

Venture growth: It is often believed that "sales" is vanity, "profit" is sanity and "cash" is reality. Never has a truer word been said. Obviously, if the costs of running a business are largely fixed, then growing sales will generate profit growth. Again profit growth in the context of this study is viewed as a stable rise in the excess of revenues over outlays and expenses incurred in running a business enterprise over a given period of time, usually a year.

Feasibility Analysis and New Venture Performance

Venture feasibility studies are important to new venture development because they allow a business to assess where and how to operate, identify potential obstacles that may impede its operations and recognize the amount of funding it will need to get the business up and running. Feasibility analysis aims for marketing strategies that could be helpful in convincing investors or banks, that investing in a particular project or business is a wise choice (Kenton, 2019). According to Barringer and Ireland (2013), and Scarborough (2013), other areas where feasibility analysis can chart a path for new venture performance include: to assess the merit of a business idea before preparing a business plan; determining if a market exists for a proposed new products before launching into a new venture; determining the financial viability of the business idea, resource availability and economy of scale; determining if a business idea is worth investing in; giving insight to the overall demand for new products; helping in understanding the characteristics of likely customers (such as demographics and buying behavior).

Several studies have been conducted in the area of feasibility analysis and venture performance or success. Peace and Ezejiofor (2018) assessed the extent to which manufacturing firms undertook feasibility studies prior to launching their businesses. The study which was focused on manufacturing firms in Anambra State found that manufacturing firms ensure adequate financing, considered competitors and embarked on market determination prior to commencement. Similarly, Nicholas and Chinedum (2017) examined the “role of feasibility studies on project and organizational performance” and identified feasibility analysis as one of the key factors that drives the actualization of organizational objective. Relatedly, Echetama, Obi and Joel (2016), conducted a study on the effect of feasibility analysis on the growth of SMEs in Imo State, and found that feasibility study is a meaningful managerial tool that can be used to advance the growth and performance of SMEs. Furthermore, Mohammed (2014) examined the impact of feasibility analysis on business growth and development in Nigeria; and found that feasibility study significantly impacts business growth and reduces exposure to risk.

In addition, Hofstrand (2009) studied the importance of feasibility and business plan, and ascertained that feasibility analysis can be used in many ways but primarily focuses on propose business ventures. A feasible business venture is one that will generate adequate cash flow and profits, withstand the risk it will encounter, remain viable in the long term and meet the goals of the founders. Currie, Seaton, and Wesley (2009), in their study determined stakeholders for feasibility analysis”. They maintained that most techniques for stakeholder identification and salience in the pre-startup phase of a tourism development are not systematic in approach. Kuehn, Grider, and Sell (2009), investigated “new venture assessment: moving beyond business plans in introductory entrepreneurship courses” and came up with a view that while business plan is a typical feature of the introductory entrepreneurship or small business course (Katz, 2007), that other methods are available and at times are more appropriate for assessing new venture viability. Feasibility analysis of project is a key factor in business achievement, but many factors may be involved, and invariably luck may probably have a hand. Accordingly, many projects which have passed countless feasibility studies have been sunk by unexpected events such as flood, fire, changes in legislation, demographic shifts, inability to recruit and/or keep suitable staff, etc. Following from the foregoing, the study formulates the following null hypotheses:

Ho₁: Feasibility analysis does not significantly influence sustained patronage of new ventures.

Ho₂: Feasibility analysis does not significantly influence survival of new ventures.

Ho₃: Feasibility analysis does not significantly influence growth of new ventures.

3. METHODOLOGY

The aim of this study was to examine the influence of feasibility analysis on new venture performance Rivers State. The study adopted a descriptive survey research design. The population of this study comprised twenty five (25) new ventures that have operated between one to five (1-5) years. A sample of fifty (50) top management personnel was obtained from the study population. Through purposive sampling technique, two top management personnel were drawn from each of the new ventures that participated in the study. A questionnaire was used to collect primary data. The questionnaire was designed in the Likert five-point scale of strongly agree -5, to strongly disagree - 1. The instrument was subjected to both expert and academic scrutiny to determine its validity. To determine the reliability of the study instrument, Cronbach's Alpha which is the most common form of internal consistency reliability coefficient was used. The pass value of Cronbach's Alpha in this study was put at 0.70 to achieve reliability as set by Nunally (1978). Cronbach's Alpha value for the combined mean was=0.87, indicating high reliability (Hair, Black, Babin, Anderson, & Tatham, 2006). Percentage and frequency distribution were the descriptive static used for the responses regarding questionnaire administration, while regression analysis was the inferential statistic used to test the hypotheses of the study. The analyses were done with the support of the Statistical Package for Social Sciences (SPSS) version 22.0.

Table 1: Questionnaire Administration

Particulars of questionnaire	Frequency	Percentage
Number of questionnaire distributed	50	100
Number of questionnaire retrieved	48	96.0
Number of questionnaire not retrieved	2	4.0
Number of invalid copies	1	2.0
Number of valid copies (usable)	47	94.0

Source: Simulation from SPSS output on Data Analysis (2020)

Table1, indicate that 50 questionnaire were distributed to the selected respondents, representing 100 percent. 48 questionnaire representing 96 percent were retrieved. 2 questionnaire representing 4 percent were not returned. 1 questionnaire representing 2 percent was among those returned, but wrongly filled. Sequel to the above, 47 questionnaire representing 94 percent were correctly filled and were used for the analysis of data in this study.

Table 2 Reliability Analysis

S/N	Variables	Number of Items	Cronbach's Alpha Coefficients
1	Feasibility Analysis	4	0.796
2	Sustained Patronage	3	0.770
3	New Venture Survival	3	0.964
4	Venture Growth	3	0.932

Source: Simulation from SPSS Output on Data Analysis (2020)

The Cronbach's alpha coefficients on table 2, indicate that the study instrument was reliable. This is a clear indication that the questionnaire items were consistent and able to measure the variables of this study.

4. DATA ANALYSIS AND RESULTS

Decision Rule:

Level of Significance = 0.05

We reject null hypothesis if probability Value < level of significance

Accept Null hypothesis if probability value > level of significance.

Test of Hypotheses

H₀₁: Feasibility analysis does not significantly influence sustained patronage.

Table 3: Strength and direction of influence of feasibility analysis on sustained patronage of new ventures

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.523 ^a	.273	.257	2.766

a. Predictors: (Constant), Feasibility Analysis

b. Dependent Variable: Sustained patronage

As revealed by the analysis on Table 3, the regression coefficient (R) is 0.523. This means that feasibility analysis has a moderate, positive influence on sustained patronage of new ventures. The coefficient of determination (R^2) is 0.273; indicating that feasibility analysis accounts for 27.3% change in sustained patronage of new ventures, while the remaining 72.7% of change is traceable to the influence of stochastic variables (other variable outside feasibility analysis).

Table 4: Significance of influence of feasibility analysis on sustained patronage of new ventures

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	129.368	1	129.368	16.905	.000 ^b
Residual	344.376	45	7.653		
Total	473.745	46			

a. Predictors: (Constant), Feasibility Analysis

b. Dependent Variable: Sustained patronage

From Table 4, the probability value is $0.000 < 0.05$. This means, the result is statistically significant at 45 degree of freedom. Therefore, we reject the null hypothesis which states that venture feasibility analysis does not significantly influence new ventures sustained patronage.

H₀₂: Feasibility analysis does not significantly influence survival of new venture

Table 5: Strength and direction of Influence of feasibility analysis on survival of new ventures

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.848 ^a	.719	.713	1.011

a. Predictors: (Constant), Feasibility Analysis

b. Dependent Variable: New venture survival

From the result of the analysis on Table 5, the regression coefficient (R) is 0.848. This means that venture feasibility analysis has a very strong, positive influence on new ventures survival. Again, the coefficient of determination (R^2) is 0.719; indicating that 71.9% of changes in new venture survival is accounted for by feasibility analysis, while the remaining 28.1% of change is traceable to the influence of externalities.

Table 6: Significance of influence of venture feasibility analysis on survival of new ventures

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	117.934	1	117.934	115.418	.000 ^b
	Residual	45.981	45	1.022		
	Total	163.915	46			

a. Predictors: (Constant), Feasibility Analysis

b. Dependent Variable: New venture survival

As shown on Table 6, the probability value is $0.000 < 0.05$. This means, the result is statistically significant at 45 degree of freedom. Therefore, we reject the null hypothesis which states that venture feasibility analysis does not have significant influence on new venture survival.

H₀₃: Feasibility analysis does not significantly influence growth of new ventures

Table 7: Strength and direction of influence of feasibility analysis on growth of new ventures

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.619 ^a	.383	.369	2.246

a. Predictors: (Constant), Venture Feasibility Analysis

b. Dependent Variable: new ventures profit growth

The regression coefficient (R) shown on Table 7 is 0.619. This means that venture feasibility analysis has a strong, positive influence on new ventures profit growth. More so, the coefficient of determination (R^2) is 0.383; indicating that 38.3% of change in growth of new ventures is traceable to feasibility analysis, while the remaining 61.7% of change is due to the influence of external variables.

Table 8: Showing the significance of the influence of venture feasibility analysis on new ventures profit growth.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	140.651	1	140.651	27.887	.000 ^b
	Residual	226.966	45	5.044		
	Total	367.617	46			

a. Predictors: (Constant), Venture feasibility analysis

b. Dependent Variable: New ventures profit growth

Furthermore, table 8 shows that the probability value is $0.000 < 0.05$. This means, the result is statistically significant at 45 degree of freedom. Therefore, we reject the null hypothesis which states that venture feasibility analysis does not significantly influence new ventures profit growth.

Discussion of Findings

Results of the analyses on Tables 3 and 4 affirm that feasibility analysis has a very strong, positive and statistically significant influence on new venture survival; which is manifest in the

regression coefficient (R) of 0.848, with a probability value of 0.000, which is less than the significant level of 0.05. Thus, the null hypothesis one (H_{01}) was rejected. Likewise, results of the analyses on Tables 5 and 6, established that feasibility analysis has a moderate, positive and statistically significant influence on sustained patronage of new ventures. This position is demonstrated by the regression coefficient (R) of 0.523 with a probability value of 0.000, which is less than the significant level of 0.05. Accordingly, null hypothesis two (H_{02}) was rejected. Furthermore, the results of the analyses on tables 7 and 8 admit that feasibility analysis has a strong, positive and statistically significant influence on growth of new ventures; this is evident in the regression coefficient (R) of 0.619, with a probability value of 0.000, which is less than the significant level of 0.05. Hence, the null hypothesis three (H_{03}) was rejected. Consequently, the findings assert that feasibility analysis influences new venture viability in terms of sustained patronage of new ventures, as well as survival and growth of new ventures.

The findings of this study are in congruence with the results prior studies like Nicholas and Chinedum (2017) which identified feasibility analysis as one of the key factors to reach organizational objective, and also observed that many projects and many business ventures failed to achieve their goals because they do not begin or understand the importance of conducting a feasibility study. The conduct of feasibility study to a large extent, improves organizational performance, because it enables the organization to identify the flaws, challenges and unforeseen circumstances that might affect the progress of the organization with a view to taking appropriate preventive measures. Feasibility studies are important both to existing and new businesses, but there are other critical factors which if not considered will negatively affect the organization no matter passing the feasibility test like sheer incompetence, downright dishonesty and employment of unsuitable staff. Similarly, the findings of our study agree with that of Echetama, Obi and Joel (2016), observed that feasibility analysis is a meaningful managerial tool in advancing the growth and performance of SMEs; and that of Mohammed (2014), which discovered that a well-planned feasibility analysis enables business owners to understand the schematic of venture development and boost confidence in facing challenges that may arise in the business life cycle, because the target, through feasibility study has been attained. The study concluded that feasibility study impacts significantly on the growth of the business and reduces the level of exposure to risk and ensure success.

5. CONCLUSION AND RECOMMENDATIONS

Countless number of new entrepreneurs' world over launch into new businesses without minding to carry out a feasibility analysis of their business idea and this has unequivocally led to poor performance or outright failure of some new ventures at the early stages of their operations. However, several other studies have indicated that the role of venture feasibility analysis in business performance and success cannot be over-emphasized. Findings of this study are in consonance with existing literature and support the results of several other empirical studies on the relationship between venture feasibility analysis and new venture performance. Precisely, the findings of this study revealed that by conducting a feasibility analysis of a business idea before launching a new venture will foster new ventures survival, sustained patronage and profit growth, which are strong indicators or measures of new ventures performance. Currently, there are a range of simple and affordable tools that can give new entrepreneurs objective ways to measure how well they will perform before launching their business idea, and one of such is the venture feasibility analysis. Based on these findings, the study concludes that venture feasibility analysis to a large extent influences the performance of new ventures. Therefore, the study recommends that new entrepreneurs should ensure that an appropriate venture feasibility analysis

is done before launching a business idea to address possible challenges that may occur ahead of time, and that new venture owners must be sensitive to the workings of the various components of venture feasibility analysis (product/service, industry/target market attractiveness, organization, and financial feasibility analyses), and lastly, the study recommends that a feasibility analysis should precede a business plan before any new venture is launched.

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Corporate Governance Structure and Financial Reporting Quality of Quoted Manufacturing Companies in Nigeria

Amah Kalu Ogbonnaya

Accounting Department, College of Management Sciences, Michael Okpara University of Agriculture, Umudike, Abia State Nigeria

Abstract: *The study investigated the impact of corporate governance structure on financial reporting quality of quoted manufacturing firms in Nigeria. A total of ten manufacturing firm were used from 2006-2017. Data were extracted from annual report and accounts of the manufacturing firms. Financial reporting quality which was calculated using Dechow and Dichev's (2002) model. The Housman test of multiple regression analysis was employed to the hypotheses. The result found that Board meetings, Ownership structure, Gender composition and Audit committee have positive but not significant effect on the financial reporting quality of the sample manufacturing firms, while Board composition, Risk management committee and Board independence has a significant effect on the financial reporting quality. The r-squared outcome of 68% implies the ability of the selected explanatory variables to predict more than half of the charges that occurred in the financial reporting of the selected manufacturing firms in Nigeria. The regression model is all so supported by the outcome of the Durbin-Watson statistics which is 1.80 and very close to 2 indicating that possible absences of auto correlate in the regression model. It therefore that quoted firms should adhere to the guide lines given by CBN and SEC on the code of corporate governance as its their financial reporting quality. Regular suppressing and checks by the different regulated bodies is also recommended, while sanctions will be melted to those firms that violet this code and rules of corporate governance, as this volitions will help in watering down investors confidences in the sector.*

Keywords: *Corporate Governance, Fincial reporting Quality, Dechow and Dichev's(2002), Accrual model, Manufacturing firms.*

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1.0 INTRODUCTION

As Nigeria is marching forward towards the year 2020, to achieve a perfect economy. One factor that is still brothing everybody is how to achieve a transparent economy, which will produced quality financial statement that is free from biases. In today's business world, organisations should are more transparent than before, with the issue of fluctuating economic climate, accounting scandals and eventually the collapse of several corporate giants such as Enron, WorldCom and Maxwell which were believed to be the pacesetters in business performance have

propelled the need for good corporate governance both in developed and developing countries. Even in Nigeria there are several cases of corporate failures such as Cadbury Plc. Lever Brothers. Bank failures. Oba, 2014.

The collapses of these corporate giants were as a result of failure in financial reporting due to fraudulent practices and weak governance mechanisms' in place. Following this series of corporate scandals and financial crises, regulators, investors and other stakeholder and Government of different countries of the world came together to tighten the structure of this organisation by forming corporate government.

This corporate government came as a result of different forms of collapse by firms and were made by the Government to take charge of this organisation so that any financial statement that is coming out will be of good quality without any biases, Amah, 2018.

According to IAS 1. Financial report present the performance of management as stewards of resource trusted to them. This concept has received significant interest from present and potential investors as well as other major stakeholders Okereke, 2008.

Corporate governance and financial reporting are highly interwoven, infect financial reporting forms a crucial part of the corporate governance mechanism Melis, 2004, Melis and Carta, 2010. The aim of financial report is to make available high quality information; which corporate governance as part of its objective provides platforms to ensure the quality of financial report published.

The provision of high quality financial reporting information is important because it influences the providers of capital and other stakeholders positively in making investment, financing and similar allocation decision that enhance the overall market efficiency (IASB, 2008). Klai and Omiri, 2011 opine that countries round the world are now setting the best acceptable corporate governance practice as a guide; Cadbury Report was produced in United Kingdom, Sarbanes-Oxley in United States, the Dey Report in Canada; the Vienot Reporting France, the Olienci Report in Spain, the King's Report in South Africa. Principles and Guidelines on corporate Governance in New Zealand and Cromme Code in Germany.

The Ultimate goal of this Corporate Governance is to improve corporate governance's environments Bhagat and Botton, 2009. Financial reporting quality is the precision with which financial reporting conveys information about a firm's operation, the primary objective of financial reporting is to provide high quality financial information about entities useful for economic decision making, Biddle, Hilary and Verdi, 2009. The provision of high quality financial reporting information is important because it influences the providers of capital and other stakeholder positively in making investment, financing and similar allocation decision that enhance the overall market efficiency IASB, 2008. Financial reporting quality does not only refer to financial information but also disclosures and non financial information useful for decision making included in the financial statement.

The manufacturing sector of any economy in terms of share of total output or employment, growth of the sector has long been considered crucial for economic development. This special interest in manufacturing sector stems from the belief that the sector is a potential engine of modernization, a creator of skilled jobs and a generator of positive spill over effect Tybrut, 2000. Historically the growth in Manufacturing output has been a key element in the successful transformation of most economies that have seen sustained sizes in their per capital income Soderblom, 2002.

The above economic benefits of manufacturing sector can only be sustained when firms produce reliable financial report without manipulations before publishing. The cautious short down

of manufacturing firms due to poor management hinders the economic growth and development of the nation at large.

Therefore the main objective of this study is to assess the extent the corporate governance mechanisms of Board independence, Board composition, Number of Board Meeting, Ownership structure, Number of Risk management committee meetings, number of female membership and number of audit committee members have affected the financial reporting quality of quoted Manufacturing firms in Nigeria.

2.0 REVIEW OF RELATED LITERATURE

2.1 Concept of Corporate Governance

Corporate Governance is an important concept which has attracted a fairly good deal of public interest because of its great importance for the financial and economic health of corporations and society in general. According to the World Bank Report ,2002 corporate governance is defined as the organisation and rules that affect expectations about the exercise of control of resources in a firm.

Zain-aldini &Maymand,2011 defined it as a mechanism for managing, directing and supervising the activities of the company with the aim of creating value for Shareholder, However for the purpose of this study, we would consider a definition that embrace a wider view(ie including the shareholder's perspective) of corporate governance .Hence corporate governance is defined as the set of structure, processes, customs, polices, laws and procedures that defined the way owners resources are administered or controlled in a corporation in order to protect the interest of the owners. These structures customs polices laws and procedures determine the way a corporation is being governed. There structures guide the self seeking and opportunistic tendencies of directors and also protect the owners interest Mehrani and Safarzade, 2011.

The quality of corporate governance concerns the right and interest of stakeholders. Accounting disclosure is very important to all stakeholders, thus it provide them with the necessary information to reduce uncertainty and helps them to make salient economic and financial decisions, Nassar, Uwwuigbe and Abuwa, 2014.

According to Rogers, 2005, corporate governance is about building credibility, ensuring transparency and accountability as well as maintaining an effective channel of information disclosure that would foster good corporate performance .Jenkinson and Mayer,1992 opined that corporate governance is the process and structure by which the business and affairs of intuitions are directed and managed, in order to improved long term shareholder' value by enhancing interest of other stakeholders.

2.2 Components of Corporate Governance Structures

(1) **Audit Committee:** Section 359 of the companies and Allied Matter Act 1990 expressly provide for the establishment of audit committee by quoted companies in Nigeria. Usually, the committee is made up (6) six members on equal representation. The Audit committee serves as a bridge between external Auditor and board of directors. They view the company's position in a detached and dispassionate light and often liaise between the board and external auditors to ensure that areas of differences are resolved.

(2) **Board Size:** Board size is the total number of head counts of directors seated on the company's board. It comprises of the number of individuals serving on the board of a firm Ahmad & Mansur, 2012. The code of governances that the number of non-executive directors

should be more than that of executive directors subject to a maximum board size of 20 directors (CBN, 2006) and 15 directors (SEC, 2003).

(3) **Ownership Structure:** This implies the proportion of the total number of common shares owned by the board of directors to the total members of common share outstanding. Jensen (1983) posited that when insiders obtain relatively larger Ownership, they may possess sufficient power to overcome governance structure which would allow insiders to act in their own interest with little fear of removal or sanction, so they would become enriched.

(4) **Board Meetings:** This has to do with the number of times the board of directors officially meets to discuss concerning the company. An important measure of corporate boards monitoring power and effectiveness is the frequency of board meetings. Regular meetings allow directors more time to confer, set strategy and to appraise managerial performance. Mangene and Taurigana, 2008 opined that board meetings help directors to remain informed and knowledgeable about important development with the firms and thereby place them in a better position to timely address emerging critical problems.

(5) **Board Composition:** This refers to executive and non-executive directors' representation on the board. Empirical studies on the effect of board membership and structure on firm performance have revealed mixed or opposite result. Some researchers find that firms with board of directors denominated by outsiders perform better. Weisbach, 1998. Rosenstein and Wyatt, 1990.

(6) **The Risk Management Committee:** The Committee assists in the oversight of the risk profile, risk management and risk reward strategy as determined by the board. Their function include among others; review and approval of the companies risk management reviewing the adequacy and effectiveness of risk across the company and the adequacy of prevention, detection and reprinting mechanism, review laws and regulatory requirements that may impact the company's risk profile

(7) **Board Member Gender:** In many countries, the question concerning getting more women in boards and in top executive jobs become a highly debated issue. It is argued that women directors on corporate boards after many contributions. Corporations can competitive advantage by being receptive to women's contribution at the top Huse and Solb, 2016. For example having women in boards impacts the reputation of a company, provides strategic input on women's product/market issues and of board processes and deliberations, and contributes to the firms' female employees Buke, 2003.

2.3 Origen and concept of Financial Reporting Quality

Accounting professionals agrees that modern accounting dates back in the fourteen century when double entry system began. However, the Origen of accounts are generally attributed to the works of Luca Paciole a famous Italian Renaissance mathematician. He described a system to ensure that financial information was recorded efficiently with the event of industrial age in the nineteenth century and later emergency of large corporation, a separation of owners from managers of business took place. As a result, the need to report the status of the business entries continued to became of significant importance to ensure that mangers acted in accordance with owner's risks. In addition transaction between businesses become more complex, this led to the emergence of financial reports. Kariuki and Jagongo 2013.

2.3.1 Concept of Financial Reporting Quality

Financial reporting quality is defined as an essential source of information for the decision making processes of economic agent. Investors decide whether to purchase stock by analysing a firm's financial report. Claudia, Antonio & Elisio, 2011.

Biddle, Hilary and Veidi, 2009 defined financial reporting quality as the precision with which financial report convey information about the firms operations, in particular and its cash flowing order to inform the equity investors.

Scoth and Irem, 2008 defined financial reporting quality as the accuracy with which reported financial of firm reflect its operating performance and how useful they are in forecasting future cash flows. The IASB (2008) has however provided a working definition of quality of financial reporting. The Board in its conceptual framework defines quality financial reporting as that which meets the objective and qualitative characteristics of financial reporting.

2.4 Method of Measuring the Quality of Financial Reporting

To assess the quality of financial reporting various measurement models have been used in prior researches. Some of these include: (i) accrual models (Jones, 1991; Dechow, Sloan & Sweeney, 1995); (ii) value relevance model (Choi, Collins & Johnson W. B. 1997; Barth, Beaver & Landsman, 2001; Nicholas & Whalen, 2004); (iii) specific elements in annual reports Beretta & Bozzolan, 2004; Hirst *et al.*, 2004; (iv) qualitative characteristics model (Jones and Blanchet, 2000; Schipper & Vincent, 2003; Barth Landsman & Lang, 2008; Van Best *et al.*, 2009). However, this study considered and adopted the Accrual model because it is adjudged by many authors as the most widely accepted measurement model.

2.4.1 Accrual Model: This method of accounting is considered the best technique because it allows adjustments for the accounting period. It is also the best technique because it allows adjustments for the accounting period. It is also a better measure of the operating performance of a business entity but it always depends on the quality of accruals. Accrual earnings are divided into corporate accruals and non-corporate accruals. Corporate accruals reduce the quality of accruals and ultimately the quality of financial reporting. External users are always anxious to receive quality financial reporting because they do not have access to company accounts or other source of information. Proponents of this model argue that the main advantages of using discretionary accruals to measure earnings management is that there is relative ease in data collection and measurement. In addition, when using regression models it is possible to examine the effect of company characteristics on the extent of earnings management. (Healy & Whalen 1999; Dechow *et al.*, 1995).

Jones (1991) Model of Discretionary Accruals.

Jones (1991) comes up with the proposed effective new model of estimating non-discretionary. The model uses plant, properties and equipment (PPE) to control changes in non-discretionary ie change of firms activities. Furthermore sales variable is used to control changes in non-discretionary accruals which come from changes in the firm's economic environments. This model is based on the assumption that working capital accruals are related to changes in sales and depreciation is related to asset. The model

$$\begin{aligned} \text{TAC}/A_{it-1} &= \beta_1 (1/A_{it-1}) + \beta_2 (\text{REV}_{it}/A_{it-1}) + \beta_3 (\text{PPE}_{it}/A_{it-1}) + \epsilon_{it-1} \\ \text{DA}_{it} &= \text{TAC}/A_{it-1} [\beta_1 (1/A_{it-1}) + \beta_2 (\text{REV}_{it}/A_{it-1}) + \beta_3 (\text{PPE}_{it}/A_{it-1})] \\ \text{Whereas} \end{aligned}$$

TAC_{it}= total accruals for firm i in year t. **A_{it-1}** = total assets for firm i in the previous year, **REV_{it}** = change in revenues from i in year t, **PPE_{it}** = gross property and equipment for firm i in year t, **ε_{it-1}** = error term for firm i year t. **DA_{it}** = discretionary accruals.

Modified Jones Model (1991)

Dechow and Dichev (2002 modified Jones model, in this modified Jones model, accounts receivables was taken into consideration, by this model. Estimating of normal accruals in the first stage is similar to the model. The reasoning of the modified Jones is that all changes in credit sales in the event period result from earnings management.

The modified Dechow and Dichev's (2002) model is specified as:

$$WC_t = CFO_{t-1} + CFO_t + CFO_{t+1} - Sales_t + PPE_t +$$

Where: WC=Working capital in year t, ie Accounts receivables+ Inventory – Accounts payable –Taxes payable +other assets (net)

CFO_{t-1}= cash flows from operations in year t-1

CFO_t = Cash flow from operation in year t;

CFO_{t+1} =Cash flows from operation in year t+1

Sales_t =Sales in year t less sales in year t-1;

PPE_t =Gross property, plants and equipment in year t

This measure of earning quality capotes the extent to which accrual map into cash flow realization in past present and future cash flows. The higher the absolute residual for each sample firm, the lower the quality.

This model is also supported by the works of Nuraddeen &Hasuah (2014). In which the concluded that Modified Jones model is able to detect earnings management better than other models.

2.5 Theoretical Framework

2.5.1 Legitimacy Theory

According to Toukabri, Bens and Julani (2014) the theory of legitimacy is based on two fundamental, companies need to legitimize their activities, and the process of legitimacy that benefits to business. Thus, the first element is compatible with the idea that social disclosure is related to the social pressure. In this context, we say that the need for legitimacy is not the same for all companies due to the degree of social pressure to which the company is exposed, and the level of response to this pressure.

There are a number of factors that determine the degree of social pressure on companies, and responses to that pressure. These factors are potential determinants of corporate social disclosure. The second component is based on the idea that companies can expect to benefit by a legitimate behaviour based on the social responsibility activity.

Normally the legitimacy theory is used to social and environmental reports disclosure. But the legitimacy theory can be used in corporate report, suggested by Woodward, Edwards and Brikin (1996), as one possible legitimacy/accountability reporting framework, to communicate with the shareholders and clarify the importance of this relationship. Damaso and Lourenco (2011), has concluded that the organizational legitimacy is a useful concept to explain corporate report behaviour.

2.6 Empirical Reviews

Akeju and Babatunde (2017) investigated “corporate governance and financial reporting quality in Nigeria”. The challenge is on the relationship between corporate governance mechanisms (board characteristic, audit committees, board independence, board size and growth). The study made use of 40 companies listed on the Nigeria Stock Exchange (NSE) from 2006 – 2015. The study made use of multiple regression analysis for analyzing the data. The result shows that corporate governance improved the financial reporting quality in Nigeria.

Eyenubo, Mohamed and Ali (2017) did a work on Empirical Analysis on the financial reporting quality of quoted firms in Nigeria; with time series data from 2011 to 2015, the study adopted panel data regression, it found out that audit committee has positive and significant effect on financial reporting quality. The study recommend that cooperate governance should be strengthening in monitoring and oversight role of audit committee in financial reporting process.

Paulinus, Oluchukwu and Somtochukwu (2017) Carried out a reach on Empirical Investigation of Corporate governance and Financial reporting quality of quoted companies in Nigeria, The study made use of fifteen firms quoted on the Nigeria stock Exchange market under the consumer goods sector from 2012-2016. The study adopted simple regression techniques for the quoted sample firms analyzed. The findings showed that Audit committee independence do not exert significant effect on audit delay of corporate firms, also board size has significant negative relationship with audit delay of corporate firms in Nigeria, the study recommends that corporate polices should reflect commitment to company variables such as board size that will significantly impact on the quality of financial reporting.

Onuorah and Imena (2016) carried out a research on corporate governance and financial reporting quality in selected Nigeria Company. The issue of concern was how corporate governance indicators such as structure, audit the quality of external audit quality the quality of external audit, board independence affect financial reporting quality in selected Nigeria company. The companies selected were from commodities, brewery, banking, oil and gas and beverages. The period of the study was from 2006-2015.

Econometric analysis was used for the study. The study concluded that corporate governance indicators have a positive impact on financial reporting quality measured by the discretionary accruals of firm.

Mubarak (2016) Examined the impact of corporate governances on the quality of Financial reporting in the Nigerian Chemical and Paint industry. The period of the study was between 2009-2013 with sample of four (4) companies used, data were analysed using correction regression and variable used were Board size, Board independent and Audit committee. The study concluded that Board size as well as Board independence have insignificant effect on the quality of financial reporting in Nigerian chemical and Paint Industry, it went further to say that non-executive directors in the audit committee have an insignificant effect.

Cristina (2016) did a study on Financial Reporting quality and corporate governance. The Portuguese companies evidences. The challenge was to find out the composition and characteristics of corporate governance on financial reporting quality of Portuguese non financial companies, 234 firm's observations per year obtained by way of evidence. A multivariate analysis was used in analyzing the data collected. He concluded and that the degrees of independence do not produce any influence on the quality of the accounting information.

Nurika (2016) investigated how Financial Reporting quality affects the relationship between corporate Governance mechanism and stock price of the consumer goods industry listed in Indonesia stock exchange. The period of the study was between 2010-2013 and covered 30

firms. Path analysis was used to analyze the direct and indirect relationship among the variables. The result shows that there is no direct and indirect effect of the corporate governance to the financial reporting quality.

In a similar study Garba(2014) examined the impact of Corporate Governance on the quality of financial reporting in Consumer Goods Industry in Nigeria. The total number of quoted companies on the Nigeria Stock Exchange as at December 2102 was taken as population while sample of five(5) were selected for a period of five Years (5) (i.e. 2008-2012). The date used were obtained through secondary data from annual reports and accounts of the selected companies and date where analyzed using correlation and regression, The study concluded that Board compositions as well as Board size have positive relationship on the quality of financial reporting in consumer goods industry in Nigeria.

Uwuigbe, Peter & Oyeniyi (2014) examined the effect of corporate governance mechanism on earnings management of listed firms in Nigeria a total of 40 listed firms in Nigeria Stock Exchange was used, with time series of 2007-2011. Regression analysis method was employed as a statically technique for the analysis. The study revealed that while Board size and Board independence have significant negative impact on Earnings management; proxy by discretionary accruals; on the other hand CEO duality had a significant positive impact on earnings management. Hence the paper recommends that larger boards and diverse knowledge are more likely to be more effective.

Jamil, Mohamad, Mamdouh and Hassan (2013) Investigated the impact of governance on the quality of financial reporting, a field study on industrial firms listed in Amman Financial Market was carried out. The study made use of two researched descriptive analytical methods in the study by collecting data from sources of primary and secondary data. SPSS was used in analyzing the data. The study found out that effect implementation of the principles of Corporate Governance affect the quality of financial reporting.

Abduikadir and Noor(2013) examined whether audit committee are associated with improved financial reporting quality .using a sample of 70 companies listed on the Nigeria stock exchange, the study used archival data in the form of companies annual report to measure the association between audit committee and improved financial reporting quality. They employed Dechow and Dichev (2002) model to measure earnings a proxy for financial reporting quality. The findings show that formation of audit committee was positively associated with improved financial reporting quality, they also found out that audit committee having an independent chair and audit committee expertise were positively associated with financial reporting quality.

Similarly, Shehu(2013) investigated monitoring characteristics and financial reporting quality of the Nigerian listed manufacturing firms, Monitoring characterises involves Leverage, Independent director audit committee institutional block and managerial shareholdings, he made use of modified Dechow and Dichev's(2002) model using 32 firms OLS was used. The result shows a significant positive relationship between monitoring characteristics and financial reporting quality.

3.0 METHODOLOGY

3.1 Research Design.

The research design adopted for the study was *ex-post facto* as the study used documented data which were extracted from the annual report and accounts of the sample firms, In view of the use of documented data for the study, the uses of *ex-post facto* research design is thought justified, and such are not subject to manipulation. Purpose sampling was used to select ten quoted

manufacturing firms in Nigeria who have complete data point for the relevant number of years. The study period of the research is from 2006-2017.

3.2 Source of Date

In order to assess Corporate Governance structure on Financial reporting quality, the date selected for the research were secondary data collected from the published audited financial statement of manufacturing firms covering a period 2006-2017.

3.3 Operational Variables.

The study is based in corporate governance structure and financial reporting quality of listed quoted manufacturing companies in Nigeria

The measurement for dependent and independent variable are: Financial reporting quality is the dependent variable, in this study modified Accrual model is used to computed the financial reporting as proposed (Dechow and Dichev's 2002).

The model is operationalized as

Accrual model

$$WC_t = CFO_{t-1} + CFO_t + CFO_{t+1} + Sales_t + PPE_t +$$

Where: WC = Working capital in year t , ie Accounts receivables + Inventory - Accounts payable - Taxes payable + other assets (net)

CFO_{t-1} = cash flows from operations in year $t-1$

CFO_t = Cash flow from operation in year t ;

CFO_{t+1} = Cash flows from operation in year $t+1$

$Sales_t$ = Sales in year t less sales in year $t-1$;

PPE_t = Gross property, plants and equipment in year t

The independent variables in the study are Board composition, Board Size, number of Board meetings, Ownership structure, Gender composition, Risk management committee, Audit committee of the selected banks under study.

3.4 Model Specification

Model

The statistical tool of the model for testing the hypotheses is expressed as follows:

$$AM = \alpha_0 + \alpha_1 BCMP + \alpha_2 BC + \alpha_3 BM + \alpha_4 OS + \alpha_5 OS + \alpha_6 RMC + \alpha_7 GC + \alpha_8 AC + \mu \dots \dots 1$$

Where: AM = Accrual Model - Proxy for Financial reporting quality

α_0 = estimated of the true intercept $\alpha_0, \alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_6$ and α_7 are parameters to be estimated

μ = stochastic term

BI = Board Independent

BC = Board Composition

BM = Board Meeting

OS = Ownership Structure

RMC = Risk Management Committee

GC = Gender Composition

AC = Audit Committee

3.5 Data Analyses Techniques

In analysing the effect of corporate governance on financial reporting quality of quoted manufacturing

companies in Nigeria, multiple regression and Pearson correlation coefficient were used to analyse the data with aid of E views statistical software.

4.0 DESCRIPTIVE ANALYSIS FOR THE MANUFACTURING SECTOR

Descriptive analyses of the variables were obtained for the ten selected firms from 2006 - 2017. Some selected corporate governance indicators as well as accrual which served as a proxy for financial reporting quality extracted from the financial reports of each of the manufacturing firms in Nigeria formed a panel studies data and the descriptive analyses of each of the series were taken to assess the measure of dispersion and general behaviour of the series before other analyses will be conducted.

	BI	BC	BM	OS	RMC	GC	AC	LOGACCRUAL
Mean	2.357059	0.607311	4.663866	0.254807	1.764706	0.093613	5.689076	6.572426
Median	1.670000	0.600000	4.000000	0.290090	0.000000	0.080000	6.000000	6.622125
Maximum	7.000000	0.830000	11.00000	0.356330	7.000000	0.400000	6.000000	8.148541
Minimum	0.100000	0.100000	2.000000	0.121138	0.000000	0.000000	3.000000	4.717729
Std. Dev.	1.747398	0.179239	1.316630	0.821394	2.445008	0.113285	0.721908	0.662777
Skewness	0.898040	-0.989460	1.509359	-0.876589	0.976717	1.028328	-2.172973	-0.363722
Kurtosis	2.544955	3.859720	7.878054	3.383016	2.400090	2.901497	6.442760	2.710875
Jarque-Bera	17.02180	23.08224	163.1692	15.96748	20.70500	21.02104	152.4184	3.038302
Probability	0.000201	0.000010	0.000000	0.000341	0.000032	0.000027	0.000000	0.218898
Sum	280.4900	72.27000	555.0000	92.11220	210.0000	11.14000	677.0000	782.1187
Sum Sq. Dev.	360.3011	3.790939	204.5546	79.61314	705.4118	1.514346	61.49580	51.83429
Observations	120	120	120	120	120	120	120	120

Table 4.1: Result of Descriptive Analysis

Source: Researcher's Eviews Output 2018

The result of the descriptive analyses as contained on table 4.81above indicates that board independence has a high level of variability which flows from the minimum of 0.10 to maximum of 7.00; but shows however a low level of dispersion for board independence over the years because the median score is 1.67 suggesting that more than half of the board independence for the ten manufacturing firms are close to 2 as against the maximum is 7. The implication is that the maximum board independence may be a chance or rare occurrence. It is also possible that high board independence outcomes were from a particular firm out of the ten selected manufacturing firms since the ratio of 7:1 for non-executive directors to executive directors is on a very high side for an average firm.

Board composition has a lesser level of variability in comparison to board independence. This suggests that the variations in the ratio of non-executive directors to the total number of directors within the manufacturing sector in this study are not widely spread as can be deduced by its median score of 0.60 and mean score of 0.61 approximately. The implication of this finding is that selected manufacturing firms in this study maintained a high number of non-executive directors in relation to the total number of directors in each of the firms within the years covered in the study. Furthermore, the median and mean values of 0.60 and 0.61 respectively indicates that most of the firms have maintained more than half of the total number of directors within the board as non-executive directors. This is an indication that board compositions across the ten selected manufacturing firms in this study were dominated by non-

executive directors on the average but at some few points in some companies, the ratio of the compositions were below half as evidenced by the minimum board composition which is 1 non-executive director to 10 total numbers of directors.

Board meetings, according to the result obtained on the above table 4.1 ranged from the minimum value of 4 times to maximum of 11 times in a year across the ten selected manufacturing firms. This level of variability is lesser than the range disparity that was obtained for the banking sector thereby suggesting comparable behaviour for selected manufacturing firms than for the banking sector. With respect to the spread of the variables around the mean, the results show that board meetings were held at an average of four times in year across the ten selected manufacturing firms in this study. The median outcome of 4.00 approximately also shows that the maximum result of eleven board meetings in a year may not be a frequent occurrence among the selected firms since the values for board meetings are dominantly around the minimum value of 2. So it can be concluded that board meetings in the manufacturing sector were held at an average of 5 times within the years covered in this study.

Ownership structure (OS) for manufacturing sector is well spread around its mean since the mean and median observations are close to half of the range which is between 0.52 minimum to 4.17 maximum.

From the descriptive analysis result obtained and shown on table 4.1 above, the number of times members of the risk management committee meet on average in a given year is 2 times approximately thereby suggesting a rather low dispersion among the observations when compared with range that originates from 0.00 and peaked to 7.00. The implication being that most of the years, some manufacturing firms may not have had their risk management committee at all since the mid-value observation is 0.00. Additionally, the minimum value of 0.00 portrays the fact that some risk management committee of manufacturing firms selected in this study failed to sit at all in some years. This is in contrast to the maximum value of 7.00 times which shows that some of the manufacturing firms also had risk management committees who met for up to seven times in a year.

Gender composition (GC) as the ratio of female members to male members in the boards of the selected firms ranged from maximum of 0.40 to minimum of 0.00. The minimum value indicates that some of the manufacturing companies at some point within the 12 years covered in this work do not have any female as a board member of the board of directors. The maximum value of 0.40 on the other hand indicates that some of these companies may have a gender composition of up to 4 female board members to every 10 male board members. However, the outcomes of the both the mean and median scores indicate that more observations for gender compositions of the boards of the different selected companies are close to ratio of 1 female in every 10 male board members. This result suggests that male members still dominate the board compositions of manufacturing companies in Nigeria.

Audit committee membership as depicted in the descriptive statistics result above is more inclined to the maximum range of the observations owing to the median value of 6.00 as against the maximum of 6. This highlights the possibility that most firms in the panel of the ten selected manufacturing companies frequently maintained audit membership strength of up to 6 whereas the minimum audit committee strength of 3 was sparingly maintained. This conclusion is further supported by the mean of AC which is 6 approximately.

The logged value of accrual which is a proxy for financial reporting quality of selected manufacturing companies in this study is considerably varies from minimum value of 4.72 to maximum value of 8.15 approximately; when this range is viewed against the median value of

6.62 approximately, we can infer that the observations for accrual is well dispersed around its mean. It further posits that may have increased fairly over the twelve years period covered by this study and across all the companies in the panel. Furthermore, the Jarque-Bera outcome yields a probability value of more than 5% suggesting that observations for accrual are normal data.

4.1 Discussion of Manufacturing Sector Regression Results

The estimation of the nature and direction of relationship between corporate governance indicators and financial reporting of selected firms within the manufacturing sector of Nigeria was conducted in this section using multiple regression analysis; and also adopting the fixed and random effect model for panel data.

Using the fixed/random effect model entails making a choice between the fixed effect regression and random effect regression output. This choice was to be made on the basis of the outcome of hausman test probability value.

Table 4.2: Hausman Test for Fixed and Random Effects Models

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	16.243358	7	0.0230

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
BI	0.205969	0.105179	0.010003	0.3136
BC	-2.290903	-0.704229	0.501652	0.0251
BM	0.036261	0.117867	0.001211	0.0190
OS	0.587179	0.064909	0.091743	0.0847
RMC	0.081162	0.077567	0.000607	0.8840
GC	-0.055140	-0.651829	0.483136	0.3906
AC	0.052957	-0.044638	0.008715	0.2958

Source: Researcher's Eviews Computation 2019

The hausman test proposes a set of hypothesis in the null and alternative forms as follows:

H0: Random effect regression model is more appropriate

H1: Fixed effect regression model is more appropriate.

According to the result obtained for the hausman test for manufacturing sector on table 4.2above, there is a significant result for the Chi-square statistics of the hausman test.

The null hypothesis of the above test proposes the acceptance of the random effect model which assumes a mean value for the intercepts of the various selected manufacturing companies whereas the alternative hypothesis suggests that the fixed effect regression model is appropriate including the assumption that though intercepts may differ among the various firms, it remains

time invariant.

However, the result of the Hausman test having a probability value of less than 5% accepted benchmark will lead to acceptance of the alternative hypothesis and conclusion that fixed effect regression model is the appropriate model for this analysis.

Based on the conclusion of the hausman test results on table 4.13 above, the regression result which was conducted using fixed effect model was adopted and shown on table 4.3below.

Table 4.3 contains the regression result obtained for all the corporate governance indicators in this study and financial reporting quality of ten selected firms in the manufacturing sector. The result shows that board independence has a positive and significant effect on financial reporting quality of the companies. This is because the beta coefficient of board independence at the lag of one year yields a positive value which suggests that board independence of the firm attracts direct association from financial reporting quality of selected firms. The implication is that improvements in the ratio of non-executive directors to the number of executive directors in the companies' boards have the likelihood to be associated with corresponding positive reaction with respect to financial reporting quality of the banks at a statistically significant level of 5%.

Table 4.3: Panel Multiple Regression of Corporate Governance Indicators on Financial Reporting Quality of Manufacturing Companies in Nigeria

Dependent Variable: LOGACCRUAL

Method: Panel Least Squares

Date: 09/06/18 Time: 12:05

Sample (adjusted): 2007 2017

Periods included: 11

Cross-sections included: 10

Total panel (unbalanced) observations: 109

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.454087	1.012295	5.387841	0.0000
BI(-1)	0.205969	0.109814	2.175613	0.0439
BC(-1)	2.290903	0.842641	2.718718	0.0078
BM(-1)	0.036261	0.063897	0.567498	0.5718
OS(-1)	0.587179	0.312751	1.877464	0.0636
RMC(-1)	0.081162	0.038079	2.131388	0.0357
GC(-1)	-0.055140	0.901479	-0.061167	0.9514
AC(-1)	0.052957	0.124070	0.426832	0.6705

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.682921	Mean dependent var	6.584641
Adjusted R-squared	0.575602	S.D. dependent var	0.668143
S.E. of regression	0.568667	Akaike info criterion	1.851323
Sum squared resid	29.75113	Schwarz criterion	2.271074
Log likelihood	-83.89709	Hannan-Quinn criter.	2.021547
F-statistic	3.568086	Durbin-Watson stat	1.800711
Prob(F-statistic)	0.000055		

Source: Researcher's Eviews Computations 2019

Based on the result of the first beta co-efficient which is on board independence of manufacturing companies in Nigeria, the study concludes that board independence of manufacturing companies will have a significant and positive effect on their financial reporting quality at the lag length of one year.

Board composition also has a direct and significant effect on the financial reporting quality of manufacturing companies. The implication is that financial reporting quality of the selected manufacturing firms responds in the same direction as their board composition. The result is in agreement with theoretical expectation that is premised on the view that the dilution of executive directors' control of the board will promote the quality of the financial reports produced given that the non-executive directors have an independent outlook not being servants of the organization. They therefore have no interest in withholding the disclosure of any information. In addition since their interest is rather inclined to protecting their image as deserving of a person who represents shareholders and investors of different ranks and files, their dominance in a board is thought to enhance the credibility of the financial information produced by the firm. Hence we conclude in line with the findings here that board composition of selected manufacturing companies in this study has a significant and positive influence on financial reporting quality considering the probability value of the t-statistics which is significant at 1%.

The board meetings of the companies as another measure of corporate governance structure also have a positive but non-significant effect on the financial reporting quality at the lag length of one year. The finding on table 4.14 above suggests that frequencies of board meetings for the selected companies in the manufacturing sector of Nigeria are associated by a corresponding increase in the financial reporting quality. This result implies that board meetings previously described as the frequencies with which the board of directors meet, deliberate and take democratic decisions involving all directors as pertaining issues that has to do with the business; attracts a positive reaction from the financial reporting quality of the manufacturing sector in Nigeria. Though the t-statistics of the beta coefficient is not within the accepted statistical bound of 5% yet it is notable that board meetings are directly associated with financial reporting quality of selected manufacturing companies; we therefore conclude that board meetings of selected manufacturing companies in this study has positive but non-significant effect on their financial reporting quality.

Owners' structure also has a positive influence on the financial reporting quality of the sampled manufacturing firms according to the findings on table 4.3 above; the result suggests that the owners' structure of the sampled companies in this study elicits a positive response from the financial reporting quality. This result supports the notion that shareholdings ownership structure that is inclusive of directors' ownership of shares in the reporting organization is capable of influencing the interests of the directors culminating to their efficiency and by extension the firm's performance. So the multiple regression analysis above supports that owners' structure of selected manufacturing companies in Nigeria is directly associated with financial reporting quality at the lag of one year but the found association is not statistically significant.

The number of times risk management committee meet yearly yields a direct and significant influence on the financial reporting quality of selected companies in Nigeria as shown on table 4.3. This view is obtained from the fact that the beta coefficient for risk management committee (RMC) is 0.08 approximately suggesting that the frequency of annual risk management committee meetings of the ten selected companies offsets a positive influence on financial reporting quality of the manufacturing firms. The risk management committee meetings

after one year will attract a positive response from the financial reporting quality. It suggests that the financial reporting quality of companies in the manufacturing sector is responds positively to the frequency of risk management committee meetings implying that the activities of the committee contributes to the effectiveness of financial reporting quality of the companies at a significant extent. So we conclude that risk management committee meetings as an indicator of corporate governance of firms has a significant influence on financial reporting quality.

The regression results for gender composition and also for numerical strength of audit committee members each also yields non-significant effect on financial reporting quality of the manufacturing companies in Nigeria. It follows that the dilution of male dominance in the composition of board of directors of the companies shows a negative and non-significant effect on the financial reporting quality of the manufacturing companies selected in this study.

But number of audit committee members over the selected years in this study on the other hand attracts a positive response from the variations occurring in the financial reporting quality of the selected firms within the manufacturing sector. So we conclude that audit committee has a positive but non-significant influence on the financial reporting quality of the firms within the manufacturing sector of Nigeria.

On the residual statistics of the multiple regression model, the r-squared of 0.68 suggests that our regression model which regressed corporate governance indicators on financial reporting quality of manufacturing companies is well-fitted. This is because the r-squared outcome of 68% implies the ability of the selected explanatory variables to predict more than half of the changes that occur in the financial reporting quality of the selected manufacturing firms in Nigeria. The r-squared outcome also indicates that 32% of the variations that occur in financial reporting quality of manufacturing companies are explained by other occurrences or variables outside the corporate governance indicators.

The probability value of the f-statistics is significant at 1% supporting the credibility of regression equation and powers of the independent variables in predicting changes that occur in the financial reporting quality of the selected banks. The regression model is also supported by the outcome of the Durbin-Watson statistics which is 1.80 and very close to 2 indicating that possible absence of autocorrelation in the regression model.

5.0 CONCLUSION AND RECOMMENDATION

This study examined the impact of Corporate Governance structure on financial reporting quality of quoted manufacturing companies in Nigeria. The study identified corporate governance structure as an essential and effective management of quoted manufacturing firms in Nigeria. It also establishes that compliances with the code of corporate governance code in Nigeria will go a long way in enhancing financial health of the individual firms and also enhance financial reporting quality there by boosting stakeholder's confidence in the manufacturing sector. It therefore recommend that all the structures used in this study should be encourage by the regulating agencies of government (Securities and Exchange Commission & Corporate Affairs Commission) and other stakeholders in the Nigeria Manufacturing sector because of the role this sector plays in the Economy of the nation. While stiff sanctions should be meted out to Boards/managers who violate these codes of corporate governance as this will affect the stakeholder confidence which is very dangerous to our economy.

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Effective Information Technology Communication: A Panacea to Business Success

Gift J. Eke (Ph.D), MNIM, MABEN, MTAMN, IIPRDS and Florence Aniambrade
Kenabara, MNIM, MABEN, IORMS

Department of Office and Information Management, Faculty of Management Sciences, Niger
Delta University, Wilberforce Island, Amassoma, Bayelsa State

Abstract: *Technological changes can have profound impact on an organization. So, information needs to be handled by recognizing (and managing) complexity, focus on adoption, deliver tangible and visible benefits, prioritizing according to business needs, mitigate risks and communicate extensively. Effective information technology management is concerned with the efficiency, economy and emotive of an organization's information resources (communication, use, storage and retrieval). It is concerned with getting the best value for up-to-date and accurate information at an economic cost. In this context, this paper will focus on presenting brief review of related literature, using technology to maximize business efficiency, why information technology management is necessary. In conclusion, provision relevant and timely needed information pertaining to, the execution of business activities; is key to managers to making solid business decisions which leads to successful business growth.*

Keywords: *Business Success, Information, Information Technology Communication*

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INTRODUCTION

Since the early years of the 20th century, the world has been experiencing a revolution known as information technology. Some consider it to be the most fascinating development since the industrial revolution around the mid-18th Century (Tom, 1991). This revolution is changing our daily lives at home and at work, in shops and banks, in schools, colleges and universities. It is changing the way people think, communicate and behave. Today, the world has become a global village with the internet, mobile phones and satellite networks shrinking time and space, bringing together computers and communications; resulting in new ways of communication, processing, storing and distributing enormous amounts of information (UNDP, 2001). Advancement in chip, satellite, radio, and optical fiber technology have enabled millions of people around the world to connect electronically regardless of national or international boundaries. This explosion in connectivity is the latest and the most important wave in the information revolution (Evans & Wurster, 1997).

Information Technology (IT) is clearly considered as a key growth area in this century, specifically, in a dynamic and highly competitive business environment which requires utilizing advanced IT tools to improve efficiency, cost effectiveness, and deliver high quality products and services to customers (Allen & Morton, 2004). IT is also considered as a tool of marketing, contacting customers and looking for possible customers, as well as presenting IT services as distinguished potential services for customers (UNDP, 2001; Werthner & Klein, 2005).

Organisations are increasingly using information technology to develop solutions to business problems, to improve both the efficiency and effectiveness of the decision-making process, to enhance productivity and service quality, to achieve dynamic stability, and compete for new markets (Attewell & Rule, 1984). According to Cerere (1993) organizations have always sought and adopted technologies that enhance efforts of their manpower in production and management. Indeed, he noted that although it has evolved over a considerable period of time, information technology has emerged as an important tool in management of organizational operations.

Information and communications technology (ICT) has revolutionized the way people live, learn, work and interact. Tambe and Hitt (2014) stated that ICT is a mechanism used by companies to look for innovative ways of operating and relay information to achieve economic gains. According to Abou-Moghli, Abdallah and Ayed (2012), information technology is a multimedia technologies comprising of internet, software, hardware, computer, television, telephone, email, satellite, blogs, and internetworking projects. Kushwaha (2011) defines ICT as technologies and tools that people use to share, distribute, and gather information to communicate with one another, one on one, or in groups, through the use of computers and interconnected networks.

Loukis, Sapounas and Milionis (2007) stated that organizations are investing more on information and communication technologies (ICT) with the aim of increasing performance. Gartner (2014) stated that organizations invest increasingly in information systems (IS) so as to increase their efficiency, performance and quality. Gerald and Anderson (2012) assert that organizations that use supply chain relationship through information technology have been able to increase performance through integration. According to Schroeder, Pennington-Gray and Donohoe (2013), logistics is the movement of goods from one point to another in a seamless manner while minimizing or doing away with inefficiencies whereas, logistics performance is the process of satisfying customer needs, reducing transit time, minimizing of reducing costs, product/service differentiation and managing customer or supplier relationships. The purpose of this study therefore is to examine the impact of information technology on business success of organizations.

LITERATURE REVIEW

Concept of Information Technology

Listyarini, Ratnaningsih and Yuliana (2016) defined ICT as any use of technology to access, gather, manipulate and present meaningful information at the end. Kioko, Malowe, Martkin and Moody (2015) noted that ICT is a technology used to support information gathering, processing, tabulation and presentation in a meaningful form. ICT is used in different areas and in all these, the common factor is its acceptance as a technology used to facilitate movement of information through use of variety electronically aided communications for ease of access and decision making (Koltay, 2016).

Information technology refers to anything related to computing technology, such as networking, hardware, software, the Internet, or the people that work with these technologies. According to Daft (1997) IT can be defined as the hardware, software, telecommunications, database management, and other information-processing technologies used to store, process, and deliver information. Information technology is commonly used to assist managers with direct control over business functions, personnel and other resources. As managers oversee resource coordination and allocation, it can be difficult to coordinate business functions across various projects. Information technology is one of the key innovations that are frequently implemented to assist in this process (Hobday, 2000). Peansupap and Walker (2005) maintain that IT is often implemented as it is believed to facilitate communication, improve integration, enhance productivity and service delivery (Bjork, 1999).

As organisations grow and change, they depend more and more on information technology for their survival (Feeny & Willcocks, 1998). Companies today implement and use information technology to find solutions to business problems, to improve management decision-making, enhance productivity and quality, and compete for new markets in our global and aggressive business environment (Porter & Millar, 1985). Moreover, IT can be seen as a powerful force that opens exciting opportunities for organisations to achieve their missions and goals in an effective way. Therefore, leaders in organisations must obtain an overall appreciation of the potential of IT and link the acquisition and utilization of IT to the organizational mission (Hacker & Saxton, 2007).

Basic information technologies can be used to store, retrieve, organize, transmit and algorithmically transform any type of information that can be digitized into numbers, text, video, music, speech and programs to name a few (Brynjolfsson & Hitt, 2000). Frenzel (2009) observed that information technology revolution has created innumerable opportunities as well as some challenges for numerous organizations; therefore, managers must learn to adapt to and maximize advantages offered by information technology in this information-based society while guarding against the threats associated with it. Technology has levelled the playing field (Scumaci, 2010), a world without mobile phones and internet is unimaginable (Schubert & Leimstoll, 2007) as information technology has brought buyers and sellers closer together, thereby creating intimacy characterized in earlier eras (Levy & Powell, 1998).

IT can improve efficiency and increase productivity in different ways leading to lower transaction cost, better resource allocation and technical improvements (Olusola & Oluwaseun, 2013). To succeed in this evolving environment, managers must be proficient in the adoption of new practices and improved techniques. IT saves money and time spent on repetitive tasks in an organization (Chinomona, 2013). Information technology has altered management practices and the nature of work in industrialized nations (Lohr, 2007). Proper dissemination of information via technology empowers governments, institutions and individuals who sufficiently integrate it into their organizational structure. These days, the flow of information across the globe as little restriction, with access to internet, individuals can interrogate gigantic databases on super-information highways which information technology opens up. Woherem (2000) affirms that through internet connectivity business transactions can be carried out around the world without intermediaries or physical acquaintance with the customer. The adoption of computers in organizations has gone through four distinct phases (Scheimann, 2003): Large central mainframes, personal computers and distributed data processing, the networking of microcomputers and the networking of networks.

Information Technology and Business Success

Usually, performance is a measure of how well a process achieves its purpose. Moulin (2003) defines an organization's performance as "how well the organization is managed" and "the value the organization delivers for customers and other stakeholders. ICT is having a significant impact on the operations of business enterprises and is claimed to be essential for the survival and growth of nations' economies (Stephen, 2007).

Dalrymple (2004) lists profitability, financial management, productivity, investment, growth, customer service, supplier management, innovation, people management and people satisfaction as some of performance measures of an organization. As is the case with all technologies, small businesses are slower than large ones to adopt new ICTs (OECD, 2004). Information and Communication Technology influences flexibility of the organizations and companies, use of ICT increase the tendency of companies to perform better in market due to easier differentiation of products and services. Ollo-Lopez and Aramendia-Muneta (2012) stated that ICT adoption seems to have a positive effect on productivity, directly as well as indirectly, depending on the sectors and to have great potential to support a sustainable development. Furthermore, the use of e-mail, e-commerce, and social media network has significantly cut down on the physical transportation involved in sending mail, banking, advertising and buying goods (Manochehri, Al-Esmail & Ashrafi, 2012).

According to Brynjolfsson and Hitt (2000), ICTs can enhance enterprise performance through indirect cost savings such as labour costs and increased labour productivity, and direct cost reduction of firm's input such as information costs. On top of these short-run impacts of ICT adoption in the production process, the use of ICTs in the transaction process can foster input and output market expansion. However, in the long run, ICT may have an even bigger impact as it can completely restructure the production process and transaction methods, increase flexibility and improve outputs. ICT is clearly considered as a key growth area in this century, specifically, in a dynamic business and highly competition environment which requires utilizing advanced ICT to improve efficiency and cost effectiveness, and to present high quality products and services to their customers (Allen and Morton, 2004). UNDP, (2001) claimed that ICT is considered as a tool of marketing and contacting customers and looking for possible customers, as well as presenting ICT services is distinguished as a potential service for customers (Werthner, and Klein, 2005).

Adeosun (2009) stated that the use of ICT enables strategic management, communication, collaboration, information access, decision making, data management and knowledge management in organizations. ICT causes fundamental changes in the nature and application of technology in businesses. ICT can provide powerful strategic and tactical tools for organizations, which, if properly applied and used, could bring great advantages in promoting and strengthening their competitiveness (Buhalis, 2004). Hengst and Sol (2001), state that ICT enables organizations to decrease costs and increase capabilities and thus assist to shape inter-organizational coordination. The use of ICT can assist to lower coordination cost and increase outsourcing in organizations. ICT is used to exchange information and it provides a medium for learning. Ramsey (2003) noted that organizations generally stand to gain from ICT in areas such as reduced transaction costs, information gathering and dissemination, inventory control, and quality control.

Information and communication technology plays a key role in market access and is the main core of any marketing system. Market access in developing countries is a major challenge to small businesses due to market imperfections that can be attributed to lack of market

information, lack of linkages between the actors in the supply chain, distortions or absence of input and output markets, high transaction cost and high presence of trade intermediaries. Different strategies exist for improving market access of which the use of ICT is one. Strategies that enhance market access greatly impacts on the performance of small enterprises (Shepherd, 2007).

ICT can significantly impact the market –oriented dimensions of products and services (Ritchie & Bridley, 2005). Market –oriented ICT include websites which display the goods, services and information of a firm on the world wide-web (WWW). It can also integrate the e-commerce functionality, such as offering the ability to place orders. The www is a powerful platform for expanding and reaching new markets for SMEs while the Internet is critical in enhancing a firm's market reach and operational efficiency. ICT offers SMEs flexibility in trading by enabling 24 hours of trading, borderless market space and leverage SMEs to compete against larger enterprises on the same platform. In addition, ICT facilitates remote access to knowledge, suppliers and a borderless environment, offering SMEs the ability to deliver products and services on a different platform that is easily accessible. Information and Communication Technology can be used to reduce barriers of entry into different market segments exposing SMEs to a wider customer base (Lloyd & Kroeze, 2008).

Mutula and Van Brakel (2006) noted that ICTs, especially the internet, have a significant impact on the operations of SMEs by facilitating their access to global markets, enabling them to sell to international customers, and to compete favourably with large corporations. Strategic use of ICTs is viewed as near solutions to firm's problems. ICT has the potential to reduce the impacts of distance, reduce transaction costs, be used in information gathering and dissemination, inventory control, and quality control. Information and Communication Technology can enable SMEs to participate in the regional and international markets which are strategic for competitiveness, growth and further development (Ramsey, Ibbotson, Bell & Gray, 2003).

Information and Communication Technology play an important role in enabling innovation. Gago and Rubalcaba (2007) find that businesses which invest in ICT, particularly those which regard their investment as very important, are significantly more likely to engage in good and service innovation. Van Leeuwen (2008) linked ICT use and investment with firm performance and find that e-commerce and broadband use affect productivity significantly through their effect on innovation output. Polder (2009) finds that ICT investment is important for all types of innovation in services, while it plays a limited role in manufacturing, being only marginally significant for organizational innovation.

ICT also has the ability to transform global and local markets to become more efficient. Electronically mediated markets greatly impacts on the cost, speed and transparency of market-based transactions. As a result lower transaction cost and increased reach result in up to 15% lower costs to consumers, and up to 20% lower costs in business procurement. Business-to-business (B2B) net-based transactions are transforming supply chains across the globe, leading to the rise of new channels or net-based intermediaries, and enabling SMEs to pool resources and auction or collectively supply large multinationals Market prices act as coordinating signals for producers and consumers, where sources of information are limited basic ICT could play a major role in creating efficient markets, improving producer practices and speeding innovation, through the provision of information on market prices (Hanna, 2010).

Information and communication technology causes fast accessibility to the market, increases selection power, improves communication, facilitates identification of markets,

improves marketing and reduces business transaction costs. From a Survey conducted in Kenya and Tanzania (Matambalya & Wolf, 2007); SMEs that used different forms of ICT rated their effects mostly positive. On top were telephone and computer applications that are assumed by 88% and 76% of users to considerably increase management efficiency and competitiveness respectively. Mobile phones are considered to contribute significantly to regional market expansion by most enterprises followed by fixed phones and faxes. ICT has a proven role in enabling SMEs to increase their productivity and access information and markets, but remain unaffordable (OECD, 2004).

Challenges facing Information Technology in Business

Despite the various benefits obtainable from the use of ICT in business operations as enumerated above, business organisations encounter a number of problems when deploying such systems. Nyaga (2014) said that ICT is seen as a requirement for development of any nation but when the developing countries is it put side by side with the advanced countries, a wide gap exist in the usage of ICT and its associated challenges between these two groups. This space is referred to as "the Digital Divide" and can be seen within a country and between countries. In developing countries, ICT infrastructure is frail leading to limited internet access. Nigeria is a developing nation and so most if not all the challenges identified by Nyaga (2014) are evident in the country.

Oliveira (1989) and Gulati (2008) also listed some of the challenges being faced in the use of ICT to include the insufficiency of monetary resources(in the developing world as the available money will be expended mostly on basic needs like food, house and roads), the cost of ICT hardware, the salary of the ICT professionals, software related costs, cost of access to the internet, poor substructure in undeveloped countries like erratic electricity supply compounded this problem, maintenance cost, burglary, fear by the administration and obsolete computers.

Parida, Johansson, Ylinenpää and Braunerhjelm (2010) opined that there are quite a lot of issues that may disallow industries from deploying and making the best use of ICT in their dealings. Factors influencing the deployment and use of ICT in businesses can significantly vary when comparing diverse sectors of the economy, nations and groups. These are unsuitable ICT for the kind of business a firm is doing, inadequate ICT skills or capability inside the firms, absence of consistent ICT associated applications, price factors, concerns with right to use to ICT, absence of trust, and legal reservations.

Empirical Review

A study by Ayatse (2012) investigated the impact of information communication technology (ICT) on corporate performance. The result of the study show that ICT has positively contributed to cooperated performance. Pirzada and Ahmed (2013) study the effect of new technology on firm business objective. The result of the study indicate that new technology have a strong relationship with firm business objective. Hawajreh and Sharabati (2012) investigated the impact of information technology on knowledge management practice in Jordan. The result of the study shows that there is positive and significant relationship between information technology and knowledge management practice. (Onu Ibrahim & Segun, 2015) examined the effect of information communication technology investment on organizational productivity and growth of small and medium scale enterprises in developing countries. The result of the study shows that positive and significant effect exists between independent variable and dependent variable of the study.

Hailu (2014) examined the impact of information system (IS) on organizational performance with reference to ethio-telecom Southern region, Hawassa, Ethiopia. The result of

the study show that top management commitment facilities, skilled man power, information ethic, quality system, user perception, significantly affect organizational performance. Another similar empirical study showed that information and communication technology have significant positive effect in innovation activities of companies Penalba (2015). Similar study by Alabar and Agema (2014) indicated that the information and communication technology have significant influence on customer satisfaction. Sepehrdoust and Khodaei (2013) found positive and significant effect between ICT and employment selected of Selected OIC Countries. Olise, Anigbogu, Edoko and Okoli (2014) investigated the determinant of ICT adoption for Improve SMEs performance in Anambra state Nigeria. The result indicated that there is positive and significant relationship between dimension and SMEs performance. Binuya and Aregbehola (2004) findings of the study indicated that the use of ICT increased return on capital employed as well as return on asset of south African banking industry and the study discover more of the contribution come from ICT cost efficiency.

CONCLUSION

Effective information technology management enables great efficiency of organization and business activities for successful growth. Effectively managing information technology also makes it easy to keep information up to date. It has benefits that will assist the organization make money and create the results customers desired. Providing relevant and timely needed information pertaining to, the execution of business activities; is key to managers to making solid business decisions which leads to successful business growth.

RECOMMENDATIONS

- i. Courtland & John (2013) assert that improved information flow increases report accuracy and helps companies in the supply chain manage inventory. All these efforts are geared towards business success and growth. Therefore the researchers recommend that organizations and businesses should endeavour to create effective information management system to ensure smooth running of their activities.
- ii. Organizations should look into areas that could give a business advantage to channel different types of competency in the new ere of digitalization, which brings new types of data management.
- iii. Advances in computer-based information Technology in recent years have led to a wide variety of systems that managers are now using to make and implement decisions. And the difference between success and failure is the extent to which managers can use the system to increase their effectiveness within their organizations (Alter, 1976). For any business organization to succeed in the mist of its business competitors, Information Technology is the key factor. Managers of businesses and organizations should key into managing new technologies as technology advances in age.

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Big Data Analytics and Performance: Evidence from Retail Supply Chains in Rivers State of Nigeria

Ikegwuru, Mac-Kingsley (Ph.D) and Beatrice Chinyere Acee-Eke (Ph.D)

Department of Marketing, Rivers State University, Port Harcourt, Nigeria
Department of Marketing, Ignatius Ajuru University of Education, Port Harcourt, Nigeria

Abstract: *This present study employs explorative and quantitative survey and, adopted the simple random sampling method in order to collect data from selected retailers. Data for this study were collected by means of a survey conducted mainly in Port Harcourt metropolis, and its environs from October to December 2019. Primary data were assessed through a structured pre-tested questionnaire, and the total number of retailers contacted via questionnaire was 390. Though, 394 responses were received and after establishing the validity of the questions 296 (75.1%) respondents were vital for executing descriptive and inferential analysis. The collected data were analyzed with the Statistical Package for Social Sciences (SPSS) version 22.0, using the frequency and contingency tables, and the ordinary square regression method. The findings reveal that descriptive data analytics, predictive data analytics and prescriptive data analytics contribute significantly to performance. The study therefore, concludes that the elements of big data analytics significantly predict performance of retail supply chains in Rivers State of Nigeria, and recommends amongst others that the management of retail supply chains should focus on descriptive data analytics to endear and sustain performance.*

Keywords: *Big data analytics, Descriptive data analytics, Performance, Predictive data analytics, Prescriptive data analytics.*

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1. INTRODUCTION

In this current era of our existence, we are experiencing a sudden increase of data (Choi *et al.*, 2017), and to be factual, big data analytics (BDA) capability has fascinated momentous interest from academia and management practitioners. Chen and Zhang (2014) dispute that big data has an adequate amount of prospective to transform several spheres as well as business, scientific research and public administration. Thus, a greater part of business organizations are trailing BDA-related development schemes (Kiron *et al.*, 2014). The deciding factor at the rear of big data analytic is digitalization, with greater than before social and media recognition in the middle of electronic device users (Hellerston *et al.*, 2008; Lohr 2012). The size of big data go beyond the existing capability of software tools and storage systems for capturing, storing, managing, and processing data in a good enough time (Kubick, 2012). Substantial data has become the most imperative resource for potential company wealth against the backdrop of the unrelenting growth of information technology and Industry 4.0 (Tukas *et al.*, 2019). Being an extremely rapid increase (Manyika *et al.*, 2016), this outburst of big data is paying attention on quite a lot of areas of actions contributing to the amplification of universal modernization in science and technology.

Big data analytics allude to technologically enabled ability which can aid in routing huge amount,

high rapidity and numerous assortments of data to haul out consequential and functional insight; hereby facilitating the firms to gain competitive advantage (Fosso Wamba *et al.*, 2017). Additionally, Galbraith (2014) noted that historically, supply chain managers used to evaluate data assembled from time-honored data warehouses to achieve insights. What is more, Hazen *et al.* (2014) disputed that the helpfulness of decision making in supply chains frequently pivots upon the worth of the data processed through organizational infrastructure, which allows the supply chain managers to speedily get hold of, develop and examine data. Papadopoulos *et al.* (2017) argued that insights achieved by the use of improved information dispensation competence can trim down improbability, particularly when operational tasks such as disaster relief operations are exceedingly composite.

Data management and integration turn out to be decisive in dealing with the face up to of connecting supply chain management organisms to producers and suppliers including their partners. Addressing supply chain management challenge at every intensity and actions requires that data management and integration make certain the visibility of both producers and suppliers including their partners, thus contributing to enhanced dealings of trust and long-standing collaboration. Supply chain specialists have contact to data, which is ad infinitum engendered by conventional mechanisms such as POS, RFID, and in addition GPS to an immeasurable quantity of data produced from amorphous data sources such as digital click streams, camera and surveillance footage, imagery, social media postings, blog/wiki entries and round-table deliberations (Sanders & Ganeshan, 2015).

The current supply chains are exceedingly sustained by advanced networking technologies – sensors, tags, tracks and other smart devices, which are congregating data on instantaneous foundation (Wang *et al.*, 2016; Gunasekaran *et al.*, 2017), which supplies uninterrupted demand and supply visibility (Gunasekaran *et al.*, 2017; Srinivasan & Swink, 2017). Schoenherr and Speier-Peró (2015) argued that supply chain managers need to develop a large quantity of data to formulate decisions that may help trim down costs and boost the product accessibility to the customers.

Organizations with a closely controlled policy of implementing big data analytics have had healthier results with investments (Accenture, 2019). Implying that an apparent and methodical policy of big data analytics can supply a superior return on investment (ROI) in definite areas of the supply chain, such as marketing, purchasing, shipping, and storage (Benabdellah *et al.*, 2016). After all, an extended supply chain is a multifaceted system that bond firms through collaboration and integration, as competition between supply chains is professed as superior than between individual firms (Antai & Olson, 2010).

The use of big data analytics in the field of marketing and other related areas is on the increase. Nonetheless, the operations and supply chain professionals are hitherto to take advantage of the factual prospective of the big data analytics capability in order to advance the supply chain operational administrative proficiency (Srinivasan & Swink, 2017). This is because many firms still do not comprehend how to apply analytical techniques to attain better-quality performance contained by the supply chain.

Besides, despite this background literature, there exists a dearth of scholarly inquiries on the influence of big data analytics on performance in the retail supply chain in Nigeria. Against this background, the present study investigates the impact of big data analytics and performance in retail supply chain in Rivers State of Nigeria, and bridge the gap in knowledge.

LITERATURE REVIEW

Big Data Analytics

Big data analytic has different approaches, since the volume of current datasets in big data is a noteworthy feature, well thought-out to be barred from the conventional management systems of databases); velocity (the rate at which data is composed); and variety (unstructured data are produced by sources such as social media, e-mails, and communication) (Wisner, Tan & Leong, 2012). Big data analytic is defined as a holistic technique for managing, processing, and evaluating data sizes (volume, variety, velocity, veracity, and value) that are desirable to create action-oriented information for unrelenting delivery, performance measurement, and competitive advantage (Wamba, *et al.* 2015), Big data analytic entails the

application of sophisticated analytical procedures for mining essential information from huge volumes of data to smooth the progress of decision-making (Tsai *et al.*, 2015). Extraordinary type of all-encompassing data that cannot be stored, stage-managed, and investigated by means of a conservative system simultaneously with an unspecified source, an assortment of dimensions and its affiliation cannot be straightforwardly considered owing to its complication and vibrant nature (Sun, Chen & Yu, 2016).

This concept emanates from the field of operational research, and as a highly developed analysis has had diverse categorization (Chae, 2015) among which are descriptive, predictive, and prescriptive analysis (Lustig, 2010). This study adopts descriptive, predictive, and prescriptive analysis as the dimensions of big data analytics.

Descriptive data analytics is founded on the analysis of data unfolding past business situation, inclinations, prototype, and expostulations. The modus operandi used for descriptive analytics can be differentiated as standard reports and scoreboards, ad hoc reporting, query drilldown (OLAP) alerts, and viewing (Siegel, 2013).

Predictive data analytics is founded on instantaneous data analysis and historical data to envisage the probability of upcoming proceedings. This technology learns from accessible data by means of machine learning procedures and computational algorithms (Siegel, 2013). Big data analytics is frequently used with the purpose to predict. Prediction is the talent to anticipate the future, based on applying convinced modus operandi on datasets. Predictive analytics is a process whereby information hauled out from a mixture of data sources is exploited to illuminate prototypes as well as envisage the future (Elragal & Klischewski, 2017). Predictive analytics has the prospect to convey enormous business worth to companies and persons uniformly. Further, prediction has been acknowledged as a major research area of the future (Elragal & Klischewski, 2017).

Prescriptive data analytics is founded on data-based predictions to bring up to date and offer proposed action deposits that can be beneficial or keep off from definite results and may embrace: (1) studies dealing with the inconsistency of projected outcomes by examining the scenario game theory; and (2) optimization and simulation under situation of unique significance in the perspective of vagueness based on computational stochastic programming of random variables (Monte Carlo).

Performance

Performance is an expression engaged by scholars in the field of marketing to weigh up the efficiency and effectiveness of a careful marketing strategy (Maclayton & Nwokah, 2012). Quite a few researchers have unpredictable point of view on performance and it persists to be a controversial issue in the midst of researchers. Cho and Dansereau (2010), refers to the performance of a firm as measured up to its goals and objectives. Further, performance is an all-encompassing indicator which integrates productivity and quality, consistency and other factors. In defining performance, efficiency allied actions which are linked to the input/output relationship and effectiveness correlated actions, which engross apprehensions, like employee satisfaction and business growth ought to be integrated. Performance is a fundamental construct in the strategy literature. The concept of performance is three fold, as it can be approached as the critical aspiration of management, an end in itself, and can be underscored at the level of individual managers, teams, businesses and conglomerates (Ikegwuru & Harcourt, 2019) in the supply chain management.

The supply chain management concept has been defined as management along with and contained by a network of upstream and downstream businesses, both of which have interactions and flows of material, information and resources (Christopher, 2011). The supply chain can be well thought-out to be an amalgamation of four independent and unified bodies (marketing, sourcing, inventory management, and transport). Supply chain management is in charge for building and preserving associations amid the dissimilar units (Halo, 2018) to achieve organizational goals, if well harmonized. Supply chain management aims at amalgamating business processes that cover the organizational porch of supply network partners to generate value for each stakeholder such as consumers, buyers, suppliers, and shareholders, as well as improve on its performance measurement.

A good number of firms use the expression performance in unfolding an assortment of measurements which consist of output efficiency, input efficiency and also transactional efficiency. So, the term performance may not be fully explained by a single measure. There has also been unpredictability in the measuring of performance as many researchers have used numerous variables in the measurement of performance. Performance has been predictable by means of non-financial (subjective) and financial (objective) measures from equally perceptual and objective sources. It is discernible that as supply chain is a set of connections of divergent organizations, functioning in collaboration is intrinsic for most favorable performance (Santanu, 2012), all aspects of performance measurement need to be perceived with accurate performance metrics, measurement procedure, investigation, plentiful estimation and lastly the vital process (Tian et al., 2003). Therefore, supply chain performance enhancement is an interminable process that requires an analytical performance measurement structure (Ikegwuru & Harcourt, 2018).

Big Data Analytics and Performance

Innovative technologies such as big data analytics harmonize supply chain management in a detached flow (Edwards, Peters & Sharman, 2011) and consent to companies to confine, route, evaluate, stockpile, and swap over data regarding their procedures(Smith, *et al.*, 2007). The following are the computer systems employed for this rationale: Electronic Data Interchange (EDI), Vendor Managed Inventory (VMI), Efficient Consumer Response (ECR), Collaborative Planning Forecasting and Replenishment (CPFR), Collaborative Planning System (CPS), Sales Force Automation (SFA), Point of Sale (POS) data, and Customer Relationship Management (CRM) (Barrat & Oke, 2007).

Among all SCM information flows, big data analytics focuses on data analysis and tools are included in the “analytics” domain. Analytics applies mathematics and statistics to large amounts of data. Big data without analytics is just a lot of data, and analytics without big data is simply math, statistical tools, and applications (Sanders, 2018).

Big data analytics has been well thought-out as a prime capability that can advance a firm’s performance (Ghasemaghaei, Hassnein & Turel, 2017; Wamba, *et al.*, 2015). The development of big data analytics capability and the classification of the features that could optimistically power that capability edifice ought to be able to maximize a firm’s performance. Accordingly, greater firms performance in a big-data–driven milieu originates from a just right mishmash of all wherewithal, as well as big data analytics management, Information Technology (IT) infrastructure, and analytics skill or knowledge, which should be peerless and incomparable (Barton & Court, 2012; Akter, *et al.*, 2016).

Xu *et al.* (2019) assert that sustainable investment in a supply chain stimulates the co-creation of value by plummeting risks, with big data helping to curtail supply chain stages by broadening economic marginalization and making possible sustainable planning of well turned-out investments. Big data analytic also, gives explanation for the social risk of a supply chain and how it can contribute to realizing ecological, economic, and social sustainability (Lue, Li & Oi, 2019). Other consultants have established the significance and contribution of big data analytics to supply chain management by: (1) improving manufacturing performance by connecting internet of things and big data to manufacturing systems to curtail blockages by developing forecasting techniques (Bi & Cochran, 2014); (2) observing existing inclinations in supply chain management by using Twitter and developing a new conceptual framework in this regard (Chae, 2015).

Empirical Review

Oncioiu *et al.* (2019) study bordered on supply chain management and big data analytics can in Romanian supply chain firms. The study employed a quantitative method based on a sampling survey, using a questionnaire as a data collection tool. The population was 205 managers and assembled data were analyzed with the Statistical Package for the Social Sciences (SPSS) package by means of frequency tables, contingency tables, and main component analysis. The findings highlight that companies are anxious about recognizing new statistical methods, tools, and approaches, such as cloud computing and security technologies, that required to be scrupulously investigated.

Vitari and Raguseo (2018) based their investigation from a dynamic capability perspective, and examine whether firms' facility to power digital data dynamic capability, show the way to enhanced financial performance, and whether there are moderating effects on this association. The study raised the following research questions to accomplish these goals: 1) To what extent do firms that develop Digital Data dynamic capabilities achieve better financial performance? 2) To what extent do organizational and industry-related environmental conditions moderate the relationship between a firm's Digital Data dynamic capability and financial performance? The hypotheses were tested with partial least square modeling by means of a financial database and a survey of sales managers from 125 firms. It was discovered that the development of digital data dynamic capability supplies value in terms of firm financial performance and that the moderating effects are prominent: under high levels of dynamism and munificence in younger firms, the relationship is stronger.

Brinch *et al.*, 2018) study was based on a sequential mixed-method, a Delphi study that focused on rank applications of big data in supply chain management by means of an adjusted supply chain operations reference (SCOR) process framework, and a questionnaire-survey among supply chain executives to expound the Delphi study findings and to assess the practical use of big data. The study's findings illustrates that big data terminology seems to be more about data collection than of data management and data utilization; the application of big data is most applicable for logistics, service and planning processes than of sourcing, manufacturing and return, and supply chain executives seem to have a slow adoption of big data.

Based on the review of literature, the following research model was developed:

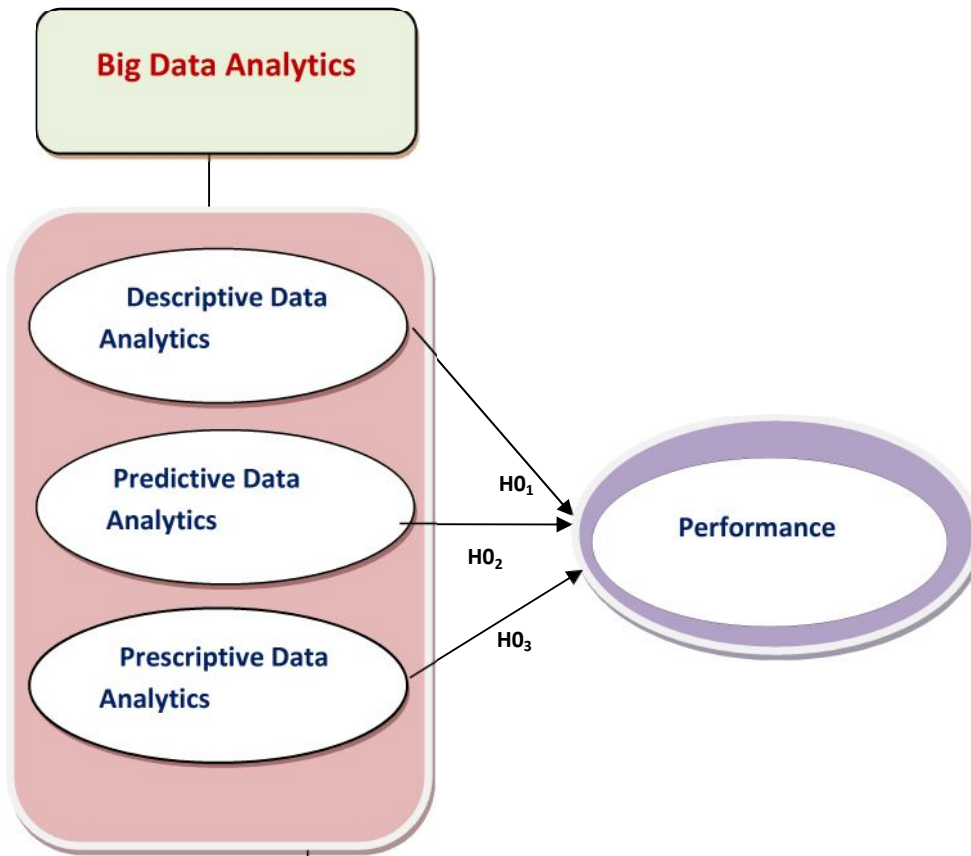


Figure 1: Research Model of Big Data Analytic and Performance

Source: Adopted from Lustig, I., Dietrich, B., Johnson, C. & Dziekan, C. (2010). The analytics journey. *Anal. Mag.* 2010, 3, 11–13.

From the research model, the following hypotheses were formulated.

H₀₁: There is no significance influence of descriptive data analytic on performance of retail supply chain..

H₀₂: There is no significance influence of predictive data analytic on performance of retail supply chain.

H₀₃: There is no significance influence of prescriptive data analytic on performance of retail supply chain.

RESEARCH METHODOLOGY

Research Design

According to Dhar (2015) big data analytics research applies machine learning, data mining, statistics, and visualization techniques in order to collect, process, analyze, visualize, and interpret results. Yet, big data analytics research either employs exploratory data analysis to generate hypotheses, or alternatively pursues predictions relying heavily on advanced machine learning, data mining and statistical algorithms. This present study employs explorative and quantitative survey and, adopted the simple random sampling method in order to collect data from selected retailers. Each retailer is chosen entirely by chance, as each of the retailers has the same possibility of being chosen (Bryman & Bell, 2003).

The study's classification of retailers considered the following:

1. Retail sale via stalls and markets
2. Retail sale of food, beverages and tobacco in specialized stores
3. Retail sale of information and communication equipment in specialized stores
4. Retail sale of other household equipment in specialized stores

This database enclosed all enviable information to reach the retailers. The key informants were the CEO's, logistics/purchasing/marketing/store managers. Data for this study were collected by means of a survey conducted mainly in Port Harcourt metropolis, and its surrounding environs from October to December 2019. Primary data were assessed through a structured pre-tested questionnaire, and the total number of retailers that made contact with via questionnaire was 390. Though, 394 responses were received and after establishing the validity of the questions 296(75.1%) respondents were vital for executing descriptive and inferential analysis. The collected data were analyzed with the Statistical Package for Social Sciences (SPSS) version 22.0, using the frequency and contingency tables, and the ordinary square regression method.

Model Specification

Model 1

The model is specified as follows:

$$P = f(\text{DDA}) \dots \text{equ (i)}$$

$$P = \alpha + \beta_1 X_1 + \mu \dots \text{(ii)}$$

$$P = \alpha + \beta \text{DDA} + \mu \dots \text{equ (iii)}$$

Where:

P – Performance

DDA – Descriptive Data Analysis

Model 2

The model is specified as follows:

$$P = f(\text{PREDDA}) \dots \text{equ (i)}$$

$$P = \alpha + \beta_1 X_1 + \mu \dots \text{(ii)}$$

$$P = \alpha + \beta \text{PREDDA} + \mu \dots \text{equ (iii)}$$

Where:

P – Performance

PREDDA – Predictive Data Analytic

Model 3

The model is specified as follows:

$$P = f(\text{PRESDA}) \dots \text{equ (i)}$$

$$P = \alpha + \beta_1 X_1 + \mu \dots \text{(ii)}$$

$$P = \alpha + \beta \text{PRESDA} + \mu \dots \text{equ (iii)}$$

Where:

P – Performance

PRESDA – Prescriptive Data Analytic

The apriori expectation is $\beta_1 > 0$. This implies that the independent variable in the models have positive relationship with performance.

DATA PRESENTATION AND ANALYSIS

Reliability Analysis

Reliability Coefficient was computed for the composite scale and each of the subscales, and the results are reported in table 1. As we can see, the value of the Alpha coefficient for the composite scale and the subscales are all above the threshold ($\alpha \geq 0.70$); hence, they are all reliable. Table 1 shows the reliability

assessment of our predictor variables using Cronbach's alpha. It indicates how the items for each factor were internally related in the manner expected.

Table 1: Test of Reliability (n=296)

Scale	Dimension	Items	Reliability
DDA	Descriptive Data Analytics	5	0.841
PREDDA	Predictive Data Analytics	5	0.828
PRESDA	Prescriptive Data Analytics	5	0.812
Overall Reliability Scale		15	0.892

Source: SPSS 22.0 Window output (based on 2020 field survey data).

Table1. summaries the reliability result of big data analytics and performance, which also includes the individual item reliability test). Significantly, all items are reliable and are used to study big data analytics and performance of retail supply chain in Port Harcourt, Rivers State. The extent of the relationship between big data analytics and performance can be operationalised using Descriptive Data Analytics (.841) with 5-items measure; Predictive Data Analytics (.828) with a 5-item measure and Descriptive Data Analytics (.812).

Types of Big Data Analytics used by Firms

The study examined the extent of the use of the three dimensions of big data analytics (Descriptive data analytics, Predictive data analytics and Prescriptive data analytics) in the Nigerian retail supply chain. The result is presented in Table 2:

Table 2:Types of Big Data Analytics Employed (n=296)

S/n	Dimension	Frequency	Percentage
1.	Descriptive Data Analytics	216	73
2.	Predictive Data Analytics	71	24
3.	Prescriptive Data Analytics	9	3
	Total	296	100.0

Source: SPSS Window Output, Version 22.0 (based on 2020 field survey data).

Table 1 demonstrates that 216 or 73% of the respondents use the descriptive data analytics, 71 or 24% use the predictive data analysis, while 9 or 3% use the prescriptive data analytics. This implies that there is a considerable usage of the big data analytics in the Nigerian retail supply chain studied. This is further illustrated in Figure 1.

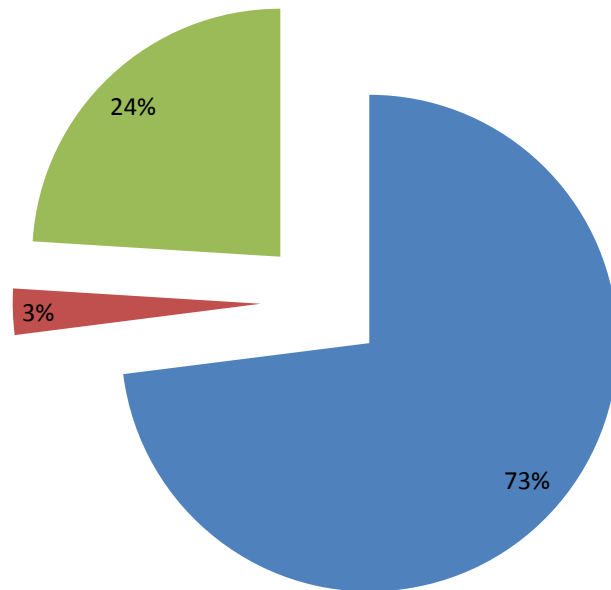


Figure 1: Types of Big Data Analytics used by Firms

Test of Hypothesis

To test the model and the hypotheses, the ordinary square regression method was used.

Model 1

Dependent variable: Performance

Method: Ordinary Least Square

Sample: 296

Table 3: Regression Analysis of Descriptive Data Analytics and Performance

Variables	Coefficient	Std Error	T-Statistic	VIF
CONSTANT	0.819	0.523	1.410	
LOG (DDA)	0.864	0.479	4.748	1.000

Source: Regression Result (2020)

R² (Coefficient of determination) = 0.747

R² (Adjusted coefficient of determination) = 0.745

Durbin Watson = 2.02277

F – value = 506.939

Model 2

Dependent variable: Performance

Method: Ordinary Least Square

Sample: 296

Table 4: Regression Analysis of Predictive Data Analytics and Performance

Variables	Coefficient	Std Error	T-Statistic	VIF
<hr/>				
CONSTANT	1.440	0.893	1.614	
LOG (PREDDA)	0.787	0.584	2.044	1.004

Source: Regression Result (2020)

R² (Coefficient of determination) = 0.620

R² (Adjusted coefficient of determination) = 0.584

Durbin Watson = 1.039

F – value = 3.329

Model 3

Dependent variable: Performance

Method: Ordinary Least Square

Sample: 296

Table 5: Regression Analysis of Prescriptive Data Analytics and Performance

Variables	Coefficient	Std Error	T-Statistic	VIF
CONSTANT	0.819	0.534	11.533	
LOG (PRESDA)	0.735	0.88	4.748	1.000

Source: Regression Result (2020)

R2 (Coefficient of determination) = 0.717

R2 (Adjusted coefficient of determination) = 0.701

Durbin Watson =1.193457

F – value = 10.013

DISCUSSION S OF FINDINGS

The study examined the impact of big data analytics on performance of retail supply chains in Rivers State of Nigeria. The ordinary least square (OLS) method was used in analyzing data. The findings of the study reveal that: Descriptive data analytics contribute significantly to performance and the t-test showed that descriptive data analytics has a significant impact on performance in Nigeria retail supply chains, Predictive data analytics contribute significantly to performance, and the t-test indicated that Predictive data analytics has a significant impact on performance, and Prescriptive data analytics contribute significantly to performance, the t-test portrayed that Prescriptive data analytics has a significant impact on performance.

The f-test illustrates that descriptive data analytics, predictive data analytics and prescriptive data analytics have a significant impact on performance in Nigeria retail supply chains at 5% level of significance. The adjusted coefficient of determination (R2) in model1show that 84.9% variations in performance is being accounted for by descriptive data analytics 74.5% shows a good fit for model 1, in model 2, the adjusted coefficient of determination (R2) show that 58.4% variations in performance is being accounted for by predictive data analytics. 58.4% shows a good fit for the model, and in model 3, the adjusted coefficient of determination (R2) show that 70.1% variations in performance is being accounted for by prescriptive data analytics. 70.1% shows a good fit for the model.

From the regression result, Durbin Watson (WC) values are: for model 1, 2.02277, model 2,1.039, while that of model 3 is1.193457.These values are closer to zero than two and indicate that that there is perfect positive autocorrelation in the models. The variance inflation factors of the variables are less than 10, entailing that, there is no multicollinearity in the explanatory variable. There is no heteroskedasticity in the models. Based on the statistical analysis. This study therefore establishes that

big data analytics can add value and provide a new outlook by improving descriptive, predictive and prescriptive analysis and modeling them to boost performance in retail supply chains. Nigerian retail supply chains are anxious about big data analytics, and the fact that the development of this dynamic capability can direct the way to supply chain performance, however, these retail supply chain companies have not fully assessed their experience, strategies, and professional capabilities in successfully implementing big data analytics, as well as assessing the tools needed to achieve the goals of implementation and performance achievement based on them. These findings support that of Oncioiu *et al.* (2019) who reveal that companies are anxious about recognizing new statistical methods, tools, and approaches that required to be scrupulously investigated, Birinch *et al.* (2018) who revealed that supply chain executives seem to have a slow adoption of big data.

CONCLUSION

The purpose of this present research was to assess the influence of big data analytic dimensions (descriptive data analytic, predictive data analytic and prescriptive data analytic) on performance in retail supply chains in Rivers of Nigeria. Toward this end, the meanings of big data analytics and performance were elucidated. The finding of significant influence of the independent variables on the dependent variable has confirmed that the retail supply chains in Rivers State of Nigeria are anxious about big data analytics and its role in enhancing performance in supply chains. The study therefore, concludes that the elements of big data analytics significantly predict performance of retail supply chains in Rivers State of Nigeria.

PRACTICAL IMPLICATIONS

The result of this study can be used as a principle by management of retail supply chains to improve on their dig data analytics implementation strategy. Specifically, the blueprint and organization of dig data analytics may be improved upon, if managers stress on the finding of this study. This study confirms that dig data analytics is an important contributor to performance of retail supply chains in Rivers State of Nigeria.

RESEARCH RECOMMENDATIONS

The study recommends that the management of retail supply chains should focus on descriptive data analytics to endear and sustain performance.

Also, management of retail supply chains should enhance big data analytics evaluations to influence performance.

CONTRIBUTION OF RESEARCH

The major contribution of this study is that, for the first time to the best of our knowledge, some big data analytics dimensions (descriptive data analytics, predictive data analytics and prescriptive data analytics) are being illuminated empirically in the context of retail supply chains in a developing country such as Nigeria. Moreover, the findings of the explorative investigation of this study suggest that the retail supply chains can be improved upon, focusing on big data analytics as a holistic entity.

LIMITATION OF THE STUDY

The limitations of this research study pertained to the generalizability, trustworthiness, authenticity, and evenness of the three hypotheses analyzed in this study, making use of ordinary least square regressions, to establish the predictive effect of big data analytics elements on performance.

DIRECTION FOR FUTURE STUDIES

(1) Further studies should consider the opportunities, challenges, advantages and disadvantages of big data in large firms and/or SMEs in the public or private sector of Nigeria.

(2) There should be emphasis on research on the capabilities and benefits of adopting big data analytics in optimizing supply chain management.

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About the Authors



Dr. Mac-Kingsley Ikegwuru is a lecturer in the Department of Marketing, Rivers State University, Port Harcourt, Nigeria. He currently conducts research on brand, enterprise resource planning systems, and technological applications of innovative technologies such as: cloud computing, internet of things, block chain technology, and cryptp-analysis in logistics and supply chain management. He has authored and co-authored several articles in referred Journals. Mac-kingsley Ikegwuru is the corresponding author and can be contacted at bestvaluecrest@gmail.com



Dr. Beatrice Chinyere Acee-Eke is a doctoral degree holder in Marketing (Green Marketing) in Ignatius Ajuru University of education, Port Harcourt, Nigeria. She currently conducts research on green marketing, supply chain management and information adoption. She has authored and co-authored several articles in referred ournals. Beatrice Chinyere Acee-Eke can be contacted at bettyacee1@gmail.com.

Socio-Economic Problems of Teenage Pregnancy of Victims in Secondary Schools of Oyo State

OJETOLA, Abigail Joke

Department of Home Economics Education, Federal College of Education Katsina P.M.B. 2041
Katsina, Katsina State, Nigeria | Email; abigailjoke1961@yahoo.com

Abstract: This study investigated the socio-economic problems of teenage pregnancy among victims in selected secondary schools of Oyo State. The study was conducted using ANOVA and descriptive statistics. The sample comprised of 191 victims of pregnancy, 36 school counselors, and 152 parents to the victims of teenage pregnancy. The samples (379) were randomly selected from the selected secondary schools in the three (3) Senatorial zones of Oyo State. Questionnaires and interview were used to illicit information from the respondents, the data collected were analyzed using frequency and simple percentages for Bio0Data of respondents, while ANOVA and descriptive statistics were used to test the null hypotheses at 0.05 level of significance. The result reveals that, (1) Teenagers parents, and counselors agreed that items 1-4 on the table are the effects of teenage pregnancy on victims and family members. Therefore it is recommended that teenagers should be exposed or given comprehensive sex education to avert teenage pregnancy in the society. Health educators should carry out comprehensive sex education lectures/seminars in schools to effectively reduce the prevailing rate of teenage pregnancies and sexual activities among teenagers in the society.

Keywords: Socio-economic, teenage pregnancy, victims, problems.

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INTRODUCTION

A teenager is a person whose age is a number ending in “ten” in the English language. In common usage around, adolescent, teenager, youth, and young person may be considered synonyms. Teenage pregnancy occurs at a period in which the girls are not ready or mature psychologically, socially often financially and physically. Sylvester (2007) stated that teenage pregnancy are pregnancies that occur during puberty. In other words, it is an unintended conception in the unmarried adolescent of age nineteen (19) years and below.

The growing causes of teenage pregnancies according to Onaolapo (2000) is as a result of societal permissiveness in some parts of the world together with urbanization and life-styles associated with it. All these he opined are responsible for the increased teenage pregnancies. Chilmon, (2003) noted that the growing number of teenage pregnancy among school girls and

those out of school confirmed that many young people were indeed sexually active. Kathryn (2003) reported that pregnancy rate among young aged students in Nigeria was 65%.

Government and Non-Governmental Agencies have characterized teenage pregnancy as a major social problem in the country, and this has caused teenagers a lot of negative outcomes; such as brain infections during labor and children born out of wed lock often become delinquent. Cohen (2002) Teenage pregnancies constitute a lot of problems and physical complications both on the teenage girl and her baby.

Many young girls today in Oyo State are becoming too sexually active. The socio-economic hardships are on the increase and that young people are particularly vulnerable. The adolescent face sexually transmitted disease due to unplanned and unprotected sex. Most teenagers who become pregnant usually pass through horrible situations, thereby rendering them hopeless of any form of alleviation. The educational, socio, and economic effects of early/teenage pregnancy are particularly severe for young women. The society seem to be adapting a condescending attitude, pretending to be unaware of the realities on ground and the great effects the phenomena is having on the young mother, the child and the society. In most cases, this type of situation is preventable and remediable. In view of the above, the researcher intend to find out among other things the socio-economic problems of teenage pregnancy of victims and its effects on the young/mother, baby and the society.

OBJECTIVES OF THE STUDY

The major objective of the study was to investigate the socio-economic problems of teenage pregnancy among victims in selected secondary schools of Oyo State Nigeria. The specific objective are:-

1. Determine the causes of teenage pregnancy among victims in Oyo State.
2. Identify the effects of teenage pregnancy on victims child and family members in the society.

RESEARCH QUESTIONS

The following research questions were postulated.

1. What are the causes of teenage pregnancy among victims in Oyo State.
2. How does teenage pregnancy affect victims, child, and family members in the society?

HYPOTHESES

The null hypotheses formulated to be tested at 0.05 alpha levels of significance are:

1. There is no significant difference between victims of teenage pregnancy, parents, and counselors in their opinion regarding the causes of teenage pregnancy in Oyo State.
2. There is no significant difference between victims of teenage pregnancy, parents, and counselors in their opinions on how teenage pregnancy affects the family members, baby and the society.

METHODOLOGY

Survey research design was used for this study. This is in line with Afolabi (2003), who opined that, it is a useful means of obtaining baseline data on prevailing traits and perceptions among segment of the populations, and generalizing the findings obtained to the larger population.

Population for the Study

The population for the study comprised three groups

- a) Teenagers who were victims of teenage pregnancy in selected schools both in urban and rural areas (381).
- b) Parents to victims of teenage pregnancy (252)
- c) Counselors in schools (41) Total population of 674

Sample Size and Sampling Procedure

The sample selected for the study was 379 respondents (Teenagers (victims=191), parents of teenage mothers=152 and school counselors=36). This was drawn by using purposive and stratified random sampling. This is in line with Krejcie and Morgan (1970) that, if the total population is in tens of thousands a sample of 5% or less of the population is adequate.

Instrument for Data Collection

A well structured questionnaire and interview were used for data collection. The questionnaire consist of three (3) sections A, B, and C. Section A questionnaire was on persona data where respondents were required to tick the best answer, while section B and C were designed in a four (4) point likert scale format rating of Strongly Agree (SA) Agree (A), Strongly Disagree (SD) and Disagree (D) with points allotted as 4, 3, 2, 1 for the expressed opinion of the respondents. The instrument was validated by experts. For the reliability of the instrument Cronbach's Alpha was used to give reliability coefficient of 0.78, this showed the reliability of the instrument.

Data Collection and Analysis

A total number of 390 questionnaires was distributed to the respondents by the researcher and two trained research assistants. Three hundred and seventy nine (379) were successfully completed and returned. Data collected were analyzed using frequencies, percentages and means scores for personal Data section A and for section B, Standard Deviation and Analysis of Variance. (ANOVA) at 0.05 level of significance in which if the calculated value of F is greater than the critical value, the hypothesis will be rejected, and when F calculated is less than or equal to the critical value, the hypothesis is retained, showing no significance among the three groups.

Research Question 1: What are the causes of teenage pregnancy in Oyo State.

Table 1: Mean scores of respondents on the causes of Teenage pregnancy in Oyo State.

S/N	Causes	Teenagers N Mean score	Parents N Mean Score	Counselors N Mean score
1.	Lack of sufficient sex education	191 3.14	152 2.60	36 2.91
2.	Low income of parents	191 2.92	152 2.63	36 2.91
3.	Family type	191 1.54	152 2.32	36 2.63
4.	Poverty	191 2.72	152 2.38	36 2.61

Opinion accepted if mean score is equal to or less than 2.6 source:- Akuezuido (2004)

RESULTS

Based on the data presented in Table 1, the table revealed that all the items except item (3) with mean score (1.54) had their mean values ranged from 2.60-3.14, which are greater than 2.5. This shows that Teenagers, parents, and counselors agreed that all the items except item (3) are causes of teenage pregnancy.

Table 1b: ANOVA Statistics to test differences between victims, parents and counselors on their opinions on causes of teenage pregnancy

Variables	Sum of square	Df	Mean square	F	Significance
Between groups	40.963	2,376	20.468	1.247	0.288
Within groups	6169.323	-----	16.408		
Total	379				

F-critical value of 2.60 at 0.05

Df=Degree of freedom

RESULT

The data of ANOVA table 1b, showed that since the value of the calculated value of F which is 1.247 at df 2.376 which is less than the value of F critical of 2.60 at df, 2.376 at 0.05 level of significant there is no significant difference among victims of teenage pregnancy, parents, and counselors in their opinions on causes of teenage pregnancy.

DISCUSSION

Discussion on the findings are organised and presented to correspond with research questions. Finding from the data in the study Table 1a and b revealed that lack of sex-education on their fertile period and poverty were the major causes of teenage pregnancy. This finding is in agreement with Westoff (2011), who affirmed that the level of education was associated with inadequate knowledge on fertile period, sex education by both parents and school counselors. About 1.54 mean scores of teenagers agreed that their family type (Extended family causes teenage pregnancy).

Research Question 2:

What are the effects of teenage pregnancy on victims, family members, and the society.

Table 2a:

S/N	Effects	Teenagers N Mean score	Parents N. Mean score	Counselors N. Mean score
1.	Teenage pregnancy initiates failure to remain in school.	2.27	2.17	2.36
2.	Teenage pregnancy affects attitude of other female members negatively	2.06	2.21	2.05
3.	Babies born became nuisance in the society	2.57	2.49	2.50
4.	Mothers who became pregnant become dependent creating economic hardship	2.50	2.43	2.11

Opinion accepted if mean score is equal to or less than 2.6 Source Akuzielo (2004)

RESULT

Based on the data presented in Table 2a, the table revealed that all the effect items had their mean score values ranged from 2.27 to 2.57. This shows that teenagers, parents and counselors

agreed that all the items are the effects of teenage pregnancy on victims, their family members and the society.

Table 2b. ANOVA Statistics showing differences Among victims of teenage pregnancy, counselors and parents on how teenage pregnancy affects victims, family members and the society.

Variables	Sum of squares	Df	Mean square	F	Significance
Between groups	12.884	2	6.442	0.815	0444
Within groups	2972.962	377	7.907		
Total	2985.847	379			

F=critical value=3.00

Df (df)=Degree of freedom

In the table 2b above the F critical calculated is 0.82 at 0.05 level of significance and degree of freedom at 2.376, while F critical is 2.60, F critical is therefore greater than F calculated. As a decision rule, the null hypothesis is accepted, thus there is no significance difference in their opinions.

Discussion

Findings from the data in the study table 2a and b revealed that teenagers that are identified to be pregnant are expelled from school according to school regulation. This disrupt their life career and may end up in doing menial jobs. It also revealed that babies born by victims become delinquency and nuisance in the society which leads many to joining bad gangs. This a proof of what Akin (2011) said that, unwanted babies opt to undesirable remedies of survival such as prostitutes, hire killers, Arm robbers etc.

CONCLUSION

Based on the findings of the study, the following conclusions were drawn. In Oyo State sexual information/education both at school and homes are ineffective.

Most victims of teenage pregnancy looked up to parents, counselors in schools for sound sex education which is often delayed which results to increased sexual activities among youth. Unless definite efforts are made by both parents and care givers to inform and advocate abstinence approaches to reduce to the minimal, the menace of teenage pregnancy, most teenagers would be wasting away.

Recommendations

In view of the finding from this study, the following recommendations were made:

1. Teenagers should be given comprehensive sex education to avert teenage pregnancy in the society.
2. Authorities in schools especially girls' schools should derive intervention approaches, increase probability of success for disadvantage teenagers such as alternative school for drop out.
3. Some percentage of about 40% of federal welfare funds should be invested directly in programs designed to reduce teenage child bearing.

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The Relationship between Style of Administration and Educational Innovation in Public Universities in Nigeria

¹Okoro Blessing Chineme, Ph.D ²Blessing Anukaenyi, Ph.D and ²Prof. Donatus Nwobodo

¹Department of Management, Faculty of Management and Social Sciences, Godfrey Okoye University, Ugwuomu-Nike, Enugu State.

²Department of Educational Foundations, Faculty of Education, Godfrey Okoye University, Ugwuomu-Nike, Enugu State.

Abstract: *This paper, focused on innovative practices in university administration. The purpose of this paper is to present an analytical review on the relationship between the style of administration and the educational innovation in public universities in Nigeria. It outlines classification of innovations, discusses the hurdles to innovation, and offers ways to increase the scale and rate of innovation-based on administration and transformations in the education system in public universities. The concepts of administration and innovation are discussed. Types of innovation, areas of innovative practices, rationale and challenges of implementation of innovations in universities were treated. A long standing debate among researchers is whether and how style of administration affects the quality of education. Often missing from the discussion is information about the costs of providing education in public Universities. The paper is based on a literature survey and author research. It was found out that education needs effective innovations of scale that can help produce the needed high-quality learning outcomes across the system. Technology applications need a solid theoretical foundation based on purposeful, systemic research, and a sound pedagogy. The paper proffered some recommendations on the way forward.*

Keywords: *Style of Administration and Educational Innovation, Public Universities*

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Introduction

Education is the key that unlocks the door for the development of any nation. It is the instrument that facilitates political, economic, social and technological development of a country. For education to play its key role on the transformation of a nation, it needs to be adequately and effectively planned because a faulty educational planning can jeopardize a country's development for decades. Education, being a social institution serving the needs of society, is crucial for society to survive and succeed, (Crichton, (2015). It should be not only comprehensive, sustainable, and superb, but must continuously evolve to meet the challenges of the fast-changing and unpredictable globalized world. This evolution must be systemic,

consistent, and scalable; therefore, school teachers, college professors, administrators, researchers, and policy makers are expected to innovate the theory and practice of teaching and learning, to ensure quality preparation of all students (Accuosti, 2014).

USA success has always been driven by innovation and has a unique capacity for growth (Zeihan, 2014). Nevertheless, it is indeed a paradox: while the USA produces more research, including in education, than any other country like Nigerian Universities, (Watch, 2019). We do not see much improvement in the way our students are prepared for education. The USA can be proud of great scholars, such as John Dewey, B.F. Skinner, Abraham Maslow, Albert Bandura, Howard Gardner, Jerome Bruner, and many others who have contributed a great deal to the theory of education. Yet, has this theory yielded any innovative approaches for the teaching and learning practice that have increased learning productivity and improved the quality of the output (Baer, & McCormick, 2019).

The need for educational innovations has become important. “It is widely believed that countries’ social and economic well-being will depend to an ever greater extent on the quality of their citizens’ education. The emergence of the so-called ‘knowledge society’, the transformation of information and the media, and increasing specialization on the part of organizations all call for high skill profiles and levels of knowledge. Today’s education systems are required to be both effective and efficient, or in other words, to reach the goals set for them while making the best use of available resources” (Cornali, 2018). According to an Organization for Economic Cooperation and Development (OECD) report, “the pressure to increase equity and improve educational outcomes for students is growing around the world” (Vieluf *et al.*, 2016). Innovations in education are regarded, along with the education system, within the context of a societal super system demonstrating their interrelations and interdependencies at all levels. Raising the quality and scale of innovations in education will positively affect education itself and benefit the whole society (Barbera, Gros, & Kirschner, 2015).

Lack of innovation can have profound economic and social repercussions. America’s last competitive advantage, warns Harvard Innovation Education Fellow Tony Wagner, its ability to innovate, is at risk as a result of the country’s lackluster education system (Creating innovators, 2012). Derek Bok, a former Harvard University President, writes, “Neither American students nor our universities, nor the nation itself, can afford to take for granted the quality of higher education and the teaching and learning it provides” (Bok, 2007). Hence it is central for us to make Nigerian education consistently innovative and focus educational innovations on raising the quality of learning at all levels. Yet, though there is a good deal of ongoing educational research and innovation, we have not actually seen discernable improvements in either school students’ or university graduates’ achievements to this day (Pew Research Center, 2015).

A large number of University graduates are not ready to learn. (College preparedness, 2012); and employers, in turn, are often dissatisfied with university graduates (Thomson, 2015; Jaschik, 2015). No one, be they students, parents, academia, business, or society as a whole, are pleased with these outcomes. Could it be that our education system is not sufficiently innovative?

Barriers to Innovation

There are reasons for the discrepancy between the drive for educational innovation that we observe in some areas, great educational innovations of recent times, and the daily reality of the education system. First of all, if we look at the education holistically, as a complete system in charge of sustaining the nation’s need for educating society members and building their

knowledge and expertise throughout their active lifetime, we have to acknowledge that all educational levels are interrelated and interdependent. (Camins, 2015), Moreover, education being a system itself is a component of a larger social supers system, to which it links in many intricate and complicated ways. As a social institution, education reflects all the values, laws, principles, and traditions of the society to which it belongs. Therefore, we need to regard education as a vital, complete, social entity and address its problems, taking into account these relations and dependencies both within the educational system and society (Cole, Shelley, & Swartz, 2014).

In turn, if the society supports innovations in education, then its educational system will continuously and effectively evolve and progress. If it does not, education will stagnate and produce mediocre outcomes. An example of negative socio-cultural impact on education is mercantilism, which is destroying the ultimate purpose of education, and consumerism which is degrading institutions of higher education (Feeman and Thomas, 2015; Ng and Forbes, 2017; & Abeyta, 2019). Other harmful social and cultural trends exert a powerful influence. These include monetization of education, entitlement, instant gratification, and egotism, which destroy education in general and the development of creativity and innovative spirit of students in particular (Kerby *et al.*, 2014). Such grave societal issues must be dealt with forcefully.

It is well known that higher education has been historically slow to adopt innovations for various reasons (Hoffman and Holzhuter, 2012; Marcus, & 2012; Evans, 2019). Because it is complex due to cohesion and continuity of science and labor intensive, higher education is particularly difficult to make more productive (Brewer and Tierney, 2012). Secondary school is even more conservative than universities because they cater more and more to students' well-being and safety than to their preparation for real life and work (Gibbons and Silva, 2011). Both secondary and universities education function as two separate and rather closed systems in their own rights. They are not only loosely connected to the wider world but also suffer from a wide disconnect between high school output measured in graduate learning outcomes and college entrance student expectations. It seems that the systems and values of industrial education were not designed with innovation and digital tools in mind, (Crichton, 2015). Innovation, whether it is with technology, assessment or instruction, requires time and space for experimentation and a high tolerance for uncertainty. Disruption of established patterns is the *modus operandi* of innovation. We like the fruits of innovation, but few of us have the courage to run the gauntlet of innovation" (Levasseur, 2012). It is paramount, nonetheless, to accept that "innovation is linked to creativity, risk taking, and experimentation" (Brewer and Tierney, 2012), which must be a part of the education system.

Teachers and school administrators are commonly cautious about a threatening change and have little tolerance for the uncertainty that any major innovation causes. Of course there are universities and even districts that are unafraid to innovate and experiment but their success depends on individual leaders and communities of educators who are able to create an innovative professional culture. Pockets of innovation give hope but we need a total, massive support for innovations across society (Heick, 2016).

Innovation is not about talking the talk but walking the walk. Moreover, an innovation can make a significant difference only when it is used on a wide scale. To create innovations is not enough, they need to be spread and used across schools and universities, a more difficult task. For the innovation to make a sizable effect, we need an army of implementers together with favorable conditions for the invention to spread and produce a result. (Csikszentmihalyi, 2013). Universities today are busy innovating how to increase students' satisfaction and create

“exceptional,” “premier,” or “extraordinary” learning experiences rather than caring about their true knowledge and quality achievements (Afshar, 2016).

This is clearly an extension of the adaptive or differentiated approach to teaching and learning, thereby leading to customization of education, (Schuwer & Kusters, 2014). Innovations grow in a favorable environment, which is cultivated by an educational system that promotes innovation at all levels and produces creative, critical thinking, self-sufficient, life-long learners, problem solvers, and workers. This system enjoys a stimulating research climate, encourages uplifting cultural attitudes toward education, and rallies massive societal support. The ultimate question is, what innovations do we really need, and what innovations might we not need? (Brewer & Tierney, 2012).

Bologna, (2016), said that University leadership and administration is a critical aspect as it is about the functioning of the entire institution. Effective and efficient administration of the university relies on the principal. Leading proponents encourage transformational leadership, moral stewardship, principal as an instructional leader, and principal as a communicator or community builder, (Cole, Shelley, & Swartz, 2018). Discovering effective leadership and administration mechanisms can help teach university decision and policy makers to implement leadership development which will lead to improved student achievement. Hence, training and development in university leadership requires a systematic planning which will result to excellent institution education. In order to establish a flourishing educational system of personalized learning it is essential to consider the fact that providing each student with the opportunity to prove their talent is not the disloyalty towards excellence instead it is the accomplishment of it, (Colville, Hall, 2000).

The phrase personalized learning indicates high teaching quality which is approachable to various ways that can facilitate students in accomplishing their best. It involves responding to individual students by establishing a mode of education and realizes the needs of the students and focuses on their interests, this type of approach has acquires strong moral and educational support, (De Le n, (2019).

Review of Related Literature

The literature on administrative style is reviewed. Attention is directed to four basic concepts of administrative style: The structured, classical, traditional model; the participatory or employee-involved operation; A more behavioral scientific style; and the situational or environmental style, (Heick, 2016). These ideas are more fully described, and it is proposed that even with various definitions of management styles in the literature, the key to a productive organizational system is the type of administrative style that directs the university. If those in the leadership position are too autocratic, it will affect the university. Based on the literature, a profile of an effective administrator is suggested. An effective administrator communicates well; establishes clear directions; can motivate subordinates through shared participation, rewards, and morale boosting; develops and maintains an openness with employees; strives for excellence; and recognizes subordinates' behavioral patterns, (Csikszentmihalyi, 2013).

There are distinct characteristics to the ways and procedures through which public administrations typically accomplish their daily tasks. The informal routines that characterize the behavior and activities of public administrations in the policymaking process are called administrative styles. They can be understood as the level of organizational culture. Studying administrative styles is important for comparative research on policymaking because they capture and explain variance in policymaking and implementation beyond merely structural

aspects or formal institutions. Similar to policy styles and regulatory styles, the concept of administrative styles has long been employed to describe state–society relationships. It has found to be a useful independent variable in the study, various phenomena, such as divergent policy developments across European states, national idiosyncrasies in regulatory regimes or the impact of Europeanization on national administrations. (Maurer, Mehmood, & Korica-Pehserl, 2017).

However, administrative styles can also be informative of the relationship between the bureaucracy with both their political masters and society and bureaucratic influence in policymaking. In this regard, one can distinguish two orientations underpinning administrative styles, namely positional and functional orientations characterizing informal bureaucratic routines and standard operating procedures. Depending on the prevalence of positional and functional orientations in behavioral patterns, it is possible to distinguish four ideal-typical administrative styles that apply to administrative routines of influencing the policymaking process: a servant style, an advocacy style, a consolidator style, and an entrepreneurial style. Variation in administrative styles across different organizations can be explained by two factors, namely the internal and external challenges they face. Understood this way, administrative styles could enable a comparative assessment of bureaucratic routines and influence in policymaking across different countries or sectors as well as in supra- and international bureaucracies. (Bologna Process 2016).

Authoritarian Management Styles

The authoritarian management style involves managing through clear direction and control. It is also sometimes referred to as the autocratic or directive management style. Authoritarian managers typically assert strong authority, have total decision-making power, and expect unquestioned obedience. This type of management style requires clearly defined roles and strict hierarchies and reporting structures. Employees should not have to question who is responsible for what. To be an effective authoritarian leader, you need to be willing and able to consistently stay up-to-date on your teams' work and to make any and all decisions. Bill Gates is an example of a positive authoritarian leader. He had a clear plan for his company. A plan that was difficult or impossible for many others to grasp until it became a reality and Microsoft became a household name.

Visionary Management Styles

The visionary management style is also sometimes called inspirational, charismatic, strategic, transformational, or authoritative. Visionary managers focus on conveying the overall vision of the company, department, or project to their team. Unlike authoritarian managers, visionary managers do not involve themselves in the day-to-day details. Instead, they focus on motivation and alignment of the team, to keep everyone moving in the same direction, and entrust their team members to handle the details about how to get there.

Transactional Management Styles

Transactional management style focuses on using positive rewards such as incentives, bonuses, and stock options to motivate employees to improve their performance. For instance, transactional managers may rely on piece-work pay to incentivize their employees to produce more. Similarly, they may structure quarterly or annual bonuses around employee

performance. Transactional management style is founded on the belief that you can successfully manage and motivate employees through extrinsic rewards.

Democratic Management Styles

A democratic management style is also sometimes referred to as consultative, consensus, participative, collaborative, or affiliative style. This style is **based on the philosophy that two heads are better than one** and that everyone deserves to have a say, no matter what their position or title.

Managers who adopt a democratic style **encourage idea sharing and regular employee participation**. The focus is on encouraging your team to share their thoughts, ideas, suggestions, and potential solutions in order to help each other, and the company grows. (Meyer, Rose, & Gordon, 2014).

Laissez-Faire Management Styles

The laissez-faire management style emphasizes employee freedom. Laissez-faire originates from French and directly translates to “let do” in English. In other words, laissez-faire managers let their employees do what they will, with little to no interference. Within the laissez-faire management style, there is no oversight provided during the creation or production process. Laissez-faire managers promote self-directed teams, and typically only get involved if something goes wrong or the team requests it. (Maurer, Mehmood, & Korica-Pehserl, 2017).

In a smoothly operating team, a laissez-faire manager will only appear present at the beginning and the end of the work process. At the beginning, to provide guidelines, share information, and answer questions. The bottom line is that the wrong management style de-motivates employees, kills productivity, and trains employees to disengage or leave. Hurting the entire organization. (Massy, W. 2018). But how do you know which management style is called for? And how do you successfully adopt the right one.

Educational Management

Educational Management is the **education** system in which a group combines human and material resources to supervise, plan, strategies, and implement structures to execute an education system. **Education** is the equipping of knowledge, skills, values, beliefs, habits, and attitudes with learning experiences. The education system is an **ecosystem** of professionals in educational institutions, such as government ministries, unions, statutory boards, agencies, and schools. (Maurer, Mehmood, & Korica-Pehserl, 2017) The education system consists of political heads, principals, teaching staff, non-teaching staff, administrative personnel and other educational professionals working together to enrich and enhance. At all levels of the educational ecosystem, **management** is required; management involves the planning, organising, implementation, review, evaluation, and integration of an institution. Educational management is related to **Henri Fayol's** 14 Principles of Management. Educational Management is a goal

oriented activity. It involves group efforts and an organized work and performance towards the attainment of certain pre-determined goals in an educational institution. With active coordinated effort we can achieve the goals of the organization, by efficiently utilizing the material and human resources in the educational environment. (Bindu, 2019).

Curriculum Planning and Development

Curriculum planning and development involves "the design and development of integrated plans for learning, and the evaluation of plans, their implementation and the outcomes of the learning experience". It designs and reviews curriculum, promotes teaching and assessment strategies aligned with curriculum, formulates special curriculum programmes, creates clear observable objectives, and generates useful assessment, (Rubrics, 2018). Curriculum development can be described as a three-stage process encompassing planned, delivered and experienced curriculum. It may be shaped by pedagogical approaches contributed by theorists and researchers. (Dewey, Jerome, & Albert 2017).

According to the famous Bulgarian scholar Georgi **Lozanov (1988)**, learning is a matter of attitude, not aptitude. This is where the greatest potential for improving education lies. As a renowned cognitive scientist Daniel Willingham writes, "Education makes better minds, and knowledge of the mind can make better education, (**Willingham, 2010**). Among many points for educational innovations, time definitely deserves close attention. Time is a significant factor in education. Attempts to save time on learning and raise its productivity are well known to each of us. To increase learning efficiency using so-called accelerated and intensive approaches is a promising path for innovation. Time is speeding up. (**Bologna process, 2016**). Education has become more expensive and less affordable for many people. This also creates a heavy burden on the state's budget. Therefore, educators need to find ways to make education more time and cost efficient (**Hjeltnes & Hansson, 2005**).

Innovation is generally understood as the *successful* introduction of a new thing or method," (Brewer & Tierney, 2012). In essence, innovation seems to have two subcomponents. First, there is the idea or item which is novel to a particular individual or group and, second, there is the change which results from the adoption of the object or idea," (Evans, 1970). Thus, innovation requires three major steps: an idea, its implementation, and the outcome that results from the execution of the idea and produces a change. In education, innovation can appear as a new pedagogic theory, methodological approach, teaching technique, instructional tool, learning process, or institutional structure that, when implemented, produces a significant change in teaching and learning, which leads to better student learning, (Polka, & Kardash, 2016).

Learning Process in Education

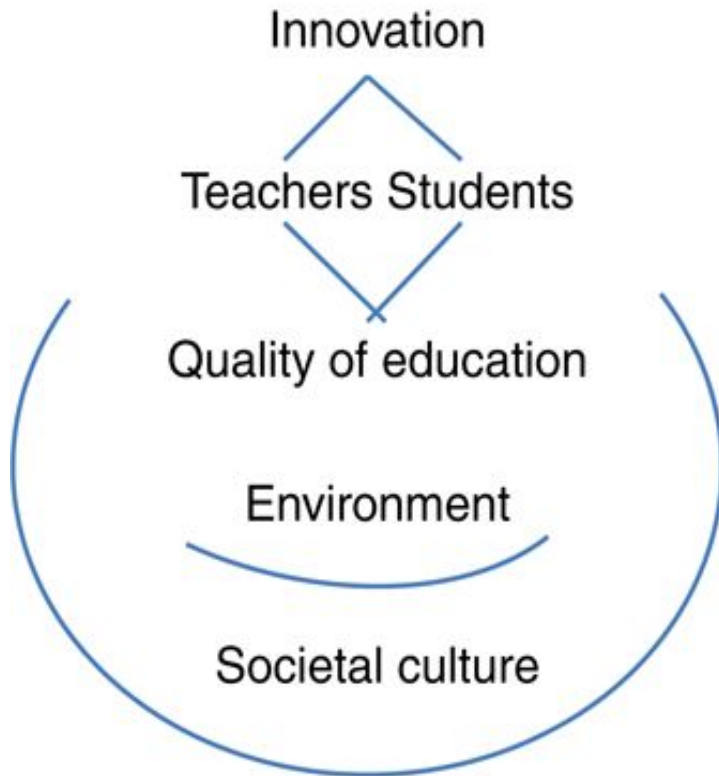


Fig 1:1 Educational System Model

Source: Polka Model (2018) Retrieved 2 May, 2020

Efficiency is generally determined by the amount of time, money, and resources that are necessary to obtain certain results. In education, efficiency of learning is determined mainly by the invested time and cost. Learning is more efficient if we achieve the same results in less time and with less expense. Productivity is determined by estimating the outcomes obtained the invested effort in order to achieve the result. Thus, if we can achieve more with less effort, productivity increases. Hence, innovations in education should increase both productivity of learning and learning efficiency. (Marcus, 2018).

Innovation can be directed toward progress in one, several, or all aspects of the educational system: theory and practice, curriculum, teaching and learning, policy, technology, institutions and administration, institutional culture, and teacher education. It can be applied in any aspect of education that can make a positive impact on learning and learners. (Robinson, 2017). To raise the quality of teaching, we want to enhance teacher education, professional development, and life-long learning to include attitudes, dispositions, teaching style, motivation, skills, competencies, self-assessment, self-efficacy, creativity, responsibility, autonomy to teach, capacity to innovate, freedom from administrative pressure, best conditions of work, and public sustenance, (Mercurio, 2016). As such, we expect educational institutions to provide an optimal academic environment, as well as materials and conditions for achieving excellence of the

learning outcomes for every student (program content, course format, institutional culture, research, funding, resources, infrastructure, administration, and support. (Serdyukov, & Serdyukova, 2018). Education is nourished by society and, in turn, nourishes society. The national educational system relies on the dedication and responsibility of all society for its effective functioning, thus parental involvement, together with strong community and society backing, are crucial for success.

Along with types of innovation, the degree of impact can be identified on the following three levels:

1. **Adjustment or upgrading of the process:** innovation can occur in daily performance and be seen as a way to make our job easier, more effective, more appealing, or less stressful. This kind of innovation, however, should be considered an improvement rather than innovation because it does not produce a new method or tool. The term innovative, in keeping with the dictionary definition, applies only to something new and different, not just better, and it must be useful, (Okpara, 2007). Educators, incidentally, commonly apply the term “innovative” to almost any improvement in classroom practices; yet, to be consistent, not any improvement can be termed in this way. The distinction between innovation and improvement is in novelty and originality, as well as in the significance of impact and scale of change. (Schuwer, & Kusters, 2017).

All innovations are ultimately directed at changing qualitative and/or quantitative factors of learning outcomes:

2. **qualitative:** better knowledge, more effective skills, important competencies, character development, values, dispositions, effective job placement, and job performance; and
3. **quantitative:** improved learning parameters such as test results, volume of information learned, amount of skills or competencies developed, college enrollment numbers, measured student performance, retention, attrition, graduation rate, number of students in class, cost, and time efficiency. (De Le n, 2019).

Innovation can be assessed by its novelty, originality, and potential effect. As inventing is typically a time-consuming and cost-demanding experience, it is critical to calculate short-term and long-term expenses and consequences of an invention. They must demonstrate significant qualitative and/or quantitative benefits. As a psychologist Mihalyi Csikszentmihalyi writes, “human well-being hinges on two factors: the ability to increase creativity and the ability to develop ways to evaluate the impact of new creative ideas” (Csikszentmihalyi, 2013).

In education, we can estimate the effect of innovation via learning outcomes or exam results, teacher formative and summative, formal and informal assessments, and student self-assessment. Innovation can also be computed using such factors as productivity (more learning outcomes in a given time), time efficiency (shorter time on studying the same material), or cost efficiency (less expense per student) data. Other evaluations can include the school academic data, university admissions and employment rate of university graduates, their work productivity and career growth. (Meyer, Rose, & Gordon, 2014).

Conclusion and Recommendations

In this period of global competitiveness and knowledge driven society where emphasis is on quality education in terms of quality inputs, processes and outputs, educational administrators and teachers should adopt or adapt innovative practices in school administration and teaching. This is necessary for improvement of school performance, productivity and quality education. To succeed in this direction it is recommended that

1. Seminars, conferences and workshops should be organized periodically for school administrators and teachers on innovation management in schools.
2. Schools managers and teachers should be encouraged to develop interest in the use of ICT tools in school management and teaching. They should be trained in the use of these ICT tools.
3. There should be regular and constant supply of electricity to the schools because these technological devices need steady power supply for their operation.
4. Adequate ICT resources and personnel to operate them should be provided in schools.
5. Educational managers should adopt strategic planning in school management.
6. School administrators should use transformational leadership in school management as this has been found to stimulate staff to perform beyond expectation.

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We are living in a knowledge driven society in which technological development has turned the world into a global village. The changes and development that take place in the society infiltrate into the university system and influence the actions and activities in the system. The advent of new technology, particularly Information and Communication Technology, has significant impact on people's culture, ways of thinking and doing things and businesses. The development of modern technology has brought innovative practices in government, business and in education. In recent times, educational establishments are facing the challenge to do more with fewer resources as they try to meet the complex and changing demands of the society. (Robinson, 2017).

The existence of modern technological tools has given rise to the use of various innovative practices in the management of public universities. In order to keep pace with globalization, educational managers have embraced innovative practices arising from the advent of new technologies in the management of universities. Innovation therefore, means a purposeful, organized and risk taking change introduced into any public universities to ensure efficiency and increase learning. (Polka, & Kardash, 2016). The injection of innovations into university management is in response to the technological development resulting in creative and innovative practices all over the world. The aim is to improve university standard, quality and institutional effectiveness. (Polka, & Kardash, 2017).

In summary therefore, strategic planning or management is a systematic planning of the direction and total resources of the university management so as to achieve set objectives over a given period of time. Strategic planning ensures quality in the management of the universities and provides a focus in the operation of the university. (Robinson, (2017).

There is a paradigm shift from transactional to transformational leadership. Transactional leadership involves the use of punishment, rewards and coercion to seek compliance.

Transformational leadership on the other hand, is a type of leadership in which the leader plays the role model, inspires his subordinates and challenges them to be more involved in their work. The leader elicits a stronger sense of commitment from subordinates which will have a positive impact on their job performance effectiveness and efficiency. Transformational leadership has the following attributes, (Zhao, (2017).

Intellectual Stimulation

This refers to the ability of the leader to initiate innovations that can challenge the status quo and encourage creativity among staff and students, encourage them to explore new ways of doing things and new opportunities to learn.

Individualized Consideration

This refers to the capacity of the leader to offer support and encouragement to individual staff, keep lines of communication open and recognizes the unique contributions of each staff.

Inspirational Motivation

The leader has a clear vision for the subordinates and helps them to have same passion and motivation to fulfill their personal goals and those of the university. The administrator stimulates both staff and students to achieve set goals. (Wrenn, V. 2016).

Idealized influence

The leader serves as a role model. He leads by showing good examples. The staff and students trust and respect the leader and they emulate the leader and internalize his or her ideals. University administrators should develop these transformational leadership attributes. These attributes will help them to optimally stimulate and encourage their subordinates to support them and work together for the growth and development of the universities. Transformational leadership is now widely advocated for use by school leaders because if properly applied both students and teachers would be adequately motivated to perform beyond expectation. (Schuwer, & Kusters, 2017).

Pro-activism

All over the world, proactive approach to the management of human resources in work organizations is gradually replacing reactive approach. A proactive leader anticipates university problems particularly in his/her area of responsibility and puts in place corrective measures before the problem emerges. In this way leadership increases its contribution to the staff and students and the school by predicting challenges before they arise. This is where the intelligence of a leader is put to work. A proactive leader is one with initiative responsiveness to the ability he possesses as he does things correctly without being told what to do. Innovative Practices in university Administration. Administrators should avoid the use of reactive approach in handling staff and students' problems. (Serdyukov, 2015).

Communication in School Administration

The use modern technological tools have greatly improved communication in universities. Administrators should have the ability to use innovations resulting from technological development to communicate with staff and students within the university and outside the university. The use of e-mails, facsimiles, mobile phones for calls, discussions and text messages enhances effective communication and make communication faster than using letter writing and memos. If e-mails are properly customized, automatic response can be received instantly. Minutes of previous meeting can be sent to staff through their e-mails for them to read before the next meeting. Administrators therefore, should learn to apply these innovations in universities. (Robinson, 2017).

Record management

ICT tools can be used to enhance effective management of university records. Information relating to staff employment, academic qualification, age, rank, promotion, health, appointment and indiscipline behaviour can be stored using ICT tools such as computer, rewritable CD, flash drives etc. for reference purposes and quick retrieval when needed. The use of these tools in record reduces the stress associated with paper work and enhances effectiveness and efficiency the university administration (Marcus, 2018). Similarly, information relating to students can also be effectively managed using ICT tools. Such students' data include admission data, personal details, contact address, academic records, examination results and other information generated throughout their period of study in the school. (Schuwer, & Kusters, (2017).

Financial records can also be efficiently managed using ICT tools. These data include staff salaries and allowances. ICT tools can be used in tracking and monitoring students' fee payment and the account clerk's or bursar's fund deposits in university account. Similarly, financial data relating to supplies, income and expenditure including maintenance funds, sales, imprests and subventions from government, procurement of infrastructure can be properly managed using modern technology. This promotes prudential management of funds and accountability. (Serdyukov, 2015).

Management of Examinations

Modern technology has made it possible for ICT tools to be used in the management of examinations in the universities. Administrators should key into this to check examination malpractice. ICT tools can now be used to prepare examination questions, administer the examinations (computer based) to students and grade the students. The results of examination can be released to the students immediately after the examination or in a few days' time. The use of ICT resources help greatly in the computation of students' results Teaching and Learning Information and communication technologies are now the mainstream issues in all facets of life including education. It is a well-accepted practice to integrate ICT into major logistical, organizational and educational processes. Information and communication are two important processes in the teaching/learning situation. In the classroom, it can be used to enhance teaching effectiveness. It can be used to prepare lesson plan, collect and analyze students' achievement (Onuma, 2007).

Curriculum contents can be enriched through search in the internet by lecturers and information and relevant practices hitherto unknown to students and lecturers that cannot be

found in textbooks can be easily downloaded for use from the internet. Therefore, ICT provides the needed information for the enhancement of academic development of both lecturers and students. ICT provide access to current books, journals and other information resources held by global network or online libraries. Lecturers can use ICT tools to give assignments to students and assess their performance and also send the feedback to them. In this way, workload and paper work is greatly minimized. Lecturers should use modern technologies such as overhead projector, multimedia projectors, and power-point in classroom teaching. These tools help to stimulate and capture students' interest in learning. (Westra, 2016).

Flipping the Classroom: One outstanding innovative practice in the teaching/learning situation is “flipping the classroom”. Increase access to technology and development of high quality online educational resources have promoted this teaching strategy. Flipping the classroom refers to a blended learning technique in which instructor-created videos are viewed by students outside the classroom. The lecturer prepares the instructional materials, video the presentation and uploads it to the university website or personal website for the students to read and study. During class time, assignments, projects, exercises and discussions are completed (Hanover Research, 2012). It is a form of inverting the schedules on which students receive instruction and practice new skills. This strategy allows for the teaching component of instructional delivery to be completed outside the classroom and allows for more interaction between the lecturer and students as they work through assignments during class time. (Ni, 2013).

Recommendations

1. In this period of global competitiveness and knowledge driven society where emphasis is on quality education in terms of quality inputs, processes and outputs, educational administrators and lecturers should adopt or adapt innovative practices in administration and teaching. This is necessary for improvement of university performance, productivity and quality education. To succeed in this direction, seminars, conferences and workshops should be organized periodically for university administrators and lecturers on innovation management.
2. Academic and non-teaching staff should be encouraged to develop interest in the use of ICT tools in management and teaching. They should be trained in the use of these ICT tools.
3. There should be regular and constant supply of electricity to the universities because these technological devices need steady power supply for their operation.
4. Adequate ICT resources and personnel to operate them should be provided in the universities.
5. The Vice Chancellor should adopt strategic planning in administrative management.
6. Nigeria Universities should use transformational leadership in administration as this has been found to stimulate staff to perform beyond expectation.

As the price of education, especially at colleges and universities, continues to rise, cost and time efficiency of learning, effective instructional approaches, and methods and tools capable of fulfilling the primary mission of education all will become critical areas of research and inventive solutions. Colleges and universities must concentrate on expanding the value of

education, maximizing the productivity of learning, correlating investments with projected outcomes, and improving cost and time efficiency. (Stokes, 2016).

Whatever technologies we devise for education, however much technology we integrate into learning, the human element, particularly the learner and teacher, remains problematic. So, while taking advantage of effective educational technologies, we must situate those modern tools within a wider context of human education in order to preserve its humanistic, developmental purpose and, thus, make more effective use of them. (Westra, 2016).

Our understanding of how students learn and how lecturers teach and craft their methodology in technology-based environments remains lacking. Questions to ask are whether current methods help increase learning productivity, and as a result, time and cost efficiency. All technology applications require a solid theoretical foundation based on purposeful, systemic research and sound pedagogy to increase efficiency and decrease possible side issues. When integrating novel technologies in teaching and learning, we must first consider their potential applicability, anticipated costs and benefits, and then develop successful educational practices. (Wildavsky, Kelly, & Carey, 2018).

Conclusion

Nigeria education desperately needs effective innovations of scale that can help produce high quality learning outcomes across the system and for all students. We can start by intensifying our integration of successful international learning models and creating conditions in our universities and colleges that foster and support innovators and educational entrepreneurs, or entrepreneur. Moreover, these transformations should be varied, yet systematic, targeting different vital aspects of education. Deep, multifaceted, and comprehensive innovations, both tangible and intangible, have the capacity to quickly generate scalable effects.

Radically improving the efficiency and quality of teaching and learning theory and practice, as well as the roles of the learner, lecturers, teacher, parents, community, society, and society's culture should be the primary focus of these changes. Other promising approaches should seek to improve students' work ethic and attitudes toward learning, their development of various learning skills, as well as making learning more productive. We also have to bring all grades, from preschool to higher and postgraduate levels, into one cohesive system.

Therefore, the key to a prosperous, inventive society is a multidimensional approach to revitalizing the educational system (structures, tools, and stake holders) so that it breeds learners' autonomy, self-efficacy, critical thinking, creativity, and advances a common culture that supports innovative education. In order to succeed, innovative education must become a collective matter for all society for which we must generate universal public responsibility. Otherwise, all our efforts to build an effective educational system will fail. (Serdyukov, & Serdyukova, 2018).

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