
IT Outsourcing and Organizational Effectiveness in Tertiary Institutions in Port Harcourt

Okocha Belemenanya Friday and Prof. B. C. Onuoha
Department of Management, University of Port Harcourt

Abstract: *This research examined IT Outsourcing and organizational effectiveness in tertiary institutions in Port Harcourt. Non-probability sampling strategy was embraced to draw a sample of 105 respondents from University of Port Harcourt, Rivers State University, Ignatius Ajuru University of Education. The data were both analysed and tested using the Spearman Rank Order Correlation Coefficient. From the investigation, it was discovered that a noteworthy relationship exist between measurements of IT outsourcing (access to expertise and increased flexibility) and measures of organizational effectiveness (collaborative arrangement and quality of life changes). We therefore recommends that there should be more organized IT outsourcing programmes supported by relevant policies. Beneficial IT outsourcing relationship requires securing of aptitudes, access to expertise, expanded adaptability and appropriate follow-through on assentions made by the two firms.*

Key words: *IT Outsourcing, Organizational Effectiveness, Tertiary Institutions, Port Harcourt.*

1.0 Introduction

Information technology (IT) outsourcing received a lot of attention in public debate during the last couple of years. Indeed, the share of firms active in IT outsourcing is quite substantial. 44 percent of the firms in the European Union were involved in IT outsourcing (Eurostat, 2006), with some country shares being at 70 percent and above. Huge outsourcing transact with Asian or East European organizations recently brought fears up in very developed countries about harmful outcomes for the residential work showcase. In any case, up until this point, the vast majority of the IT outsourcing exercises in Germany, for instance, still occur on a nearby level. Two recent representative studies for Germany by the ZEW (Centre for European Economic Research) show that in 2004 and 2006, 94 percent of German firms which outsource IT services exclusively cooperate with local IT service providers (ZEW 2005; 2007). In like manner, just 6 percent of outsourcing firms, which are essentially huge manufacturing organizations or those from the information and communication technology (ICT) segment, are dynamic in alleged IT offshoring. As per Elliolt and Torkko (1996:47), "outsourcing is a cognizant business choice from inward work to an outside provider". McCarthy and Anagnostion (2005), adds that outsourcing is the outside company that a company normally provide for themselves.

Organizational environment is dynamic in nature and in continuous flux. The viability of any association that works in such a situation depends, all things considered, on its capacity and ability to adjust to such changes. Profit or non-profit organizations are established with a mission, vision, goals & objectives articulated and stated. These gives it a direction and sense of purpose and tone the establishment. The achievement of set objectives and goals says a considerable measure in regards to the adequacy of the association. Firms have thought about how they can misuse their upper hand to build piece of the overall industry and benefit since business transformation.

The model for the majority of the twentieth century was a vast coordinated organization that can "claim, oversee, and straightforwardly control its benefits" (Corbett, 1996). In the 1960s, the energizing cry was expansion to expand corporate bases and exploit economies of scale. By enhancing, companies are relied upon to ensure benefit, diminish hazard (control hazard), despite the fact that development requires various layers of administration. Along these lines, firms endeavouring to contend all inclusive in the 1980s were incapacitated by an absence of nimbleness that came about because of enlarged administration structures. To expand their adaptability and innovativeness, numerous substantial organizations build up another technique of concentrating on their center business, which required recognizing basic procedures and choosing which could be outsourced (Fischli, 1996).

Statement of the Problem

As national and universal economies keep on advancing, so has it turned out to be basic that firms ceaselessly mold out techniques to stay significant in the market. Likewise because of the dynamic globalization and institutionalization of products, organizations are constrained with the undertaking of currying more mind boggling product advancement with restricted and decreasingly time spans (Komninos, 2003).

According to Mishra et al (2008), security, cyber infrastructure, teaching and learning with technology, identity and access management, adaptability and responsiveness, management systems are current issues in information technology outsourcing.

The study on the effect of outsourcing on firms' financial execution, commonly explored utilizing diverse measures of efficiency, cost lessening, benefit (Girma and Gorg, 2004), has not achieved emphatically unambiguous outcomes. In the wake of setting up a positive effect of ICT-venture on firms' efficiency in various experimental investigation of the most recent decade, there is still little confirmation about its impacts on outsourcing on organizational adequacy. The point of this paper is to close this gap by utilizing tertiary organizations in Rivers State.

Aim and Objectives of the Study

The essential point of this investigation is recognizable proof of the relationship subsistent between IT outsourcing and Organizational effectiveness in tertiary institutions in Rivers State, while the particular Objectives incorporate;

- To examine whether access to expertise influences collaborative arrangement in tertiary institutions in Rivers State.
- To examine the relationship between access to expertise and quality of life changes in tertiary institutions in Rivers State.
- To examine the relationship between increased flexibility and collaborative arrangement in tertiary institutions in Rivers State.
- To examine the relationship between increased flexibility and quality of life changes in tertiary institutions in Rivers State.

Research Hypotheses

The study hypotheses for this investigation have been formulated as follows:

H0₁: There is no significant relationship between access to expertise and collaborative arrangements in tertiary institutions in Rivers State.

H₀₂: There is no significant relationship between access to expertise and quality of life changes in tertiary institutions in Rivers State.

H₀₃: There is no significant relationship between increased flexibility and collaborative arrangements in tertiary institutions in Rivers State.

H₀₄: There is no significant relationship between increased flexibility and quality of life changes in tertiary institutions in Rivers State.

2.0 Literature Review

Conceptual Framework for IT Outsourcing and Organizational effectiveness

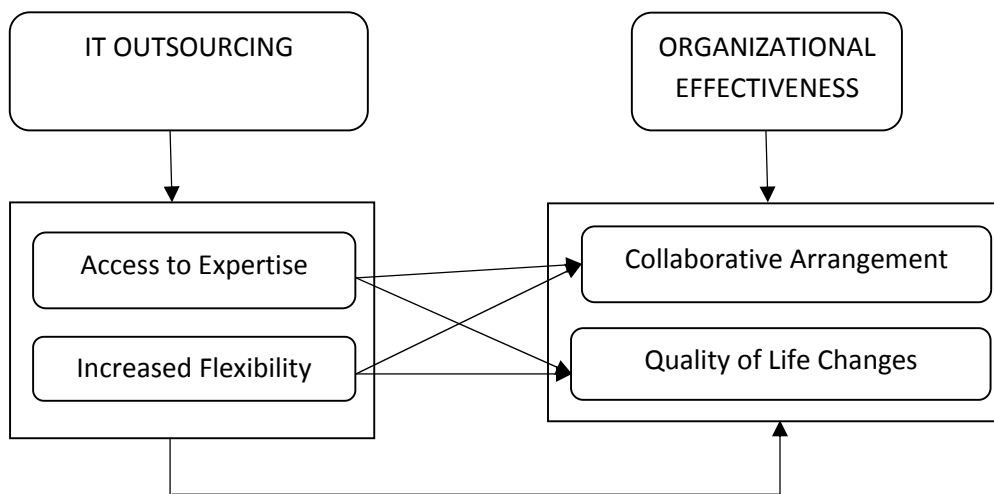


Fig. 1: Researcher's Conceptualization, 2017.

The transactional cost and Agency Theory was utilized as hypothetical establishments for this research. Transaction Cost Theory expresses that it is exorbitant to make utilization of the market (Coase, 1937) and that financial effectiveness can be accomplished through a near examination of creation cost and exchange costs (Williamson, 1975; 1981; 1985;). In this framework the transaction is the unit of analysis and a firm's success depends on the efficient management of transactions. The theory is built on two fundamental behavioural assumptions, first, limited rationality and second, opportunistic behaviour. The fundamental hypothetical contention of the hypothesis is anxious about the conditions under which certain attributes of the exchange or the protest of the exchange would prompt its inside or outer administration (or a blend of both).

The Agency Theory hinge on the conceptualization of the firm as a link of agreements between principals or partners and operators. The partners are signified by various assemblies or people inside the organizations and in addition outside the firm, for example, clients, providers or investors (Jensen and Meckling, 1976:310). The basic assumption of the Agency Theory is the existence of information asymmetries and different perceptions of risk between principal and agent as well as uncertainty. The fundamental contention is that the main exchanges choice rights to the negotiator.

Concept of IT Outsourcing

The idea of outsourcing originated from the American wording “outside resourcing”, which means to get assets all things considered. The term was later utilized as a part of the monetary phrasing to demonstrate the utilization of outside sources to build up the business, which ordinarily were utilizing their inside assets.

Aalders (2001) in "IT Outsourcing Guide" underpins the way that outsourcing isn't another marvel, that even now 50 years organizations have outsourced publicizing, legitimate administrations, upkeep and generation. It is additionally the exchange of material and HR to the picked supplier. It has the undertaking of substituting household benefits in a medium or long haul connections (by and large five-six years) with the client venture (Quelin, Duhamel, 2003). Outsourcing as a key business strategy has been used by companies in various industries for many decades. Modest demands have constrained organizations to look impartially and basically at business forms. Organizations have been outsourcing fabricating activities, business benefits and even whole business lines effectively for quite a while now. Outsourcing has its foundations in the competitive benefit standpoint theory engendered by Adam Smith in his book 'The Wealth of Nations' (1776). Throughout the years, the significance of term outsourcing' has experienced an ocean change.

Empirical evidence shows that with time, outsourcing has moved towards the core or still more important/or vital functions; for example from more, 'harmless' or noncore' functions, for example, cleaning and provide for towards more essential and center capacities, for example, product advancement and fund. Given the expansiveness of capacities and procedures that are outsourced the inquiry emerges, what, at that point, is a center fitness of an association? There is no unmistakable response to this inquiry. This is especially fascinating, since the idea of center ability is basic to the administrative system since 1990s. Organizations should center around their basic ability, and let others wrap up (Jenster and Pedersen, 2000).

Scholarly writing managing outsourcing is extremely assorted and quickly developing in estimate. It covers the entire range from customary hypothetical exchanges, e.g. transaction cost economics (Williamson, 1981) to practitioners' handbooks on how and when to outsource. Especially, literature on IT and outsourcing has virtually exploded in recent years (for example Lacity and Hirschheim, 1993, 1995; Willcocks and Lacity, 1998; Minoli, 1995; Loh and Venkatraman, 1992; Shire and Tam, 1999; Taylor and Bain, 1999a; Belt, 2001; Crone, Carey, et al., 2001; Korczynski, 2001; Deery and Walsh, 2001; Frenkel, Korczynski, Houlihan, 2001). McCarthy and Anagnostou (2004) Not only consists of purchasing products or services from external sources, but also transfers the responsibility for business functions and often the associated knowledge (tacit and codified) to the external organization.

Today, outsourcing involves either ITO or BPO. Information technology outsourcing (ITO) involves a third party who is contracted to manage a particular application and includes all related server networks and software upgrades. Business Process Outsourcing (BPO) generally features a third party who manages the entire business process such as accounting, procurement or HR (Ghodeswar and Vaidyanathan, 2008).

Access to Expertise

Organizational assessments are complex and require a variety of people with differing expertise to successfully complete them. Ideally, they are carried out by a team with collective skills and a

strong leader with a clear vision of the task. Intelligent, well-rounded people with diverse experience and solid research and evaluation skills make the best reviewers, providing the team includes the necessary content expertise representative of the field of the organization under study (Stoto, 1997).

As indicated by Al-Qirim and Bathula (2002), in their research on IT and Ecommerce Outsourcing in Small to Medium-Size Enterprises in New Zealand discovered that the market for IT outsourcing for SMEs is now noteworthy and developing, with more organizations making arrangements for it in not so distant future. It throws open a huge opportunity to the IT industry to position themselves to tap into this market. Appreciate that the most essential drivers for the SMEs to outsource their IT and EC prerequisites is access to skill, need to enhance the nature of administration and access to new innovation. Cost thought isn't the fundamental issue either to outsource or a deterrent in this procedure contrasted with other non-cost issues. Not surprisingly, in a market where there are an array of IT products, access to expertise emerges as the single most important consideration in IT requirements.

Increased Flexibility

One strategy for gaining and keeping a competitive advantage in a dynamic environment is to create a flexible organization. According to Grigore (2011), flexibility is the organization's ability to meet an increasing variety of customer expectations without excessive costs, time, organizational disruptions, or performance losses. In order to be useful in achievement of organizational objectives, flexibility should be viewed from a value chain perspective (satisfying customer needs) rather than from an equipment or process perspective. From a client's point of view, cross-utilitarian and cross-organization endeavours are expected to take out bottlenecks, add sensitivity, and make a level of execution that empowers structures to fabricate enduring upper hand.

FSC was characterized as a capacity of the obtaining role to react in an opportune and financially savvy way to change the prerequisites of acquired parts regarding volume, blend, and conveyance date (Pujara and Kant, 2013). The scholars have been investigating three measurements of flexibility to be specific as: conveyance approach, provider responsiveness, and adaptability. In the study, they just spotlight on the adaptability of the linkages that are adjusted because of client needs. This exploration likewise centers around two kinds of flexibility; offering flexibility and partnering flexibility. Moreover, the FSC is a fundamental component in the achievement of the store network in an indeterminate situation. It can gauge the degrees of the production network which will respond to the arbitrary vacillations in free market activity changes (Agus, 2011; Smith, 2012; Balasubramaniam, 2014).

Also, adaptability might be characterized as the capacity to change or respond with little change in time, exertion, cost or execution. There are three measurements of adaptability, in particular product adaptability, volume adaptability, and dispatch/new product adaptability. The four sorts of adaptability as fundamental variables for this examination are new item adaptability, sourcing adaptability, product adaptability, conveyance adaptability and data frameworks adaptability (Fantazy, Mukerji, and Kumar, 2012). The kinds of adaptability are recorded here as they give coordinate effect on the aggressive position of a firm in the market.

Concept of Organizational Effectiveness

Firms' effectiveness (OE) has been a standout amongst the most broadly inquired about issues since the early improvement of hierarchical hypothesis (Rojas 2000). In spite of some accord, there is as yet huge absence of concession to the definition and operationalization of this idea (Cameron 1986). As a more up to date field of research, administration accounting depends on these precarious establishments to fabricate performance estimation models. The point of this paper is to cross over any barrier between the OE models created in the field of organizational hypothesis and the execution estimation models found in the administration bookkeeping writing. The particular advancement of these two correlative floods of research coming from two distinct fields of research are accommodated and incorporated by investigating their mergings and divergences.

Collaborative Arrangement

According to Frederick (2011), Collaborative arrangements differ in structure, organization, authorities, purpose, size, scope, scale, life-span, and expectations. Thomson (2006), recognized tensions and competitions – including political and organizational ones – surrounding agencies and other parties in initiating and maintaining interagency collaborative efforts. Such rivalries led to conflict among the involved agencies and related congressional committees.

A number and variety of factors engender or endanger collaborative arrangements that are initiated, maintained, transformed, or abolished – and determine their strengths and weaknesses.

Quality of Life Changes

Life is lived secretly, freely and subtly. The lives we lead mirror the decisions we make inside the hurdles of limitations and data. Our qualities and wage add to the open door we have. Our families, group and place of birth all impact our perspectives about what is essential in characterizing a quality life. Our individual and aggregate recollections and historic assume significant parts in deciding our feelings with regards to the nature of our lives. We ought to be careful about reification of the idea of QOL, for the great life is substantially more than a product to be delivered, appropriated and devoured. The scholar Kingwell (2000) in his book: *The World We Want: ethicalness, bad habit and the great national*, looks at the idea of value life and he helps us to remember the shaky relationship that numerous attentive individuals experience amongst progress and importance.

3.0 Methodology

Research Design

The cross-sectional survey design was used which is a part of the quasi-experimental research plan as it looks to assess various factors at a solitary day and age.

Population of the Study

These are individuals who most times partake and give answers to questionnaires presented to them by the researcher (Explorable, 2009). The Population of this investigation was drawn from the Management, University of Port Harcourt, Rivers State University of Science and Technology and Ignatius Ajuru University of Education.

Sample Size Determination and Sampling Procedure

This research will use the non-probability sampling method. As it tries to complete a procedure where people may be given equivalent chance to be spoken to in the unit as it will be done in Port Harcourt city.

The sample size will be controlled by utilizing the Taro Yamane's formula at a 0.05 level of centrality i.e. 95% confidence level. The Taro Yamane's Formula is shown as:

$$n = \frac{N}{1 + N(e^2)}$$

Where;

n = Sample size

N = Population

e² = level of significance (0.05)

1 = constant

These sample firms were chosen in view of their openness, it is to house administrators numbering 143 in total as per the (NUC-National Universities Commission; 2015). Therefore, using the Taro Yamane's Formula Above, we will have a situation where:

n = ?

N = 143

1 = Constant unit

e = 0.05

$$n = \frac{143}{1 + 143(0.05)^2}$$

$$n = \frac{143}{1 + 143(0.0025)}$$

$$n = \frac{143}{1 + 0.3575}$$

$$n = \frac{143}{1.3575}$$

$$n = 105.34 \quad 105$$

In view of aggregate sample size of 105, the individual organizations sample size is ascertained utilizing the Bowley's populace portion formula given as:

$$nh = \frac{nNh}{N}$$

Where

nh = number of units allocated to each firm

n = total sample size

Nh = number of staff in each company

N = population size

Which signifies that 105 questionnaire copies will be distributed as deciphered above and distributed below:

Table 1: Showing the Tertiary Institutions and its population proportions.

S/N	Institutions	DPTM	HODS	Proportion Calculation	Units allocated
1	University of Port Harcourt	79	79	$nh = \frac{105(79)}{143} = 58$	58
2	Rivers state University of Science and Technology	25	25	$nh = \frac{105(25)}{143} = 18$	18
3	Ignatius Ajuru University of Education	39	39	$nh = \frac{105(39)}{143} = 29$	29
	TOTAL	143	143		105

Source: (NUC) - National Universities Commission (2015)

Where: DPTM = Department, HOD = Head of Departments

Methods of Data Analysis

Spearman Rank Correlation (Rho) is the statistical technique for hypothesis testing; because it is non-parametric test and is symbolizing as “rho” or “p”.

The strategy read perception in the criterion and predictor variables, decides if there is affiliation or relationship. The formula for Spearman Rank Correlation is;

$$rs = 1 - \frac{6 \sum d^2}{n^2 - N} \text{ or } rs = 1 - \frac{6 \sum d^2}{n(n^2 - 1)} \quad \text{Where;}$$

- rs = Spearman rank value
- n = Number of respondents
- d = differences between ranks
- d² = squares of differences

4.0 Results and Discussion

Data Analysis

The tests for hypotheses (bivariate) involved the factual examination of the level of relationship between the measurements of the independent variable and the measures of the dependent variable. The 95% certainty interim is received and in addition a relating 0.05 level of significance in the tests which is carried out using the Spearman's rank order correlation coefficient. The scholar experienced a mistake of ten (10) because of arranging of poll, subsequently we found that respondents did not legitimately fill ten surveys which rendered it invalid and couldn't be utilized for the examination.

Table 2: Spearman's correlation of Access to Expertise (AE) and measures of Organizational Effectiveness

			AE	CA	QLC
Spearman's rho	AE	Correlation Coefficient	1.000	.753	.880
		Sig. (2-tailed)	.	.000	.000
		N	95	95	95
	CA	Correlation Coefficient	.753	1.000	.253
		Sig. (2-tailed)	.000	.	.000
		N	95	95	95
	QLC	Correlation Coefficient	.880	.253	1.000
		Sig. (2-tailed)	.000	.000	.
		N	95	95	95

Source: Data output, 2017

Access to expertise (AE) and Collaborative arrangement (CA):

The results for the analysis (table 4.1) uncovers that there is a critical connection between access to expertise and collaborative arrangement; this is as the correlation value (rho) between access to expertise and collaborative arrangement is at a 0.753 where the P = 0.000 (P < 0.05)

demonstrating a noteworthy level of relationship between the two factors. This implies that access to expertise can be considered statistically relevant to enhancing collaborative arrangement within the target organizations.

Access to expertise (AE) and Quality of Life Changes (QLC):

Besides, access to expertise is likewise uncovered to be essentially connected with personal satisfaction changes; where $\rho = 0.880$ and $P = 0.000$ ($P < 0.05$) inferring changes in quality of life changes been important to changes in access to expertise in the affected firms; therefore both null hypotheses are dismissed as the outcomes uncover that access to expertise is fundamentally correlated with quality of life changes.

Table 3: Spearman’s Correlation of Increased Flexibility and measures of organizational Effectiveness

		IF	CA	QLC
Spearman’s rho IF	Correlation Coefficient	1.000	.740	.853
	Sig. (2-tailed)	.	.000	.000
	N	95	95	95
CA	Correlation Coefficient	.740	1.000	.153
	Sig. (2-tailed)	.000	.	.000
	N	95	95	95
QLC	Correlation Coefficient	.853	.153	1.000
	Sig. (2-tailed)	.000	.000	.
	N	95	95	95

Source: Data output, 2017

The data (table 3) uncovers a critical link between increased flexibility, which is a measurement of IT Outsourcing and the measures of organizational effectiveness. The result is interpreted as follows:

Increased flexibility (IF) and Collaborative Arrangement (CA):

The results for the analysis (table 4.2) uncovers that there is a noteworthy connection between increased flexibility and collaborative arrangement; this is as the correlation value (ρ) between increased flexibility and collaborative arrangement is at a 0.740 where the $P = 0.000$ ($P < 0.05$) indicating a significant level of association between both variables. This implies that increased flexibility can be considered statistically relevant to enhancing collaborative arrangement within the target organizations.

Increased flexibility (IF) and Quality of Life Changes (QLC):

Furthermore, increased flexibility is also revealed to be significantly associated with quality of life changes; where $\rho = 0.853$ and $P = 0.000$ ($P < 0.05$) implying changes in quality of life changes been consequential to changes in increased flexibility in the target organizations; thus both null hypotheses are rejected as the results reveals that increased flexibility is significantly associated with quality of life changes.

Discussion of Findings

The outcomes disclosed that IT outsourcing, through its measurements of access to expertise, increased flexibility was essentially connected with organizational effectiveness, in this manner upgrading organizational based measures, for example, collaborative arrangement and quality of life changes. Hence, in light of the above discoveries, the experimental affiliations are examined as follows:

Access to expertise and organizational effectiveness: The link between access to expertise and organizational effectiveness is seen to be huge; this follows the assertion of Al-Qirim et al., (2002) that access to expertise develops online business of small to medium-size enterprises in New Zealand.

Increased flexibility and organizational effectiveness: The connection between increased flexibility and organizational effectiveness is likewise uncovered to be huge, this is sited additionally in works of Bathula and Al-Qirim (2002).

5.0 Conclusion

In conclusion, this investigation finds that IT Outsourcing is unequivocally and fundamentally related with organizational effectiveness. This attestation depends on the results of its investigation and the aftereffects of the test of the hypotheses; we concludes as follows:

- i. The market progression in emerging nations, expansive foundations from advanced nations have figured out how to diminish costs by diverting piece of their generation to backups or accomplices of these territories. The technique received by these enormous firms, brought diminishments of their cost generation of roughly 20%, in this way reassuring them to stress the expanding globalization with outsourcing hones.
- ii. These hones have contributed incredibly to quickening the procedure of globalization, interconnecting emerging economies with the officially advanced nations (USA, UK, Germany, Japan, and so forth.).
- iii. Comparing the advantages and disadvantages of the idea of outsourcing, we accept to extend these issues is essential for public establishments particularly tertiary institutions to outsource their IT, with the world having some fruitful cases of outsourcing of public services (health system in the United States and part of the education framework in a similar nation).

6.0 Recommendations

IT outsourcing is a management rationality that has paid off in the western firms and is yet advancing. Its positive rate of return is excessively glaring, making it impossible to disregard. Keeping in mind the end goal to guarantee adequate acknowledgment of the benefits resultant

from outsourcing and handle the deterrents postured to successful outsourcing programs, the accompanying proposals are recommended in view of the exploration discoveries:

- i. There should be more organized IT outsourcing programmes supported by relevant policies. Productive IT outsourcing relationship requires acquisition of skills, access to expertise, increased flexibility and proper follow-through on agreements made by both organizations.
- ii. Management should develop a programme advisory team on IT outsourcing with defined objectives, evaluating their performance against set standards and correcting unhealthy deviations from standards where such exist.
- iii. IT outsourcing ought to be energized by federal and state tertiary organizations and stretch out additionally to polytechnics and colleges of education since it will influence them to procure more aptitudes and gain admittance to world-class abilities.
- iv. Organizations cannot “match and forget” outsourcers and their partners. Successful pairing require monitoring, coordination, support and motivation.
- v. IT should be made compulsory in all educational curricula. The Nigerian Universities Commission (NUC) should through its NUNET (Nigerian Universities Network) programme, link up all Nigerian Universities, also other tertiary institutions and research institutes through WAN (Wide Area Network) and LAN (Local Area Network).

Limitations and Suggestion for Further Studies

The discoveries of the exploration can't be summed up since the research focused on just three tertiary institutions in Rivers State and furthermore the decision of convenience sample technique. The study therefore suggests that further studies should focus on other sectors of the economy and use a probability sampling technique by choosing a larger populations size.

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