

RISK AND BENEFITS OF INFORMATION TECHNOLOGY (IT) OUTSOURCING IN NIGERIAN POLYTECHNIC LIBRARIES

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Abstract

Polytechnics in Nigeria have been faced with shrinking financial resources allocated to them by the government, coupled with the need to increase enrolment and a growing demand by students for digital facilities. To survive in the face of this economic downturn, Polytechnics are now opting to outsource Information Technology (IT) in their academic libraries as a cost effective option for the upgrade of IT infrastructure with a view to meeting the growing expectations of students and the job market that is in constant demand for technologically literate and capable workforce. Using extensive literature review, the paper carried out an historical overview and a detailed review of the pros and cons of IT outsourcing in higher education institutions. The paper further highlights critical considerations in the planning and implementation of IT outsourcing interventions in Nigerian Polytechnic libraries to serve as a guide to management and library staff.

Keywords: *Information Technology, Outsourcing, Library, Polytechnic*

Introduction

According to the National Bureau of Statistic (NBS, 2016) the nation's Gross Domestic Product (GDP) declined by -2.06% (year-on-year) in real terms in the Second Quarter of 2016. This pronouncement by the NBS indicates that Nigeria is now officially in an economic recession. The effects of the recession have been re-sounding in all the sectors of the Nigerian economy including the Higher Education Sub-sector of which the Polytechnic is one. Nigerian Polytechnics have been faced with shrinking financial resources allocated to them by the government, coupled with the need to increase enrolment and a growing demand by students for digital facilities. To survive the biting effect of economic recession, Polytechnics are now opting to outsource Information Technology in academic libraries as a cost – effective option for the upgrade of IT infrastructure in order to meet the growing expectations of students and the job market that is in constant demand for technologically literate workforce.

Information Technology outsourcing is a controversial issue with concerns raised by stakeholders in the higher education sub-sector in Nigeria on the risks associated with IT outsourcing in libraries especially the redundancy implications for library staff (Ugah, 2010). Yet, Matthews (2004) opine that the increasing need for cost-reduction, improve general efficiency, and the need to meet increasing demands for accountability has made IT outsourcing an important option for administrators in educational institutions.

It is in view of the foregoing issues, debates and dilemmas relating to IT outsourcing in academic libraries that this paper through extensive review of the literature intends to investigate the risk and benefits of IT outsourcing in Nigerian Polytechnic libraries so as to guide Polytechnic administrators who may want to consider IT outsourcing as an appropriate intervention in the provision of services especially library facilities.

Statement of the Problem

Information Technology (IT) outsourcing especially in higher education institutions plays a crucial role of stimulating information technology development and leveraging the way Polytechnics function. If IT outsourcing in academic libraries is managed effectively, it could perhaps, become a potential instrument to jump-start the falling education standard in the Higher Education system in Nigeria. However, effective management of IT outsourcing relationships seem to be a far cry in Higher education institutions in Africa (Nigeria inclusive) due to a number of factors notably the poor management of IT outsourcing relationships.

Scholars (Hancox and Hackney, 2000; Aggarwal, 2005; Kesavan, Mascarenhas, & Bernacchi, 2013) argue that despite the potential benefits of Information Technology (IT) outsourcing in higher education institutions, the IT outsourcing initiative has faced a number of challenges notably in the areas of staff resistance to change manifest through their uncooperative posture with the outsourcing partner and problems of relationship management between the higher education institutions and the IT service provider making it appear as though IT outsourcing is a risky venture.

Considering the potential benefits of IT outsourcing in academic libraries as well as the crucial role outsourcing could play in the development of Polytechnic libraries in Nigeria, there is a need to identify, locate and find solutions to some of the factors militating against the creation and sustenance of IT outsourcing partnerships and to bring to the fore those factors that make for a successful IT outsourcing and the factors that detracts from it. It is hoped that the outcome of this research will contribute to ongoing enquiry and debate on the critical factors for the success of IT outsourcing in higher education institutions in Nigeria as well as spur further research interest in this area of study.

Purpose of the study

The purpose of this study is to investigate the risk and benefits linked with IT outsourcing in Nigerian Polytechnics.

Methodology

This research work adopts the use of extensive literature review to examine issues relating to IT outsourcing in academic libraries as well as the benefits and risk of IT outsourcing relationships.

Literature Review

Academic Libraries and ICT Outsourcing

Fowoe (1988) making allusions to the views expressed by the University Grant Committee (1976) maintained that academic libraries are a critical organ of higher education institutions and that as a resource house, it remains critical to the actualization of the goals of higher education which is teaching, research and the extension of the frontiers of knowledge. Considering the cardinal role academic libraries play in the attainment of quality education, Ubog and Okiy (2011) assert that a sustained effort is put in place to ensure that the necessary ICT infrastructure that will assist librarians function efficiently and effectively be put in place. Furthermore, they assert that it is essential for academic library to possess the resources that will enable it meet its goals, like well trained staff and current information storage and retrieval systems.

Agreeing with the views held by Ubogu and Okiy (2011) on the need for trained staff and current information and retrieval system, Emwanta (2012) observed that because the act of classical librarianship is becoming tedious and cumbersome due to the increase in information demand, higher education institutions are beginning to revolutionize the classical library system through the introduction of e-libraries. One way of actualizing e-libraries in the higher education institutions he asserts is through the adoption of ICT outsourcing. Emwanta (2012) stressed that ICT outsourcing has become a viable ICT infrastructure funding model because higher education institutions continue to look for viable alternatives of actualizing e-libraries because ICT remains the centre of global and social economic transformation.

In Nigeria, one the agencies that has supported ICT adoption in academic libraries is the Tertiary Education Trust Fund (TETFund). Generally, TETFund's normal interventions in the tertiary institutions are in the following areas:

- Construction and Rehabilitation of buildings and laboratories
- Procurement of teaching and research equipment
- Library development
- Academic staff training
- Research and book development
- Capacity building and teacher training programme
- Provision of ICT infrastructure
- Development of facilities that sustain institutions such as boreholes, electric power generators, etc(Bamir, 2012)

TETFund since inception, has been able to provide lots of library resources for its users through this funding, part of resources provided for are current and recent journals, textbooks covering all disciplines offer by higher education institutions, establishment of e-library, establishment of college libraries, provision of computers, provision of furniture, for reading rooms and offices, subscription to databases, staff development and provision for conducive environment for both students and staff.

Even though TETFund has contributed significantly to the development of academic libraries in higher education institutions, an intervention agency, it is not able to provide for all academic libraries in higher education institutions hence the need for other funding options. One viable funding option for the development of academic libraries is through ICT outsourcing partnerships.

IT Outsourcing Defined

IT outsourcing is increasingly being adopted globally as a veritable strategic alternative for the acquisition and management of costly information technology (IT) (Aggarwal, (2005).Hitt et al (2005) however observed that despite the growth in IT outsourcing, there appear to be very scanty research on the management strategies that will bring about the desired level of success in IT outsourcing in higher education institutions.

Even though the phenomenon of IT outsourcing in Nigerian Polytechnics is relatively new, very few Polytechnics that have adopted this practice in Nigeria view IT outsourcing in academic libraries as a means of lowering cost and maintaining a strategic focus on their core library services. This view is amplified by Hitt et al (2005), who opined that very few organizations can afford the cost of developing internally their Information Technology (IT) and therefore outsourcing this important activities to vendors of course becomes the next strategic option. Similarly, Drucker, (1999) maintained that organizations outsource IT because it reduces cost, especially cost of labour associated with employee benefits and other ancillary cost like cost of training and capital cost.

Sprague and McNurlin (1993) referred to IT outsourcing as a process by which an organization turns over its computer operations or other information functions to a vendor for an agreed period of time. Commenting further, the duo maintained that IT outsourcing involves among other things, application outsourcing, infrastructure outsourcing, internet service providers, software maintenance and support as well as consulting services. Kweku-Muata and Ojelakin (2006) agreeing with Sprague and McNurlin on the different types of outsourcing available notes that due care and diligence must be taken when deciding the outsourcing option to be adopted by a particular organization. They emphasized the need for the organization to be strategic about IT outsourcing as whatever decision is taken on IT outsourcing activity could either make or mar the organization. Agreeing, Goolsby(2002) asserts that the management of IT outsourcing would require adequately skilled personnel who will provide the required strategic leadership. He went further in line withKweku-Muata and Ojelakin, (2006) submission that IT outsourcing is complex and strategic and that management must possess adequate skill and knowledge in order to outsource successfully. In order to understand the current environment of IT outsourcing, it is important to take into cognizance how IT outsourcing has progressed from inception.

Historical Development of IT outsourcing

Sprague and McNurlin (1993) notes that outsourcing in its different forms have been employed as an alternative within the business world for a relatively long time. In an article published in the wall street journal in 2004, outsourcing is said to have dated back to the 1839's when work in the textile business was outsourced from India to England in order to lower cost. It is observed (Cyber Futuristic, 2007) that outsourcing originated in the service industry and then began to spread to other categories of business including the domain of information technology. Hitt et al (2005), notes that although outsourcing was initially pursued as a cost saving measure, it is now being implemented in various strata of organisations as a strategic alternative. Sprague and McNurlin (1993) notes that with this development, in order to save cost, organizations began to outsource those activities that were not considered core to their business.

Other areas of outsourcing has been reported in the extant literature such as business process outsourcing where processes such as payroll or human resources functions are been outsourced to external service providers. This however does not lie within the purview of this paper.

Forms of IT Outsourcing

According to Aggarwal, (2005), IT outsourcing can take four forms; multiple supplier/ selective outsourcing, joint venture/ strategic alliance outsourcing, total outsourcing and in sourcing which is an exact opposite of outsourcing. Menon, (2005) explains that whereas in-sourcing is totally reliant on in-house IT resources and capabilities, IT outsourcing refers to the act of subcontracting all or part of an organization's IT function to external vendors.

Multiple supplier/ selective outsourcing according to Aggarwal, (2005) describes a strategy whereby many IT vendors are placed on an approved list and decision is dependent on the lowest priced vendor. This according to him is done with the intent of reducing the incidence of potential financial loss for the organization. Joint venture/ strategic alliance outsourcing on the other hand refers to an agreement between two or more organizations, with each bringing to bear on the organization, the areas where it has competitive advantage in a specific business activity such that each will be able to benefit from the strength of the other and in the long run gain competitive advantage.

The foregoing re-echoes the need to be strategic when deciding on the forms of IT outsourcing to be adopted, and the need to exercise due diligence to ensure that issues that might derail the initiative and therefore pose as risk to IT outsourcing in the organization before, during and after the deal are guarded against.

Risks related to IT outsourcing

There is no management decision that is insulated from risk. Risks manifest itself in decisions relating to capital investments, new product development as well as implementation of state of the art technology. While decisions relating to the foregoing can lead to substantial benefits, they may also bring about serious losses.

Writers (Gupta and Gupta, 1992; Hancox and Hackney, 2000), note that while IT outsourcing may bring about benefits ranging from access to specialized resources , economies of scale to lower costs, it can equally have unwanted outcomes such as escalating costs, loss of expertise and diminishing service levels, among other things (Earl, 1996; Finlay and King, 1999; Gupta and Gupta, 1992).

Earl, (1996) while explaining the risk associated with IT outsourcing maintained that they are four major risk associated with outsourcing which can conveniently be categorized into the four stages of outsourcing which he identified as :

Outsourcing strategy: this relates to decisions as to whether or not to outsource,

Outsourcing selection: this is the process of finding and carrying out evaluation of potential outsourcing partners,

Outsourcing implementation: here, the relationship between outsourcing partner is defined and established and

Outsourcing management: this stage of course is very crucial as it relates to the monitoring and evaluation of the on-going outsourcing relationship.

Earl, (1996) pointed out that each of the above mentioned stages has their own peculiar set of risks and therefore counsels that for organizations to reap the benefits of outsourcing, adequate care must be taken to address these risks.

Finlay and King, (1999) offers an explanation of outsourcing strategy risk as those risks that are likely to have long term effects on the outsourcing organization. He provides a compendium of outsourcing strategy risk as follows:

- Lack of clear definition of goals and objectives before embarking on the outsourcing process
- Little understanding of human relations and employment law requirements for outsourcing initiative,
- Absence of risk analysis and assessment
- Outsourcing based on incomplete information as to internal cost and processes, lack of careful examination of the impact of outsourcing on other functions and areas of risk like environmental and regulatory factors and
- Making announcement of an outsourcing initiative without sufficient details leading to the creation of morale issues in the organization.

Outsourcing selection risk has to do with non-availability of enough resources to effectively manage the vendor selection process, insufficient management know-how to manage the selection process, not spreading the organization's tentacles wide enough for potential providers of the service thereby missing out on the appropriate candidate, inaccurate costing of assets that will be transferred to the IT provider, not carrying out financial due diligence on the provider, inaccurate or lack of information on the capacity limitations of the IT service provider and finally the risk of personalizing the selection process rather than the commercial decision it is meant to be (Finlay and King, 1999).

Explaining further, Finlay and King, (1999) pointed out that outsourcing implementation risk relates to the organization's inability to establish an outsource relationship with enough flexibility to deal with business fluctuations, putting in place a time line that is manifestly unachievable for any of the steps of the IT outsourcing process including start up, lack of an articulate implementation plan, underestimation of the time required to enter into an agreement with the IT provider, a lack of insufficient plan for employee transition as well as insufficient briefing of the IT provider on critical aspects of the organizations activities.

Finlay and King, (1999) summarized outsourcing management risks as those associated but not restricted to inability of the organization to consider the full impact of the outsourcing initiative, a manifest lack of internal communication, not providing a platform for continuous interface between the organization and the IT service provider and lack of an articulate contingency plan for service disruptions should they occur.

Finlay and King, (1999) submits that the whole process of IT outsource strategy, selection, implementation and management is of necessity critical to the achievement of any IT outsourcing initiative and therefore asserts that for organizations to achieve any appreciable level of success in an outsourcing initiative, a robust and well-articulated outsourcing process must be vigorously pursued. He further submits that investing time and resource in the design and articulation of an outsource process will help in no small way in mitigating risks associated with IT outsourcing.

Benefits of IT Outsourcing

A number of writers (Earl, 1996; Finlay and King, 1999; Hancox and Hackney, 2000) have written severally on the down side of IT outsourcing but to have a balanced view of this paper, it is instructive to highlight some of the benefits of IT outsourcing. There are as follows:

Cost Saving

According to Hancox and Hackney (2000), IT outsourcing help in fetching quite competitive rates due to the reason of scope and economies of scale. They assert that the underlying reason for the adoption of IT outsourcing is to save money on overheads by most of the organizations. Commenting further they maintained that IT outsourcing in Polytechnic institutions does make more funds available to Polytechnics to carry out their core duty which is research.

Qualitative Service

Ravichandran and Ahmed (1993) notes that one other reasons why higher education institutions adopt outsourcing as a more viable option than providing such services themselves stem from the fact that given the dwindling revenue allocation especially to higher education institutions in developing countries by their respective governments, it will amount to an exercise in futility if the higher education institutions continue to provide IT services themselves. Most higher education institutions in developing countries they assert are therefore of the informed opinion that since the private service providers have both the financial and technical wherewithal to handle the intricacies of IT, these services are better outsourced to ensure that there is qualitative service.

Access to Skill and State of the Art Technology

Menon (2005), commenting on IT outsourcing as a viable option for higher education institutions maintained that one of the benefits of IT outsourcing lie in the fact that it does provide higher education institutions access to less costly yet state of the art technology. He opined that investment in IT infrastructure is a very costly venture and often risky. He asserts that given the rapid development in the technology market, it might perhaps be very difficult for higher education institutions to maintain pace with this growth especially as regards to upgrades and other ancillary cost relating to training. He therefore holds that outsourcing to service providers with the resources and the expertise are better positioned to provide these services more efficiently.

Access to Skilled Personnel

Harland *et al* (2005) opined that when institutions embark on a programme of IT Outsourcing it enables them to get access to skilled and trained man power at very low cost. This he further maintained will impact positively on productivity as well as cost savings. Corroborating, Barthelemy and Geyer (2004) maintained that with IT outsourcing, higher education institutions can save on recruitment, training and other human resource related costs that would have been borne by them should the service remain internal. They also observed that one of the advantages of IT outsourcing is that organizations will be better positioned to utilize the kind of expertise it would not have ordinarily been able to provide.

IT Outsourcing Facilitates Control of Capital Costs

Whereas Sprague and McNurlin (1993) note that cost-cutting may perhaps not be the singular reason to outsource, the duo submit that it's certainly a major factor. They opined that when higher education institutions outsource their IT, fixed costs converts into variable costs and thus release capital for investment in other areas that are essential to their continued functioning.

Conclusion

IT outsourcing in Nigerian Polytechnics is a considerably new and interesting phenomenon. Even though a few Nigerian Polytechnics have embraced IT outsourcing in academic libraries, many others are cautious in the adoption of this strategic initiative. What the researcher has done here is to carry out an historical overview and a detailed review of the pros and cons of IT outsourcing. The author highlights critical considerations in the planning and implementation of IT outsourcing interventions in Nigerian Polytechnic libraries to serve as a guide to management and library staff.

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