Potential Benefits Organizations Derive From Using Enterprise Content Management Systems

A Study of Selected Nigerian Organizations

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Seminar: 7th June 2011
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**Abbreviations**

AIIM  Association for Information and Image Management  
BPM  Business Process Management  
CAC  Corporate Affairs Commission of Nigeria  
CSR  Corporate Social Responsibility  
CBN  Central Bank of Nigeria  
DMS  Document Management System  
ECMS  Enterprise Content Management Systems  
ERP  Enterprise Resource Planning  
ES  Enterprise Systems  
ICT  Information and Communication Technologies  
IT  Information Technology  
IS  Information Systems  
MNC  Multinational Corporations  
ROI  Return on Investment  
RMS  Record Management Systems  
WMS  Web Content Management Systems
ABSTRACT

Date:       June 7th, 2011
Course:     Master Thesis EIK034, IT Management
Tutor:      Dr. Michaël Le Duc, Dr. Gary Jordan
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Title:      Benefits Organizations derive from Using Enterprise Content Management Systems as a Business Strategy: A study of Selected Nigerian Organizations

Purpose:    The purpose of this study is to critically analyze and evaluate the benefits associated with using ECMS within an organization in a developing country like Nigeria.

Method:     This study is based on qualitative research using the case study and survey method.

Target Audience: Organizations in Nigeria that are using or not using ECMS and also academic scholars and practitioners of IT.

Conclusion: The adoption or implementation of ECMS results in benefits ranging from compliance, cost reduction, return on investment, amongst others. Organizations in Nigeria that have adopted the ECMS have acquired the benefits that have been stated in this research. The findings have shown that compliance to government regulations is also a key factor in adoption of ECMS.

Keywords:  Enterprise Content Management Systems (ECMS), ECMS Benefits, Cost-Benefit Analysis, ECMS Benefit framework.
Acknowledgements

First and foremost, we would like to thank the Almighty God for the strength bestowed to us throughout the writing of this research. Secondly, we would like to thank our supervisors- Dr. Michael Le Duc and Dr. Gary Jordan for their immense support and guidelines on how to write a good research report. We would like to extend our appreciation to the organizations involved in doing this research.

Finally, our gratitude goes to our family members for their prayers and support throughout this study period.

Daniel and Godspower
1 INTRODUCTION

“For many organizations, the challenges of surviving in today’s global marketplace often seem overwhelming. One of the most time-consuming and costly tasks a company faces in a dynamic business environment is translating all its web and print documents for international use” (Mescan 2004, p.54). Large volume of business documents are created in many organizations and managed using manual steps (Chieu & Liangzhao, 2008). Also organizations can have thousands of pages of web-based content or paper based information (Mescan, 2004).

According to Smith and McKeen (2003), organizations in recent times generate information at such a rapid rate that a challenge has been how information could be formatted and stored for future purposes. Smith and McKeen (2003) estimate that about (75%-80%) of data in organizations are unstructured and not appropriately formatted so that it could be easily accessed when needed. They further explain that the major challenge is embedded in how to develop an overall Enterprise Content Management Systems (ECMS) strategy that ensures that various information practices are in place and effectively integrated with the required technology if it is to be effective and beneficial.

The rate at which information is generated, transmitted and utilized is such that organizations have to device a way to manage information in order to be readily available to personnel and customers when needed. O’Callaghan & Smits, (2005, p.1) are of the view that Enterprise Resource Planning (ERP) systems and other Information Systems are unable to exchange workflow information easily and thus resulting in a lot of unstructured data being re-keyed manually elading to errors, inaccuracies and duplications. Integrated content management is manifested in such a way that organizational issues such as costs decrease, automated processes, reduction of resource bottlenecks, share content effectively, minimizing the number of lost documents and risks management is well controlled, (Alsup, 2004).

Smith & McKeen (2003) emphasize that the interest in ECMS has increased due to the following reasons;

- The time spent by workers on searching for information.
- There is now more content available than was obtainable in the past
- The realization by organizations that more should be done to manage the content they have
- The available technology is improving and converging.
This research in response to the reasons mentioned above, will seek to find out how ECMS can benefit organizations. To understand how ECMS is applied in organizations, selected firms in Nigeria will be used to show ECMS processes and related benefits.

1.1 Problem Discussion

The continuous growth of information is a major challenge facing organizations and if not properly managed could have an adverse effect that impairs the ability of IT to meet the strategic needs of organizations, (Clark, 2008). Information, including structured data (stored in databases) and unstructured content (stored in file systems, content management systems, email servers and more) is growing and this could generate negative effects: storage costs draining IT budgets, costs paralleling the explosion in growth and employee productivity limited by time wasted searching for information that is inaccessible and is recreated. The continuous rise in the demand for ECMS applications within organizations is warranted by the fact that while other content management systems such as business process management (BPM) and ERP seeks to combine all the traditional business applications, making them exchange information among themselves, ECMS seeks to go further by creating knowledgebase of the enterprise’s business and content resources (Allen, 2007). ECMS accepts both structured and unstructured data repository that has a uniform structure.

ECMS aims to combine the functionalities of the Web, content management and to systematically incorporate not only traditional publishing activities but e-mail, financial records, human resource, documents, etc., for an entire organization (Clark, 2008).

The Gartner Group estimates that an average document gets copied 19 times, companies spend $20 in labour to file a document, $120 in labour to find a misfiled document, and $220 in labour to reproduce a lost document and that a typical organization of 1,000 people wastes over $11 million per year through manual document handling and management, (Smith and McKeen 2003). In a bid to curtail these deficiencies and meet the business challenges in a very competitive market, organizations are adopting the Enterprise Content Management Systems as a strategic investment with the intention of improving the supporting activities of their business processes (Rouse, 2005). Kaplan (2002a) claims that ECMS is a big business and that as at 2001, it had about $3.5 billion in sales and this was expected to double by 2006. Research by Association for Information and Image Management (AIIM 2008), also shows that the “network overall spending on licenses in all ECMS applications is set to increase considerably over the next 12 months compared to the last 12 months, and spending on consultancy services is likely to increase slightly overall”. It is not a hidden fact that most organizations are overwhelmed by the number
of paper documents, data, reports, WebPages, and digital assets which have literally grown tremendously in recent years causing considerable information overload (Kaplan, 2002b).

Tools, processes and skills needed to deal with each type of enterprise information is increasingly growing and as such distinctions among various forms of data are becoming obvious and irrelevant. In response to these problems, ECMS seek to manage organizations information assets (Kaplan, 2002b).

1.2 Research Question

The following research question will be studied to achieve the purpose of this work:

What are the potential company benefits found from the experience of Enterprise Content Management Systems (ECMS)?

Strategic question

- Which aspects of the organization are affected by these benefits?

1.3 Purpose of the Study

The purpose of this study is to critically analyze and evaluate the benefits associated with using ECMS within an organization in a developing country like Nigeria.

1.4 Utility of this Research

This research will be of help to business organizations especially in developing countries that deals in large sums of ‘content’ to effectively manage it as an asset, in support of diverse business processes to enhance productivity and also for anyone interested in this area.

1.5 Limitations

Mescan (2004, p.55) states that, “ECMS is the latest buzzword in the content management arena and has yet to be firmly defined”. This study will not be delving into the controversies surrounding this issue. There are different types of ECMS solutions in the IT market, but it is not the intention of the authors of this study to determine which of the solutions available in the market is best for the firms under review, but to recommend suggestions in connection to our structured theory and based on the information gathered and peculiar situation of the studied firms.

1.6 Target Audience

ECMS is a relatively new concept in comparison with other Information Systems, (Alsup, 2004). The authors believe this research will be of interest to academic scholars, organizations and business or IT practitioners. At the conclusion of this study, it is expected that the theoretical and empirical research would give further insight into the workings of the ECMS.
2 A Brief Background of IT/ECM systems applications in Nigeria

The authors earlier on mentioned that the main objective of our research is to find out how ECMS can be beneficial to an organization. The author’s also chose Nigerian firms because as a developing nation, we believe IT still has more room for growth so that if well utilized could be an asset for long term growth of an organization. Information technology has been the course of exchange and interactions among the world’s remotest neighbours possible and has also been described as the enabler of globalization, thereby fostering business interests of multinational and local corporations beyond national boundaries, (Uzuomaka et al, 1999).

To our knowledge not much study has been conducted empirically in relation to organizational processes and ECMS in Nigeria or the Sub-Saharan Africa. We however, do not dispute the fact that it is possible there might be a content management of a sort in use in organizations of our chosen location, though its actual importance might not be realized and emphasised as it is in western nations. Nigeria, South Africa and Ghana are among African countries that have been understudied when it comes to IT applications such as ECM systems, ERP systems and many others (Uzuomaka et al, 1999).

Nigeria has been perceived as among the most influential regions in Sub-Saharan Africa with a population of over 158,000,000 inhabitants as of 2009, (www.nigeria.gov.ng). The country has a vast natural resources and it is among the few African countries that has resorted to aggressively soughing and integrating information technology in different economic sectors. According to its national webpage, the ever increasing presence of multinational corporations (MNCs) in Nigeria and other African countries, either through direct investment or organizational alliances warrants the need to understand work place dynamics, more especially relating to IT. At the time of writing this report (2011), the Corporate Affairs Commission (CAC), the body responsible for registration of all companies in Nigeria has registered about 667,776 companies (www.nigeria.gov.ng).

According to Applegate et al (2007, p.1), information technology (IT) has always been the backbone of businesses which is also a source of opportunity and uncertainty, defining the ways strategies are executed and how to organize and lead businesses with unique value proposition. The authors chose Nigeria and for these matter Nigerian companies because of its position in Africa and the global economy with several branches of multinational organizations stationed there.
According to Hart (1998, p. 1), an effective literature search is the search and use of ideas in a particular literature to justify an approach to a topic which demonstrate that the research contributes something new. He further noted that the quality of the literature must explain how one piece of research builds on another with consistency, clarity and brevity, and effective analysis and synthesis. Sources of our literature include books, journals and peer reviewed articles gain in depth knowledge of ECMS application in consistency to our research focus.

According to the Association for Information and Image Management (AIIM, 2008), “Enterprise Content Management Systems (ECMS) is the term used to describe the technologies, tools and methods used to capture, manage, store, preserve, and deliver “content” or “information” across an enterprise or organization”. At the most basic level, ECMS tools and strategies allow the management of an organization’s unstructured information, wherever that information exists. The Association for Information and Image Management (AIIM) further states that Enterprise Content Management is a comprehensive, integrated approach to information management, focusing on the information requirements of the entire organization (AIIM, 2005). Usman et al. (2009, p.284) is of the view that “ECMS is a collection of strategic resources and capabilities that provides an automated enabling framework for efficient lifecycle management of valuable organizational assets”; for instance contents and processes, to carry out required business operations in a collaborative fashion, supports governance and compliance, provides integration within and outside the business boundaries to achieve business intelligence, knowledge management and decision support capabilities with focus fulfilment of business goals and objectives. It is important for organizations and individuals to note that the success of ECMS within an organization however depends on several factors from one organization to another (Kemp, 2008).

3.1 ECMS Benefits

It has been argued that ECMS can be beneficial where organizations can create a structured platform that can manage the information from the business processes, functions and the extended enterprise, (Smith and McKeen, 2003). Porter (1985), states that it is imperative for organizations to engage in value creation activities that create competitiveness that is beneficial to the overall well being of the organization.

Experts are of the view that the ECMS as an information system, should result in outcomes that are beneficial to the organization and if this is not the case, then it should not be implemented. The Oxford English Dictionary defines benefit as “to do good to, to be of advantage or profit to; to improve, help
forward” (Oxford English Dictionary Online, 2011). This definition of benefit will be used in this paper, i.e. the word benefit refers to the advantage, profit or an improvement that occurs from the implementation of an ECMS in an organization.

According to Luan and Serban, 2002; Asprey and Middleton, 2003, from the perspective of the ECMS vendor community, they are of the view that potential ECMS benefits can be the following; compliance, efficiency, consistency, customer service and consolidation. Also AIIM (2008) is of the view that potential benefits could also include; return on investment, cost reduction, user satisfaction, amongst others.

**Change of Organizational Culture**

The enterprise system is a tour de force that impacts the organizational culture. It enables the streamlining of management structures by creating flatter, more flexible, and democratic organizations. With the enterprise system in place, the control of information and standardization of processes which are more consistent with hierarchical, command and control organizations with uniform cultures can be centralized (Davenport, 1998). Junco et al (2005, p.343) acknowledges that the implementation of a content management system leads to a positive change in the corporate culture of the organization with more attention been paid to the implementation of the system by everyone

**User Satisfaction**

Delone and Mclean (2003) state that higher system quality is expected to lead to higher user satisfaction and use, leading to positive impacts on individual productivity, resulting in organizational productivity improvements. Shang and Seddon (2002) are also of the view that an efficient enterprise leads to increased to work efficiency and users who are satisfied with services rendered by the systems.

**Improved Efficiency**

Chiu and Hung (2005, p.1) is of the opinion that improved business efficiency and accelerated exception handling is a benefit that the organization derives from the implementation of the enterprise content management system in the finance sector. The ECMS also allows for “efficiency, effectiveness, and flexibility of knowledge work and business processes, including reuse of previously created content, metadata, templates, and navigation aids (Paivarinta and Munkvold 2005, p.2).
Improved Content Management

According to Kohler-kruner (2007) as cited in Kemp (2008), strategic ECMS allows organizations to “index all user generated content including content residing in existing, disparate business critical or legacy applications, which when coupled with rich search capabilities allow users to find the content they want and need”. Accurate and precise delivery of content to the right people at the precise time it is needed a on the particular device is a benefit that can be derived from the strategic usage of ECMS (Huff and Dirking, 2010).

According to Kemp (2008), in managing content, the following benefits can be derived from the implementation of the ECMS:

- Using ECMS as a strategy has the capability to reduce content duplication thus preventing existing content from being reproduced.
- ECMS can be used to create backups of critical content in an organization thus ensuring no information is ever lost.
- Strategic ECMS can make sure that content is retained for future use.

Also the ECMS can lead to “improve the efficiency and effectiveness of documents in their role as a primary mechanism for storing and communicating concepts and ideas within and between organizations (and their groups and individuals)” (Sprague 1995, p.33).

Change of Business Processes

Another benefit derived from the implementation of ECMS is an upgrade of the business processes. Sprague (1995) believes that the implementation of ECMS not only leads to automation of the processes that deals with the computerization of paper work systems that are based on documents but also a reengineering of this processes. There implementation of ECMS leads to the reduction of paperwork and more reliance on automated processes (Sprehe, 2005). Smith and Mckeen (2003) also agree with the assessment made by Sprague (1995) that implementation of the ECMS leads to the simplification of forms and work processes.

Risk Mitigation

Risk mitigation involves prioritizing, evaluating and implementing the appropriate risk-reducing controls recommended from the risk assessment process (Stoneburner et al., 2002). AIIM (2008) is of the view that the implementation of ECMS mitigates risk by restricting access to content, both during its creation and management as well as when delivered.

Other ways risk is mitigated are;
“By preventing the illegal distribution of rights-managed content by restricting access to content down to the sentence level as well as granting/restricting permissions for forwarding and accessing content.

- Ensuring the identity of a document sender, and the authenticity of the message been sent.

- Using a public and private key pair held by a trusted third party to transact business over the public Internet”.

**Compliance**

“Enterprises must adopt good records management as part of their essential infrastructure for the basic reason that keeping good records protects the enterprise from harmful damage and ensures regulatory compliance” (Sprehe 2005, p.297). A key to successful ECMS compliance strategy is the ability of the organization to integrate and comply with regulations that could be viewed as an opportunity to improve common business processes and not just an ongoing cost to the business. It is not a hidden secret that there can be high costs associated with the compliance initiative for both technology and employees. One of the strategies to help limit the risks and cost will be the adoption of proactive ECMS strategies that can be developed within key areas, such as records management and business process management, (Duhon, 2005). This must also ensure that the best practices are followed and that content is properly captured, stored, managed, and disposed of at the appropriate and legal time in its lifecycle. The implementation of a successful ECMS strategy enables the development of a compliance initiative properly increase the chances of tapping into many areas of expertise, particularly legal, IT, and records management, all in support of the overall business objectives of the organization (AIIM, 2008).

**Cost Leadership**

According to Porter generic strategies, gaining a competitive advantage through cost leadership strategy requires an organization to reduce the costs of production (labour and capital), undergo innovative procedures while still maintaining industry standards and prices (Hedman and Kalling, 2002).
According to Shang and Seddon (2002), the enterprise system builds cost leadership by building a lean structure with streamlined processes; reaching business economies of scale in operation and by shared services.

**Collaboration**

Collaboration as explained by Duhon (2005) is the art of working together and utilizing resources in harmony. The deployment of the ECMS (a set of technologies such as instant messaging, whiteboards, online meetings, email, etc) allows work to take place wherever needed. Collaborations allows individuals with complementary, or overlapping areas of expertise to create better outcomes faster than before so that business units and teams can work together anytime-whether in adjoining offices or a world apart (Duhon, 2005). The ECMS addresses operational objectives like saving time, streamlining processes, cutting cost, and improving time to market. Paivarinta and Munkvold (2005, p.2) states that ECMS improves “internal and external collaboration, involving knowledge creation and sharing through digital content in and among enterprises with commonly enacted practices”.

**New or Value-Added Products or Services**

The deployment of the ECMS creates new or value-added services or products or capabilities involving digital content for their customers;”That is, ECM development as such builds competence and technological platforms in the enterprise, on which it becomes quicker to develop and maintain targeted content management applications for emerging purposes”(Paivarinta and Munkvold 2005, p.3).

ECMS has also resulted in modern web-based applications which integrate the previously separated issues of structured databases and dynamic application interfaces, semi-structured documents, and unstructured file management (Paivarinta and Munkvold, 2005).
Improved Governance

According to Terra and Gordon (2003), “an ECMS infrastructure is valueless if the content is inaccurate, outdated or irrelevant for improving users’ ability to perform”. Metadata capture should ideally occur after content creation by combining an automatic, i.e., (author, name, data and more) including manual processes such as (keywords, categories). Dynamism in those that develop diverse taxonomies and maintenance of the information structure requires shared responsibilities and sophisticated tools and more importantly human effort.

It has also been discovered that automatically generated taxonomies poorly performs compared to those managed by professional editors or what is also termed librarians, (Terra and Gordon, 2003). The upkeep of information architecture requires committed personnel with non-experts rendered the help to understand a specific function on how content is organized and linked to other content. Another important point to note is that information architects, domain experts and business analysts with the interest implementing a content management solution can transform the expertise of its in-house information technology (IT) to specialists, (Terra and Gordon, 2003). In response to these needs, Päivärinta (2005) stated that ECMS encourages efficiency, effectiveness and the required flexibility of knowledge including the reuse of previously created content, metadata, templates and navigation aids.

Change in work organization

Hagberg et al. (1995) defines work organization as the manner in which work is structured, distributed, processed and supervised. It basically deals with issues such as work scheduling (work-rest patterns), job design (complexity of tasks, skills required, worker control), the inter-personal aspects (relationship with managers and colleagues), career concerns (job security and opportunities for advancement), management style, and organization characteristics (corporate culture and level of corporate communications), (Carayon and Smith 2000,p.649). The implementation of the ECMS in the organization makes it easier for the issues about the work organization to handled in a more transparent and efficient manner. Readily accessible makes it easier for management, employees to plan work and the creation of new job descriptions in the work place.

Cost Reduction

Understanding the cost of potential losses such as business processes and customer interactions allows an organization to see ECM systems implementation as an investment that add value and often can be measured. A way to measure the success of the ECMS implementation is to measure upfront your success based on expectations and deliver to that (Duhon 2005). “Most companies are taking a bottom-up
approach to ECM strategy at present (i.e., one that focuses on delivering immediate benefits) because cost reduction is a top priority” (Smith and Mckeen 2005, p.650). ECMS tools can assist an organization to be more efficient and drive down the cost of doing business. These technologies offer value to an organization by more efficiently coordinating information for its repeat retrieval, use, and ultimately disposition. In addition, as these tools are used by more organizations, it becomes an apparent part of how to work (AIIM 2008). Päivärinta (2005) also states that the implementation of ECMS results in direct cost savings in information processing operations and facilities. Sprehe (2005) is also of the view that a fully functional ECMS, can begin to realize positive benefits and real cost savings to the information management of essential business functions.

**Return on Investment**

For instance, measuring the revenue based on improved information in the call centre can be done as well as measuring the cost benefits of improvements in the process for a loan application or claim in the case of a bank. Whiles figuring a direct Return on Investment (ROI) can be a complex task, it is not impossible to see the impacts of the upgraded process efficiency on the businesses (Shang and Seddon, 2002).

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Description</th>
<th>Sources</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Change of Organizational Culture</td>
<td>Streamlined Management Structures and Centralized Control</td>
</tr>
<tr>
<td>2</td>
<td>User Satisfaction</td>
<td>Increased employee morale and services provided by employees</td>
</tr>
<tr>
<td>3</td>
<td>Improved Efficiency</td>
<td>Improved business efficiency, Ability to reuse previously created data.</td>
</tr>
<tr>
<td>6</td>
<td>Risk Mitigation</td>
<td>Implementing the appropriate risk reducing measures</td>
</tr>
<tr>
<td>7</td>
<td>Compliance</td>
<td>Adherence to rules and regulations</td>
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<tr>
<td>8</td>
<td>Cost Leadership</td>
<td>Competitive Advantage</td>
</tr>
<tr>
<td>9</td>
<td>Collaboration</td>
<td>Improved knowledge creation and sharing</td>
</tr>
</tbody>
</table>
### 3.2 Benefit Framework

Different constituencies have differing perspectives on what nature of benefits that can be derived from any IS project. From the point of view of success measurement, it is important to understand what both the users and IS professionals expect from the project so that success can be measured relative to their expectations. Also no single theory or measuring instrument should (or can) be expected to capture all aspects and dimensions of IS benefits in every circumstance. Rather, “researchers interested in acquiring a complete understanding of IS effectiveness benefits in a given context need to make use of multiple tools that collectively address both user and IS professionals’ perspectives, focus on individual, system, as well as organizational levels of effectiveness, and use different frameworks as underlying theoretical bases” (Mirani and Lederer, 1998, p.806).

Grahmann et al. (2009) designed a framework that is the combination of three previous frameworks from IS research; Bouwman et al (2005), Smithson and Hirschheim (1998), and Shang and Seddon (2002). These three frameworks were combined to form a new enhanced framework that resolved the individual failings of each framework. The enhanced framework by Grahmann et al (2009) will be used by the authors of this paper or research.

Below is a brief description of the three frameworks and the enhanced framework:

#### Smithson and Hirschheim

This framework defines five distinct levels of Information System evaluation namely; the *macro, sector, firm, application and the stakeholder’s levels.*
Figure 2: Levels of IS evaluation in the organization  
Source: Authors’ illustration according to Smithson and Hirschheim (1998)

According to Smithson and Hirschheim, the impact of IS on the macro level is based on the national productivity of a country. At the organizational level where the impact affects four sub-categories; economic (e.g. “costs, output”), organizational (e.g. “changes in organizational structure or procedures”), social (e.g. “quality of working life, organizational culture”), and management (e.g. “information access and decision making”) (Smithson and Hirschheim (1998), p.161.).

Shang and Seddon Framework

There have been precedents in the past in information systems to attempt to classify or categorise benefits that can be derived (Shang and Seddon 2002, p.277). Such benefit framework attempts as noted by Shang and Seddon (2002) revolve around Anthony Robert (1965) trinity of operational, managerial, and strategic levels of management. Shang and Seddon (2002) used the three dimensions Anthony Robert (1965) as the foundation for the framework they proposed. In addition to these three dimensions, after undertaking an extensive literature study, they presented a framework for classifying IT and IS benefits that includes two additional dimensions (IT infrastructure and Organizational). Based on their research, they defined the five dimensions as:

- Operational benefits (dimension 1): “day-to-day activities that involve acquiring and consuming resources. The activities are usually repeated periodically, such as daily, weekly and monthly” (Shang and Seddon, 2002, p.278).
- Managerial benefits (dimension 2): “Business management activities involve allocation and control of the firm’s resources, monitoring of operations and supporting of business strategic decisions” (Shang and Seddon, 2002, p.278).
Strategic benefits (dimension 3). “Strategic activities involve long-range planning regarding high-level decisions, such as business merging and acquisition, marketing competition, product planning, customer retention and capital sourcing” (Shang and Seddon, 2002, p.278).

IT infrastructure benefits (dimension 4). “Consists of sharable and reusable IT resources that provide a foundation for present and future business applications” (Shang and Seddon, 2002, p.279).

Organizational benefits (dimension 5), “arise when the use of an ES benefits an organization in terms of focus, cohesion, learning and execution of its chosen strategies” (Shang and Seddon, 2002, p.279).

Table 2: Shang and Seddon benefit framework

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>SUBDIMENSIONS</th>
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<tbody>
<tr>
<td>Operational</td>
<td>1.1 Cost Reduction</td>
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<td></td>
<td>1.2 Cycle time reduction</td>
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<td></td>
<td>1.3 Productivity improvement</td>
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<td></td>
<td>1.4 Quality improvement</td>
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<td></td>
<td>1.5 Customer service improvement</td>
</tr>
<tr>
<td>Managerial</td>
<td>2.1 Better resource management</td>
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<tr>
<td></td>
<td>2.2 Improved decision making and planning</td>
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<td></td>
<td>2.3 Performance improvement</td>
</tr>
<tr>
<td>Strategic</td>
<td>3.1 Support for business growth</td>
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<td></td>
<td>3.2 Support for business alliance</td>
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<td>5.4 Building common vision</td>
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Source: Authors’ illustration according to Shang and Seddon (2002, p.277).

Bouwman, Hooff, Wijngaert, and Dijk

Bouwman et al. (2005) developed a different classification of benefits that gives a slightly differing perspective on how the outcomes or benefits from the implementation of information systems should be classified. Split into three major categories or classifications. The categories are the individual, organization (sub-category processes and structures). The final category is the Environment and this consists of the sub categories of inter-organizational relations and context.
According to Bouwman et al. (2005) the connections in the diagram above show the relationships amongst the various dimensions of the organization but Grahlmann et al. (2009) are of the view that the framework has a shortcoming regarding the mutual exclusiveness of the categories or dimensions.

**Grahlmann et al.**

Grahlmann et al., (2009) designed a framework that encompasses all the positive aspects of the three frameworks of Bouwman et al. (2005) (used by Grahlmann et al. as a basis for the model); Smithson and Hirschheim (1998); and Shang and Seddon (2002) The framework will be able to determine potential relations among different benefits and also give clear insight into the nature of the impacts. The new enhanced benefit or impact framework consists of three sub-categories; employees, organization and environments which is shown below

**Figure 3: Effects of ICT in organizations**

*Source: Grahlmann et al., 2009, p.13*

**Figure 4: Enhanced Benefit Framework.**

*Source: Grahlmann et al (2009, p.15)*
The authors of this research intend to use this enhanced framework as the basis for the empirical studies because the dimensions and sub-dimensions provide an appropriate basis for the consideration of ECMS benefits in all aspects of the organization. In subsequent pages of this research, this framework will be applied to the potential benefits to see which aspects of the organization is affected most by the benefits of ECMS usage.

3.3 ECMS Architecture

The diagram below shows the functionality of the ECMS in managing content within an organization.

![Architectural Framework of ECMS](image)

*Figure 5: Architectural Framework of ECMS*

*(Source: Authors illustration according to Mckeen and Smith (2002))*
Capture: The enterprise content consists not only of text data, but also audio and video files, and other digital assets. Content can be paper-based or electronic, and where electronic, it can be created by different applications using different standards. The content can also be generated at numerous points across the enterprise. ECMS uses various tools and technologies to capture the varied content and send it to a uniformly structured common repository such as a data warehouse. Paper documents are scanned and converted into digital format. (Smith and McKeen, 2003).

Smith and McKeen (2003) outlined five content capture characteristics as shown below:

1. Ad hoc: This is content collected with no consideration of sharing, reuse or decision-making.
2. Considered content refers to a situation where a thought is given to what content should be collected and how to collect it and is often for internal sharing and reuse.
3. Planned content refers to content that is effectively and efficiently executed with opportunities of sharing and reuse identified internally and externally to avoid duplication of capture.
4. Formal content involves the use of organizational principles, policies and standards for capture that optimizes and reuse and as well reduce duplication and often these principles are familiarized throughout the organization.
5. Pervasive content simply engulfs principles, policies and standards for capture which are embedded in the organization’s thinking inviting ideas from stakeholders as well.

Manage: The manage component encompasses the combination of all the functionalities to ensure that the content becomes useful for business processes. Unless proper policies and procedures are planned in advance and implemented on the ground, even under an ECMS environment different departments can continue to create non-uniform structures (AIIM, 2008). It is the uniform structures and relevant metadata that make all content accessible when queried in different ways. Improving accessibility and presenting information in ways that facilitate action are key objectives of the manage function, (Smith and McKeen, 2003).

Storage and Preservation: Content needs to be stored in a way that allows it to be queried by authorized person’s whipst at the same time, unauthorized persons are not allowed to see it. This is typically achieved by implementing a scheme of access rights and permissions (AIIM, 2008). Content in many different formats need to be accommodated by ECMS. Text documents, spreadsheets, presentations, drawings and other images, and video and audio files are examples. Different applications might use different standards to create the content. All these need to be made findable and retrievable, using a standard interface. There is also the need for policies and practices, supported by appropriate
technologies, to ensure safety (and recoverability in case of loss through some disaster) and security of the content. (Smith and McKeen, 2003)

**Deliver:** ECMS allows content to be accessible to users in various forms related to organizational processes. Accessibility can be through internet or intranet, portals, emails and or mobile devices that makes content easily accessed and utilized to fit organizational business process needs. Finally, policies and procedures must be in place to identify and remove content to archival storage or from the system itself. (AIIM, 2008).

### 3.4 Organizational Motive for ECMS

According to AIIM (2008) ERP deals with structured data by functional applications while ECMS accepts both structured and unstructured data repository that has a uniform structure.

“Among the concepts of ECMS is that the multi-vendor corporate system is a reality and for that matter, ECMS offers more expansive and pragmatic approach to application integration”. ERP expects companies to thoroughly integrate outward-facing applications, such as Customer Relationship Management (CRM) and Supply Chain Management (SCM), into back-office ERP systems; however, ECMS promotes an integration architecture that provides a layer abstraction between individual ERP modules and business to business applications. (Meyers, 2001). Rather than aspiring to complete integration, ECMS vision embraces private trading exchanges as a way for companies to integrate with customers and suppliers while reducing costs and complexity. ERP and ECMS assume that the individual enterprises will still form the core of e-businesses.

Business Process Management (BPM) has been defined by AIIM (2008) as the identification; development, improvement, and management of processes as a means to effectively accomplish organizational change and implement organizational strategies. As stated by AIIM (2008), BPM has quite a number of things in common with ECMS which includes the following:

- Both focus on the management of information
- ECM focuses on the structure and lifecycle of the content itself
- BPM focuses on the underlying business processes that interact with that content
- All ECM projects require BPM practices and sometimes BPM technologies
- Some BPM projects require ECM technologies and most require ECM practices
While they have similar operational features, the major differences are that ECMS principally deals with both structured and unstructured data while BPM deals with structured but also in rear occasions unstructured content and facilitate business processes. ECMS ability to deal with both structured and structured data such as weblogs, word documents, emails, customer surveys and feedback, field service notes and more, enables organizations to tap into unstructured information via text analytics and also enables the transformation of unstructured data into relational data and to open information silos through enterprise search technology thus enabling the accessibility of everything that is pertinent to the business issue at hand.

Under ECM systems, users can extract business knowledge by querying the content repository. All kinds of queries are facilitated through the use of metadata attached to the documents that constitute the repository's content. Furthermore, ECMS is not a single technology and generally gets implemented as a group of aligned technologies. (AIIM, 2008).

According to Brocke et al (2010), ECMS drivers can be identified with four main categories of objectives which includes the following:

- **Efficiency**: The cost and time savings in managing content which is as a result of the reduced searching times by using well defined metadata or material and storage cost by digitizing paper documents. Smith and McKeen (2003, p.647-659) argued that increased efficiency can certainly be considered a core driver and concludes that the only reason to do ECMS is to improve outcomes.

- **Availability**: Availability is crucial precondition for ECMS as it reflects on the need to create and store content in a way that enables its users to retrieve it later on. In relevance, organizations spend “a lot of time, money, and resources essentially creating, recreating and re-creating the same content”. Moreover, availability is crucial as a result of the growing need for organizations to strictly meet external regulations and standards. (Brocke et al (2010).

- **Traceability**: Traceability refers to the ECMS solutions offering organizations a way to control every aspect of the lifecycle of information by creating, routing, managing, accessing and archiving of information. Traceability is believed to enable an effective “organizational memory”, (Munkvold et al, 2006, p. 69-100).

- **Consistency of organizational content** can be perceived as a result of unifying content across an organization. As indicated, many authors emphasize that a systemic and automatic approach to
content reuse plays an important role here, (Rockley and Kostur, 2003). Clark agrees that a well-designed ECMS could produce outputs that are no less rhetorically effective than individually crafted documents, and at the same time could provide cost and time savings, (Clark, 2008, p.35-60).

3.5 ECMS Risks

While ECMS have several advantages such as workflow management, increased availability of documents, good return on investment and increased productivity; it also brings new threats to the organization and its documents. If the ECMS should function well, these threats should be well managed. (Peterman, 2009). Some ECMS risks include:

Migration

According to (Peterman, 2009), content Migration from old, sterile formats into more useful ones can be daunting. Particularly in a mature organization which could have years of content that needs converting. Migration for content from an unmanaged, unstructured environment is not to be taken lightly and the question can be how does one bring all of that information into an ECMS environment under the new classification scheme using common taxonomies?

The Import functions of different Content Management Systems vary greatly, and if there is a lot of archive material which needs to be converted to, say, an XML-based format, migration capabilities will be of huge importance to users (O'Sullivan, 2010).

The People and Organizational Culture Factor

People don't like change and in an organizational setting where employees are comfortable using a particular system, ECMS will change the way work is conducted and the question is how well can the issue be address during implementation? Internal processes will change or need to be changed due to the way the organization will now store, manage and access information (Trotter, 2007).

Identifying process and people, providing training and support are all essential to the successful implementation of an ECMS environment. If an organization is trying to limit the amount of storage allocated to each employee, it might limit the amount of space available to them at levels where they will have no choice but to utilize the ECM environment for their business materials. (AIIM, 2008).
Fear of Obsolescence

This involves hostility emanating from persons in the organization who feel like the new system is taking over parts of their old job. (Trotter, 2007).

Document Ownership

Content creation when an ECMS is introduced becomes a team sport. Employees who are used to working on a document from beginning to end may be irked by this. If a content owner thinks that another person in the next cubicle writes terrible technical documentation, there may be friction. (O'Sullivan, 2010).

The IT Department

Organizational IT personnel might be hostile to the idea of having to configure and maintain a new enterprise-wide ECMS. This means more commitment is required to install on the organizations servers. Trotter (2007) advises that including IT in the procurement stage, allowing them to assess for themselves how much extra work various new systems are going to mean for them can pay off.

Insufficient training

Superior ECMS technology won't perform well unless you provide adequate training. The opportunities for efficiency for ECMS could be lost when employees aren’t aware of the potential. “Yet with the prospect of cutting costs, improving service, and competing more effectively in the marketplace, why would an organization sacrifice 95% – or even 25% – of ECMS capabilities by investing too little in training”? (Trotter, 2007). ECMS implementations can be reactive in nature meaning there is a driving force moving project to happen now, without delay.

Workers change companies and positions frequently, so ECMS training must be an ongoing expense. As employees watch their productivity increase and experience success, they'll take greater ownership in improving company outcome. (O'Sullivan, 2010). The organization must also bear in mind that training should begin as early as possible regarding policies and procedures to prepare the workplace for the new changes and also that many times an application is taught well ahead of the actual rollout causing a lot of angst for the helpdesk and users. Depending upon the scope and complexity of your project, one may want to consider just in time training for the application while policy and procedure can take place in advance. (Peterman, 2009).
3.6 ECMS Cost-Benefit Analysis
According to Thomas Hogin, the adoption of ECMS is being driven by two fundamental business catalysts: “How to render more value in terms of greater revenues or stronger loyalty and the need to understand how information flows within the enterprise because of information requirements” (Doug 2007, p.24).

Prest and Turvey(1965) as cited in Bootman et al. (1979,p.131) define “Cost-benefit analysis is a practical way of assessing the desirability of a project, where it is important to take a long view (in the sense of looking at repercussions in the future, as well as the near future) and a wide view (in the sense of allowing for side effects of any kind as many persons, industries, etc.), i.e., it implies enumeration and the evaluation of all the relevant costs and benefits. An outline by Prest and Turvey (1965) to undertake an effective cost-benefit analysis of any IS implementation such as ECMS:

1. Define the project with its current benefits and costs, and to whom these benefits and costs accrue
2. Express the benefits and costs in monetary terms, and
3. Compare the benefit streams with the costs to determine the feasibility of the proposed project.

“The analysis consists of identifying all the benefits that will accrue from the program of interest and converting them into the equivalent money value in the year in which they will occur. This stream of benefit dollars is then discounted to its corresponding present value at the selected interest rate. In like manner all costs of the program are identified and allocated to a specific year and, again, the costs are discounted to their present value at the same interest rate. Then, other things being equal, the program with the largest present value of benefits less cost is the best in terms of economic value (Bootman et al., 1979,p.132).

Doug (2007) is of the view that to be able to evaluate the benefits in terms of cost of any IS project; the focus should be the return on investment (ROI). In determining this all cost factors (key corporate data, employee cost, process time statistics, file space savings, copy cost savings, supply savings, microfilm or other repository savings, communication costs, office relocation costs, equipment savings, increased revenue projections, project costs) should be included in any comparison.
4 CONCEPTUAL FRAMEWORK

The conceptual framework as highlighted by the illustration in Figure 6 below shows the relationship between the benefits that organizations derive from the utilization of the Enterprise Content Management System as a strategy and other concepts as explained in the critical literature review.

Before any organization implements or adopts the ECMS, there must be a rationale or motive behind that decision and in the implementation phase, there are risks or obstacles that are faced before and after implementation or adoption of the ECMS. The post-implementation of the ECMS which is shown as stage 2 in Figure 6 below, shows what benefits that can be derived from its usage in the organization. Lastly these benefits are linked to a framework which is developed to show which dimension of the organization is affected most by the benefits from ECMS. The stated concepts are mutually dependent on one another. Figure 6 below shows the conceptual framework summarizing the various concepts that forms that literature review.

![Figure 6: Conceptual Framework.](image-url)
5  RESEARCH METHODOLOGY

The research method will basically illustrate what strategy will be used throughout this work. It thus describe the focal point of industry used, the aim of the research, the research strategy and method used for collecting data, test the validity and reliability of the method used and finally to demonstrate how facts are presented to give the reader a clear understanding of this research.

In social science, Yin (1989, p.13) explains that numerous research strategies are at the disposal of the researcher in any research work and thus can select between using case study, an experiment, a survey, a history, or archival information. Yin (1998, p.16-17) further argues that any research strategy in the field of social science is subjected to three important phases consisting of the kind of research questions and the manner they are posed, the control and composure exhausted by the person investigating the behavioural occurrence in question. The spotlight on the contemporary can also be seen as opposed to the historical phenomena (Awuah, 1994, p. 6). This research uses both secondary and primary data which coincides with the view discussed earlier on.

5.1 Research Method

The authors of this research will use an exploratory method. According to Fisher (2007, p.166), this includes interviews, observation, documents and other forms to give an insight into the situation on the ground.

Yin (1994), explains that research work involves defining and designing stages where theories are studied, cases selected and methods on how to conduct the cases are studied. Fisher (2007) explained in his book “Researching and writing a dissertation” that in an attempt to discover new things qualitative and quantitative approaches are used. This research will follow the qualitative research method where published literature about ECMS and its related benefits are studied to find out if they applicable in organizations utilizing ECMS. The method of this research could thus be illustrated diagrammatically as shown below.
Figure 7: Research Method
Source: The Authors’ illustration
5.2 Case Study Research Design
According to Yin (1998), a case study could be explained as a systematic investigation leading to the advancement of knowledge, practice and understanding. This takes various forms and often depends on the research problem. To carry out this study, the authors used a case study approach. A major advantage of a case study is that detailed information through surveys, interviews, document review, and observation to provide a clearer picture of the story to be told.
According to Yin (2003), there are four types of designs for case studies namely: the single-case (holistic) designs (Type 1), Single-case (embedded) designs (Type 2), Multiple-case (holistic) design (Type 3), and Multiple-case (embedded) designs (Type 4).
The authors have used the Multiple-case (holistic) study, Type 3, approach because the respondents from the interviews are of one unit of analysis i.e. they are all IT experts but working in different organizations. Using these multiple sources results in the triangulation or convergence of findings from these sources thus resulting in the validity of the research.
The benefits from the ECMS to be observed will be drawn from different companies, thus the need for the multiple cases and the avoidance of any pitfalls from undertaking a single case study approach.

5.3 Selection of Companies
The idea behind this research was motivated by the importance of IT in everyday business practices which the authors believe can create opportunity for growth for businesses in developing countries if ECMS is utilized effectively. Being students with African origins, we are aware of some of the setback of the use of IT in Africa and want to study the extent to which IT and specifically how ECMS can be applied in everyday business practices to generate benefits.
To carry out this study the Authors contacted different types of organizations ranging from financial, manufacturing, telecommunication, consumer goods and service providers. The intention is to make contact with as many organizations as possible. The following three companies (First Bank of Nigeria Plc, Unilever Nig., and Globalcom) with working Knowledge of ECMS have been selected as the major sources of information for this study.
Also selected are 40 other companies chosen randomly (with or without working knowledge of ECMS) from the registers of the CAC of Nigeria.
However, Nigeria like several other developing countries is an “information-poor” country with IT at its infancy (Aniebonam 2002). Ideally, our research should be carried out nationwide to paint an even bigger picture of the situation but this is impossible due to lack of time and resources. Consequently, we have to rely on readily available information and on empirical data collected through questionnaire and
interviews from the selected companies. The authors nevertheless hope that the picture drawn in this research will be balanced and reasonably accurate on.

5.4 Data Collection

Data collection according to Verkevisser et al. (2003, p.380) allows the researcher to systematically gather information on a subject under study such as people, objects and phenomena and the particular settings which the events occur. Our study is basically a qualitative scientific research that seeks to investigate a situation with the aim of

- deriving answers
- Systematic use of predefined set of procedure to answer the question
- Collect evidence
- Produce findings that have not been determined in advance and lastly to ensure that findings are applicable beyond the immediate boundaries of this study.

This study is based on the extensive use of both primary and secondary data to get to the bottom of the issue. Secondary data as explained by Saunders et al. (2007, p.322) is collected when a meticulous reason is under study and is normally published for which new researchers can rely on as a source of information. Secondary data for this research includes indirect information’s sourced from books, articles, reports and governmental site about Nigeria, its business practices and IT and online information’s on the selected companies to gain diverse and in depth knowledge of how ECMS affects business operations in Nigeria.

5.4.1 Primary data collection techniques

The authors of the research believe the primary information that will be provided from our opinion could be deemed valid and trustworthy because the careful selection of positions of individuals involved in the primary data collection and on the grounds that some of them are key decision makers within these organizations.

**Primary data:** There are various approaches to collecting primary data as explained by Verkevisser et al (2003, p.380) and this includes

a. Observation
b. Interviewing (face-to-face)
c. Administering written questionnaires
d. Structured questionnaires
e. Project techniques, mapping and scaling

The combination of these techniques can create a healthy research results however this will demand more
time which we do not have on our side. The strategy for collecting primary data for this research will
include a structured questionnaire for respondents and conducting interview to have a broad range of
information from different study groups within these selected organizations. Since this is to be a case
study, we believe that this approach will produce a trustworthy research and valid for the reader. The
questionnaires will basically be structured based on the situation or factors germane to the concept of
ECMS, as sourced from the literatures in the field of IT.

**Questionnaire:** A questionnaire is considered a research instrument consisting of a series of questions
and other prompts for the purpose of obtaining information from respondents for scholarly purposes,
(Bachrack and Scoble, 1967, p.265-271). This is argued to be one of the convenient ways of gathering
information from a target population. The authors of this research decided to use questionnaire as part of
our primary data collection method because we believe it to be one of the easiest ways to analyze a
situation at hand and is less cost effective compared to face-to-face interviews mostly due to cost
associated with travel time especially involving a large sample size. The structured questionnaire will
cover the interested areas that can provide enough information to fulfil our purpose. The questions used
will cover issues such finding out if ECMS is used within the chosen organizations and how they affect
organizational activities in a beneficial manner. In this study, questionnaires have been sent to 21
Nigerian companies irrespective of their knowledge of ECMS so one can ascertain the spread of ECMS
usage in Nigeria.

**Interview**

An interview is an interchange between persons conversing about a theme of mutual interest (Steiner K,
1996). Three interviews have been conducted by one of the authors of this study in Nigeria. The interview
was an attempt to get first hand information from respondents on what is transpiring within these
organizations as far as ECMS is concerned in these Nigerian companies.

**5.4.2 Secondary data search**

In an effort to fulfil our task for this research, we will extensively search for secondary materials relevant
to our subject area bearing in mind the need for quality but not quantity information. Text books,
electronically stored materials, journals and articles relevant to subject area, recommended search
engines, and web pages for the selected organizations will all be utilized.
The use of relevant secondary data forming part of one’s data collection method has advantages which Saunders et al. (2003, p. 201-202) explained as saving the burden of cost and time especially where these resources are limited. Furthermore, it offers the researcher ample time serving as a baseline or platform for the collected primary material authenticated.

5.4.3 Reliability and Validity testing

Reliability is the consistency of one’s judgement, or the degree to which something measures the same way each time it is used under the same condition with the same subjects, (Saunders et al, 2003, pp 224-228). It should be applicable in any circumstances by other researchers following the same procedures, criteria of correctness and dimension. Validity on the other hand tests the strength of conclusions, inferences or propositions. To arrive at a healthy conclusion, appropriate information, both primary and secondary will be sought from reliable sources in Nigeria with the aid of questionnaires and interviews.

Internal validity

To establish a link between a situation and another, internal validity must be tested as explained by Yin (2003, p.34). The researchers in an attempt to establish a clear picture resorted to accredited scientific sources to brainstorm on the appropriate theories that can apply to our topic and also believe that the methods used in collecting and analyzing primary data are thorough and genuine for this research. The references to all sources of this research shows the strength of its internal validity given the chosen strategies such as telephone interview, emails and questionnaire we believe is a true guide to create coherency, consistency and accuracy.

The questionnaires and interviews will be generated based on our interested area which is the application of ECMS in these Nigerian firms and on guidelines of respective respondents to create a synergy between theory, empirical information and finally arriving at a conclusion. The respondents will include high profile personnel’s within the selected organizations who have in depth knowledge of what their respective organizations are doing as far as ECMS is concerned therefore we believe the information’s provided are trustworthy.

External validity

Yin (2003, p. 34) explain that to test the external validity of a research in order to establish the generalization of a study, certain cause-effect relationships based on specific scientific studies from unique settings, procedures and participants must be considered. Nigeria as a nation is big with diverse population structure, business practices and cultures and even beyond and therefore the generalization or
conclusions drawn from our research on the selected organizations for this study can be used as a yardstick to measure how ECMS is applied on a broader spectrum especially in developing countries.

5.4.4 Method Critique

According to Bryman, (2004, p.284), a method critique is a critical, careful and thorough examination of any scientific writing. As part of this research, the author’s random perception of what is significant and relevant based on judgement of the selected characters such as the organizations and respondents and other factors considered in this study will be scrutinized to ensure that a healthy picture of ECMS is portrayed.
6  EMPIRICAL DATA

The purpose of this chapter is to present the information obtained from the interview and the Survey. Questionnaires and Interview Protocol are presented in Appendix 1 and 2 respectively.

6.1 Findings from the Interviews

6.1.1 Case - Unilever Nigeria PLC

Respondent: Idoreyin Obot

Brief Company Background

Unilever is one of the largest consumer goods companies in Nigeria with over 944 employees and 65 key distributors nationwide reaching over 20 million customers with their corporate social responsibility (CSR) program and a turnover of 44 billion naira in 2009.

The respondent has been working as a senior IT specialist since 2004 charged with ensuring that the organization gets the right information at the right time using the best available and cost effective technology.

6.1.1.1 Motive for ECMS adoption in Unilever

According to the respondent the rationale for implementing ECMS was borne out of the fact that it is a requirement that every consumer goods company has to adhere to the stringent policies set forth by the National Agency for Food and Drug Administration and Control (NAFDAC) in line with tougher standards for accounting practices, it was imperative that as a company, must employ a system that can capture, classify and manage huge volumes of electronic data and documents in ways that ensure compliance to all regulatory requirements and instill organizational trust amongst their shareholders and customers. As part of an international network, it was imperative that the organization can be able to search and retrieve information without the complexities of the two databases and the multiple physical and electronic files that were present in the company. Lastly, concerns were being raised in respect to the cost of maintaining the continued storage of physically files. The System in place was also prone to human error as data was been moved from database to another. Respondent added that basically there was a consensus amongst the management team to create a central information repository accessible to all users one that enabled greater control of documents and allowed users to collaborate better without duplicating files. In addition, Mrs. Obot identified the need for greater control that would enable users to label sensitive information; improve search and information retrieval abilities; and introduce new processes for staff and stakeholders to share information.
6.1.1.2 ECMS Benefits for the organization

According to the respondent, the major benefits that the firm has from the implementation of ECMS are the reduction in the **costs of transacting business** and the total **time spent** in conducting or doing business within the organization. Furthermore, the respondent was of the view that there are other benefits from the usage of ECMS which includes:

**Change effects on Culture and Operations**

According to Mrs. Obot, a positive change in organizational culture and operations can be beneficial to an organization. In her own words “we were able to streamline and have a central information database for the various departments or units of the organization and it became possible for the various distributing centres in the country to input and access any data or information that was needed at the click of the mouse. Respondent also added that in the beginning there were acceptance barriers due to the change that was to occur but through training and continuous reinforcement, employees have come to accept the change and added that they are like a shared community.

**Effective and efficient Content Management**

Respondent mentioned that the responsibility of managing this system lies with their ECMS providers, however the responsibility of the what, the how, the why and the when content is provided is the sole responsibility of Unilever. She claims that in Unilever, they have an IT department that is responsible for all IT issues. Content is provided and regularly updated by the IT department based on a standard set by the company regulations. Respondent said that employees have a large role to play in how content is working to meet the dynamic organizational needs and believes there is a symbiotic relationship between the interaction of Unilever personnel with the content and in the process, new ideas could be generated that could impact the organization. From her experience, ECMS does lead to the reduction in content duplication, creation of content backups and the retention of content. She acknowledged that a single database reduces the tendency to have the same information being imputed into the database at the same or different time.

**ECMS Acceptability and Knowledge creation**

According to respondent installation of the ECMS system was contracted to a reputable and well respected organization versed in the concepts of the ECMS. After its implementation, the system was managed for a year by this company and during that time, IT personnel were trained on the proper usage of this system. At the initiation of the ECMS, personnel were reluctant to accept the system because there was this feeling that this was going to be another IT project that will not be successful like previous
systems that had implemented but the reverse has been the case of the ECMS. She added that with time, the system has been accepted by management and personnel alike for its ease of use.

**Risk Mitigation**

Respondent claims that ECMS implementation has enabled all relevant information or data to be stored in secured databases or servers thus preventing leaks and making it possible for to monitor what happens within the intranet and extranet of the organization. Also it has become possible to know what belongs to the organization helping to prevent copyright infringement from happening.

**Compliance**

Unilever believes that ECMS facilitates compliance measures and is operating in a fairly good manner. Since Unilever Nigeria embraced the use of the ECMS as a single solution to its myriad of problems in relation to how information is utilized and disseminated, the organization has a highly valued experience. ECMS has enabled Unilever become fully compliant with the laid out rules and regulations of NAFDAC. Also the desire to become a company with a reliable information database has been achieved with aid of the ECMS solution provided.

**Cost Reduction**

Respondent explain that cost reduction was a major factor in deciding to adopt ECMS though it is difficult to measure. Respondent mentioned that persistent increase in the cost of maintaining two separate systems, multiple databases, physical location where physical documents and files were kept was a major concern. The introduction of ECMS has led to cost savings and return on investment. The interviewee estimated that before the adoption of ECMS, an average of 95million naira was been lost through unproductive business practices but in 2010, there has been a 75 percent drop in overall costs.

**Competitive Advantage**

The opinion from the respondent shows that Unilever has been able to launch new and quality products which from many indications shows is very competitive in comparison to competitor products, and this is paying off because of the continued expansion of operations throughout the country.

**Collaboration /New Value products or services**

Before the implementation of ECMS in respondent mentioned that the content architecture consisted of a plethora of Lotus Notes and Access databases. This led to a situation in which most company information were stored in boxes or files and in turn stored in the Access database and then financial transactions were recorded in spreadsheets. With the implementation of ECMS, the company now has in place an electronic
solution that can track the physical files and boxes, products from the factories and warehouses. Also we now have a hosted solution that has managed to integrate data from the various units or departments within the organization. The company has also set up a CSR program or initiative that reaches its numerous customers and also tracks real time transactions between its distributors and customers. With the ECMS system in place, information gotten from this initiative is stored and easily retrievable by any unit of the organization for future purposes. She also said Unilever have well trained specialists that have the requisite training to handle the responsibilities that come with implementing. In Unilever, all IT personnel have undergone training programs in conjunction with the Vendor on how to manage the ECMS.

**Change in Work Organization**

The implementation of ECMS has made it possible for every unit and department to a change in the way the work place or operations is organized and this has led to enhanced team interaction with easy-to-use, quickly adopted virtual workspaces. Right now ECMS has enabled employees, numerous business partners, dealers and distributors to share knowledge gained from the production and sales of products more efficiently. Also the ability to form Ad-hoc teams from employees in different parts of the country has been made easier. Through the intranet and internet of our company, communities and discussion forums have been created to enhance employee participation in the pursuit to innovate new products and services. There is also a plan to allow room for wikis, blogs.

The use of ECMS has resulted in a leaner and fitter business, enhanced decision process and a restructuring program for more productive employees.

**Return on Investment**

There is an increase though this has not been formally measured. The contract for the installation of the ECMS to vendor cost about 35million Naira and looking at earlier estimate that 75 percent has been saved on cutting wastages in the organization through ECM adoption, it can be said that ECMS does lead to increase in the return on investment.

**Management Flexibility and Organizational Strategy**

The respondent said that management flexibility is ability to make decisions that affect the direction that the company should take and emphasised ECMS adoption has resulted in management decision to pursue the expansion of the company in every part of the country. Respondent claims ECMS has helped to inform people about the benefits of their products, while allowing them to engage in issues they care about. She concluded that Unilever is also aware that people everywhere are able to access online
material, using their internet marketing guidelines which ensure that campaigns targeted at a particular market are sensitive to cultural differences.

6.1.1.3 ECMS Benefit Framework

According to the respondent, the benefits from ECMS implementation does affect every aspect of the organization but from experience, the opinion is that employees, operations and the IT infrastructure of the organization are the ones that are mostly affected.

6.1.1.4 ECMS Cost-Benefit Analysis

Respondent mentioned that the organization has benefited immensely from the adoption and subsequent implementation of ECMS and her earlier statement clearly shows that the implementation ECMS has benefited the company immensely in the remarkable changes it has produced. Implementation of the ECMS as a strategy despite the risks associated was and is still a good idea that the management of this company undertook.
### Table 3: Summary of findings from Case – Unilever Nigeria

<table>
<thead>
<tr>
<th>Introductory Questions</th>
<th>Motive</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Type of business</td>
<td>• Adhere to compliance standards of capturing, classifying and managing data and documents.</td>
</tr>
<tr>
<td>• Name of Company</td>
<td>• Centralized system for diverse business units to share content.</td>
</tr>
<tr>
<td></td>
<td>• Reduced cost incurred from storage of physical files and reduce error</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECM Benefits for the Organization</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Change effects on Culture and operations</td>
<td>Streamlined and centralized information database for various departments.</td>
</tr>
<tr>
<td>• Effective and Efficient Content Management</td>
<td>Easy access to data for distribution centers.</td>
</tr>
<tr>
<td>• ECMS Acceptability and Knowledge Creation</td>
<td>A change in working codes.</td>
</tr>
<tr>
<td>• Risk Mitigation</td>
<td>Updated and readily available content for Unilever employees.</td>
</tr>
<tr>
<td>• Compliance</td>
<td>Effective IT unit, Employees plays significant role in content management.</td>
</tr>
<tr>
<td>• Cost Reduction</td>
<td>new ideas generated, reduction of content duplication.</td>
</tr>
<tr>
<td>• Competitive Advantage</td>
<td>Creation of backups and retention.</td>
</tr>
<tr>
<td>• Collaboration/New Products or Services</td>
<td>Trained personnel for proper ECMS usage</td>
</tr>
</tbody>
</table>

- Secured data storage, avoiding information leakage.  
- Possibilities to monitor intranet and extranet of organization.  
- Reduce copyright infringement  
- ECMS facilitates compliance measures in accordance with NAFDAC.  
- Reliable database.  
- Cost savings and return on investment  
- Launching of new quality and more competitive products  
- Electronic solution to track physical files and boxes from factories and warehouses  
- Hosted solution to integrate data from various units  
- Track real time transactions between distributors and customers  
- easy storage and retrieval of information for various units,
<table>
<thead>
<tr>
<th></th>
<th>Change in Work Organization</th>
<th>Management Flexibility and Organizational Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enhanced team interaction with easy-to-use.</td>
<td>• Enhanced ability for decisions in pursuit of expansion.</td>
</tr>
<tr>
<td></td>
<td>Adopted quick virtual workspaces</td>
<td>1. Enhanced ability for decisions in pursuit of expansion.</td>
</tr>
<tr>
<td></td>
<td>Shared knowledge among stakeholders on issues such as sales and production</td>
<td>2. Reach out to targeted customers through online marketing guidelines</td>
</tr>
<tr>
<td></td>
<td>Created communities and discussion forums.</td>
<td>3. Easy access to information everywhere</td>
</tr>
<tr>
<td></td>
<td>Enhance employee participation in pursuit of innovative new products and services.</td>
<td>ile access to information everywhere</td>
</tr>
<tr>
<td></td>
<td>Easy to undertake restructuring programs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cut down waste and increase return on investment</td>
<td></td>
</tr>
<tr>
<td>ECMS Benefit Framework</td>
<td>Benefits impact mostly on employees, operations and IT infrastructure</td>
<td></td>
</tr>
<tr>
<td>ECMS Cost-Benefit Analysis</td>
<td>Overall assertion is that the benefit from using ECMS outweighs the costs</td>
<td></td>
</tr>
</tbody>
</table>

*Source: The Authors’ illustration*
6.1.2 Case – Globalcom Nigeria
Respondent: Jim Adodo

The respondent is the Senior Information Strategist at Globalcom Nigeria and has been with the organization since September, 2003. He and his team are responsible for the management of Globalcom information networks and security in accordance with established policies and guidelines.

Brief Company Background

It has a reputation as the fastest growing network in West Africa and aims to be the biggest network in Africa. Launched in Nigeria in 2003, the company has a desire to become the market leading service provider in Nigeria and also aspires to build Africa’s biggest and best telecommunications network. The company currently has about 5000 employees and over 25 million subscribers. It has an extensive network that covers other African countries like the Republic of Benin, Ghana and the Ivory Coast and Senegal.

6.1.2.1 Motive for ECMS adoption in Globalcom

The respondent from Globalcom mentioned that ECMS was adopted because as a company that is rapidly expanding into other Africa countries with business groups that are operating autonomously, there was also the need to communicate and share critical information across functional and departmental lines as well as the need to be able to distribute information quickly and to provide easy access for workgroup members around Nigeria. Information sources, databases, and local area network file servers, distributed throughout the company needed to be integrated and made available on a broader spectrum. The respondent said that faced with the challenge of achieving their vision, adopting ECMS is realization of the challenges faced by the organization when it comes to storage, retrieval and the clearance of various files and records and that ECMS was a step in the right direction to offer users the quality needed. Prior to Globalcom adoption of ECMS, the organization in addition to various data storing systems had large amount of sheets of paper containing various files, boxed and stored in rooms at its head quarters. He added that this resulted in costs and time demanded to record, warehouse, retrieve and refilling of its employee customer data or records.
6.1.2.2 ECMS Benefits for Globalcom

From the respondents view, the benefits from implementing ECMS are outlined below:

Change effects on Culture and Operations

The respondent mentioned that during the initial stages of adopting ECMS, there were employee acceptance obstacles such as lack the knowledge to use the ECMS and that created bottlenecks in daily operations and also accumulated cost. He was also of the view that employees were hesitant in adopting the new system because they had to depart from the old ways of working and become familiarized with the new system. In an attempt to change this mentality, departmental heads with the help of the IT department had to campaign to the users about the advantages of the system. He believes ECMS has to a certain degree created a unilateral organizational culture standard but added that one must also not rule out the complex working culture in different branches which can be a major barrier when adopting a new system.

Effective and efficient Content Management

According to the respondent, efficiency can be measured in many ways and taking into consideration the large customer base as well as the large numerous employee data volume and content created on daily basis, the adoption of ECMS has indeed created a more faster and robust working environment. As to whether the ECMS software addresses content needs of the diverse organizational unit, he acknowledged that that the ECMS software has been deployed specifically to the Human Resource units throughout Globalcom Nigeria and has seen successful results. He also said that the feedback they have received so far has been very positive and hope other functions within Globalcom will use the software for their storage and archiving requirements. He continued by saying that under the old system, the data management team had to physically locate and retrieve individual records from the warehouse facility and return them to the organizations human resources units requesting them and this was expensive and assuming lots of time with significant annual expenditure. He said that formally part of employee data were stored in systems such as Oracle PeopleSoft application that posed a challenge.

ECMS Acceptability and Knowledge Creation

According to respondent, the organization is large and therefore various factors comes into play to improve how business is conducted, however, he mentioned that judging from the previous systems such as the Oracle PeopleSoft which had limitations and also the manual ways of managing content, he commented that the ECMS deployment has changed the way business is conducted. For instance ECMS
has changed the way users communicate and collaborate and added that for instance, document configuration management groups use workflow extensively for sophisticated document creation, review and approval processes. He also said that effectively managing employee data and business process has added value and satisfaction to the employee, customers and generally Globalcom. ECMS as mentioned by the respondent has alleviated the problem of capturing and uniting records electronically with privacy rules concerning data improved. He said that during the implementation of ECMS, the implementation team worked with the then available systems to create a unified platform to avoid duplication.

**Risk Mitigation**

He said that though there is not a stated policy on how information is distributed from various units internal to the organization. The nature of the ECMS means that all users can easily manage and access all documentation so that the Globalcom is now better able to comply with user regulations imposed by the Nigerian Communication Commission (NCC). He also acknowledged that there is no doubt that users can violate distribution privacy. He confirmed that ECMS has enforced transparency of Globalcom’s business processes but added that occasionally, there are reported cases of document loss.

**Compliance**

Globalcom Nigeria, according to our respondent has a large customer base with connections including telephone services, wireless communications, high-speed internet and voice over the internet protocol and many other services explained that among the main challenges was how to reduce the cost associated with complying with government regulations. Respondent said that prior to ECMS adoption, regulatory issues were hindered in critical terms due to the lengthy processes of gathering records mostly in paper format and otherwise scattered across Globalcom and its related businesses. He further explained that upon the deployment of ECMS, consumers are able to access information through select content published to Globalcom web sites as well as employees, who access the company’s information via the intranet. He said that regulatory affairs within the organization ensure that Globalcom employees across the country understand and implement the various regulatory requirements particularly for Globalcom records management users. He acknowledges though that regulations compliance standards might not be accurate since Globalcom customer base keeps increasing, he hopes that more rigorous measures will be taken to avoid not only IT setbacks but legal matters that may arise.
Cost Reduction

On the issue of potential cost reduction, the respondent mentioned that potential costs reductions may come from different strategies used and involves diverse organizational practices efficient and productive to an organization. He however, said that it’s no doubt that the deployed ECMS have contributed to potential costs savings such as operational cost and saved time savings.

Competitive Advantage

Globalcom has many internal businesses functioning on the national scale and beyond and added that bringing the collective skills and resources together at any one time is overwhelming and time consuming task. Globalcom information distribution infrastructure needed streamlining and the ability to distribute information quickly and to provide easy access for workgroup members nationally and internationally was somewhat constrained. He said the organization needed an environment that will allow for a change as quickly as the business needs, yet provide a solid infrastructure to meet Globalcom Nigeria needs. From his view, though ECMS provides about 70% of the needed capability organization wide, it is worth adopting it. The respondent notes that the implemented ECMS has resulted in better time to market without compromising service quality. He acknowledged that throughout the organization, business units are finding ways to monitor, control and improve service quality through the use of ECMS. Respondent explained that due to less time spent on content search for instance or archiving, business processes have been improved resulting in increased productivity and efficiency and has positioned Globalcom at an advantageous edge in terms of cost savings and time.

Collaboration /New Value products or services

According to the respondent the introduction of the ECMS software has created an advantage in terms of collaborative tasks because these days all an employee from the HR department needs is to touch button and will be able to send files to employees or other departments electronically with sensitive information’s deleted for privacy reasons.

Change in Work Organization

In terms of workflow automation, the respondent emphasised that the introduction of ECMS has created a network of diverse units within the organization interlinked. According to him, ECMS allows Globalcom to assign the right content to the right unit and with the accurate tasks assigned and this is usually generated automatically which reduces time and cost but also allows for employee coordination. He also emphasized that the implemented ECMS has helped create a network of workable user relationships
which is very efficient and productive. The respondent also said the system has altered the way the organization is managed in that information flow is in two ways as against the hierarchical approach formally used and the flow of information is with such an ease

**Return on Investment**

According to respondent, the issue of return on investment is a multiple organizational factor, however, in terms of figures from the finance department, there have been improvements in Globalcom’s business returns and said that one way or the other, the implementation of ECMS can take credit in this achievement. The respondent explained that based on the success they have had so far, he is convinced that in the future, it will be the sole system used Globalcom Nigeria to significantly reduce the traffic volume.

**Management Flexibility and Organizational Strategy**

According to the respondent, the manual nature of managing the company content coupled with the autonomous nature of business units means large volumes of data is created but due to ECMS implemented, even though they still have other systems in function, content loads have dramatically been reduced to about one tenth of the level they had before and that whereas in the past they could have 10 people using a network at the same time now they can have about 100 people working on a network and that to him is enormous. He also added that now Globalcom can forecast in the long term in the good interest of company’s stakeholders and also the ECMS system has positively altered his organization in the sense that Globalcom is strategically positioned on the market with ever increasing customer base and easy business operations.

The Respondent explain that the vendor company worked in consultation with Globalcom to continuously check that the ECMS records management delivers up to required performance standards and functionality. He was of the view that a vendor company is very helpful and flexible in the advice and support they provide to Globalcom IT departments and their professionalism have made their software a great success in his view.
6.1.2.3 ECMS Benefit Framework

The respondent commented that in the organization, the aspects of Employees, organizational operations, stakeholders and the IT infrastructure are the areas mostly affected by the benefits from the implementation of ECMS. On the issue of operations, the respondent mentioned that most of Globalcom operations has improved over a period now and explained that awkward technical barriers imposed by geographical distance is reduced and as well the weak server infrastructure due to numerous small scale servers have been improved. Large numbers of users are able to work on the network and that has increased productivity and efficiency by eliminating imposed cost from time mismanagement because there is an improved user speed and quality of work design. He however acknowledged that more work need to be done in entirely centralizing all content from every single branch.

6.1.2.4 ECMS Cost-Benefit Analysis

The Respondent is of the view that before the implementation of ECMS, an assessment was undertaken of the IT resources at the organization and since the implementation of the enterprise in past three years, this process has been repeated. The company has discovered that the benefit the company has gotten based on the evaluation of its Return on Investment exceeds the costs of implementation and is of the view that the implementation is the best thing that ever happened to the organization in the past couple of years. The respondent believes that implementing ECMS is a good cause for Globalcom looking at the benefits it brings such as less time spent to locate and use content, increased productivity, saving operational and overhead costs, efficiency and many others. He reminded me to bear in mind that the system is not the comprehensive one for the entire organization and that they will get there.
Table 4: Summary of Findings from Case- Globalcom Nigeria

<table>
<thead>
<tr>
<th>Introductory Questions</th>
<th>Motive</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Type of business</td>
<td>• Needed a system to meet content needs of rapidly expanding business needs.</td>
</tr>
<tr>
<td>• Name of Company</td>
<td>• Provide easy access to information for workgroup teams.</td>
</tr>
<tr>
<td></td>
<td>• Reduce the need for physical storage of data that accumulates to cost</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECM Benefits for the Organization</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Change effects on Culture and operations</td>
<td>• Reduced operation bottlenecks.</td>
</tr>
<tr>
<td>• Effective and Efficient Content Management</td>
<td>• Enforced teamwork and standardized procedures</td>
</tr>
<tr>
<td>• ECMS Acceptability and Knowledge Creation</td>
<td>• Avoid data storage cost</td>
</tr>
<tr>
<td>• Risk Mitigation</td>
<td>• ECMS has created faster and robust working environment,</td>
</tr>
<tr>
<td>• Compliance</td>
<td>• centralized content and easy access to information for organization’s human resources unit.</td>
</tr>
<tr>
<td>• Cost Reduction</td>
<td>• Avoid data storage cost</td>
</tr>
<tr>
<td>• Competitive Advantage</td>
<td>• Changed user communication and collaboration methods.</td>
</tr>
<tr>
<td>• Collaboration/New Products or</td>
<td>• Added value and satisfaction to employees, customer and organization.</td>
</tr>
<tr>
<td></td>
<td>• Alleviated problems with capturing content.</td>
</tr>
<tr>
<td></td>
<td>• United records electronically.</td>
</tr>
<tr>
<td></td>
<td>• Enforced the creation of a unified system platform</td>
</tr>
<tr>
<td></td>
<td>• Minimize the occasional loss of documents</td>
</tr>
<tr>
<td></td>
<td>• User compliance enforced in accordance to Nigerian Communication Commission (NCC), transparency has been established though with occasional loss of document</td>
</tr>
<tr>
<td></td>
<td>• Operational costs reduced and increased utilization of time</td>
</tr>
<tr>
<td></td>
<td>• Increased information capacity and distribution infrastructure,</td>
</tr>
<tr>
<td></td>
<td>• creation of better time to market without compromising service quality,</td>
</tr>
<tr>
<td></td>
<td>• Better ways for users to monitor, control and improve service quality throughout organization,</td>
</tr>
<tr>
<td></td>
<td>• Increased productivity and efficiency manifestation,</td>
</tr>
<tr>
<td></td>
<td>o Increased collaborative tasks executions</td>
</tr>
<tr>
<td></td>
<td>o Well positioned on market to which could be seen as an advantage</td>
</tr>
<tr>
<td>Services</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------------------------------------------</td>
</tr>
<tr>
<td>• Change in Work Organization</td>
<td>▪ Creation of workflow automation and interlinked</td>
</tr>
<tr>
<td></td>
<td>▪ precise content assigned to right unit generated automatically</td>
</tr>
<tr>
<td></td>
<td>▪ resulting in reduced time for content search</td>
</tr>
<tr>
<td>• Return on Investment</td>
<td>▪ cost reduction and coordination</td>
</tr>
<tr>
<td>• Management Flexibility and Organizational</td>
<td>▪ Increase return on investment</td>
</tr>
<tr>
<td>Strategy</td>
<td>✓ Increased system capacity</td>
</tr>
<tr>
<td></td>
<td>✓ creation of workable user relationships and productive</td>
</tr>
<tr>
<td></td>
<td>✓ Ability to forecast in the longer term,</td>
</tr>
<tr>
<td></td>
<td>✓ organization strategically positioned</td>
</tr>
</tbody>
</table>

**ECMS Benefit Framework**

Affects all parts of organization but mostly employees, operations and IT i.e. alleviation of technical barriers imposed by geographical location, increased speed, cost reduction, improved productivity and efficiency etc..

**ECMS Cost-Benefit Analysis**

ECMS is a good cause for Globalcom looking at the benefits it brings such as less time spent to locate and use content, increased productivity, saving operational and overhead costs, efficiency and many others.

*Source: The Authors’ illustration*
6.1.3 Case – First Bank of Nigeria Plc
Respondent: Rasheed Adegoke

The respondent is the Head of Information Technology and has been working at First Bank for the past 3 years. He is responsible for coordinating First Bank’s information network system.

Brief Company Background

This is the first National bank to begin operations in 1894. It is currently the largest bank in Nigeria in terms of capitalization and market base. The vision of the bank is to be the clear leader and Nigeria’s first choice and also to provide the best financial services possible. The bank has over a thousand branches and seven subsidiaries in Nigeria and some other countries in Africa (First Bank Nigeria, 2010).

6.1.3.1 Motive for ECMS adoption in First Bank

According to the respondent as one of the major banks in Nigeria, there was the need to be efficient and competitive on the fierce Nigerian banking sector. The respondent continued by saying that a restructuring of First Bank’s IT infrastructure required flexibility, including in the area of connectivity. Additionally he said there was a need for better protection with the connections between terminals and the trading systems and further explained that traditionally, most major Nigerian banks including First Bank have set backs when it comes to how information is managed resulting in costs and reduced productivity. He mentioned that First Bank initially had highly decentralized business functions and the fact is that the organization generates huge amount of information from its diverse business units. He added that for instance the way the IT department is Lagos manage data might be different from that in Kaduna or Abuja and that created chaos with mandated First Bank to adopt ECMS.

6.1.3.2 ECMS Benefits

According to the respondent, the major benefits that the firm has gotten from the implementation of ECMS are the reduction in the costs of transacting business and the total time spent in conducting or doing business within the organization. Furthermore, the respondent was of the view that there are other benefits from the usage of ECMS which includes:
Change effects on Organizational Culture or Operations

The respondent mentioned that initially, First Bank had problems with employees having to change the old ways of working and come to accept ECMS as part of the solution for storage, retrieval and use of content. He made mention that to date, there are errors occurring occasionally due to lack of regular training whenever there is system upgrade and this is an attempt to save cost. However, he confirmed that generally his view is that the implementation of ECMS has brought about speed and unilateral conformity regarding processes within the organization.

Effective and Efficient Content Management

Respondent said the ultimate goals of First Bank was to deploy an ECMS to cater for its documents management and records management which has often been generated in large amounts of paper forms managed independently by the various units and lacking a central storing system, and so the software is suppose to monitor a centralized working processes. He said that from this perspective, the deployed ECMS has so far contributed to more direct and efficient ways of collecting, storing and distributing data which has led to savings through process optimization and automation and legal requirements concerning digital audits and principles of safe electronic bookkeeping and that from his perspective, there is much more conformity and consolidated data management. These factors have largely helped in reducing operational and overhead costs and increased savings. He however did not rule out the fact that there are still setbacks in terms of bureaucracy which is common in Nigeria and also within First Bank and this can be attributed to the long chains of power within the organization which does not allow for the full utilization of the banks resources.

ECMS Acceptability and Knowledge Creation

Mr Adegoke explained that First Bank arranges trainings and seminars for existing employees as well as new recruits and this occurs once or twice every year. The respondent said that his view is that user training programmes are more tailored towards top management. He mentioned that the training is mostly aimed at creating the awareness of any new method adopted for business operations. His view is that the adequacy of user knowledge will also greatly depend on those who impart the knowledge and this depends on the system vendors.
Risk Mitigation

Respondent emphasized that content confidentiality, availability and authentication is to a certain level ensured. He explained that information risks cut across administrative, technical and management with the main focus been technical dimension. He said that mechanisms such as employee data access where passwords allow individual employees sole access to the information needed to perform required duties are provided. He continued by saying that employees are bounded by agreement on protecting and keeping certain company information internal and even sometimes keeps such information from fellow employees. This is an attempt to avoid sharing sensitive company information such as emails, memos, customer information, business details etc. with external stakeholders and partners however, there have been cases of unauthorized information leakages often to large customers and other factions and he attributes this to the fact that the pay structure in Nigeria is inadequate and employees are tempted to do anything possible to make additional income which can be harmful to the bank. The respondent added that ECMS does not allow for easy hacking and in cases of content breakdown due to power outages the system automatically recovers lost data which serves as a back-up for the bank. His general views on information security monitoring within First Bank is that it is not very comprehensive since there is not a particular department to manage information risks and also due to the sharp differences among various branches of the bank.

Compliance

The respondent stated that internally, ECMS facilitates electronically outlined legal guidelines for users to follow and that users can be held responsible for any breach of those guidelines. He added that there are periodic audit controls to check out employee conduct and safety and ensure that user applications meet the Central Bank of Nigeria (CBN) standards.

Cost Reduction

On the issue of cost, the respondent stated that formally managing cost has been one of the organizations major struggles with cost mounting each month. He stated that some of the contributors to this have been the low productivity of employees and inefficiencies as a result of how information is handled within the organization and the inadequacies in accessing information and this had a negative result on the organizations resources. He said that jobs that took one hour before the deployment of the ECMS now takes less than an hour as a result of the usage of ECMS and this has positively impacted productivity and efficiency and centralized organizational working codes. He said that cost has been controlled
considerably with the introduction of the ECMS and for that matter has improved the organizations revenue, regulation and return on investments.

**Competitive Advantage**

The organization has been able to launch new and quality products that our competitors envy and from available evidence, it can be seen that those measures are paying off because we have continued to expand our operations throughout the country.

**Collaboration /New Value products or services**

According to our respondent, the introduction of ECMS at First Bank has contributed to forging various interrelationships within the organization and most job functions have been formalized across board the organization. He said that formally, the largely decentralized nature of its business had an adverse effect on the organization because content was managed autonomously from one branch to another and team playing was peculiar to each unit. He said that this has not been completely changed but ECMS to a certain level constantly moves information into a central storage so that information regarding employees and job performance was secure, accurate and quickly accessible to who needed it though with some authorization bottlenecks. He added that the ECMS has improved data sharing across data banks for example, lending and account management so that potential cross-selling and customer indexing can be rapidly enabled. Furthermore, it provides an end to end business environment that is efficient and minimizes the potential for errors.

From the respondents view, some of the value-added to First Bank includes the flexibility of its IT department and Human Resource departments to flexibly react to changes more quickly for example the easy transformation of files which is almost instantaneous. He further said that the system has also helped facilitate the exchange of deal document between brokers and lenders electronically and securely because it’s robust to support hundred thousand if not millions of documents. He added that issues such as collaboration, productivity, efficiency have increased with costs much scaled down due to the deployment of ECMS.

**Change in Work Organization**

We got to know from the respondent that the ECMS has facilitated routine practices such as tasks scheduling by automating job titles, descriptions and reporting methods which has helped reduce error. He added that this has also encouraged inter-unit collaboration and formed relationships since there is much inter-linkage of activities. He went on to say that the ECMS system allows individuals secured
access to the information they need to execute their duties through the assigned usernames and passwords so that this has increased self dependency as well and security. He however mentioned that management style still remain hierarchical with power concentrating at the top and this means top management such as unit heads has much to do with what is suppose to be done and can sometimes be bureaucratic however the use of ECMS has resulted in a leaner and fitter business. It has been easier for us to undertake a restructuring program to more productive employees and decision making process.

**Return on Investment**

The respondent said that ECMS was introduced to maximize the potential and productivity of employees and transform its IT and Human Resource departments from administrative function into a source of human capital management and this is working because output is very high and profits has been steadily increased though with much reservations that working methods can be further improved.

**Management Flexibility and Organizational Strategy**

According to the respondent management flexibility and strategy decisions depend on what is meant by management flexibility but if it is to make decisions that affect the direction that the company should take, then the answer is yes. ECMS adoption has resulted in a management decision to pursue the expansion of the company in every part of the country. The implementation of ECMS has enabled the deployment of a strategy that is geared towards advertising. This has helped to inform people about the benefits of the company´s products, while allowing them to engage on issues they care about. We are also aware that people everywhere are able to access online material, using our internet marketing guidelines ensures that campaigns targeted at a particular market are sensitive to cultural differences in other parts of the world.

**6.1.3.3 ECMS Benefit Framework**

The respondent is of the view that ECMS implementation has affected every aspect of the organization in like manner. He however, mentioned that since IT forms the core of their operations, he is convinced that the impact is on IT and operations.

**6.1.3.4 ECMS Cost-Benefit Analysis**

According to the respondent IT and for that matter the implemented ECMS is very important to First Bank’s operations. He added that as a bank, IT forms part of a core of its business process therefore having good IT systems that can manage data, increase productivity and reduce costs is very important.
The respondent said that if a bank has a system such as the ECMS which to a high level can help reduce monthly costs reduce labour resources and manual processes and increase productivity then it is worth investing a fortune to make the gains. He said that though the bank still has miles ahead to go, issues such as lack of access to archived data, lack of security and enhanced employee satisfaction, wasted time and costs is better managed compared to First Bank’s formal practices of managing content. He acknowledged that the bank needs more investment into its IT infrastructure not only to enjoy the benefits but also to face future challenges in the ever changing bank. The above facts led the respondent believe that no matter the costs incurred ECMS is very important in the organization.
### Table 5: Summary of Findings from Case-First Bank of Nigeria Plc

<table>
<thead>
<tr>
<th>Introductory Questions</th>
<th>Motive</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Type of business</td>
<td>• Restructuring bank’s IT infrastructure with flexibility in terms of connectivity needed to reduce cost and increase productivity,</td>
</tr>
<tr>
<td>• Name of Company</td>
<td>• Reduce information chaos through centralization</td>
</tr>
<tr>
<td>Motive</td>
<td></td>
</tr>
<tr>
<td>ECM Benefits for the Organization</td>
<td></td>
</tr>
<tr>
<td>• Change effects on Culture and operations</td>
<td>• Increase speed and conformity regarding operational processes though with occasional error due to regular training</td>
</tr>
<tr>
<td>• Effective and Efficient Content Management</td>
<td>• Direct and efficient ways of collecting, storing and distribution of data,</td>
</tr>
<tr>
<td>• ECMS Acceptability and Knowledge Creation</td>
<td>• optimization and automation of business processes,</td>
</tr>
<tr>
<td>• Risk Mitigation</td>
<td>• digital auditing and principles of safe electronic bookkeeping put into practice,</td>
</tr>
<tr>
<td>• Compliance</td>
<td>• conformity and consolidated data management,</td>
</tr>
<tr>
<td>• Cost Reduction</td>
<td>• Benefits depend on how good the IT department is</td>
</tr>
<tr>
<td>• Competitive Advantage</td>
<td>• Content confidentiality, availability and authentication ensured i.e. provide password for individual users to access data needed to perform required duties,</td>
</tr>
<tr>
<td>• Collaboration/New Products or Services</td>
<td>• Proper mechanisms to protect and keep organization information from leakage though with occasional failures</td>
</tr>
<tr>
<td></td>
<td>• ECMS facilitates electronically outlined legal guidelines for user’s adherence, periodic audit controls to comply with standards set by Central Bank of Nigeria (CBN)</td>
</tr>
<tr>
<td></td>
<td>• Short time to complete assigned tasks leading to increase productivity and reduced cost,</td>
</tr>
<tr>
<td></td>
<td>• New and quality services provided as a pay-off for ECMS implementation</td>
</tr>
<tr>
<td></td>
<td>• Operational costs reduced and increased utilization of time</td>
</tr>
<tr>
<td></td>
<td>• Various interrelationships forged with job functions formalized across board,</td>
</tr>
<tr>
<td></td>
<td>• Units much more centralized, improved data sharing, easy reaction to changes,</td>
</tr>
<tr>
<td></td>
<td>• Facilities the exchange of document between brokers and lenders electronically and securely, cost scaled down</td>
</tr>
</tbody>
</table>
6.2 Findings from Survey

The survey involved a questionnaire being sent to 40 organizations from which 21 of these organizations responded. Out of the 21 feedback received, only 4 organizations namely MTN Nigeria, Intercontinental Bank Plc, Stanbic IBTC Pension Managers, and News Agency of Nigeria use ECMS.

These findings are based on the feedback from these 4 organizations that responded. Findings from the survey show that those organizations using ECMS see the system as playing a vital role within the respective organizations. Although limited in number, these survey findings lend support to the detailed results from the interviews.

Respondents attribute positive impacts of using ECMS to factors such as change in organizational working culture, increased user satisfaction, improved efficiency, improved content management, change in business processes, mitigating risks or risk reduction, improved compliance measures such as good records management, integrating and complying with government and organizational regulations, reduced cost of production whiles maintaining quality, increased collaboration, new value added, improved governance, reduced costs and increase return on investment.
The survey also shows that within the organization, ECMS plays significant role in effectively managing employees to be productive and efficient, important for daily operations, plays average role for management, strategy and inter-organizational relationships and a high role player for IT infrastructure within respective organizations. Response from all 4 organizations shows that ECMS usage is very vital and that it is worth the investment since the benefits outweighs the costs.

In a nutshell, the authors of this research are aware that though the sample size for this survey is small with only 40 questionnaires sent to 40 organizations, and the probability that there might be other organizations outside our sample size using ECMS, the 4 feedback received out of 40 shows that there is also a high probability that ECMS usage is not common within Nigerian organizations.

Below is Table 6 showing the summary of the survey. In the table, numbers have been used to represent the scores on a Likert scale from 1-7 under the headings ECMS benefits and ECMS cost-benefit analysis (7 = Strongly Agree; 6 = Agree; 5= somewhat agree; 4 = Undecided; 3= Disagree somewhat; 2 = Disagree; 1 = Strongly Disagree).

For the ECMS benefit impact section in the table 6 below, the scores on a Likert scale from 1-5 (5 = High; 4 = Noteworthy; 3 = Moderate; 2 = Low; 1 = Insignificant).

<table>
<thead>
<tr>
<th>ECMS Usage</th>
<th>MTN Nigeria</th>
<th>Intercontinental Bank</th>
<th>News Agency of Nigeria</th>
<th>Stanbic IBTC Pension Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ECMS Motive</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ECMS Benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Change effects on Culture and operations</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>• User Satisfaction</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>• Improved Efficiency</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>• Content Management</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>• Change of Business Processes</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>• Mitigates Risk</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>• Compliance</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 6: Findings of Survey
6.3 Summary of Cases and Survey findings

The table below shows a summary of the cases studied in this research. From the table, it can be seen that there are three cases (Unilever, Globalcom, First Bank) and the supporting results from the survey conducted in 40 organizations, of which there were 21 respondents with 4 users and 17 non-users of ECMS (See Table 6 above). The summary below is designed to confirm that the benefits mentioned in the literature review are applicable in the organizations that have been studied in this paper.

The benefits listed in the table below are the same as those that have been discovered in the literature review in Section 3.1. It can be seen that the benefits outlined in the literature review are also obtainable.
in each of the organization. Similarly, the different aspects of the organization are impacted by these ECMS benefits though the level, or which aspect of the organization is affected most varies from organization to organization.

The ECMS benefit impact shown in the table below shows that ECMS usage impacts the different aspects of the organization especially those that are indicated boldly in the ECMS benefit impact framework section for the cases. The impact framework in the table below is derived from Grahlmann’s benefit impact framework in figure 4. According to the table, the impact shows the different aspects of the organization that are affected in each of the cases and in the other organizations surveyed.

Table 7: Summary of the combined findings from the Interviews and Survey

<table>
<thead>
<tr>
<th>ECMS Usage</th>
<th>Case 1 Unilever</th>
<th>Case 2 Globalcom</th>
<th>Case 3 First Bank</th>
<th>Supporting Survey results from other Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes(3); No (14)</td>
</tr>
<tr>
<td>ECMS Motive</td>
<td>Compliance, Cost Reduction</td>
<td>Collaboration, Content Management</td>
<td>Efficiency, Competitive Advantage</td>
<td></td>
</tr>
<tr>
<td>ECMS Cost-Benefit</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ECMS Benefit Impact Framework</td>
<td>Employees, Operations, Management, Strategy, IT Infrastructure, Non-IT infrastructure, Inter-organizational relations, Stakeholders</td>
<td>Employees, Operations, Management, Strategy, IT Infrastructure, Non-IT infrastructure, Inter-organizational relations, Stakeholders</td>
<td>Employees, Operations, Management, Strategy, IT Infrastructure, Non-IT infrastructure, Inter-organizational relations, Stakeholders</td>
<td>Employees, Operations, Management, Strategy, IT Infrastructure, Non-IT infrastructure, Inter-organizational relations, Stakeholders</td>
</tr>
</tbody>
</table>

*Source: The Authors’ illustration*
7 ANALYSIS

The major intention at this point is to analyze the empirical information presented in the findings in connection to the secondary data presented in the theoretical frame to arrive at conclusions. This is also an attempt to find the coherency existing between the various parts in line with main objective of this research.

Motives behind ECMS adoption in Organizations

From the literature review, Allen (2007) acknowledges the existence of information systems such as ERP and BPM but emphasises the growing need for ECMS to factors such as acceptance of both structured and unstructured data; the creation of common repository or central storage system; and to a large extent its capacity in accepting large content size. This is in agreement to Meyers (2001) explanation which stated that organizations are opting to use ECMS because of the unique features and benefits it offers such as cost management, and reduce complexity compared to ERP and BPM.

According to empirical information, First Bank Nigeria as a financial institution adopted ECMS basically to be efficient, competitive, and flexible in terms of connectivity and creation of a more centralized system and that required restructuring of its IT department. The respondent added that his view is that cost is one of the major issues faced by the banking sector. This is in line with the description by Allen (2007) that ECMS does more by creating a knowledgebase for an enterprise and content resources and also offer pragmatic approach to application integration.

Findings from Globalcom and Unilever also suggest that the main motive of adopting ECMS was the cost created by storage in terms of paper storage, filling and the risks of losing important documents. Respondents from these organizations also suggest that the idea of ECMS was to create a more centralized system that has the capacity to store, retrieve and secure company content.

In summary, First Bank, Unilever and Globalcom adopted ECMS based on similar reasons which includes the need to create a more centralized content management system to manage the huge amount of content generated and reduce cost. Yet another common motive found through the interviews was the provision of better bases for compliance with government regulations, e.g. financial regulations for First Bank; food safety regulations for Unilever; and financial security and privacy laws for Globalcom.
ECMS Benefits for Organizations

Change in Organizational Culture and Operations

An imposition of any change in the way people do things always have consequences either positive or negative as explained by one of our respondent and from the perspective of the findings we realize that the adoption of ECMS in all three organizations was welcomed although with some setbacks. The respondent from Unilever stated that ECMS implementation rather created a positive change in organizational culture by helping to streamline and have a central information database for the various departments and encouraged distributing centres within Nigeria and even further to input and access any data. However, the respondent from Globalcom Nigeria explained that at the initial stages the organization experienced some setbacks in accepting the change from old methods and having to get use to ECMS applications. He cited issues such as lack of knowledge resulting in creating bottlenecks in daily operations and accumulated cost. He said that acceptance demanded the intervention of departmental heads with the support of IT department and further said that issues such as the diverse working culture of branches can be a factor as well. Findings from First Bank also shows that users were rather cold in accepting the ECMS at the beginning and linked it to bureaucracies in designing the right and regular training programmes and acknowledged that the situation has not changed that much yet due to occasionally reported errors at some of the bank’s branches. His general view though is that the implementation of ECMS has brought about speed and mutual conformity with respect to business processes.

The questionnaire sent to 40 organizations confirms the findings from interviews that respondents believe that ECMS users experience any change imposed by the system on organizational culture. According to Davenport (1998), ECMS is a tour de force that impacts the organizational culture and enforces streamlining of management structures by creating flatter, more flexible, and democratic organizations. A part of this explanation is in line with the findings from Globalcom, Unilever and First Bank with respondents claiming that ECMS helped in the creation of a common organizational cultural standard, speed and conformity.

Contradictorily, both respondents from Globalcom and First Bank also gave the impression that, ECMS implementation irrespective of its benefits can also create bottlenecks and bureaucracies due to lack of training. The summary of this is that if organizations will have the full impact of ECMS on culture, they might consider investing more in regular employee training and knowledge development on how to effectively and efficiently apply ECMS to derive the needed benefit.
Acceptability and Satisfaction

Higher system quality is expected to lead to a higher user satisfaction and this can create positive impacts on individual and organizational productivity, (Delone and Mclean, 2003). To ensure that there is adequate user acceptability and satisfaction, Unilever for instance contracted what they call a reputable organization in collaboration with its IT department to train users. From Globalcom perspective, the respondent mentioned that satisfaction and efficiency can be measured in many ways and because Globalcom generates much content due to large customer base, ECMS creates a more robust and faster working environment but reserved the fact that the ECMS system does not fully serve the entire organization. He however said that irrespective of such a setback, ECMS is effectively managing its employee, customer, stakeholder content needs and has created an added value in some way by capturing and uniting records electronically and improved data privacy rules. Findings from First Bank also show that periodic seminars and trainings are main tools used to create user awareness and satisfaction. The respondent also emphasized that the IT department and vendor company for instance is well vexed in the field of IT which in his view has a role to play on the impacted knowledge to benefit the organization. Survey also shows that the organizations using ECMS significantly agree that ECMS has benefit impact on acceptability and satisfaction. The expertise of organizations IT personnel and the knowledge transcended to users has a link with how efficient an organization’s work processes can be and that can lead to user acceptability and satisfaction as explained by Shang and Seddon (2002) on enterprise, technology acceptability and efficiency.

Improved Content Management

From the findings, Globalcom claims to have reduced content duplication by assigning the right content to the right unit generated automatically thanks to the implementation of ECMS. The respondent stated that ECMS has significantly increased employee coordination and reduced content duplication and also serves as a base to resort to for content backup in an emergency situation. Judging from this point Kemp (2008), explained that ECMS allows organizations to designate accurate and precise content to the right people at the precise time of need which can also be a major benefit. Another interestingly point raised by the Unilever respondent is that due to the important role ECMS plays in the organization, it has tasked experts to manage the system but then added that the responsibility of what, the how, why and when content is provided is the sole responsibility of Unilever IT department. One can also realize that efforts are made by Unilever to safeguard its information from external threats. The respondent mentioned that Unilever ensures that employees role is very vital on how content is working to meet dynamic organizational needs and this creates an interactive atmosphere between Unilever employees and content
to generate new ideas to impact the organization. The respondent from First Bank raised the fact that the organization has other systems such as the Optical Record System but then added that this serves as a back-up for content in case of the unknown. The survey also shows a strong support that ECMS leads to improved content management within an organization.

In summary, one of the major benefits an organization can derive from ECMS is the system’s ability to control content duplication. Globalcom, Unilever, First Bank as well as data from survey shows that content can enforce coordination and increased precision in terms of who needs what content. The views from the various responded organizations is in agreement to Kemp (2008) view which states that ECMS as a strategy has the capability to reduce content duplication, create backups in critical situations and content retention for future purposes. Sprague (1995, P.33) also explained that ECMS can lead to “improve efficiency and effectiveness of documents in their role as a primary mechanism for storing and communicating concepts and ideas within and between organizations (and their groups and individuals)”.

**Mitigating Risks**

From the literature review, risk mitigation involves prioritizing, evaluating and implementing appropriate risk-reducing controls (Stoneburner et al, 2002). Stoneburner et al view is also similar to the view by AIIM (2008), which state that the implementation of ECMS as mitigating risks by restricting access to content by preventing illegal distribution, ensuring identity of document sender and authenticity. The findings from Unilever shows that ECMS has ensured that relevant data is secured in databases preventing leaks and making it easy to monitor especially with regards to what happens within the intranet and extranet of the organization and thus creates awareness to prevent for instance copyright infringement. First Bank’s findings also suggests that content confidentiality, availability and authentication is to a certain level ensured, however, the respondent said that information risks cut across administrative, technical and management making it complex. In order to control risks, First Bank has mechanisms such as authorized data access with passwords to ensure safely and sole right and access to the information needed to execute required duties. The respondent also said that First Bank forged agreements with users to keep and protect sensitive information such as sensitive emails, memos, customer information, business details etc. He however, made mention that First Bank occasionally has reported cases of insider information leakages and attributed this to the economic standards of employees who will do anything to make extra money. He added though that he believes the system avoids easy hacking and automatic content recovery and said First Bank must try to have a comprehensive and totally centralized ECMS system. The findings from Globalcom was rather a relaxed one which explains that though risks management strategies are not a stated policy, he believes that ECMS ensures that users
easily manage and access content but did not rule out harm caused by errors. The survey also shows a strong support for ECMS as a way to mitigate operational risks and other risk factors which complements the data from the interviews.

**Content Management Compliance as a means of enterprise benefit**

According to Duhon (2005), a key to successful ECMS compliance strategy is the ability to integrate and comply with regulations that could be viewed as an opportunity to improve business procedures. Essential methods such as adopting good records management can avoid damage but also ensure compliance (Sprehe, 2005, p. 127). According to data from Globalcom, with the organization’s large customer base and diverse services, one of the challenges is keeping costs related to complying with government regulations down and further explained that the benefits of ECMS in this regard is that employees are able to implement the various regulatory requirements in line with required standards. Unilever considers user compliance very important and the findings shows that the organization expects ECMS to serve as a platform to follow rules and regulations laid out by NAFDAC. This is also related to the data from First Bank which also places importance on following not only government regulations but also internal regulations and standards especially since it’s a financial institution. To ensure this, First Bank ECMS facilitates electronically outlined legal guidelines for users however, offenders can be held responsible for any violation of stated guidelines. The respondent added that ECMS facilitates periodic audit controls carried out to check employee conduct and safety to ensure that user applications meet Central Bank of Nigeria (CBON) standards. Duhon (2005) stated that following regulations can be costly but it is a best practice that ensures that content is properly captured, stored, managed, and disposed of at the appropriate and legal time in lifecycle which is characterized by using ECMS. Furthermore, successful ECMS implementation enables compliance initiative that taps into many areas of expertise, particularly legal, IT and records management to support an overall objective of the organization.

The summary of this is that organizational compliance strategy is vital to the organizations interviewed though at different levels for instance, institutions such as First Bank might lay a high emphasis on compliance standards since it deals with trust and money and that is why periodic audits are carried out in financial institutions more often to control issues such as theft and leakage of vital business information. The survey also showed that there is a positive perception of ECMS emphasising organizational and government regulatory and compliance standards in general.
**Cost Reduction and Competitive advantage**

From the generic strategy perspective, gaining competitive advantage through cost leadership means organizations should be able to reduce cost of production and services which includes labour and capital and also employ innovative procedures while maintaining organizational standards. (Hedman and Kalling, 2002).

The respondent from Unilever explains that cost was a major factor when the organization decided to adopt ECMS. He said that the old methods of doing things such as maintaining two separate systems, multiple databases and physical locations where documents and files were kept created costs for the organization. He estimated that before ECMS deployment, over 95 million Nigerian Naira was lost through duplicated services. He added that there has been a dramatic decrease in cost since ECMS adoption. Interestingly, findings from First Bank also suggest that keeping costs down is very vital. Respondent attributed some of the previous incurred costs to low productivity of employees and inefficiencies in content usage. Globalcom also believes that potential cost reduction may come from multiple organizational strategies including employing efficient and productive methods and added that ECMS has contributed time and cost savings and this is also evident in the survey with a high percentage believing in ECMS contributing to cost reduction.

Shang and Seddon (2002) mentioned that, enterprise can build cost leadership by having a lean structure with streamlined processes to have economic of scale for the organization and the implication to Globalcom, Unilever and especially First Bank as a financial institution is that they might consider taking a critical look at the complex nature of the organizations strategies such as management style, power distribution and resource use etc. since effective content management cannot single-handedly create potential cost savings and hence economics of scale or sustained competitive advantage.

**Collaboration /New Value products or services**

According to Duhon (2005), collaboration is a way of working together to utilize resources in harmony and linked ECMS deployment as a set of technologies for instance instant messaging, whiteboards, online meetings and email etc which can have positive impact on coordinated employee and resource utilization.

Through the findings, the researchers came to a realization that ECMS application at First Bank contributed to forging cross unit relationships due to the formalization of most job functions across board. Data sharing such as lending and account management, cross selling and customer indexing has improved across data banks. The respondent said that formally, largely decentralized nature of processes and IT functions had an adverse effect on operations and added that though centralization of content management
has not been fully achieved, ECMS to a certain level help to secure employee information and job performances more accurate and quickly and avail it to those who need it, but did not rule out little authorization bottlenecks typical with the Nigerian working environment. Globalcom also claims that ECMS has created benefits in terms of collaborative tasks executions mainly for its Human Resource Department. While Unilever blamed its content management deficiencies on previous overloaded systems such as Lotus Notes and Access Databases, they see ECMS as a hosted solution that has managed to integrate data. Our view is that Globalcom, s ECMS is more focus on centralizing its Human Resource Department which might not correspond to the main objective of ECMS functioning of fully centralizing content.

The summary of this is that, we learn that ECMS is very vital to create team work and shared tasks within the organizations interviewed and that the system increases productivity, efficiency, coordination and control, and this is also evident in the result drawn from the survey which shows respondents positive view on ECMS collaboration. However, how ECMS is applied and the level of centralization also plays a very important role should the benefit be realized. Paivarinta and Munkvold (2005, p.2) emphasized that, ECMS improves internal and external collaboration, involving knowledge creation and sharing through digital content in and among enterprises with common goals.

Change in Work Organization

From the perspective of Hagberg et al (1995), work organization is the manner in which work is structured, distributed processed and supervised. This in other words is categorized into work scheduling, job design such as complexity of tasks, skills required, and worker control, management style and organization. Carayon and Smith (2000, p. 649) also stated that the implementation of ECMS in an organization makes work organization easier, transparent and efficient. Findings from Unilever show that ECMS has enhanced team interaction, enabled employees, business partners and distributors. Intranet and Internet services have been used to create communities and discussion forums to enhance employee participation in pursuit of innovative products and services. Information sought from Globalcom shows that their ECMS performs workflow automation and networking of the diverse units within the organization. Comparing Unilever and Globalcom, the reader can find a similar coherence in the roles ECMS plays within these organizations. Information from First Bank shows ECMS facilitates similar processes such as in Unilever and Globalcom, but at First Bank, there is a high need for zero tolerance for error since its business lines are very risky as far as banking is concerned. A setback here though is that, management style is rather highly hierarchical with power concentrating at the top with line managers such as unit heads having much to with what is suppose to be done which can also sometimes be
bureaucratic. This is against the view of Carayon and Smith (2000,p.649) which stipulates that ECMS functions best if there is free and easy access of information to management and employees be it lower or upper level. The survey also shows that there is a moderate response to change in work organization as a result of ECMS deployment and that can be linked to obstacles such as power lines and hierarchies within organizations.

**Return on Investment (ROI)**

One of the important factors considered for an organizations ongoing success is the return it makes on its business and ECMS has a role to play ensuring this. The findings from Unilever did not specifically mention the actual return on their investments, but did not rule out the fact that ECMS plays a direct role in successful business practices within the organization. The inability to really measure ECMS direct impact on the Return on Investment is explained by Shang and Seddon, (2002) which suggests that measuring Return on Investments can be a complex task but then it is not impossible to see the impacts in the organization as far as efficiency and other factors are concerned. Part of First Bank’s intention of deploying ECMS was to maximize potential and productivity of employees and to transform its IT and Human Resource departments from administrative function to a source of human capital and they claim its working since output is high and profits are steady, though with much reservations that working methods can be further improved. Results from Globalcom and the survey also show that ECMS plays average role to facilitate an organizations return on investments.

**Management Flexibility and Organizational Strategy**

According to the benefit framework by Shang and Seddon (2002, p. 278), among the managerial benefits brought about by ECMS application is how it facilitates managers in the allocation and control of firm’s resources, monitoring of operations and supporting of business strategic decisions. Empirical data from Unilever shows ECMS facilitating management decision processes such as pursuance of expansion programs. Globalcom also claims that ECMS smoothes coordination of IT programs and facilitates managerial decisions such as system upgrading and the development of new technical standards bearing in mind cost. The survey however rather shows minimum support for ECMS facilitating management flexibility and strategy and this can be true since in terms of flexibility, Nigerian working environment is expected to be hierarchically aligned and so ECMS which also focuses on collaborations cannot really determine flexibility. It however, in many ways helps in the process and with regards to strategy, the benefits could be that ECMS helps in long-term organizational planning by high level management with important decisions such as business merging and acquisitions, marketing ,competition ,product planning and customer retention, (Shang and Seddon,2002, p.278).
**ECMS Benefit Framework**

The ECMS benefit framework as described by Grahmann et al (2009) should be able to determine potential relations among different benefits and also gives a clear insight into the impacts it has on the organization. The framework which is also called the enhanced ECMS benefits framework includes benefits impact on areas such as operations, management, strategy, IT and Non IT infrastructure, inter-organizational relations and employees (See Figure 4 above).

Response from findings shows that Globalcom, Unilever and First Bank places high value on ECMS and the positive impacts it has on employees. All three respondents including the survey shows that ECMS helps to increase potential in employees such as high productivity, efficiency and control. Another interesting response was the fact that ECMS create an added value to the operations of the various organizations under study. Interview shows that operational issues such as the automation of job assignments, scheduling and executions has been made easier. Furthermore, human resource management has become human capital oriented tapping into diverse talents. Cost issues such as overhead and operational costs have been dramatically reduced as explained by the various respondents. Another interesting aspect of the organization where ECMS has much impact is its IT units and the respondents expressed how much their organizations previous needed a system that can to a good level centralize records, files and documents management systems into a more efficient and effective use which ECMS has delivered to an appreciable level. The respondent from First Bank expressed significant satisfaction for ECMS and added that IT forms a core part of the bank’s daily operations. To summarize this, the study shows that ECMS plays value adding roles within the organization and though not seen as major role player on factors such as inter-organizational relations and, it is very important in facilitating operations, employee management and effectively managing organizations IT systems resulting in major cost reduction, efficiency and keeping up to organizational and government regulation standards.

**ECMS Cost-Benefit Analysis**

According to the findings from the interview, Unilever has benefited from using ECMS, for instance, the contract for the installation of its ECMS cost about 35million Naira and looking at earlier estimates that 75 percent has been saved on cutting wastages in the organization through ECM adoption, it can be said that ECMS does lead to increase in the return on investment.

The respondent added that issues such costs have been reduced with high employee productivity, efficiency and strategic decision making having been facilitated by ECMS. Doug (2007) is of the view that to be able to evaluate the benefits in terms of cost of any IS project; the focus should be the return on
investment (ROI). This is also linked to Globalcom which was more focused on reducing costs and respondent explained that as a result of introducing ECMS, costs hiking which was a problem has been slowed leading to appreciable return on investment. Respondent from First Bank stated that IT especially forms a core factor in daily operations and hence having a good IT system was inevitable. In a nutshell, the responses from the interviews and questionnaire survey is in agreement to what Doug stated that adoption of ECMS must be driven by how to render more value in terms of greater revenues or stronger loyalty and the need to understand how information flows within the enterprise because of information requirements” (Doug 2007, p.24).
8 CONCLUSION/RECOMMENDATION

The purpose of this study was to critically analyze and evaluate the potential benefits associated with using ECMS within an organization in a developing country like Nigeria. To meet this goal the authors of this research carried out a review of various literatures and it was discovered that ECMS does not only manage content, i.e. to bring central control to all unstructured information across the organization, but also has other benefits such as, compliance, efficiency, consistency, customer service consolidation, return on investment, cost reduction, user satisfaction, risk mitigation amongst others.

A further goal was to establish which aspect of the organization does ECMS have affect most and we did it using the benefit framework developed by Grahlmann (2010) as shown in Figure 4. Results show that the dimensions such as management, strategy, operations, employees, IT Infrastructure, and Non-IT Infrastructure are affected depending on the organizational issues.

Interestingly the empirical data also shows that different organizations have different ECMS benefits though most likely some of these benefits are similar in most organizations. The authors found out that for instance, financial institutions using ECMS place more importance on the benefit impact ECMS has on its IT and operations sections and this is because for those institutions, IT forms the core of daily operations.

The authors of this study were also able to discern that to obtain the benefits mentioned above, the ECMS user must have credible capabilities in the implementation of the ECMS. Failure to have this competence in human and technological capabilities could result in the failure of the entire system and thus result in heavy losses for the organization.

According to Thomas Hogin, the adoption of ECMS is being driven by two fundamental business catalysts: “How to render more value in terms of greater revenues or stronger loyalty and the need to understand how information flows within the enterprise because of information requirements” (Doug 2007, p.24). This statement and our findings clearly show that the returns expected on the investment of ECMS is a major driving force pushing organizations to the adoption of the enterprise. The organizations that have adopted the ECMS have clearly profited from their investment and have continued to expand this system within the organization.

Furthermore, Empirical data based on all three organizations interviewed including the survey shows that among the main motives of adopting ECMS is for these organizations to be compliant not only to internal information management standards but also compliance with government
regulation i.e. the laid out rules and regulations standards set by the Nigerian government e.g. financial regulations for First Bank; food safety regulations for Unilever; and financial security and privacy laws for Globalcom.

This paper contributes to the ECMS literature by providing researchers, practitioners and non practitioners with a research structure that exhibits areas of interest in the contexts of ECMS and its related benefits. It is our belief that organizations must not only consider the benefits but also the impact that these benefits can have on the organizations’ overall performance. At the same time, organizations must recognize the creative skills and expertise of the involved people so as to improve the process of managing enterprise content. It is thus also hoped that this research will contribute to the ongoing discussion of the trend of ECMS usage and that the non users would see that there is more to gain in terms of the costs reduction, risk mitigation, collaboration amongst employees, increased business efficiency and productivity amongst others. Furthermore, organizations that tend to adopt ECMS must also be willing to align their business process to the adopted ECMS.

A general conclusion is that the benefits to cost ratios were understood from the interviews to be positive. One interviewee estimated that before the adoption of ECMS, an average of 95million naira was being lost through unproductive business practices but after the adoption, there was a 75 percent drop in overall costs.

The authors of this study recommend that companies in Nigeria that are not using the ECMS should consider adopting it because of the findings in this study.

### 8.1 Further Research

The findings of this paper have clearly shown the potential benefits that organizations can derive from ECMS usage in Nigeria.

Since Nigeria is a developing country and ECMS is a growing trend, the authors are of the view that a further research into how to successfully implement ECMS in organizations in Nigeria could be helpful to businesses in the country.
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Internet sources


Appendix 1

1.1 Assessment of the Most Important Articles


Provenance

This article is written by James D. McKeen and Heather A. Smith and could be found in Emerald of the Mälardalen’s School Database. McKeen is a Professor of MIS at the school of Business, Queen’s University, Canada and received his PhD in Business Administration from the University of Minnesota, USA. His research interest includes IT strategy, user participation, the management of IT and knowledge management in organizations. He is published in variety of journals including the MIS Quarterly, JITM, CAIS and many others. He currently serves on the Editorial Board of the Journal of End User Computing and was the MIS area editor for the Canadian Journal of Administrative Sciences for seven years. Heather Smith is a Senior Research Associate with Queen’s University School of Business and the founder and co-facilitator of the IT Management forum. The pair has co-authored in several other articles and have written books in the field of IT.

References

The article contains 19 pages with 23 references to its credit. We the authors of this research laid much emphasis on this article and consider it credible because the authors of the article extracted the information’s from recognized writers such as Ginzberg and Cooper. Furthermore the authors themselves are credited with quality writing in the field of IT Sciences. James D. McKeen is a professor of MIS at the Queens University with his research interests including IT strategy, user participation, the management of IT and knowledge management. His research is published in variety of journals and serves on the editorial board of the Journal of End Computing. He and Heather Smith have written books such as Making IT Happen which have been referred by researchers in the field of IT. Even though the pages for the article are not voluminous it is linked to credible articles in the field of IT with which they have written numerous. Fisher (2007, p.92) states that and I quote “the more the more the proportion of articles, the more up to date and embedded in the literature the piece will be” and that’s just what we found with this article.

Precision of the writing

According to Fisher (2007, p.92), the expressions and arguments given must be substantiated and also key concepts used in work carefully defined. The authors for this article carefully defined the major terms and concepts at the preceding chapters to give the reader a glimpse of what is at stake. They also mention interesting terms such as IT value, IT value identification and realization, IT benefits and Costs which was also of our interests. Tables and diagrams have also been used to make reading more interesting to understand.
Description of analysis

Fisher mentioned in his book that a good piece of writing will have a mixture of description and analysis but added that a book or article that is purely descriptive is likely to be of lesser quality than one with analysis added to description,( Fisher, 2007, pp93). This article contains major topics which have been well defined and analyzed by defining the core of ECMS, usage advantages and the implications of appropriately administered and even though its not so many but quite precise.

Research Evidence

As a former senior IT manager and the founder and co-facilitator of the IT Management forum, Heather Smith has enough experience in the field of IT and we believe what both authors write have practical implications to reality. One of the authors is also a an advisor on IT excellence Awards University Advisory Council. In a nutshell, the credentials of the authors for this article are highly rated in the field of IT and research into ECMS for that matter, and even though we don’t know yet if research has been carried out on the issues raised in this article, we believe their experiences as themselves advisors in the field of IT can justify this.

Forensic Critique

According to Fisher (2007), forensic involves evaluating relevant literatures that have been used for a particular writing. The authors of this article used well selected topics from specific areas of ECMS and clearly argued out to convince the reader. This involves literature review, analysis and finally conclusion.

Shari Shang; Peter B. Seddon (2002): Assessing and Managing the benefits of Enterprise Systems: The business manager’s perspective

Provenance

The authors for this work are Shari Shang and Peter B Seddon. Shari Shang is a Research Associate in the Department of Information Systems at the University of Melbourne, Australia and Peter B Seddon is an Associate Professor in the Department of Information Systems also at the University of Melbourne, Australia. Before Shang enrolled in her PhD, she was a consulting manager for the IBM Consulting Group, and KPMG Peat Consulting in Taiwan. She has also led various process reengineering projects and implemented numerous applications. Peter Seddon has done major publications in the areas of accounting information systems. For the reason that these two authors have led and plays key roles in their respective fields, we believe that this article written by them is up to standard and appropriate for scientific reference. Furthermore, the article includes data from 233 enterprise systems vendor-reported stories published on the Web and also based on interviews with managers of 34 organizations using Enterprise Systems and provides a detailed information of benefits that have reportedly been acquired through Enterprise Systems implementation.
References

This article consists of 29 pages and have 61 references with common names in the business and IT field such as Porter, Kaplan, and Straus and for many of which they co-authored. Most of the references used for this article are journals but also includes books. Date ranges between 1995-2002.

Precision of the Writing

According to Fisher (2007, p.92), the more precise and careful can be with their language also determines the quality of their work. This article has clearly defined concepts linked to organizational enterprise systems. In order to get a clear understanding of the theme and the various divisions of this article, the authors used diagrams to depict diagramatically facts on the subject. Also key works such as business benefits, operational benefits, strategic and IT infrastructure have been used. The authors concluded with analysis and made recommendations for further studies.

Description of Analysis

A good piece of academic of academic writing must blend description and analysis as stated by Fisher (2007, p. 93). This article is very descriptive in nature but it also have a good analysis to get answers to the main theme of the research.

Research Evidence

As previously stated, this article was written based on gathered data from 233 enterprises systems reported stories published on the Web and also based on interviews with managers of 34 organizations using the Enterprise Systems which shows that there is an aspect of its application to reality considering the large sample size used.

Forensic Critique

The authors of this article relied more on the qualitative approach which is based on extensive description on the research theme, making findings and analysis. Diagrams are also mostly used which makes understanding easy and clearer. The backgrounds of the authors are also strongly linked to the IT field making us believe their argument in this writing is credible.
Appendix 2

2.1 Questionnaire

QUESTIONNAIRE

This interview is intended to obtain information about the benefits that organizations derive from the use of Enterprise Content Management Systems. This interview will help the authors of this research to gather empirical data that would be evaluated or analyzed to arrive at an appropriate conclusion. This is in fulfillment of the Masters Dissertation by students of Malardalen University, Sweden. We hope to be able to help answering Nigerian companies with the results of the study. We will send you the results and recommendations.

PART I

What is the name of your organization?

How long have you been working in this organization?
- [ ] Less than 1 year
- [ ] 2-4 years
- [ ] More than 4 years

Does your organization use ECMS?
- [ ] Yes
- [ ] No
How long has ECMS been in use in your organization?

- □ Less than 1 year
- □ 2-4 years
- □ More than 4 years

PART II

Here you will find questions that are aimed to understand the relationship between the implementation of ECMS and the potential benefits from it. Please check the appropriate box to determine your attitude or personal feelings towards each benefit in your organization. 7 = Strongly Agree 6 = Agree 5= Somewhat agree 4 = Undecided 3= Disagree somewhat 2 = Disagree 1 = Strongly Disagree

1. ECMS Implementation significantly creates a positive change of organizational culture.

2. ECMS Implementation leads to an increase in user satisfaction.

3. ECMS Implementation leads to improved efficiency.

4. ECMS Implementation improved content management in your organization.

5. ECMS Implementation leads to a positive change of business processes in the organization.

6. The implementation of ECMS mitigates risk in the organization.
7. The implementation of ECMS leads to improved compliance measures such as good records management, integrating and complying with regulations and adopting proactive strategies in the organization.

8. The Implementation of ECMS leads to cost leadership such as reduced cost of production whiles maintaining quality of products or services.

9. With the implementation of ECMS, there is more collaboration in the organization.

10. New or value added services are created in the organization due to the use of ECMS

11. ECMS Implementation leads to improved governance within the organization.

12. There is an improved change in the work organization with the implementation of ECMS.

13. ECMS Implementation reduces the cost of transacting business in the organization.

14. There is a return on investment when ECMS is implemented in an organization.
PART III

Below you will find a list of the different dimensions of the organization that can be impacted by the ECMS implementation in the organization. We want to investigate the importance of this benefits on the different dimensions of the organization. Please tick each factor on the given scale according to your view or perception.

5 = High; 4 = Noteworthy; 3 = Moderate; 2 = Low; 1 = Insignificant

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<tr>
<th>Factor</th>
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<td>Non-IT infrastructure</td>
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<td>Interorganizational relations</td>
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<td>Stakeholders</td>
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PART IV

Please answer the following questions

ECMS implementation is important in your organization.

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Irrespective of the risks from ECMS implementation, its importance in your organization is very vital.

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Benefits from ECMS implementation outweighs the costs of implementation.

1 2 3 4 5 6 7
Strongly disagree |||| Strongly agree

2.2 Interview Protocol
This interview is intended to obtain information about the benefits that organizations derive from the use of Enterprise Content Management Systems. This interview will help the authors of this research to gather empirical data that would be evaluated or analyzed to arrive at an appropriate conclusion. This is in fulfillment of the Masters Dissertation by students of Malardalen University, Sweden. We hope to be able to help answering Nigerian companies with the results of the study. We will send you the results and recommendations.

1. What is your position and what role or roles you play within your organization? How long have you worked in this company?

2. What motivated your organization to adopt ECMS and when was it adopted?

3. From your perspective, what do you see as the main benefits that your organization has derived from ECMS usage since its adoption by your organization?
   • From your point of view, how has ECMS implementation impacted organizational culture or operations?
   • Do the users have adequate knowledge of ECMS functions and acceptability?
   • Would you agree that the adoption of ECMS has significantly increased efficiency as compared to before ECMS was implemented?

   1 2 3 4 5 6 7
   Strongly disagree |||| Strongly agree

   • How has ECMS affected your organization’s content management for instance?
     ▪ Reduce content duplication?
     ▪ Serving as a critical backup?
• Retain content?

• Has ECMS implementation led to improved **business processes** or other tasks?

• From your perception, did ECMS implementation **mitigate risks** in terms of content distribution risks controls and content ownership privacy?

• ECMS compliance strategy involves good records management, integrating and complying with regulations and adopting proactive ECMS strategies developed within key areas. From your point of view, how is your organization’s compliance performance?

  1  2  3  4  5  6  7
  Weak compliance ☐ ☐ ☐ ☐ ☐ ☐ ☐  Strong compliance

• Has there been any potential **cost reduction** as a result of ECMS adoption. An estimate?

• Organizational **competitive advantage** involves gaining competitive edge over competitors through cost leadership as a result of cutting costs, while maintaining quality. Can you comment on this from your organization’s perspective?

• How has the implementation of ECMS aided **collaboration among various units** and teams within the organization?
• Do you personally see **any new value-added to you products or services** as a result of appropriate content management in place?
• What other benefits from using ECMS within the company are you aware?

4. Is your ECMS managed by experts and has it ensured well managed ECMS architecture and improved governance? More details on roles of the experts?

5. Has ECMS implementation imposed a change in work organization such as

• Work scheduling?
• Job design?
• Inter-personal relationships?
• Career security?, and
• Management style?

6. Would you say the implementation of ECMS has led to the increase in the return on investment? Has this been measured? If not, an estimate?

7. Has the implemented ECMS created new opportunities for management flexibility?

8. How does ECMS affect your organizational strategy?

9. What is the overall impact of ECMS on organizational operations?

10. From your point of view has ECMS increased employee productivity and efficiency?
11. Each benefit from ECMS implementation or adoption may have a significant impact on different aspects or dimensions of the organization. So using a scale, which area of the organization do you think benefits most from ECMS implementation or adoption? (5=High; 4=Noteworthy; 3=Moderate; 2=Low; 1=Insignificant).

- Employees
- Operations
- Management
- Strategy
- IT infrastructure
- Non-IT infrastructure
- Inter-organizational relations
- Stakeholders

12. How important is the implementation of ECMS is to your organization?

Not important 1 2 3 4 5 6 7 Very important

13. From your perspective, was it worth the risks taken for implementing the ECMS and would you agree it outweighs the costs?