E-Business Deployment in Nigerian Financial Firms: An Empirical Analysis of Key Factors

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ABSTRACT

This research provides empirical evidence on factors that influence e-business deployment among financial firms in Nigeria. It explores possible differences that exist among financial firms using in-house e-business capabilities and those that outsource their e-business capabilities. This research contributes to the few pieces of literature on e-business (EB) experiences among firms operating in Africa, particularly Nigeria. Technology-Organization-Environment [TOE] model underpins the framework and hypotheses development for this article. The independent variables are the firm, technological and environmental factors while EB use constitutes the dependent variable. The findings reveal that all the factors were significant, but that environmental factors were key determinants of EB use among the firms. In addition, this study reveals practitioners’ interests in Nigerian government agencies to maintain and enhance the existing EB legal, regulatory and security frameworks in the country. By extension, this could enable greater EB use in firms, which could improve the overall economy.

Keywords: electronic business; financial firms; information systems; Nigeria; toe perspective

INTRODUCTION

Globalization, enhanced by the proliferation of information system (IS), has increased national and regional markets integration, international production, distribution, marketing, and consumption. A recent eGlobal report indicates that as access to the Internet improves throughout the world, the number of active (those who spend at least 1 hour per week online) users rose to about 640.2 million in 2004 (eGlobal Report, 2005). Similarly, the eGlobal report reveals various forecasts of total world e-commerce revenues by year 2004 ranging from a conservative value of $963 billion to $4 trillion. International Data Corporation (IDC) projects e-commerce revenue by 2004 at $2.8 trillion while Goldman Sachs & Co. estimates $3.48 trillion (IDC, 2002). The report also indicates that 2003-2005 growth of e-commerce will be driven by the B2B segment not business-to-consumer (B2C) transactions. In 2002, the B2B sector accounted for 79.2% of total global e-commerce activity, but would grow to about 87% of total e-commerce in 2004 (IDC, 2002). Based on the foregoing, this article examines e-business (EB) use and performance in Nigerian
financial firms using the technology-organizational-environment framework (TOE).

E-business is often regarded as focused on e-commerce, however, the true definition is much broader. The Aberdeen Consulting Group defines e-business as the automation of the entire spectrum of interactions between enterprises and their distributed employees, trading partners, suppliers and customers (Intel, 2003). E-business encompasses the application of electronic systems to transform functional processes. Both definitions include a broad range of business processes such as multi-entity product design collaboration, electronic product marketing and information sharing, e-commerce sales of product to consumers or between firms or governments, internal business process re-engineering, multi-entity supply chain collaboration and customer relationship management. The operational definition of EB in this article includes all business transactions firms conduct using open standard (e.g., the Internet) or closed standard networks (e.g., Electronic Data Interchange (EDI)). The reason is to provide for most businesses in Nigeria that still run their operations on EDI.

Revenue generated from EB support and related services grow at a rapid rate in Nigeria, despite the insecurity in online economic transactions. With the liberalization of the telecommunication sector and the introduction of GSM services, experts predict a boom for EB activities across Nigeria including Lagos. Lagos is the commercial and economic hub of Nigeria attracting key investments in financial activities and information and communication technology (ICT). As the fastest growing industry in Nigeria, the ICT industry is projected to be the next foreign direct investment driver in the next decades. EB value was USD8.3 billion in 2002 up 22% from USD6.8 billion in 2001. EB values for 2004 was USD11.5 billion (Ujah, 2005). The financial services industry (FSI) is a significant source of development and growth in Lagos. The Lagos corporate sector, especially the financial and oil industries are all expected to experience increased growth in their future EB activities.

Notwithstanding enormous corporate interest and many success stories on EB, there are few contextual studies on factors that determine its deployment in Africa. In addition, prior studies on e-business (EB) focused primarily on the statistics and growth patterns of e-business (EB) in terms of usage across industries and countries located in the European Union, United States of America and Asia (Eze & Gilbert, 2004). Similarly, Nigeria, like most African countries, provides little empirical studies that explain the dynamics of EB deployment in firms (Eze, 2006; Eze and Gilbert, 2004). The goal of this article, however, is to contribute empirical material to the literature on EB development in Africa by investigating factors that determine EB use among Nigerian financial firms. It also examines the dynamics of outsourced and in-house EB applications among Nigerian firms. These may provide some bases for additional future researches that might address specific issues in EB developments among firms from a comparative perspective.

THE CONTEXT FOR E-BUSINESS AND THE FINANCIAL INDUSTRY

Nigeria is located at the southwestern coast of West Africa, consists of 36 states, and covers an area of about 923,768 sq km. Nigeria shares borders with Benin, Cameroon, Chad and Niger. Its population, estimated at 130 million (comprising about 250 recognized groups, many divided into subgroups of considerable social, economic and political significance), is sparsely and densely distributed in rural areas and cities (land: 910,768 sq km, water: 13,000 sq km). Nigeria is slightly more than twice the size of California, which makes it extremely difficult to provide universal communications access to its entire population. EB activities between government agencies and private entities have not taken strong roots except in the case of government agencies such as the Central Bank of Nigeria and the private banks including oil companies. There is the potential for growth in this area and evidence suggests that more sec-