Social Drivers for ICT Diffusion among Agrarian Business Enterprises in Nigeria

Bartholomew Aleke, University of Northumbria, UK
Udechukwu Ojiako, University of Southampton, UK
David Wainwright, University of Northumbria, UK

ABSTRACT

In this paper, the authors examine the process of diffusion of innovation ICT within agrarian business enterprises operating in developing countries. There is substantial research in the area of Diffusion of Innovation Theory (DoI) and its application to Information Systems (IS) research within organisations. However, in recognition of the conceptual limitations of DoI, researchers have called for the incorporation of aspects of Social Network Theory (SNT) into DoI frameworks. The findings of this research suggest that an understanding of the conceptual basis of innovation is a major driver of successful innovation adoption.

Keywords: Agrarian Businesses, Developing Countries, ICT Diffusion, Social Drivers, Social Network Theory (SNT)

INTRODUCTION

The use of ICT by agrarian business enterprises represents innovative change, especially for SMAEs operating in developing countries (Rao, 2007; Weick, 2001). It represents innovative change in that it is a significant leap from traditional paper-based methods of business operations such as information sharing. The reality however is that recognition of the capabilities of ICT by agripreneurs does not in any form enable efficient and effective diffusion (Rao, 2007): neither does it transform to an automatic enhancement or improvement of productivity, or in fact an acceptance of use by agripreneurs (Adrian et al., 2005). Both an enhancement of productivity and a successful diffusion process are highly dependent on effective policy enactment and implementation (Baerenklau & Knapp, 2007).

Recognition of the importance of ICT to the agriculture industry has led to policy makers calling for the development of ICT that will facilitate an increase in agriculture productivity (Minten & Barrett, 2008). It is expected that this increase in agribusiness productivity will be translated into national economic development (Omamo & Lynam, 2003). In developing countries, Small and Medium Sized Agribusi-
ness Enterprises (SMAEs) have a substantial role to play in this development. Although the role of agrarian business enterprises in agriculture cannot be over-emphasized (de Lauwere, 2005), its productivity has been compromised by a range of factors. These factors include poor ICT policy formulation and implementation (Diso, 2005) a lack of credit facilities (Jabbar et al., 2002), a high level of illiteracy within the industry (Sabö & Zira, 2009), a changing customer base (Mishili et al., 2009), the lack of access to relevant market information (Awoke & Okorji, 2004), poor supply networks, which restricts their business transactions to within a confined region (Higgins et al., 2008), inadequate infrastructure (Martin & Jagadesh, 2006), and the non-possession of skills relevant to compete in a modern business environment (Weick, 2001). In most cases, all these problems are attributable to under-investment and made more complicated by the deregulation of agricultural markets, increased quality and ethical (fair trade) considerations and technology. Developed nations for example invest a considerable amount of their per capita income on research and development, and have a considerably greater number of technicians per capita than the sub-Saharan Africa nations (Rodriguez & Wilson, 2006; Watts & Ashcroft, 2005).

THE RESEARCH PROBLEM

There is a divergent range of scholarly views in the area of agribusinesses diffusion of innovation. For example, questions are being asked about whether agribusinesses can appropriately exploit ICT for operational and productivity gains (Adrian et al., 2005; Cox, 2002; Rao, 2007; Weick, 2001), and what the nature of these gains is (Kirsten & Sartorius, 2002). The situation with agribusinesses is particularly complicated for a number of reasons. For example these categories of agribusinesses entrepreneurs are regarded as highly resistant to change (Adrian et al., 2005). Other scholars (Romani, 2003) have also found that agrarian business enterprises in Africa were prepared to allow ethnic and tribal loyalties to overshadow sound entrepreneurial astuteness. Certainly in the case of Nigeria, matters had not been helped with the passing into law in 1977 of the indigenization decree which represented an apparent attempt by government to ‘protect’ SMEs from foreign competition. Mishra and Park (2005) observed that SMAEs had little interest in electronic business and online sales technology. In the opinion of Molla et al. (2006), interest and expertise in the use of ICT by SMAEs was sporadic and only tenable in SMAEs operating in developed countries.

This particular research is set in the south-eastern geo-political region of Nigeria called Ebonyi: Ebonyi’s capital city is Abakaliki. The area is predominantly rural. With 85% of its workforce working in Agriculture, in comparison to other regions of the country, Ebonyi has the largest proportion of SMAEs in the country (Awoke & Okorji, 2004; Oseni & Winters, 2009). The study is therefore justified for the following reasons. The agriculture industry directly or indirectly employs 60% of the population in Nigeria (Manyong et al., 2005), thus making its profitability essential for the development of the Nigerian economy. However, although the importance of the agriculture industry to the Nigerian economy should not be underestimated, it is still an industry characterized by low efficiencies and productivity (Aleke, 2003; 2010; Aleke et al., 2009). The second justification for the study is that only a limited number of studies have focused on ICT diffusion in agribusiness and the impact of social processes on the process of diffusion in heterogeneous cultural settings.

CONTEXTUALIZATION

Agriculture in Nigeria is to a large extent subsistence-oriented (Aleke, 2010), and dominated by SMAEs (Awoke & Okorji, 2004; Oseni & Winters, 2009). The industry is highly vulnerable to unpredictable weather conditions (Tubiello & Fischer, 2007). Largely, Nigerian agriculture proprietors have been unable to exploit the country’s vast agricultural potential.
Related Content

The Influence of IT-Related Beliefs on Emotional Trust for a Smartphone and Smartphone Continuance Usage: An Empirical Study
International Journal of Technology Diffusion (pp. 31-48).
www.igi-global.com/article/the-influence-of-it-related-beliefs-on-emotional-trust-for-a-smartphone-and-smartphone-continuance-usage/94564?camid=4v1a

Project Quality of Off-Shore Virtual Teams Engaged in Software Requirements Analysis: An Exploratory Comparative Study
Dhruv Nath, Varadharajan Sridhar, Monica Adya and Amit Malik (2010).
Technological Advancement in Developed and Developing Countries: Discoveries in Global Information Management (pp. 132-153).
www.igi-global.com/chapter/project-quality-off-shore-virtual/39435?camid=4v1a
Satisfying Public Relations: The Promise of Social Media in the UAE
www.igi-global.com/article/satisfying-public-relations/76931?camid=4v1a

Socio Economic Influence on Information Technology: The Case of California
www.igi-global.com/chapter/socio-economic-influence-information-technology/23527?camid=4v1a