National ICT Policies and Development: A Stage Model and Stakeholder Theory Perspective

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ABSTRACT

While there is a fairly robust literature on information and communications technology (ICT) national policy, there are missing elements in the existing research. First, nation states at different stages of development are generally not considered in terms of what kind of ICT national policy is optimal. Second, a stakeholder perspective on the creation and implementation of the policy is typically absent. This theoretical paper attempts to fill these gaps by combining the idea of nations at different stages of development with stakeholder theory. The authors also integrate past thinking and research about information technology transfer, i.e., ICT outcomes, into a Stage-Stakeholder Model of ICT Policy. Directions for future research are proposed.

Keywords: ACIT-APIT Program of Research, E-Readiness, ICT National Policy, Stages of Development, Stakeholder Theory

INTRODUCTION

How does the formation of a national information and communications technology (ICT) policy affect the diffusion of information technology (IT), the growth of the IT sector, and economic health across nations and regions of the world? Whereas scholars have speculated about the impacts that such policies have on national development, empirical examinations to date have been few and far between. Thus the problem has not been dealt with as rigorously as it might be in the IS/IT literature. Part of the problem, we surmise, is lack of an established theory base and inconsistent conceptual grounding of the problem.

This point notwithstanding, it must be recognized that there is an extant literature on national ICT policy (Gurbaxani et al., 1990,
Prior works have examined critical topical elements, including economic development, national IT policy, culture, stakeholders, and ICT policy outcomes, but they fail to create a composite picture and to model important, consequentially complex relationships (Checchi, Hsieh, & Straub, 2003). There is a need for a deeper consideration of critical constructs to provide more insight into the extant relationships among key variables. In this paper, we argue that what has been missing from the discourse include: (a) the notion of stages of national economic development, (b) the inclusion of stakeholders and the concept of stake, and (c) the dynamic interaction of stakeholder linkages with national IT policy and ICT policy outcomes.

Why is it crucial to better understand the impact of national ICT policies? There is ample evidence that a country’s economic and social development can be radically affected by ICTs (Meso, Musa, Straub, & Mbarika, 2009). Nations, therefore, enact policies to increase the use and effectiveness of ICTs, i.e., their levels of e-readiness and competitive positioning in the networked world. It is vital therefore to understand the process and substance of ICT policies.

The majority of studies to date do examine contingencies of ICT policy formation and execution, but they offer little theory or concrete guidance for the actors involved and their interaction (Checchi et al., 2003; Shen, Straub, & Trauth, 2007). Some of these ideas were listed but not fully elaborated in Shen et al. (2007). Moreover, while there has been some empirical work examining national IT policy and consequences (e.g., Trauth, 2002), there is little theoretical consideration for stages of national development. The goal of this paper is to systematically consider the factors that affect ICT policy formation and execution leading to enhanced e-readiness. In particular, we ask the following questions:

1. How does the stage of development of a country affect ICT policy?
2. How do stakeholders influence ICT policy formation?
3. How do stakeholders influence ICT policy execution?
4. How do ICT policy and the set of stakeholders affect e-readiness?

In this paper, we introduce a Stage-Stakeholder Model of ICT Policy which addresses these issues. This theoretical model is an extension of the scope of a program of research (PR) in international IT studies that started in the fall of 1992. In the first half of the 1990s, the early phases of this research focused on identification and establishment of relevant research constructs and variable relationships and pre-testing of research instruments. Subsequently, the team gathered primary data in the Arab cultures of Jordan, Sudan, Saudi Arabia, Egypt, and Lebanon. Using written surveys and field interviews, this phase provided data for an initial testing of a cultural influence model of information technology transfer (ITT). Analysis of data collected in the later phase suggested that cultural beliefs, cognitive beliefs, and technological culturation significantly affected ITT (Hill, Loch, Straub, & El-Sheshai, 1998; Hill, Straub, Loch, Cotterman, & El-Sheshai, 1994; Loch & Straub, 2004; Rose & Straub, 1997). Subsequently, the PR focused and expanded the model to include the impacts of national ICT policies on ITT and ICT diffusion.

Although this PR has led to insights into the phenomena of national IT policy and culture, its scope did not cover the complex relationships that exist between stages of national development, stakeholders, national ICT policy, and ICT policy outcomes. Moreover, as noted, while there is significant prior literature on national IT policy, it generally does not integrate stages of ICT development with stakeholder interest as a key focus. A few studies on the digital divide (e.g., Crenshaw & Robison, 2006; Dewan et al., 2005) do investigate the effects of a country’s stage of development on adoption of ICTs and diffusion of the Internet, but little research in this vein has been carried out over the last half decade.
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