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E-READINESS FOR DEVELOPING COUNTRIES: MOVING THE FOCUS FROM THE ENVIRONMENT TO THE USERS

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ABSTRACT

The achievement of high levels of e-readiness is being increasingly heralded as one of the top priorities for developing countries. Furthermore, a growing amount of time, money and effort is being invested in calculating the level of a country's e-readiness. This paper carries out a critical review on the concept of e-readiness, with a special focus on developing countries. The results show that used by themselves, such measures do not help in terms of development as they tend to focus on the wider environment while ignoring the level of the organisation. In this light, a new model is proposed which gives importance to both e-readiness (the environment) and technology acceptance (the organisation), in order to gain a richer understanding of the situation.

1. INTRODUCTION: WHAT IS E-READINESS?

E-readiness (electronic readiness) is a measure of the degree to which a country, nation or economy may be ready, willing or prepared to obtain benefits which arise from information and communication technologies (ICTs).1 This measure is often used to gauge how ready a country is to partake in electronic activities such as e-commerce and e-government. In most cases, e-readiness is represented in terms of indices, where countries are rated in various areas such as the number of telephone lines per 100 people, or the percentage of GDP spent on IT infrastructure. The results are tabulated and can then be used to make comparisons both between countries in the form of rankings, as well as longitudinal studies within countries.

To date, a vast number of e-readiness rankings have been formulated through research by numerous government and private institutions. Each ranking is often the product of differing methodologies, and divergent definitions of e-readiness. As a result, the findings of the various studies are not consistent with each other.

The Economist Intelligence Unit's (2005) rankings are commonly used in the media. It defines a country's e-readiness as a "measure of its e-business environment, a collection of factors that indicate how amenable a market is to Internet-based opportunities". Another influential measure of e-readiness is 'Readiness of the Networked World', a Harvard University research project which sets out a framework for developing countries to evaluate their e-readiness. Readiness in this context is defined as "the degree to which a community is prepared to participate in the Networked World, which is gauged by assessing a community's relative advancement in the areas that are most critical for ICT adoption and the most important applications of ICTs" (CID, 2006).

This paper does not attempt to carry out a comprehensive review of the assessment tools that are currently available. Two such detailed studies have been undertaken by

[1] This paper assumes that ICT's do indeed provide benefits.

Bridges.org (2001, 2005a) and MIT's Sloan School of Management (Maugis et al., 2003). Instead it attempts to critically assess the concept of e-readiness, and suggest ways to bridge the limitations of this tool.

At this point, it is appropriate to clarify the scope of this paper. E-readiness figures are often used to illustrate the Digital Divide (inequalities in access to technology), and conversely, Digital Divide studies may measure a country's level of e-readiness. In order to avoid confusion, the focus of this paper is specifically on those indices which refer to the concept of 'readiness' rather than that of digital inequalities per se.

2. E-READINESS: A CRITICAL EXAMINATION OF THE LITERATURE

Examining the literature available on the subject of e-readiness reveals that there are differing perspectives on the usefulness and credibility of the existent tools. In order to gain a clear understanding of the situation, this paper divides existing viewpoints into those that support e-readiness measures as useful and essential in the context of development, and those that discuss the limitations of these measures. Such a distinction will allow one to take an informed standpoint in the light of previous research.

It should be noted that because the field is relatively new, most literature available on the subject has been written during the last decade. Furthermore, despite the existence of differing perspectives, there have not been any substantial paradigm shifts within this timeframe, making it impossible to trace a historical progression of ideas. Therefore, a worthwhile organisation of the literature is to focus on 'for' and 'against' arguments.

2.1 The Relevance of E-Readiness

When considering the various reasons as to why e-readiness rankings are so popular by both governmental and non-governmental organisations the world over, the ease of using these measures is most prominent. Having an easily quantifiable set of indicators provides an overview of a country's situation, and can easily form a basis for comparison and future planning. This advantage arises from the fact that e-readiness measures have the ability to summarise a broad set of characteristics of a given country (Picci, 2006).

This easily digestible information can assist with a developing nation's ICT advancement by focussing efforts and identifying areas where external support or aid is required (Purcell and Toland, 2004). As such, e-readiness assessments can direct development efforts by providing benchmarks for comparisons and gauging progress. They are also a useful tool to judge the impact of ICTs and to replace exaggerated claims and anecdotal evidence with concrete, measurable data (Bridges.org, 2005b).

It is also apparent that minimum levels of infrastructure, education and supportive government polices need to be in place in order for a country to be able to benefit from ICTs (CID, 2006), and e-readiness provides a measure of these factors. E-commerce is not possible if consumers do not buy online, and e-government is not possible if citizens do not have access to the required technology. Furthermore, higher levels of e-readiness create a ripple effect, increasing the competitiveness of national economies and enterprises, and their ability to create wealth, and hence, employment and empowerment to local communities, eventually leading to poverty reduction (Lanvin and Qiang, 2004).

The Economist Intelligence Unit carries out its own assessment of e-readiness on an annual basis. This serves as a useful tool for those developing countries that have been included in the rankings, as it offers them data at no cost. Furthermore, the methodology of this system is continuously updated, so as to keep it on par with the constantly changing

nature of the digital environment, ensuring that the rankings continually remain relevant in today's world. (EIU, 2005).

Bridges.org (2005b) found that conducting e-readiness assessments within countries is extremely worthwhile as the process can facilitate and fuel concrete planning, and can therefore foster positive changes for the country. Even if this process is not set into motion immediately, it can be useful in providing networking opportunities for relevant experts and institutions, thus starting essential dialogue.

E-readiness assessments can therefore be seen to serve as a useful starting point for developing countries. In order to decide where to go, each community must first know where it is. The assessments provide a firm base upon which to build a planning process, which in itself is an integral step in making sound policy and investment decisions (CID, 2006).

2.2 The Limitations of E-Readiness

Unfortunately, there are numerous limitations to e-readiness measures, a lot of which have already been identified within the existing literature. This is largely due to the fact that these indices are often regarded as overly simplistic solutions to extremely complex problems. Some attempt to overcome these problems by putting forward newer, refined, frameworks (e.g. Maugis et al., 2005; Bui et al., 2003), while others question the validity of the such projects, and the usefulness of their findings (e.g. Bridges.org, 2005b).

In 2001, Bridges.org undertook a detailed study comparing some of the most widely used e-readiness tools available. It concluded that each tool had its own set of benefits and limitations and therefore had to be carefully selected in order to fulfil the required goals. However it posited that by in large, such measures were lacking, and concluded that every model that was studied would require re-designing in order for it to be a comprehensive assessment tool.

Similarly MIT's report, 'Global e-Readiness – for WHAT?' (Maugis et al., 2003), is an in depth review of what is referred to as the 'first generation' of e-readiness tools. The review includes 13 ready-to-use tools, 5 case studies and 2 interview/survey based reports. The results show that most e-readiness studies do not provide information on how the indices were constructed, or how they might be adjusted to take contextual differences into account, thereby imposing serious limitations in terms of flexibility and applicability. To overcome these limitations, the report proposes its own methodology, which can be customised according to the context.

It is apparent by looking at the available literature that a large variety of e-readiness tools currently exist, using a range of questions, statistics, best practice benchmarking and historical analyses (Bridges, 2001). A commonly cited problem that exists with e-readiness is the fact that there are many different types of measures are available today, and that there is no standardisation of measures (Bridges.org, 2001; Bakry, 2003; Maugis at al. 2005). It was not surprising then that the need for international evaluation and benchmarking through comparable statistical indicators was identified at the World Summit on the Information Society in 2003 (WSIS, 2003). In response to this deficiency, the International Telecommunication Union (ITU) created the Digital Opportunity Index (DOI), a standard framework based on internationally agreed indicators, whose function is to benchmark those statistics considered to be the most important for measuring the information society (ITU, 2005). However, the extent to which this tool will be used, and whether it actually becomes 'standard' is yet to be seen.

Maugis et al. (2003) found that most e-readiness indexes are fraught with uncertainties and ambiguities in both theory and practice, and assume a fixed, one-size-fits-all

set of requirements. They do not consider the unique characteristics of individual countries or the demands for specific applications. Moreover, the assumption that development will be achieved only if initiatives are built under situations of e-readiness causes serious issues. This is due to the differing definitions of e-readiness held by different people, in different contexts, and for different purposes. The result is a large gap that exists between theoretical frameworks and practical implications.

This discrepancy is made even more apparent when one considers real world cases. Purcell and Toland (2004) found that although the internet was widely adopted in the South Pacific islands of Samoa, e-commerce had not contributed significantly to its economy. Although the technology was available, people were still not 'e-ready' as such, with most corporate websites being used simply to advertise and share information. The development of e-commerce was inhibited by limited human resources, a lack of awareness of the benefits of e-commerce, poor institutional capacity and the high cost of information management systems.

Speaking in the context of e-government, Bannister (2004) points out that e-readiness indicators often only measure those factors that lend themselves to such measurement. This could, for example, include easily available statistics such as the percentage of GDP spent on e-government or the number of on-line services for citizens. Such measures are often superficial, and do not represent the true nature of the situation. The truly complex, and possibly, more significant measures, often cannot be quantified so easily, and are subsequently casually omitted from indicators, potentially skewing the final results.

Critiquing the relevance of e-readiness tools and measures is not the sole domain of those that do not accept the validity or usefulness of such tools: several scholars that rely heavily upon such tools also freely acknowledge their limitations. Ifinedo (2005), who has carried out e-readiness assessments of nine African countries, stated that these tools were simply descriptive because they tend to describe what happened, and diagnostic because they identified problem areas. However they did not provide a framework on how to go ahead and deal with the situation. So in and of itself, an e-readiness assessment may not be of much use.

Tarantola et al. (2005) maintain that media and policy makers are interested in e-readiness-type composite indicators to attract the attention of the community and to focus policy debate. However, these indicators may provide overly simplistic conclusions to be drawn due to methodological gaps within them. It is therefore critical for decision makers to understand the implications of the information collected in an assessment, and with this knowledge, map out a detailed e-strategy with an action plan for improving e-readiness. Unfortunately, this is rarely the case in reality (Bridges.org, 2005a).

Picci (2006) accepts that e-readiness measures can provide useful summaries, but points out that inherent difficulties arise when attempting to quantify the relevant magnitudes. This is particularly the case in the public sector, where decision makers are required to satisfy generically expressed goals such as social cohesion or environmental sustainability. Due to these complications, Picci (2006) questions the inherent assumption of the link between creating a set of enabling conditions (e-readiness), and achieving a positive impact of information technology in society. E-readiness indexes simply measure the enabling conditions without assessing the affects of policies implemented, or decisions made by organisations as a result of these pre-conditions.

The fact that a society rates highly in e-readiness does not automatically mean that organisations within that society will adopt ICTs to gain advantage. Chu and Tang (2005) exemplified this by using the case of Hong Kong. Despite the high levels of e-readiness in the

city, the majority of environmental and labour organisations that did not successfully adopt technology to achieve benefits. Similarly Altman (2002), who researched e-government initiatives in Latin America, found that there was no direct link between those countries with high potentiality (readiness) and those with actual broad use of e-government. This implies that the link between a country's e-readiness and levels of development with regards to ICTs is somewhat dubious.

A similar idea was explored by Paré (2003) who in the context of developing countries, found that the use of, and access to, information technologies on their own were unlikely to reduce transaction costs sufficient to gain entry into international markets by developing country firms. Therefore, simply creating an e-ready environment did not enable firms to successfully partake in e-commerce. The costs, skills, organisational issues, and other features of service provision that are essential for successful international trade must be considered if policies to promote e-readiness are beneficial to developing country firms.

It is thus apparent that there are numerous limitations and critiques of the use of e-readiness as a constructive framework. Keeping this in mind, the next section explores the implications of e-readiness indices for developing countries.

3. DISCUSSION: IMPLICATIONS FOR DEVELOPING COUNTRIES

So where do e-readiness indices leave developing countries? Do low e-readiness figures mean that developing countries are not able to reap the benefits provided by information technology until they gain more favourable rankings? Must they first invest heavily in infrastructure, legal issues, and skills required to become e-ready, or can they embark on small incremental projects in addition to undertaking wider efforts?

This paper does not reject the concept of e-readiness, or nor does it try to provide a more appropriate index by using unique variables. Instead, the question being asked is whether it is viable to choose an alternative viewpoint to determine the possibility of achieving benefits from ICT's in developing countries. How can developing countries focus on those factors that are important to them, and try and achieve developments at an incremental pace, even if the country as a whole is not deemed to be e-ready?

For many developing countries, the lack of a strong IT infrastructure or skill set amongst the population is apparent, and e-readiness indicators may simply be stating the obvious. Keeping in mind that carrying out an e-readiness assessment takes a significant amount of time, money and effort – this is a worrying fact.

InfoDev, the international partnership focused on using ICT's for development, awarded numerous grants averaging US$50,000 to developing countries to enable them to undertake e-readiness assessments. Bridges.org (2005b) carried out an evaluation on behalf of infoDev to try and determine whether these projects were helpful for decision-makers, or if they amounted to a colossal waste of time and money. The report found that in general, the e-readiness assessments themselves were insufficient to target the use of ICTs toward broader development goals. In this light Bridges.org recommended that the assessments need to be used, to create action plans which are broken down into specific achievable tasks with timeframes and deliverables.

The report states:

> *"Stop identifying gaps and setting priorities at a high level. Anyone working in ICT and development in the country will already know these things, and it is a waste of time and money to keep writing papers and holding conferences that do these same things over and over again. If e-readiness assessment is going to remain useful as a tool, it needs to become far more focused and action-oriented."*

To move from simple measurements to concrete action, it is important to look at both the micro and the macro level, i.e. to consider the firm or the organisation involved in implementing the technology, alongside the environment's e-readiness. Molla's (2004) research indicates that in opposition to the assumption that environmental factors form major barriers to e-commerce in developing countries, firm-specific factors were seen to be more important when differentiating between successes and failures. Important considerations include technological resources, the management, and the commitment of the individuals involved (Molla, 2004). Therefore while not negating the relevance of e-readiness measures, developing countries should consider those areas where it is possible to achieve benefits in the current situation, rather than merely staying focused on improving the external environment.

E-readiness studies provide a developing country with statistics that outline the legal, financial, physical, social and technological infrastructure that is required for it to be a fully networked society. However, they do not explain what is required for an organisation to gain benefits from ICTs, and how this may vary depending on the type of technology, the market sector, and the perceptions of the individuals actually using the technology to gain benefits. This raises questions on the relevance of undertaking such detailed e-readiness studies in isolation; as having an e-ready environment does not automatically foster development. The real issue at hand is using the available technology to achieve benefits.

With the current over-emphasis on e-readiness factors created over time by governments, the media and NGOs; the fundamental question of why these measures are used in the first place, namely to obtain particular benefits, is often sidestepped. At a basic level, it is apparent that in order to gain benefits from ICTs, a firm, organisation, society or individual must first use these ICTs to their full potential. Simply having an environment that is supportive of these technologies is not enough – a further requirement is the question of how likely users are to accept, adopt and then internalise new technologies, so as to maximise potential advantages.

The research question hence arrived at is: What else, apart from e-readiness measures, can developing countries use to realise the potential of ICTs?

4. THEORETICAL FRAMEWORK

E-readiness indices are essentially evaluative frameworks used to assess countries. A review of evaluation literature by Madon (2004), found that "evaluation criteria should come 'from the field' and reflect felt needs and priorities of the users of the project rather than predefined objective criteria". Tying this in with the previous discussion on moving from the macro towards the micro, the author suggests a framework that may be more appropriate to address the real situation faced by firms in developing countries.

After a examining numerous relevant theoretical frameworks, the author has identified two in particular, a combination of which seems to create an appropriate starting point for developing countries.

Molla and Licker (2005) proposed a research model for e-commerce readiness in developing countries based on perceived organisational e-readiness (POER) and perceived environmental e-readiness (PEER). Echoing the previous discussion, their research found that organisational factors had a greater influence on e-commerce adoption than environmental factors did. They subsequently recommended that, alongside nationwide infrastructure development, businesses must pursue organisational and managerial development.

This model (Pictured in Figure 1) is extremely useful in terms of addressing the research question as it combines both environmental and firm level factors. The main hypothesis of this model is that a combination of organisational (POER) and environmental (PEER) factors will determine whether a technology is likely to be adopted and then institutionalised, thereby reaching higher levels of sophistication and integration into an organisation's working processes. In this way, it focuses on what really matters: the use of technology rather than merely the conditions to facilitate this use.

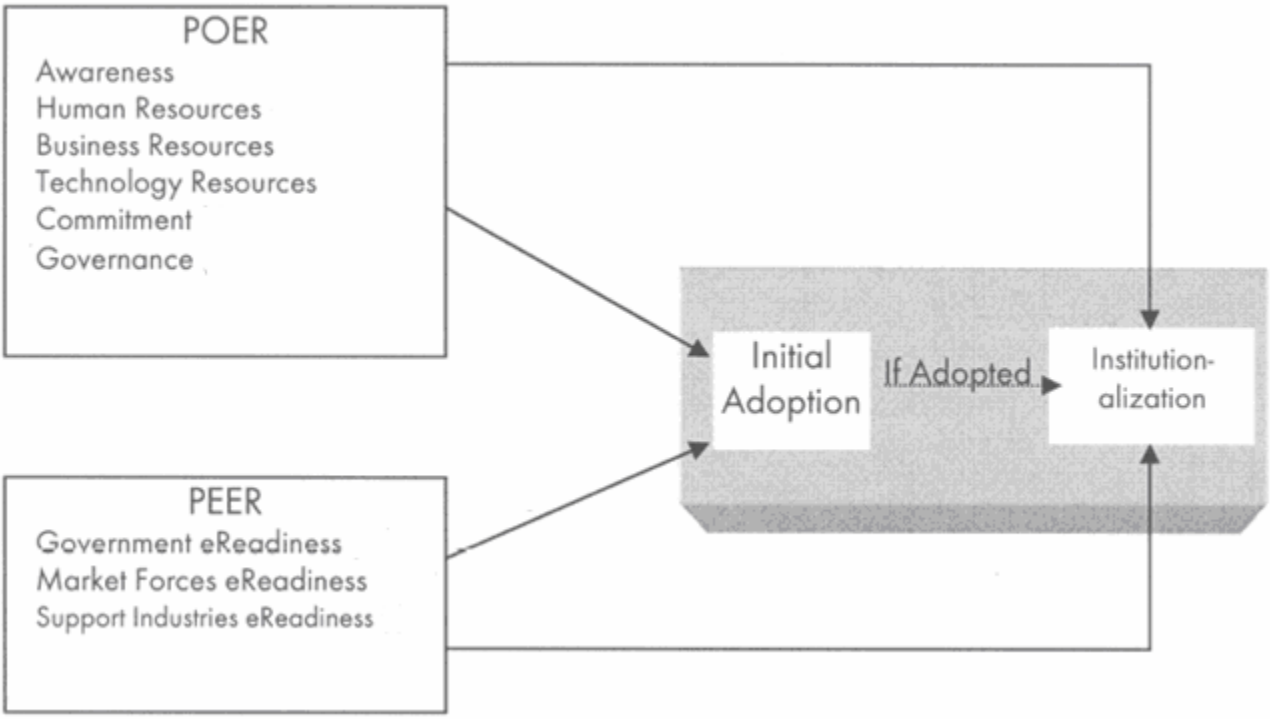

Figure 1: A Model of E-Commerce Adoption for Businesses in Developing Countries (Molla and Licker, 2005)

This model addresses the research question to a large extent. Not only does it focus on the use of technology, it does so with reference to developing countries. However, the reason that this model is not adopted as it stands is due to the fact that its theoretical groundings are based on businesses with the intention of undertaking only e-commerce; whereas this discussion focuses on a broader spectrum.

In order to overcome this limitation, another model is considered; the Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al. (2003), which is not technology or application specific. UTAUT is an attempt to create a unified model of technology acceptance, integrating the various existing theoretical frameworks in the subject area into one theory (expressed graphically in Figure 2).

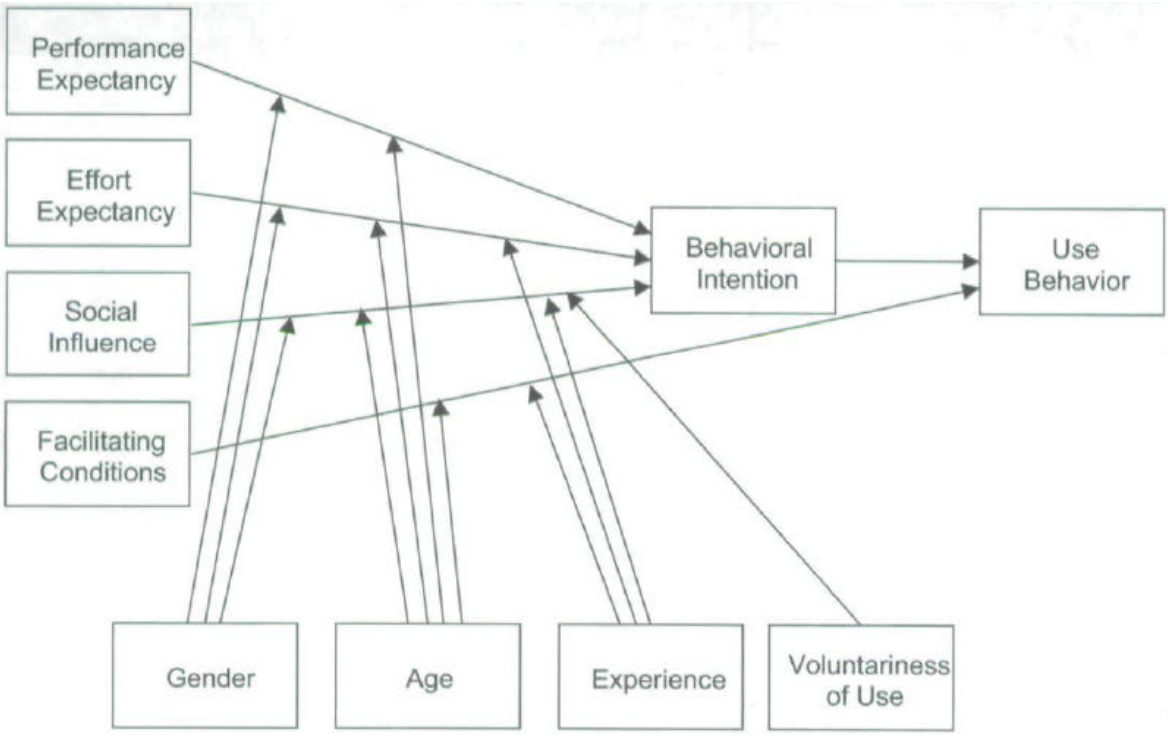

Figure 2: The Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003)

According to Venkatesh et al. (2003), a number valid factors have already been identified in previous literature with regards to technology acceptance. However it is the combination of these factors that creates a more robust model. The UTAUT is better at explaining the use of technology than any of the previous separate models due to its integrated nature. By examining Figure 2, it can been seen that Performance Expectancy, Effort Expectancy, and Social Influence all directly affect the level of Behavioural Intention. Thus this Behavioural Intention, along with other Facilitating Conditions, moulds the actual use behaviour of the technology, i.e. the technology acceptance. The factors displayed horizontally on the bottom of the figure are moderators, each of which affects the factors that they are associated with. A more detailed explanation of these factors is covered later on in this paper, when they are applied to the case.

Like Molla and Licker (2005), the author does not reject the environmental factors, and yet wishes to use a non-application-specific technology acceptance approach; hence a model integrating both concepts has been proposed. To bring both theories into the context of this discussion, POER has simply been replaced with the factors leading to behavioural intention (and hence acceptance and adoption) outlined in UTAUT, and PEER has been replaced with any of the generic e-readiness measures which have been discussed this far. A graphical representation of this modified model is displayed in Figure 3.

The author's new model is thus an integrated approach, and considers both the factors that influence a user's acceptance of the technology (the organisational level), and the factors that create an enabling environment for technology (the environmental level).

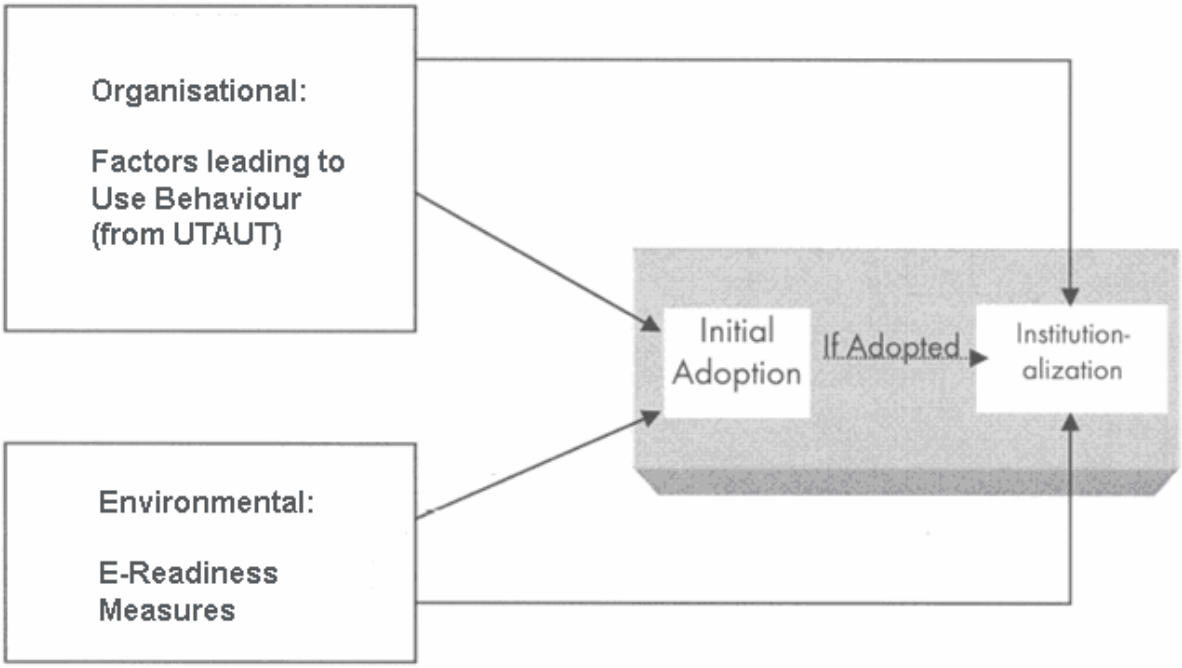

Figure 3: Modified Version of Molla and Licker's Model (2005)

5. METHODOLOGY

This paper will apply the proposed model to secondary data, by means of a previously published case study. Due to the time and resource constraints of this project, this was the only realistically plausible method to apply the conceptual framework to real world data.

Unfortunately, this means that there are serious limitations to this work. Exclusively using secondary data sources means that rather than answering all the questions that have been posed, the scope of the results is limited only to information that is available in the case study. Hence the level of detail to which the methodology can be tested is minimal, and the results cannot be taken as more than a possible suggestion.

6. CASE STUDY: GSS IN TANZANIA AND SOUTH AFRICA

The case that has been selected is a study of the use of Group Support Systems (GSS) in two developing countries: Tanzania and South Africa. It was undertaken by Vreede et al. (2003), and it is worth noting that all the information regarding the case comes from this single piece of work, apart from the measures of e-readiness, which have been cited on each occasion.

GSS is a socio-technical system used to focus and structure group deliberation. It is usually used in face to face group settings using computers that are connected to a network, to allow for parallel, anonymous communication, enabling the largest number of participants to take part simultaneously and equally.

The case study was based on a total of 35 GSS meetings, 24 of which were in Tanzania and involved a total of 328 people, and 11 in South Africa which involved a total of 78 people.

The reason this particular case was chosen was because it was carried out in two different developing countries, and the technology being introduced was new to all applicants. It is therefore a good example to apply the proposed theoretical framework to.

In Tanzania the meetings used mobile GSS technologies which were set up where the participants preferred, excepting meetings that took place at the University of Dar Es Salaam, which was fixed and involved participants from the university itself. The organisations that took part in the meetings held were of various educational, NGO and private sector backgrounds.

In South Africa all meetings took place at the fixed location at the Mikomtek Division of the CSIR, the largest research institution of South Africa. In some meetings, the participants were Mikomtek staff, while in others they were the South African Police Service (SAPS).

7. CASE STUDY ANALYSIS

Using the proposed framework, the information contained within the case study is classified according the theoretical framework proposed.

7.1 Organisational Factors

7.1.1 Performance Expectancy

"Performance expectancy is defined as the degree to which an individual believes that using the system will help him or her to attain gains in job performance" (Venkatesh et al., 2003).

There are numerous perceptions linked to increasing the performance of the job at had – in this case, this would entail achieving more effective and efficient group meetings. The results indicate that the perceived performance expectancy of the system was extremely high,

In both countries the use of an anonymous, written communication tool meant that opportunities for contribution were made more equitable. It had a positive effect towards those that felt they were weak in putting their ideas across orally, and those who were lower in rank and therefore did not have the confidence to speak out.

In general, the perceived usefulness of the application was extremely high for both countries, with Tanzania having a slightly higher perception than South Africa. This was the result of both, preconceived ideas about the technology, and actually seeing the benefits of the technology in practice.

7.1.2 Effort Expectancy

"Effort expectancy is defined as the degree of ease associated with the use of the system" (Venkatesh et al., 2003).

Having the necessary skills to operate the technology can be seen to affect the effort expectancy of the system. This is reflected by the fact that the majority of the participants indicated that computer literacy was an important precondition for using GSS.

Tanzania had a wide range of computer literacy skills, both within and between the organisations investigated. In South Africa there was a difference between computer literacy between Mikomtek (high) and SAPS (low).

As theorised by UTAUT, it seems that the expectancy of effort required to use the system decreased with increased use. A low skill set in computer operation and typing affected the number of ideas shared between participants at the start of the meeting, but this improved as meetings progressed and users became more familiar with the system. To exemplify this, one can take the case of a participant of the SAPS meeting, who at first stated that he didn't even know how to turn on a computer, indicating a high level of effort

expectancy. However as the meeting progressed, his participation became equivalent to others.

It is not only due to computer skills that this system varies from traditional meetings, but also by virtue of the fact that the primary means of communication is written rather than oral. Although Tanzania traditionally has a focus on oral communication, participants found it easier to communicate in written form – especially when they were required to do so in English. This made the whole experience easier for them to partake in, reducing the level of effort required.

7.1.3 Social Influence

"Social influence is defined as the degree to which an individual perceives that important others believe he or she should use the new system" (Venkatesh et al., 2003).

During the meetings, it was noted that inexperienced computer users were helped by those that had prior experience. This social influence enabled the inexperienced users to become involved quickly and to make contributions. It was also seen that limited computer skills did not lower levels of motivation, and instead participants were glad at the chance to learn new skills.

In Tanzania most organisations have strong lines of authority; thus gaining support from the top lines of management is crucial. It can thus be inferred that social factors, such as the hierarchical nature of some societies, is of essence when assessing technology acceptance factors. The research found varying degrees of support from the leaders, though on the whole the management did not feel threatened by the system, and endorsed it, albeit in differing capacities. Support from leaders translated into higher levels of motivation.

In South Africa, the response from the management was generally positive, apart from some initial hesitation from leadership in SAPS. Therefore, as was the case in Tanzania, the levels of motivation were high.

When considering social influence, it is relevant to consider what is known as 'referent power'. This is the extent to which employees hold positions based on contacts rather than skills. This can affect the social influence, as those who hold such power could feel threatened by GSS and negatively influence the perception of the project. On the other hand, they could be influenced by those who positively view the system, and in time accept it.

In the cases of both Tanzania and South Africa, it became apparent that the anonymity associated with GSS was seen favourably by the majority of contributors. In some cases however, certain participants tried to evade this by making their position in the group apparent, so as to achieve personal goals.

7.1.4 Moderating Factors

According to the UTAUT, Gender, Age, Experience and Voluntariness of Use have a moderating influence on the above mentioned factors. For example, effort expectancy is statistically seen to have a greater influence on behavioural intentions in younger women at early stages of experience. However due to the lack of information, the relevance of these factors in the case study cannot be assessed.

7.1.5 Behavioural Intention

As can be seen in the visual representation of the UTAUT, all the previous factors come together to create an individual's decision making process or behavioural intention, with regards to the technology. In turn, "behavioural intention will have a significant positive influence on technology usage" (Venkatesh et al., 2003).

7.1.6 Facilitating Conditions

"Facilitating conditions are defined as the degree to which an Individual believes that an organisational and technical infrastructure exists to support use of the system" (Venkatesh et al., 2003).

In the case of the meetings that were held for the employees of the University of Dar Es Salaam and Mikomtek, it is evident that the required infrastructure was in place. There is however not sufficient information on the organisations that partook in the other meetings.

7.2 Environmental Factors

At the time of the case study, there was a wide divergence between the e-readiness scores of the two countries. According to the EIU's 2003 rankings, South Africa ranked number 33 in the world, while Tanzania was not amongst the top 60 countries ranked by the index (EIU, 2003).

8. IMPLICATIONS OF THE CASE

The case study provides positive results regarding the theoretical stance. Overall, the participants of the meetings were seen to exhibit organisational factors that are known to influence technology acceptance positively. This suggests that the technology has a positive influence in the context of meetings, and benefits could be achieved through GSS. This was also noted by Vreede et al. (2003), who state that GSS is likely to provide value to development, and participants perceived the system as an improvement in their professional life.

What is noteworthy is that neither of the countries was seen to be e-ready according to international rankings, but this did not seem to limit the users. In fact, users in Tanzania were seen to display higher levels of satisfaction than South Africa, even though its level of e-readiness was lower.

9. CONCLUSION

After reviewing the literature available in the field of e-readiness in developing countries, it was found that there were both positive and negative aspects of such measures. It was discovered that although e-readiness measures provide a useful overview of the environmental situation, they do not completely reflect the possibility of achieving development from ICTs in developing countries. In order to obtain a more accurate measure, it seems that looking at the level of the individuals within the organisation using the technology is useful.

However, it must be stressed that this model does not aim to be prescriptive, and it may only be applicable under certain contexts. Furthermore, this study is extremely limited and wholly relies on a single case of secondary data, so the results may not be accurate.

Nevertheless, there are implications for further research in this area. It would be useful to undertake more studies in developing countries that include both the macro and the micro levels, in order to formulate a more refined version of the proposed theoretical model.

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