E-Governance for Small and Medium Enterprises in a Developing Country like Fiji: Potentials and Problems

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ABSTRACT

Information and communication technology (ICT) is seen as a driving force in shaping global economy in the 21st century. ICT plays a critical role in the global economy, which cannot be ignored. While ICT is seen as posing great potential for development in developing countries, it has also been substantiated that developing countries need to harness ICT in order to promote development. Small and Medium Enterprises (SMEs) is one of the areas where governments of developing countries can invest since SMEs play a critical role in economic growth. The application of ICT and e-governance has huge potential for SMEs in developing countries. Based on the extent of the use of ICT among SMEs, this paper attempts to explore the potential and problems ICT and e-governance pose for SMEs in Fiji.

Keywords: Information Communication Technology (ICT), Small Medium Enterprises (SMEs), E-Governance, Fiji

1. Introduction

Information and communication technology (ICT) is seen as posing great potential for development in developing countries. However, it has also been substantiated that developing countries need to harness ICT in order to promote development. ICT is believed to bring tremendous prospects for developing economies and their communities. Since the so-called knowledge-based economy is driven by ICT, governments of developing countries need to make substantial investment in all sectors to ensure all its key sectors instigate growth and development. While education is seen as one of the key sectors to invest into to ensure appropriate development of human resources for knowledge-based economy, the initiatives of e-government and e-governance are equally important. While an e-government project has potential to provide all government information and services online to the public and private sector, an e-governance initiatives and innovations will ensure a more democratic, transparent and accountable framework for the public and private apparatus to operate in. The governments of developing countries, therefore, need to play a crucial role in establishing a suitable environment for e-governance.

Fiji is a small developing country with huge potential to take advantage of ICT but it also lacks the foundation of democracy and thus environment for innovations and initiatives. This paper attempts to explore the extent to which ICT is used by SMEs in Fiji and to establish if SMEs have potential to reap benefits of ICT and instigate growth towards knowledge-based economy.

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Information and communication technology (ICT), which refers to the convergence of telecommunication networks and personal computer technology, has the capacity to reach across the globe to those connected to the Internet. The increasing use of ICT in different sectors is seen as having impact on all spheres of life. The use of ICT is also seen as opening up "new opportunities for developing countries to harness these technologies and services to serve their development goals" (Mansell & Wehn 1998, 1). In order to take advantage of the ICT, developing countries are encouraged to exploit the potential of ICT by investing in their infrastructure and training (Mansell & When, 1998 and Khan 2005). If harnessed appropriately by developing countries, ICT poses potential for narrowing the divides, including between and within the countries, threatening our communities. It has potential to bridge the gap between rich and poor, urban and rural, North and South, and male and female.

However, apart from ensuring sufficient investment in infrastructure (i.e. the Internet access and electricity), it is equally essential for developing countries to invest in their education (to have appropriately skilled human resources), and in its public and private sectors (to provide efficient services and instigate economic growth). Equally important to these is the initiatives of e-governance.

2. E-Governance in Small and Medium Enterprises (SMEs)

While traditionally, e-governance was more associated with the narrow concept of e-government which referred to services dealing with government and/or public sector only. E-governance is referred to a broader concept involving both public and private sector. It refers to "how managers and supervisors utilize IT and Internet to execute their functions of supervising, planning, organizing, coordinating, and staffing effectively" (Palvia and Sharma, 2007: 1). In other words, e-governance refers to an innovative use of ICT to govern both public and private sector in order to attain efficiency and instigate growth. For the purpose of this paper, e-governance therefore is not restricted to services of the government where government uses ICT to provide new and innovative ways of delivering information and services to the public and private sector. It involves governance in general. This paper focuses on the concept of e-governance in relation to SMEs in developing countries.

Small and medium enterprises (SMEs) generally refer to independently owned and managed businesses which employ a limited number of employees and have asserts within certain range. The specific size of employees and asserts differs slightly in definition from country to county. Most countries have their own act defining SMEs. Some general characteristics of SMEs are independent ownership, limited funds and market shares, and narrow range of products and services. It is in this respect that the use of ICT poses a huge potential by possible broadening of scopes of SMEs.

Research shows that SMEs in developing countries are lagging behind in adopting and using ICT (United Nations, 2003). However, literature also suggests that e-governance has capacity to assist SMEs to survive and thrive (Gosen, 2007). The efficient use of ICT among SMEs is also seen as reducing the gap between large corporations and micro-enterprises, enhancing organizational performance, productivity and access to markets (Gosen, 2007). The government's role in facilitating the environment for SMEs to survive and thrive is equally important. The Software Technology Parks of India (STPI) are good example of environment where SMEs can take full advantage of the benefits of ICT. With provision for suitable environment to operate in, SMEs also need to recognize the relevance and value of ICT and the use of ICT in order to utilize its optimum value. A process of relevant education to produce appropriately skilled human resources for the knowledge-based economies is essential. A skilled work force is crucial for SMEs to be innovative and take advantages of e-governance (Godara and Agrawal, 2007).

The key importance of e-governance for SMEs is due to the crucial part SMEs play in the growth and development of national economy. SMEs provide huge employment and make immense contribution

towards national GDP. Through e-governance SMEs can tackle their problems and take challenges in terms of innovation and cost effectiveness to manage their resources effectively to produce maximum profits. ICT poses potential benefits to SMEs in terms of:

- Obtaining and using knowledge and information
- Improving internal and external communications
- Improving decision making and thereby responsiveness and efficiency
- Improving overall flexibility, productivity and profit

(Song & Mueller-Falcke 2006).

In general, ICT is said to have potential to facilitate improvements to productivity (Song & Mueller-Falcke 2006). The points mentioned above are potential benefits. Empirical research on impact of ICT on SMEs in developing countries such as India, Laos, Peru, Kenya and Tanzania now available show positive link to the use of ICT in these countries (Song & Mueller-Falcke 2006; Mueller-Falcke 2006; Matambalya & Wolf 2006).

While ICT promises the benefits discussed above, it is important for the governments and SMEs of developing countries to fully utilize these benefits. The United Nations through agencies such as the Economic and Social Commission for Asia and the Pacific (ESCAP) has for years been working towards building capacity of SMEs in terms of being able to utilize ICT and adopt e-commerce (United Nations, 2003). While there have been success stories of the use ICT and e-commerce by SMEs in the developing countries, studies also show weaknesses and problems encountered by SMEs in these countries. Some of the drawbacks highlighted are low level of awareness on different aspects of ICT applications and e-commerce, inadequate infrastructure and access, need for legal and regulatory policies which supports the use of ICT and e-commerce, need government commitment towards development of appropriate human resources, and need to promote a good working and policy relationship between government and SMEs (United Nations, 2003).

3. E-Governance in Fiji

Fiji is a developing country with huge potential for a fast-paced development. Nonetheless, it has been suffering the impact of a series of political crisis. Fiji has had three military coups (May 1987, September 1987 and December 2006) and a civilian hostage taking of elected government in May 2000. These events have not only held Fiji's growth and development but they have pushed Fiji back by many years. If it wasn't for its succession of political crisis, Fiji by now would have reaped the full benefits of ICT.

The Southern Cross Network which connects Fiji with Australia, New Zealand and the United States of America through Hawaii places Fiji in an ideal ICT hub position in the South Pacific. Through the Southern Cross high-speed fibre-optic cable network, Fiji not only connects to the rest of the world but is also the centre of the South Pacific Island Nations. Most of these Island Nations including Fiji are tourist destinations. Fiji has an advantage to be able to reap the potential benefits of ICT. Moreover, the gradual changes currently taking place in the telecommunications industry in Fiji is also a positive step forward towards opening the telecommunications industry to competition and eventually better services and lower prices for customers. Like other developing countries, Fiji government is also providing investment incentives in terms of tax concessions and establishment of e-zones for ICT-based industries. There are agencies such as Fiji National ICT Council and projects such as e-government initiatives which are responsible for spearheading, formulating and executing of ICT related strategies and development plans. However, the current investment incentives are overshadowed by the military coup of December 2006. Though the current military led government has some very positive steps towards fast-paced growth, its non-democratic nature is having huge impact on investment and thus, growth of the nation.

4. Small and Medium Enterprises in Fiji

Small and Medium Enterprises (SMEs) in Fiji is defined according to the following two criteria:

- Small Business – any enterprise which has a turnover or total assets between FJ$30,000 and FJ$100,000 and employs 6 to 20 people.
- Medium Business – any enterprise which has an annual turnover or total assets above FJ$100,000 and FJ$500,000 and employs between 21-50 people.

While SMEs in Fiji make a substantial contribution towards national GDP and economic growth, there is no data or statistics on the number and nature of SMEs in the country. The Governor of Reserve Bank, recently said that "lack of data or statistics is one of the constraints impeding growth of the micro, small and medium enterprises sector" (Narube, 2008). He further stated that due to the lack of relevant data we do not have a break down of the make up of SMEs in the economy or what is the employment figure as per different sizes of enterprises in Fiji. The President of the Chamber of Commerce also recently blamed lack of statistics and analysis of its potentials for the lagging behind of SMEs sector in Fiji (Ali, 2008). There is National Centre for Small and Micro Enterprises Development which is responsible for micro and small businesses in Fiji but there is no major initiative for the use of ICT or e-governance.

5. Methodology

This study used both quantitative and qualitative techniques of data collection. The primary data was collected through quantitative survey where a detailed questionnaire was used to interview and record response of the manager/owner of selected small and medium size enterprises in Fiji. The survey took place during the months of September and October 2008 in nine major urban centres in the country. These centres were Lautoka, Nadi, Sigatoka Nausori, Suva, Rakiraki, Tavua, Ba and Labasa. Since no exact number of small and medium size enterprises operating in Fiji could be obtained from the Office of the Register of Companies, the government department responsible for registering businesses in the country, 20 SMEs were randomly selected from each of the nine urban centres for the survey. The random selection took into consideration the nature of SMEs in order to get a feedback from a variety of businesses. The nature of some of the businesses selected for the survey were clothing, grocery, spare parts, footwear, pharmacy, book shop, coffee shop, dental clinic, private doctor, electronics, furniture, hair saloon and restaurant.

A total of 180 SMEs were, therefore, surveyed throughout the country. According to the response profile, 62% of the managers of SMEs or the survey respondents were males and 38% were females. A majority of the respondents were from the age ranges: 21-30 and 31-40. A small percentage of them were above 50 years. A majority of 85% of the respondents were of ethnic Indians, 6% ethnic Fijians and the remaining were of other ethnic groups. As far as the respondents' education background is concerned, 8% had primary level education, 47% secondary level, and 45% tertiary level. As one of the characteristics of SMEs is independently owned, 64% of the respondents were managers and owners. Only 36% were managers employed by businesses.

The secondary data was collected through semi-structured interview of officials. This qualitative data was analysed using thematic analysis technique. The response to open-ended questions in the survey questionnaire was also analysed using thematic analysis techniques. Themes and/or meanings emerging from the content analysis of these messages are discussed as patterns.

6. Results and Discussion

Table 1 shows the nature of ICT used by the SMEs involved in the survey. The questionnaire was designed to get response on the use of nine different information and communication technologies (ICTs) by the businesses. These were fixed phone line, fax machine, pager, mobile phone, computer, Internet, email,

World Wide Web (WWW), and own Web page. Though the focus of this study was to explore the extent of adoption and use of ICT among SMEs in the main nine urban centres in Fiji, some none ICT-based technology such as fixed phone line, fax machine, and pager were also included with the understanding that all SMEs do not use ICT. This claim is further strengthened by the figures shown below in Table 1.

Table 1: Use of ICT by Small and Medium Enterprises

	Used	**Did Not Use**
Fixed phone line	93%	7%
Fax machine	55%	45%
Pager	0	100%
Mobile	66%	34%
Computer	58%	42%
Internet	44%	56%
Email	43%	57%
WWW	34%	67%
Web Page	12%	88%

Except for the pager, the use of other ICTs shows a pattern. It clearly shows that higher percentage of SMEs used fixed phone line and the percentage use of other ICT decreases as technology sophistication increases. From the nature of the SMEs, it is understood that 93% of them used fixed phone lines. Compared to fixed phone line, fax machine was used only by 55% of the SMEs surveyed. While pager was not used by any of the SMEs, the use of mobile phone shows a high of 66%. Computer was used by 58% of them. However, the percentage use of Internet, email, www and webpage decreases significantly. This also confirms the definitional claim that SMEs are independent private owned, operating at small scale with limited services and products. According to the Table, only 12% of the SMEs had their own Web page. The pattern shown in Table 1 clearly suggests a majority of SMEs are not using ICT in their operation.

Those SMEs which did not use one or more of the ICTs listed in Table 1, cited lack of knowledge (21%), lack of skills (12%), and expensive (21%) as the reasons behind not using the ICTs. The remaining 45% reported there was no real need for such ICT in their business. Some stated that they preferred the manual system while others thought their business was too small to use such ICT. This is where government initiatives and innovations can intervene to bring a gradual change of attitude and culture.

Since the focus of this paper is the use of ICT, the data discussed in detail will exclude fixed phone line, fax machine and pager. Table 2 shows SMEs used mobile phone, computer, Internet, email, WWW and own Web page.

Table 2: The use of ICT by Small and Medium Enterprises

	Communication	**Information**	**Advertising/buying/selling**
Mobile phone	89%	6%	5%
Computer	40%	44%	16%
Internet	40%	45%	15%
Email	48%	38%	14%
WWW	21%	67%	12%
Web Page	21%	32%	47%

Table 2 shows the extent to which listed ICTs were used for the purpose of communicating, attaining information, and advertising, buying and selling. Results show that mobile phone was used mostly for communication purposes. Its percentage use for acquiring information and advertising, buying or selling is

insignificant. The use of computer, on the other hand, was used almost equally for communication and information. The Internet and email usage also shows a similar pattern as the use of computer by SMEs. The WWW, however, was mostly used for information (67%), while only 21% used for communication and 12% for advertising, buying or selling. The use of WWW for communication refers to the use of Skype by SMEs. Some of the respondents reported that they use Skype to communicate and negotiate with their foreign-based suppliers. The Web page was mostly used for adverting and promotion purposes. In some cases buying and selling also occurred.

Those who have been using ICTs listed in Table 3 have found it to be beneficial to their businesses. Table 3 demonstrates the benefits from the use of ICTs.

Table 3: Benefits from the use of ICT by Small and Medium Enterprises

	Mobile	Computer	Email	WWW	Web page
Obtaining and using knowledge and information	87%	96%	88%	97%	82%
Improving internal and external communication	85%	80%	95%	88%	90%
Improving decision making and thereby efficiency	75%	78%	83%	85%	67%
Improving staff performance	59%	75%	71%	83%	57%
Improving staff productivity	63%	77%	71%	75%	67%
Improving service and/or turnover	81%	92%	82%	79%	80%
Increasing profit	74%	83%	85%	83%	88%

Though the percentage of SMEs using ICT other than mobile phone has been low, Table 3 shows significantly high percentage of those using these ICTs find them beneficial for their businesses. According to Table 3, the listed ICTs have benefited the SMEs in terms of obtaining and using knowledge and information, improving internal and external communication, improving decision making and thereby efficiency, improving staff performance, improving staff productivity, improving service and/or turnover, and increasing profit. Results shown in Table 3 further strengthen the theory that ICT has potential to assist SMEs and this also suggests that the innovations and initiatives such as e-governance has a lot to deliver to SMEs.

Some general comments received from the respondents from the SMEs included ICT is good for business, ICT makes operation easier, future goal is to get own Web page for the business, cannot afford ICT, the cost of maintenance is high, and ICT is not needed for the business because it deal with local suppliers. Some of the key problems cited by those who used ICT regulatory were technical problems, virus, slow speed and disconnection, and lack of Web developers to update Web pages.

7. Concluding Remarks

Results clearly support the argument that ICT and innovations such as e-governance have a lot to offer to SMEs in developing countries. The study of SMEs in Fiji shows though low percent of SMEs use ICTs, ICTs do assist SMEs in many ways. ICTs not only allow SMEs to communicate faster, access resources and information, promote business online, and access international markets but it also improves many services, efficiency, decision making, staff performance and productivity, and it even increases profit.

The result discussed in this paper suggests that SMEs have potential to take advantage of ICT and initiatives such as e-governance but the government has to establish the innovative environment where SMEs are encouraged and empowered to take advantages of potentials e-governance has to offer. Fiji has a

National Centre for Small and Micro Enterprise Development, but it is not sufficient to spearhead SMEs sector into a fast-paced growth. The government definitely needs to look into more new initiatives and innovations. There is a need to encourage/facilitate a diffusion of ICT into SMEs. Once ICT is in use, e-governance has the potential to lead SMEs into a new era. However, at the same time government has to work towards establishing and sustaining democracy which is the foundation of e-governance.

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