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## **Challenges of using marketing information system (MkIS) by SMEs in Fiji**

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**Abstract:** The intention of this paper is to scrutinise the factors impacting small and medium enterprises (SMEs) eBusiness adoption and the challenges faced pertaining to the usage of marketing information system (MkIS) in Fiji and subsequently stress the potential solutions for those challenges. Structured questionnaire was used to collect data from the SMEs from five major towns in Fiji. A sample of 96 SMEs was surveyed sequentially. The research findings reveal that, SMEs in Fiji face massive challenges in employing MkIS. This result also illustrates that the challenges faced by SMEs in Fiji positively influence the use of marketing information system and alternatively ascertain the potential solutions which the SMEs acquires in order to overcome those challenges. Findings have also revealed that the level of SME eBusiness adoption is not the same as ICT adoption in Fiji.

**Keywords:** marketing information system; MkIS; small and medium enterprise in Fiji; challenges.

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## 1 Introduction

Across the globe, there has been a considerable movement towards innovation, intensification for successful markets and simultaneously this has brought up many hurdles for the small and medium enterprises (SME) when trying to lucratively implement them.

Looking at the SMEs, they have been major contributors in the economic growth, development and employment for many developed and developing countries. Many factors have led to the growth of SMEs; nonetheless it is timely decision-making that is achieved through marketing information systems that have received significant interest, towards SME growth (Hakhu, 2010). The notion of MkIS has been in existence for so long that in previous time's paper-based systems was created. But, as the forces of globalisation have brought with it tremendous IT revolution, MkIS has become more tech-based.

Lingham (2008) describes MkIS as an enduring and interacting structure of people, equipment and procedures to congregate, arrange, analyse, evaluate, and distribute relevant, timely and accurate information for use by marketing decision makers to improve their marketing planning, implementation, and control. This definition is confined to marketing only. In light of information systems (IS) the definition provided by Boone and Kurtz (2007) cited in Ismail (2011) turn out to be pertinent. The author states that MkIS is a planned computer-based system that provides managers with information relevant to their decision and areas of responsibility.

Some research studies confirm that MkIS has helped SMEs improve their marketing practices, marketing offerings and ability to understand customers' need via rapid increase in sales and profits volumes (Emmanuel, 2009; Khosla, 2011). Edwards (2009) stresses that technology confers competitive advantage by improving sales, profits and retaining customers, only if attentively selected.

The use of MkIS in SMEs has turned out to be a significant topic in IS and marketing research. Notwithstanding, heaps of studies stressing the benefits of MkIS for SMEs (Dobzinsky, 2011; Goessl, 2011; Hakhu, 2010; Lokhande and Srivastava, 2004; Marimuthu and Muthaly, 2009; Quester et al., 2004), before SMEs could garner the benefits, key challenges need to be addressed and appropriate strategies need to be designed.

It is pragmatic that SMEs habitually lack resources to carry out key marketing activities (Kim, 2004). In many other countries (to name a few; India, Philippines and Kenya) SMEs are facing great challenges when deploying MkIS or IT into their daily business practices (Al-allak, 2010; Hakhu, 2010; Samar, 2011). It is quite noticeable that SMEs face lot of impediments when trying to adapt to these ICT innovations. Give today's dynamic and complex business environment, the significance of MkIS has amplified further. Nowadays, businesses barely discern between their customers as they exist not only in domestic arenas but are located in regional as well as international markets. Given this background, there is an essential need to tap into the opportunities provided knowledge/information is readily available on the market types, buyers, pricing, competitors, marketing standards, etc. But, how would this be made available, the answer lies in MkIS.

The marketing environment of SMEs in Fiji is very poor. Singh et al. (2009), has highlighted in his paper that SMEs lacked marketing skills that provides them with tough

competitive clashes. In a press release, the Fiji Government (2003) highlighted the need for information and research and marketing to support SMEs export in Fiji.

In the Fijian context of SMEs definition is set by National Centre of Small and Medium Enterprise Development Act of 2002 from where the SMEs definition is derived which is in consistent to the Fijian market definition.

- small business – any enterprise that has a turnover or total assets between \$30,000 and \$100,000 and employs between 6 to 20 people
- medium business – any enterprise that has an annual turnover or total asset more than \$100,000 and \$ 500,000 and employees between 21 to 50 people.

In Fiji the saturation of innovation and the use of ICTs is very low among SMEs (Devi, n.d.), and this is one of the main reasons why the Fijian SME are still conflicting hindrances in their businesses (Singh et al., 2010). Thus, the purpose of this study is to investigate the challenges arising from MkIS usage and point out the possible solution for the Fijian SMEs.

Though the literature is flooded with material on challenges for SME adoption of ICTs in the developed and developing nations, it is vital to press on the understanding of the key factors which act as challenges within the context of the Fijian scenario. This area is under-researched in Fiji. Lots of research on SMEs for tourism and challenge related work has been carried out previously (Singh et al., 2010; McMaster et al., 2004), but none addressing specifically factors influencing SME e-business adoption and MkIS constraints.

## **2 Background: SME e-business adoption and MkIS constraints**

This section synthesises the literature on the factors influencing SME e-business adoption and highlights the constraints faced by the SMEs when trying to adopt e-business models and make use of MkIS.

The very first step for any businesses employing MkIS is to adapt to innovations, such as ICTS, e-commerce, IT and internet.

Context specific technological innovation is one of the important factors influencing SMEs adoption of ICT. Kabanda and Brown (2010) in their e-commerce study of SMEs in least developing countries (LDCs) label SMEs as being inexplicable and hampered by various challenges; which if not addressed could prolong to afflict these countries. In their study the authors highlight that technology usage ought to be context specific. Aleke et al. (2010) in this regard emphasises on the development of an appropriate adoption channel to ensure successful diffusion of innovation. The authors suggest that the perception of ICT adoption among the SME differs significantly among the adopters.

Kartiwi and MacGregor (2007) states that SMEs are not adopting e-commerce with the same speed as their larger counterparts (developed versus developing countries-Sweden and Indonesia). In their multi-country comparison; the slow growth of SMEs has been attributed to adoption barriers pertaining to technical issues and organisational barriers.

Lal (2009) discusses in his study that the cost of communication is one of the major barriers in the adoption of e-business technologies, which could be attributed to the lack of minimum economies of scale in communication sectors of Mauritius and Jamaica.

Cost of ICT infrastructure investment in software, hardware etc is one of the key challenges impacting ICT adoption. Enterprise-specific factors such as education and knowledge base of the owners and firm size emerged as significant discriminants for advanced users of ICTs. Country-specific factors such as openness of economy and human resource development infrastructure emerged as important factors in discriminating varying levels of ICT-usage firms.

Alam (2009) says that for Malaysian SMEs; manager's characteristics, perceived benefits, organisational culture, technological competency and cost of adoption have significant relationships with internet adoption. The results of the study of highly educated managers of SMEs also revealed a non-significant relationship between language, growth of web and internet adoption. Chong et al. (2009) studied was also on Malaysian SMEs and it was found that interorganisational relationships such as communication, collaboration and information sharing significantly impact SMEs' decision to adopt e-business in their supply chain.

However, Tan et al. (2009) highlighted that for the SMEs in Malaysia the internet-based adoption tends to provide a low cost effective communication tools for the customers. The authors highlighted that one of the major factors influencing the internet-based adoption is the security reasons.

According to Beckinsale et al. (2006) SMEs must incorporate and adapt to exploring internet. Implying, that internet is the driver of the SMEs.

Tan et al. (2010) research reveals that SMEs would adopt internet-based ICT regardless of years of business start-up and internet experience. The authors state that significant differences were spotted between manufacturing and service SMEs in terms of their demographic characteristics and internet-based ICT benefits, barriers, and adoption intention. Both the industry types expressed intention to adopt internet-based ICT, with the service-based SMEs demonstrating greater intention.

According to Middleton and Byus (2011) the non-Hispanic SME owners were profoundly adapting to a wide range of ICT's to promote their organisational efficiency and effectiveness when compared to the Hispanic SME owners. Subsequently, Ifinedo (2011) shows that in Canada, the acceptance of internet/e-business technology is low. It is also revealed that acceptance's significant predictors were perceived benefits, managements support, external finding and the insignificant predictors were IT competence, IS vendor support and availability of financial resources. Another study conducted on SMEs in Spanish by Estebanez et al. (2010) shows that in manufacturing sector there was mainly very high short-term-based IT implementations whilst the service sector was utilising very high and sophisticated IT.

Furthermore, Scupola (2009) did a research on business to business e-commerce implementation among the Australian and Demark SMEs. Based on this research study, the factors that displayed significance in the adoption of e-commerce from both countries were customer's pressure and access and quality of ICT consulting services.

Huy and Filiatrault (2006) in their study of Vietnam stipulate that the size of the enterprise, its resources and its strategic orientation, the employees' knowledge of e-commerce, the attitudes of managers towards innovation and their knowledge of the new technologies and of e-commerce, the intensity of the competition, the degree of support of the government, the national infrastructure, the perceived relative advantages, and the complexity and compatibility of e-commerce all have an influence on the adoption of e-commerce in SMEs in Vietnam, but that this influence differs depending on whether it involves users or prospectors.

Huang (2008) says that perceived strategic importance of IT-based resources is key in the top managers' decision to adopt IT. His research was on Taiwan SMEs. Sehora et al. (2009) in their study of Thailand found that the achievement orientation and locus of control of founders and businesses that emphasise on reliability and ease of use functions of e-service quality were positively related to the success of e-commerce entrepreneurial ventures in Thailand.

Kartiwi (2006) proposed practical framework to illustrate how e-commerce adoption should be carried out from a strategic perspective. It was stated in their study that applying technology without careful consideration of planning and justification frequently results in poorer performance for SMEs in Indonesia.

Ghobakhloo et al. (2011) highlights that in Iran e-commerce adoption within SMEs is affected by perceived relative advantage, perceived compatibility, CEOs innovativeness, information intensity, buyer/supplier pressure, support from technology vendors, and competition. On the other hand, the level of e-commerce adoption among SMEs in Saudi Arabia has yet to mature (Al-Somali et al., 2011). Additionally, from this research it was highlighted that in order for the level of maturity to be seen, customer readiness for internet shopping needs improvement. E-commerce adoption within the SMEs is influenced by information intensity, support from technology vendors and competition (to name a few) (Ghobakhloo et al., 2011).

Kapurubandara and Lawson (2007) in their study of Sri Lanka talk about the internal and external barriers for e-commerce adoption by SMEs. The study proposes that necessary is critical to transform SMEs.

Shaikh et al. (2008) in his study of Pakistan SMEs discusses parameters such as top management support and system integration.

Sharma and Bhagwat (2006) discuss that for India though SMEs understand and acknowledge the importance of the IS in day-to-day operations management in the present dynamic and heterogeneous business environment but these are yet to implement, operate and exploit it fully in a formal and professional manner so as to enable them to derive maximum business gains out of it. SMEs are not found equipped adequately with the IS resources to suit their needs.

Duncombe and Molla (2006) in their research on Uganda discuss inputs such as technology, training and financial resources for e-commerce adoption as important pre-requisites and serving as secondary change agents.

Aleke et al. (2011) comment that in Nigeria for ensuring successful diffusion of innovation, a balance must be maintained between the amount of effort expended in the design of ICT and social factors such as language and traditional life.

Mutula and van Brakel (2006) in their study of SMEs in Botswana state that like their counterparts in most developing countries, SMEs had not achieved a reasonable measure of e-readiness status compared to the developed world.

Frempong (2009) studied Ghana and stated that there is the urgent need for the development of innovative services to meet the changing needs of the enterprises.

Kaynak et al. (2005) in their study of Turkish SMEs state that the perceived limitations of e-commerce applications were found to have no statistically significant effect on e-commerce adoption.

Elliott and Boshoff (2007) indicate that the level of involvement of owner-managers, the owner-manager having an entrepreneurial orientation, the knowledge of owner-managers, the involvement in decision making of owner-managers and a marketing orientation are important to the successful use of the internet for the marketing

of small tourism businesses in South Africa. Golding et al. (2008) in their study of Jamaica discuss the adoption attributes such as relative advantage, compatibility, complexity, trialability, and observability to be important for adoption of ICT.

Hence, adapting to innovation has shown a low acceptance mainly due to numerous factors acting as their barriers. In this paper, we tend to identify the challenges SMEs in Fiji faces while utilising or adapting to MkIS. For SMEs, marketing may sometimes seem an unnecessary luxury, as they are usually faced with limited resources and day-to-day business pressures (Kenny and Dyson, 1989). Hence, the author stresses that at an early stage they should buy-in financial expertise. Also, SMEs usually have limited marketing budget, hence should carefully make marketing plans for their products or services (Lake, 2011). The author stresses that SMEs should create a well-rounded programme that combines the sales activities with marketing tactics, which would add value to customers and decrease the pout-of pocket marketing expense. According to Kim (2004), it becomes challenging for SMEs to extensively adapt to marketing since they are small, lack the necessary resources and some are reluctant or less responsive to the organisational changes. According to Wiboonchutikula (2001), SMEs do not have enough capital hence face challenges when carrying out their marketing activities. Whereas, Samar (2011), emphasises that SMEs in Philippines have gained a lot of recognition in national and international discussions. The SMEs needs to take into consideration the factors such as technology usage, production, marketing, training, regulation and incentives and institutional development. Hence, this shows that SMEs have to overcome a number of barriers in order to conduct their marketing businesses smoothly.

According to Hakhu (2010), SME of Punjab in India face many challenges with the use of MkIS model, thus there is a need for new MkIS model. Al-allak (2010) highlights that SMEs facing challenges in areas of cost, expertise, IT infrastructure and training hinders the uptake of internet-based supportive MkIS. Moreover, in an empirical study by Louis (2001), the author proposes that SMEs face problems such as absence of marketing policy which causes bottlenecks and impedes the establishment and usage of MkIS. While, Braun (n.d.) states that lack of understanding of MkIS, e-commerce and online adoption and insufficient training is a barrier for SMEs when trying to implement the use these technologies. SMEs in Kenya use inappropriate technologies only because they cannot afford them (Wanjohi, 2010). There is also a lack of training and experience of the SME owners. Sometimes it is not the failure to identify things, but rather the business owner's failure to concentrate on main problems such as time and money constraints (Devins, 1999). This usually affects the marketing power of the businesses. SMEs are usually small and lack enough resources, flexibility and innovations (Walsh and Lipinski, 2004). SMEs in India face numerous challenges. Some of these challenges include: inability to select appropriate technology, inadequate financial aid and maintain that sync with the changing trends (Wakim, 2011). Onugu (2005) proposes that the Nigerian SMEs face problems while doing business. These problems are access related and marketing problems. In Botswana, the use of ICT increasingly enhances the SMEs growth by helping them create and deliver products and services on a global scale, yet some businesses are reluctant to use e-commerce due to the security problems (Olatokun and Kebonye, 2010). In an empirical study conducted on SMEs in India by Priyanath (2006), found deficiencies of SMEs including poor planning in production process and of course weak marketing practices.

Kale et al. (2007) listed awareness as challenges of SMEs on the usage of (ERP) enterprise resources planning. This is a form of software used by businesses to achieve wide integration for faster access to accurate information required by decision-making. In addition to this, Haddara (2011) through his research highlights that SMEs in Norway have limited budgets and resources to implement into advanced software's, (ERP). These software's enable the handling of business information and deal with integrated programmes. However, Salleh and Rohde (2000) is of the view that SMEs are not able to easily adapt to the IS. SMEs know how to adopt to their formations systems for gaining competitive advantage and but they are not able adopt IS with ease due to the challenges faced by them. Owens (2007) highlights that Irish SMEs face constraints in going global due to the level of education of SME owners.

According to Ramdani and Kawalek (2007), SMEs must adopt to IS innovations. Through their research, they emphasised that SMEs should have the power to understand the technological needs about its organisation properly. SMEs are still growing organisations and face most hiccups in their life so technology adoption becomes quite competitive for them when they are running short of funds and lack understanding and expertise.

In particular, the SMEs in the South Pacific Countries are facing many hiccups on their forefront as well. Study, by Singh et al. (2010), highlighted the barriers faced by SMEs in the South Pacific Countries namely, Fiji and Samoa. The authors showed impediments such as intense competition, capital, infrastructure and lack of marketing capabilities, which affect SMEs potential. Chand and Naidu (n.d.) proposes that micro, small and medium business in the South Pacific Island countries lack finance to advance their business growth. Another study by Macdonald (1997) shows that the island states of the South Pacific (example Fiji, Papua New Guinea and Solomon Islands) being very small, face challenges such as not having necessary state of resources and skilled workers.

Specifically looking at Fiji, it is yet not ready to make full use of technology and make it possible for the SMEs to use MkIS. According to Narube (2007), Reserve Bank of Fiji proposes that SMEs need a lot of training, for example, bookkeeping, feasibility assessment, and marketing. Devi (n.d.) has proposed that SMEs in Fiji face challenges while using ICT. She also stresses that ICT is a driving force in shaping the global economy. According to Okello-Obura et al. (2007), the SMEs in northern Uganda are operating in information-poor environment. This is mainly because of lack of efficient and formal IS that is needed to address their information adequately. Here, Fiji is also not technologically advanced and may not properly be able to assess the information needs of SMEs and make effective use of MkIS. According to Singh et al. (2009), SMEs in Fiji, face many challenges including the lack of investments into technologies, know-how and shortage of skilled labour that hampers the marketing potential of SMEs in reaching international markets. Hence, SMEs in the South Pacific countries including Fiji has to go a long way in adapting to innovations and eliminating barriers.

Alternatively, Al-allak (2010) suggests that one of the potential solutions for SMEs using MkIS would be through providing them with best decision support solution. Chandra (n.d.) expresses that challenges faced by SMEs are limited availability of technology, human, financial and management resources, and these must be directed towards networking their needs and demands with knowledge institution. In addition, Okello-Obura et al. (2007), emphasises on the solutions for challenges faced by SMEs in Uganda while assessing business information needs. First the problem of insecurity in the

region can be solved through joint effect to foster national and regional peace building, for quality business information provider, the government should organise training and other human resource activities, for lack of appropriate technology constraints of awareness and skill shortages should be overcome. Thus, these are some of the potential solutions highlighted in their research studies; however, this objective is intensely covered in the research.

Getting adapted to the innovations takes time and involves a great amount of capital (Spielkamp and Rammer, 2009). According to Goessl (2011), one of the challenges for an organisation is the capability to recognise the challenges and responsibility that do come with integrating IS. Many SMEs lack expertise or even do not have access to the technologies, hence it is expected that SMEs in Fiji may be facing some barriers while using MkIS, which is a useful tool in making wiser and rich marketing decisions. The research paper would help in finding out the possible problems faced by the SMEs and the potential solutions for these challenges.

This research is quite different from the past work on developing countries which focused on SMEs adoption challenges to e-commerce and other ICT applications. Given the context of Fiji; where islands are dispersed and the smallness of the state; this study should bring significant insight into the challenges faced by the island nation and the way forward. Marketing information system is different from other types of IS used by businesses including SMEs; which could provide countries like Fiji the competitive edge to survive in the business world and internationalise successfully.

### **3 Research methodology**

This study employed a questionnaire and a survey of SMEs from the major towns in Fiji (Suva, Nadi, Lautoka, Ba and Labasa) was conducted. Stratified random sampling was used for this research paper. For this research various sources were used to congregate data (The Registrar of the companies, National Centre for Small and Medium Enterprise and Fiji Bureau of Statistics). A sample size of 100 was selected due to the available time-frame and the budget of this research. After screening the questionnaire, the sample was 96. The reason for this was because the SMEs were reluctant to respond to the questions.

### **4 Results and critical analysis**

The result of the survey reveals that 93.8% of SMEs are aware of MkIS while a small minority of 6.3% are not aware. It is further revealed from this survey results that SMEs gained awareness from their marketing information sources and use of the internet. Another potential reason for the whereabouts of MkIS in SMEs is found to be from the entrepreneurs travelling overseas. This was additionally revealed from the survey results with the SME respondents.

The results on the level of awareness of SMEs regarding MkIS, disclose that 4.2% of the SMEs have no knowledge about MkIS, 44.8% of SMEs had slight knowledge, 36.5% had moderate knowledge and 13.5% of SMEs had most knowledge on MkIS while 1% had greater knowledge on MkIS. It was revealed through the survey with the respondents that most of the SMEs were aware of this system yet they had very 'slight' knowledge

about MkIS. The results reveal that SMEs understand and are aware of this system, though some are not aware of the ‘technical terms’ and upon reading the definitions provided in the questionnaire they general came to know about this system. They generally had fair idea of MkIS but lacked the proper knowledge on how to use this for day-to-day business and marketing decision-making. However, the study has revealed that SMEs’ level of understanding or awareness regarding MkIS was ‘slight’; perhaps they are not engaged in the proper usages of this system.

**Table 1** Respondents profile

	<i>General manger</i>		<i>Middle management</i>			<i>Staff</i>	
Current position	36.5%		28.1%			32.3%	
	<i>Not at all</i>	<i>Slightly</i>	<i>Moderately</i>	<i>Mostly</i>	<i>greatly</i>		
0.0%	3.1%	16.7%	55.2%	22.9%			
	<i>Accounting</i>	<i>Finance</i>	<i>HR</i>	<i>IT</i>	<i>Marketing/sales</i>	<i>Production/operation</i>	<i>Research and development</i>
Department	4.2%	6.3%	2.1%	1.0%	46.9%	29.2%	2.1%
	<i>1-5</i>			<i>5-10</i>		<i>&gt; 10</i>	
Years worked	54.2%			25.0%		13.5%	

Note: N.B: Some may not tally to 100%, due to the non-responses.

**Table 2** Challenges in MkIS utilisation

<i>Which of these challenges is your organisation facing while utilising the marketing information system and accessing to the marketing information needs?</i>			
		<i>Yes %</i>	<i>No %</i>
St1:	There is no organised information/records management system	74.0	26.0
St2:	There is lack of skills and expertise in information seeking and acquisitions	74.0	26.0
St3:	Information received lacks local content to address our business needs	71.9	28.1
St4:	Lack of trained professionals	77.1	22.9
St5:	Insecurity in the region	54.2	45.8
St6:	Cultural barriers within the community	49.0	51.0
St7:	It takes longer to get the relevant marketing information	78.1	21.9
St8:	Lack of appropriate technology to access electronic information	91.7	8.3
St9:	Lack of awareness on how to utilise proper marketing information system	93.8	6.3
St10:	Lack of finance	83.8	15.6
St11:	Lack of finance leads to the usage of informal marketing information system	87.5	12.5
St12:	Lack of awareness and support makes the business difficult to adapt to new innovations	94.8	5.2
St13:	Very expensive	87.5	12.5
St14:	The staff does not want to accept changes easily	75.0	25.0

The fact is that SMEs are considerably aware of MkIS though they make little usage of the system.

Next, the challenges are discussed. First of all, the results exhibited in Table 2 show the major challenges faced by the SMEs while using MkIS.

Table 2 shows that 74% of the SMEs believe that there is no organised information records managements system. This poses a challenge; SMEs in Fiji are still growing and usually most of the work is manual-based thus it becomes very time-consuming to search for particular piece of information. This means that for SMEs in Fiji it is harder to track down customers and retrieve accurate and timely information for decision making purposes. This creates many imbalances to the ways things are done without a proper information system in an organisation. A similar study was done in Northern Uganda where it was found that 35.2% of SMEs believed that there was no record system (Okello-Obura et al., 2007).

Statement 2 shows that 74% of SMEs lack skills and expertise in information seeking and attainment. A larger percentage of SME population shows that there is a lack of skills and expertise within the SME sector in Fiji. Therefore, this constraint generally makes SMEs work very challenging. It was further revealed from the survey that the growing SMEs in Fiji are filled with more underqualified people. This can be the reason why utilising modern tools and technologies to access business marketing needs was mostly done through other forms of communication technologies such as through telephones. Similar to this Fong (2011) stated that Chinese SMEs have low IT adoption due to fact that there is financial constraints and lack of skilled IT talents.

The descriptive analysis further shows that 71.9% of SMEs believe that the information received lacked local content to address their business needs. It is seen that SMEs mainly think that the information they received could not be directly utilised for their businesses process since it lacked the local content and understanding. Moreover, this may be a problem since as mentioned above it was found that they lack skilled peoples thus, this may create a lot of problems when dealing with the information provided to the business and impacts the quality of decision making at the end of the day.

Approximately 77.1% of SMEs think that there is lack of trained people in their business. It was revealed that the SMEs in Fiji have under trained professionals as shown by their percentage earlier (statement 2). Due to the small size and scope of the organisations, they do less investment in training and developments. It was initiated from the research that SMEs owners wanted to have trainings and workshops organised for their employees, but due to the lack of time and finance, they do not engage much into those activities. It was also found that the SME owners had the knowledge and understanding on the importance of trainings and development; however this was not catered for.

Statement 5 shows that 54.2% of SMEs believe that some insecurity in the region affects their organisation when accessing marketing information's needs. For instance, due to the insecurity in the region the marketing intelligence and marketing researchers will face a lot of difficulty when assessing the marketing information needs. However most of the SMEs do not use a proper form of MkIS, yet they believe that insecurity in the region can be a problem.

Statement 6 shows that the cultural barriers within the community was not that a problem or challenge when utilising MkIS. There was very close difference between 'yes' and 'no'. 51% of the SMEs said that there is not much problems while 49% of the SMEs believe that cultural barriers can be a problem. Again this depends on the

individual SME industries since cultural barriers can at times affect the way information is gathered on each culture through the marketing researchers and intelligences. This is because of their customers having conflicting values, preferences and interest may mislead the marketing intelligences and marketing researchers in gathering the appropriate needed information.

Statement 7 shows that 78.1% of SMEs contemplate that it takes longer time to get the relevant marketing information. The amount of marketing information available in Fiji is not satisfying as shown in this research 'that SMEs are slightly satisfied'. Hence, due to the longer time taken to get the relevant marketing information, the usage rate of MkIS can be affected. Marketing intelligence will face difficulties in gathering the appropriate information on time and feeding it to the system to produce timely information. Similar to this, in a research by Wood (2001) it was stated that internet is not yet recognised as an important source for marketing intelligence despite the benefits of providing much necessary data more quickly and at a lower cost than any other sources. Marketing intelligence needs to be updated with the latest news, only then they can assess the required information need for decision-making.

Statement 8 suggests that 91.7% of SMEs face challenges in the form of lack of appropriate technologies to access the electronic information. Indeed, from this survey it was found that there is a need for SMEs to get competent technology. MkIS is itself a system thus, due to the lack of appropriate technologies (ICTs) SMEs will face challenges while adapting to MkIS. This system requires most of the work to be done by the system itself, not manually. SMEs are still not much interested to make a move towards adapting to new technologies effectively.

Statement 9 expresses that 93.8% of the SMEs agreed that there is a lack of awareness on how to utilise proper MkIS. There was such a huge percentage agreeing to this statement as their challenges since earlier from this study it was found that SMEs are aware of MkIS, yet have slight knowledge. The low level of knowledge is valid since the usage rate of MkIS result reveals that SMEs are not utilising MkIS. There is a need to raise awareness on how to utilise this system; together with that the benefits of this tremendous system is also needed to be informed. There should be some initiative taken to inform the SME on how to utilise this system. Gradually, this can be adapted into the system of SME sector in Fiji.

Statement 10 depicts that 83.8% of the SMEs lack finances. To put this system in place can be costly for the small growing businesses in Fiji due to the lack of finance. Thus this barrier has shown that SMEs are widely facing lots of problems to utilise proper MkIS. Generally, to establish the electronic system is costly and later involving with market research can be very expensive. The training and developments of the marketing intelligence will be costly as well. Usually the proper setup of this system can be very expensive for the growing SMEs in Fiji. However, in a report by Financing Eco-innovation (2011) has shown that the SMEs need to have both technical and commercial skills to get funds or can requests for finance. In Fiji, micro-finance companies are helping the SMEs financially.

Statement 11 expresses that 87.5% of the SMEs have lack of finance that leads to the usage of informal MkIS. SMEs face this challenges since, they do not have enough finance to get more marketing intelligence, invest into more market research, have extensive computer system (for internal record keeping) and models for modelling their data. SMEs in Fiji are generally small therefore, will take a lot of time to take up that

place in the modern market. Thus, whatever they can afford, are using them to carry out their marketing practices.

Statement 12 explores that 94.8% of the SMEs lack awareness and support that it makes the business difficult to adapt to new innovations. The SMEs feel that there is a need for more awareness or campaigns for the SMEs to keep them informed with the latest's and updated news about the general business environments. They feel that there is a need for a greater support in their sector regarding the new innovations. Thus, this may have led to the challenges faced by SMEs to utilise proper marketing information system. Statement 13 shows that 87.5% of the SMEs find MkIS utilisation very expensive. To invest into this system it can be very expensive since SMEs are small business that is still struggling their way through. Hence this may be a very big challenge faced by SMEs to utilise this system extensively.

The final statement 14 shows that 75% of the SMEs feel that their staff's does not want to easily accept to the changes easily. Upon the survey, it was found that many SMEs has highlighted that their employees are afraid of new changes taking place into the business. They are in a fear of losing their jobs. Different people have different perception and their mentality is as such due to the education levels. Due to this problem, the SMEs may not find it easy to adapt to innovations easily. Perhaps the business may be in fear of losing their employees and may not get cheap labours if they perform strike.

At last, there are various challenges that the SMEs of Fiji faces while utilising MkIS. Table 2 had a few of the many challenges that helped to understand the overall difficulties of the SME sector. In consistent with this research in Vietnam, the problems in their SMEs faces are poor level of technology development, unskilled labour, insufficient capital for business activities and inadequate quality of business support services for technology and formations (Nguyen et al., 2009). In Philippines some of the major constraints their SMEs faces are access to finance, technology, and skills along with information's gaps and difficulties in marketing (Aldaba et al., 2010). In Fiji NCSMED is designated organisation that takes care of the SMEs is Fiji (Devi, n.d.)

*Thus, from this outcome it was found that SMEs in Fiji indeed face lots of challenges when trying to adapt to MkIS or even other infrastructures.*

The next part of this paper focuses on the potential solution.

From Table 3, it is seen that all the potential attentions listed, are greatly needed by the SMEs. From the result, it is revealed that the SMEs seek help through regular seminars. This was because they believe that through regular seminars SMEs can get to know the market situation and know the whereabouts of the business marketing environment. These seminars perhaps will keep them updated with useful information and if SMEs need to improve, they can do so without missing any fruitful opportunity on their way.

It is also revealed from this study that SMEs also need special get-togethers with the business people. They believe that this form of get-togethers will help them to share information with each other and will help them to know about their business standards (allow benchmarking). This form of gathering allows for a formal socialisation between business people whereby there is a flow of communications among them allowing for the greater exchange of ideas and knowledge. This would help the SMEs to gain some knowledge. Thus, networking and socialisation could be seen as an attention area and a potential solution.

**Table 3** Potential solutions

<i>Potential solution</i>		<i>Percentage (%)</i>	
		<i>Yes</i>	<i>No</i>
1	Regular seminars	92.7	5.2
2	Special get-togethers with the business people	87.5	10.4
3	Business conference	91.7	4.2
4	Exposed to relevant, timely time information	93.8	4.2
5	Workshops	92.7	6.3
6	External funding	84.4	14.6
7	Special training to business owners	92.7	4.2
8	Hire expertise	89.6	9.4
9	Special attentions form the governments	3.3	15.6
10	Talk back shows for business community	91.7	7.3
11	Advisory services to help the business community	87.5	10.4
12	Regular monitoring of the business reports and reviews	90.6	7.3
13	Awareness from TV shows, newspapers, newsletters and radio	89.6	6.3

Note: N.B: Some may not tally to 100%, due to the non-responses.

SMEs also need business conferences. Business conference will allow them to voice out their concerns and indicate the special needs they have. Through business conference SMEs can also benchmark themselves. Thus, this study reveals that there are very few business conferences in which they had participated.

SMEs need to be exposed to the timely and relevant information. SME needs this because they believe that accurate and relevant information will help them to make wise decisions regarding their business activities. They need this to survive and stay competitive in the market rather than shutting down. As Swami (2010) highlights that 90% of the SMEs fails.

They also see a need for workshops. From the study, it is revealed that there is hardly any workshop provided to the SME owners. There is an urgent need for workshops so that SMEs can upgrade their skills and knowledge through extensive training and development which can build that capacity in them to be able to employ MkIS.

SME also need assistance through external funding. They feel that some external funding support may help them to fulfil their business necessity. The SMEs in Fiji are still in the growing stage, thus, they really need to invest a lot in their business development activities.

Another form of attention that SMEs need is that they want special training for the business owners. SMEs in Fiji lag behind in many things and in many ways. The managers need to be trained on entrepreneurship (Swami, 2010), to upgrade their know-how and skills on managerial and organisational practices. It is revealed through the survey that majority of the managers had greater experience level, however are underqualified.

Also, this survey reveals that SME feels a need to hire expertise for their business. They felt this need due to the fact that they lack expertise in most of their business process. Due to this reason, some of their business processes are of a high quality and effective in meeting their business marketing goals. In addition to address this problem,

special training could enable employees to develop the level of specialisation and expertise needed to succeed.

SMEs also feel that they need special attention from the government. This is not only attention in the form of providing the support, resources and infrastructure to get SMEs going but special advice/training to unleash their full potential.

An advisory service to help their business community also needs attention. Upon the survey it was found that they need advisory services so that they can verify the needed action to be taken within the business. This assistance could be of a great benefit in auditing SMEs to make accurate judgements pertaining to their business needs. The need to regularly monitor their business and reports is equally important. The survey results show that they need some auditors that could help them to review their business reports. This will ensure that they are doing quality work and will help them to make future forecasts for their businesses. The monitoring of the business review and reports can also help SMEs to keep all their business process in track.

Finally, it is also shown that SMEs largely want more awareness from TV shows, newspapers and radio. It is revealed that SMEs feel, the information received from this source is not sufficient or are misleading at times. Therefore, they need reliable information sources that can give a clear picture on the marketing business environment of Fiji.

From the result displayed in Table 3 it is generally seen that SMEs need a lot of attention from the government, donors and the business community supporters in order to nurture and overcome some of the hiccups which they face.

## **5 Conclusions**

Marketing is very imperative tool for successful businesses. The economy of Fiji and its people have many hopes from the SMEs in terms contributions towards economy, employment and alleviating poverty. Conversely, in this high-tech marketing world, SMEs need to make a move forward and start using MkIS. They must make a stand and battle enthusiastically towards the challenges they face and move towards success. SMEs in Fiji face many challenges and there is a need to help these SMEs to fight with this plight and reach a flourishing end. As indicated in this study that SMEs face lots of difficulties in terms of funding their important business activities. In their proposed solutions many of them wanted to get financial support and if possible some external funding to expand and improve their business status. There are many government and non-governments organisations set up to facilitate the small-scale sectors in Fiji. There is still a need for more support for medium firms that can turn into larger business. The policy reviewers should effectively combine the supporting organisations to increases the flexibility, efficiency of the mobility of capital and other resources in a country like Fiji. There is also a need to organise many campaigns so that more awareness is created on marketing. The policy reviewers should work in collaboration with the government and other organisation responsible for the SMEs, to ensure that more information is provided to SMEs. Training and workshops will help them to upgrade their marketing skills. The advisory support and businesses conference will allow a clear follow of information about the business environments that would keep the SMEs on their toes not to miss any market opportunities. Ultimately, this will help to promote the importance of technologies and marketing information system for the business. This can be made

possible through the incorporated help by NCSMED, the governments, financial institute and the donor organisations. SMEs in Fiji need to really reinforce their marketing skills and know-how's. The mass-media should provide useable and reliable marketing news. The slow-pace of SME and their approach towards change has made them very backward in their businesses and has failed to recognise many marketing opportunities. The study has found out upon surveying the respondents that they are happy with their business and are not willing to get involved into any major form of innovation now. Therefore, to change this kind of attitude the governments and NCSMED should urge the SMEs to take a step forward and attain a flourishing and meaningful livelihood for everyone in Fiji.

## References

- Al-allak, B. (2010) 'Evaluating the adoption and use of internet-based marketing information system to improve marketing intelligence: (the case study of tourism SMEs in Jordan)', *Internal Journal of Marketing Studies*, Vol. 2, No. 2, pp.87–93.
- Alam, S.S. (2009) 'Adoption of internet in Malaysian SMEs', *Journal of Small Business and Enterprise Development*, Vol. 16, No. 2, pp.240–255 [online] <http://www.emeraldinsight.com/10.1108/14626000910956038> (accessed 12 August 2011).
- Aldaba, R., Medalla, E., del Prado, F., D.F. and Yasay, D. (2010) 'Integrating SMEs into the East Asian Region Philippines', Discussion Paper Series No. 2010–31, Philippine Institute for Developing Studies.
- Aleke, B., Ojiako, U. and Wainwright, D.W. (2011) 'ICT adoption in developing countries: perspectives from small-scale agribusinesses', *Journal of Enterprise Information Management*, Vol. 24, No. 1, pp.68–84 [online] <http://www.emeraldinsight.com/10.1108/17410391111097438> (accessed 13 August 2011).
- Al-Somali, S.A., Gholami, R. and Clegg, B. (2011) 'An investigation into the adoption of electronic commerce among Saudi Arabian SMEs', *Journal of Electronic Commerce in Organizations*, Vol. 9, No. 2, pp.41–65 [online] <http://www.igi-global.com/bookstore/article.aspx?titleid=53197> (accessed 11 August 2011).
- Beckinsale, M., Levy, M. and Powell, P. (2006) 'Exploring internet adoption drivers in SMEs', *Electronic Markets*, Vol. 16, No. 4, pp.361–370 [online] <http://taylorandfrancis.metapress.com/openurl.asp?genre=article&id=doi:10.1080/10196780600999841> (accessed 11 August 2011).
- Boone, L.E. and Kurtz, D.L. (2007) *Contemporary Marketing*, Harcourt College Publisher, New York, in Ismail, S.T. (2011) 'The role of marketing information system on decision marketing: an applied study on royal Jordanian airline', *International Journal of Business and Social Science*, Vol. 2, No. 3, pp.175–185.
- Braun, P. (n.d.) 'E-commerce and business in the regions: regional tourism and the internet' [online] [http://www.cecc.com.au/clients/sob/research/docs/pbraun/003-Braun\\_paper003\\_final.pdf](http://www.cecc.com.au/clients/sob/research/docs/pbraun/003-Braun_paper003_final.pdf) (accessed 23 January 2012).
- Chand, A. and Naidu, S. (n.d.) 'Financial obstacles faced by micro, small and medium enterprise in the South Pacific' [online] [http://depot.gdnet.org/cms/conference/papers/naidu\\_Paper\\_5.3.pdf](http://depot.gdnet.org/cms/conference/papers/naidu_Paper_5.3.pdf) (accessed 24 January 2012).
- Chandra, N. (n.d.) 'Small and medium enterprises in the national system of innovation: exploring the barriers to the technology transfer' [online] [http://www.businessasia.net/Pdf\\_Pages/Guidebook%20on%20Technology%20Transfer%20Mechanisms/SME%20in%20National%20Systems%20of%20Innovation.pdf](http://www.businessasia.net/Pdf_Pages/Guidebook%20on%20Technology%20Transfer%20Mechanisms/SME%20in%20National%20Systems%20of%20Innovation.pdf) (accessed 24 January 2012).

- Chong, A.Y-L., Ooi, K-B., Lin, B. and Tang, S.Y. (2009) 'Influence of interorganizational relationships on SMEs' e-business adoption', *Internet Research*, Vol. 19, No. 3, pp.313–331 [online] <http://www.emeraldinsight.com/10.1108/10662240910965379> (accessed 13 August 2011).
- Devi, P. (n.d.) 'E-governance for small and medium enterprises in a developing country like Fiji: potentials and problems', *Critical Thinking in E-Governance*, pp.235–241, University of the South Pacific [online] [http://www.csi-igegov.org/critical\\_pdf/26\\_235-241.pdf](http://www.csi-igegov.org/critical_pdf/26_235-241.pdf) (accessed 13 August 2011).
- Devins, D. (1999) 'Research note: supporting established micro business, policy issues emerging from an evaluation', *International Small Business Journal*, Vol. 18, No. 1, pp.86–89.
- Dobzinsky, V. (2011) 'Developing and implementing of marketing information system in JSC 'Dalsvyaz'', *Technoserv Consulting* [online] <http://tsconsulting.ru/en/success/showstory.php?ID=695> (accessed 12 August 2011).
- Duncombe, R. and Molla, A. (2006) 'E-commerce development in developing countries: profiling change-agents for SMEs', *The International Journal of Entrepreneurship and Innovation*, Vol. 7, No. 3, pp.185–196 [online] <http://dx.doi.org/10.5367/000000006778026644> (accessed 11 July 2011).
- Edwards, L. (2009) 'How the SME can gain competitive advantage through technology', *Business Strategy* [online] <http://www.helium.com/items/1583364-sme-tools-for-gaining-a-competitive-edge> (accessed 22 March 2011).
- Elliott, R. and Boshoff, C. (2007) 'The influence of the owner-manager of small tourism businesses on the success of internet marketing', *South African Journal of Business Management*, Vol. 38, No. 3, pp.15–27 [online] <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=27025490&site=ehost-live> (accessed 12 September 2011).
- Emmanuel, J. (2009) *The Importance of Marketing Management to SMEs*, Ministry of Commerce, Business Development, Investments and Consumer Affairs [online] <http://www.commerce.gov.lc/articles/view/18> (accessed 5 January 2012).
- Estebanez, R.P., Grande, E.U. and Colomina, C.M. (2010) 'Information technology implementation: evidence in Spanish SMEs', *International Journal of Accounting and Information Management*, Vol. 18, No. 1, pp.39–57 [online] <http://www.emeraldinsight.com/10.1108/18347641011023270> (accessed 13 August 2011).
- Fiji Government (2003) *Medium Enterprise in Fiji*, 28 August [online] <http://www.fiji.gov.fj/cgi-bin/cms/exec/view.cgi/8/1190/printer> (accessed 24 January).
- Financing Eco-Innovation (2011) *Oxford Research for the European Commission DG environment*, January [online] [http://ec.europa.eu/environment/.../0211\\_final\\_report\\_eco\\_innovation.pdf](http://ec.europa.eu/environment/.../0211_final_report_eco_innovation.pdf) (accessed 15 November 2011).
- Fong, L.W.M. (2011) 'Chinese SMEs and information technology adoption', *Issues in Information Science and Information Technology*, Vol. 8, pp.314–322.
- Frempong, G. (2009) 'Mobile telephone opportunities: the case of micro- and small enterprises in Ghana', *Info*, Vol. 11, No. 2, pp.79–94 [online] <http://www.emeraldinsight.com/10.1108/14636690910941902> (accessed 11 August 2011).
- Ghobakhloo, M., Arias-Aranda, D. and Benitez-Amado, J. (2011) 'Adoption of e-commerce applications in SMEs', *Industrial Management & Data Systems*, Vol. 111, No. 8, pp.1238–1269 [online] <http://www.emeraldinsight.com/10.1108/02635571111170785> (accessed 6 August 2011).
- Goessl, L. (2011) 'The Benefits and Challenges of using Information System in Business, Helium Where the Knowledge Rules [online] <http://www.helium.com/items/1703037-the-benefits-and-challenges-of-using-information-systems-in-business> (accessed 10 January 2012).
- Golding, P., Donaldson, O.A., Tennant, V.M. and Black, K. (2008) 'An analysis of factors affecting the adoption of ICT by MSMEs in rural and urban Jamaica', *16th European Conference on Information Systems*, 9–11 June, Cork, Ireland [online] <http://is2.lse.ac.uk/asp/aspectis/20080109.pdf> (accessed 8 August 2011).

- Haddara, M. (2011) 'ERP adoption cost factors in SMEs', *European Mediterranean & Middle Eastern Conference on Information System*, 30–31 May, pp.131–140.
- Hakhu, R. (2010) 'Development of marketing information model for the small and medium enterprise in India, MkIS model for SMEs in India', Power point presentation [online] <http://www.authorstream.com/Presentation/hakhu-427300-mkis-model-smes-india-marketing-information-system-small-medium-enterprises-rahul-entertainment-ppt-powerpoint/> (accessed 5 August 2011).
- Huang, L.K. (2008) 'Top management support and IT adoption in the Taiwanese small and medium enterprises: a strategic view', *International Journal of Enterprise Network Management*, Vol. 2, No. 3, pp.227–247 [online] <http://www.inderscience.com/link.php?id=18779> (accessed 10 August 2011).
- Huy, L.V. and Filiatrault, P. (2006) 'The adoption of e-commerce in SMEs in Vietnam: a study of users and prospectors', *10th Pacific Asia Conference on Information Systems*, 6–9 July, Kuala Lumpur, Malaysia [online] <http://www.pacis-net.org/file/2006/1184.pdf> (accessed 8 August 2011).
- Ifinedo, P. (2011) 'Internet/e-business technologies acceptance in Canada's SMEs: an exploratory investigation', *Internet Research*, Vol. 21, No. 3, pp.255–281 [online] <http://www.emeraldinsight.com/10.1108/10662241111139309> (accessed 5 August 2011).
- Kabanda, S. and Brown, I. (2010) 'A structural view of e-commerce in SMES in least developing countries', *18th European Conference on Information Systems*, 6–9 June, Pretoria, South Africa [online] <http://aisel.aisnet.org/ecis2010/136/> (accessed 17 August 2011).
- Kale, P., Banwait, S.S. and Laroia, S.C. (2007) 'Enterprise resource planning implementation in Indian SMEs: issues and challenges' [online] [http://www.csi-sigegov.org/critical\\_pdf/27\\_242-248.pdf](http://www.csi-sigegov.org/critical_pdf/27_242-248.pdf) (accessed 23 May 2011).
- Kapurubandara, M. and Lawson, R. (2007) 'SMEs in developing countries need support to address the challenges of adopting e-commerce technologies', *20th International Bled eCommerce Conference*, 3–6 June, Bled, Slovenia [online] <http://aisel.aisnet.org/bled2007/24/> (accessed 18 August 2011).
- Kartiwi, M. (2006) 'Case studies of e-commerce adoption in Indonesian SMEs: the evaluation of strategic use', *Australasian Journal of Information Systems*, Vol. 14, No. 1, pp.69–80 [online] <http://dl.acs.org.au/index.php/ajis/article/view/8/0> (accessed 6 June 2011).
- Kartiwi, M. and MacGregor, R.C. (2007) 'Electronic commerce adoption barriers in small to medium-sized enterprises (SMEs) in developed and developing countries: a cross-country comparison', *Journal of Electronic Commerce in Organizations*, Vol. 5, No. 3, pp.37–51 [online] <http://proquest.umi.com/pqdweb?did=1522689731&sid=4&Fmt=2&clientId=20956&RQT=309&VName=PQD> (accessed 15 August 2011).
- Kaynak, E., Tatoglu, E. and Kula, V. (2005) 'An analysis of the factors affecting the adoption of electronic commerce by SMEs: evidence from an emerging market', *International Marketing Review*, Vol. 22, No. 6, pp.623–640 [online] <http://www.emeraldinsight.com/10.1108/02651330510630258> (accessed 6 July 2011).
- Kenny, B. and Dyson, K. (1989) *Marketing in Small Businesses*, Biddles Ltd., Marketing by Small Firms Manual, Great Britain.
- Khosla, B. (2011) 'Marketing information system – a potent tools to boost SMEs marketing', *SME Times* [online] <http://smetimes.tradeindia.com/smetimes/editorial/2011/Aug/16/marketing-information-system-a-potent-tool-boost-sme-marketing50.html> (accessed 15 November 2011).
- Kim, C. (2004) 'E-tourism: an innovative approach for the small and medium-Sized tourism enterprises (SMTES) in Korea' [online] <http://www.oecd.org/dataoecd/56/13/34268048.pdf> (accessed 4 August 2011).
- Lake, L. (2011) *Marketing Basics for the Small Business*, About.com Marketing [online] <http://marketing.about.com/od/marketingbasics/a/smmktgbasics.htm> (accessed 5 September 2011).

- Lal, K. (2009) 'Small islands and the adoption of ICTs: comparative study of SMEs in Jamaica and Mauritius', *International Journal of Environmental Technology and Management*, Vol. 10, No. 2, pp.206–222 [online] <http://www.inderscience.com/link.php?id=23522>.
- Lingham, L. (2008) *Managing a Business/Information System for Managers*, All Experts [online] <http://en.allexperts.com/q/Managing-Business-1088/2008/11/Information-System-Managers.htm> (accessed 1 April 2011).
- Lokhande, P. and Srivastava, R.K. (2004) *NICNET Based Agricultural Marketing Information System Network (AGMARK-NET)* [online] <http://agmarknet.nic.in/pig001.pdf> (accessed 27 August 2011).
- Louis, R. (2001) 'Marketing information system practices in small manufacturing firms: antecedents and consequences', *The Journal of Computer Information Systems*, pp.1–15 [online] <http://www.allbusiness.com/business-planning/975905-1.html> (accessed 5 September 2011).
- Macdonald, D. (1997) 'Industrial relations and globalisation: challenges for the employers and their organisation', *International Labour Organisation*, 5–13 May [online] <http://www.ilo.org/public/english/dialogue/actemp/downloads/publications/dmirglob.pdf> (accessed 24 January 2012).
- Marimuthu, M. and Muthaly, S. (2009) 'The relationship between marketing communication constituents, perceived benefits and information system adoption', Paper presented at the *Australia & New Zealand Marketing Academy Conference*, Melbourne, December [online] <http://www.duplication.net.au/ANZMAC09/papers/ANZMAC2009-701.pdf> (accessed 6 October 2011).
- McMaster, J., Kato, M. and Khan, N. (2004) 'Economic impact of e-commerce on small tourism enterprises', Prepared for the ICT capacity building at USP project, March.
- Middleton, K.L. and Byus, K. (2010) 'Information and communications technology adoption and use in small and medium businesses: the influence of Hispanic ethnicity', *Management Research Review*, Vol. 34, No. 1, pp.98–110 [online] <http://www.emeraldinsight.com/journals.htm?articleid=1896716> (accessed 26 August 2011).
- Mutula, S.M. and van Brakel, P. (2006) 'E-readiness of SMEs in the ICT sector in Botswana with respect to information access', *The Electronic Library*, Vol. 24, No. 3, pp.402–417 [online] <http://www.emeraldinsight.com/10.1108/02640470610671240> (accessed 6 August 2011).
- Narube, S. (2007) *Realizing & Fostering the Potential of Small & Micro Enterprise in Fiji*, Reserve Bank of Fiji [online] <http://www.reservebank.gov.fj/docs/Introductory%20Remarks%20By%20Governor.pdf> (accessed 19 December 2011).
- Nguyen, T.H., Alam, Q., Perry, M. and Daniel, P. (2009) 'The entrepreneurial role of the state and SME growth in Vietnam', *Journal of Administration and Governance*, Vol. 4, No. 1, pp.60–69.
- Okello-Obura, C., Minishi-Majanja, M.K. and Cloete, LM. (2007) 'Business information systems design for Uganda's economic development. The case of northern Uganda', *Mousaion 24.1*, pp.119–144.
- Olatokun, W. and Kebonye, M. (2010) 'E-commerce technology adoption by SMEs in Botswana', *International Journal of Emerging Technologies and Society*, Vol. 8, No. 2, pp.42–56.
- Onugu, B.A.N. (2005) 'Small and medium enterprises (SMEs) in Nigeria: problems and prospects', Being a Dissertation submitted to the ST. Clements University in partial fulfilment of the requirements for the Award of the Degree of Doctor of philosophy in Management.
- Owens, N. (2007) 'An examination of the factors hindering Irish SMEs from going global' [online] [http://repository.wit.ie/968/1/An\\_examination\\_of\\_the\\_factors\\_hindering\\_Irish\\_SMEs\\_from\\_going\\_Global.pdf](http://repository.wit.ie/968/1/An_examination_of_the_factors_hindering_Irish_SMEs_from_going_Global.pdf) (accessed 6 August 2011).
- Priyanath, H.M.S. (2006) 'Managerial deficiencies in the small and medium enterprise (SMEs) in Sri Lanka: an empirical evidence of SMEs in the Ratnapura District', *Sabaragamuwa University Journal*, Vol. 6, No. 1, pp.93–105.

- Quester, P.G., McGuiggan, R.L., Perreault, W.D. and McCarthy, E.J. (2004) *Marketing: Creating and Delivering Value*, 4th ed., McGraw-Hill, Boston.
- Ramdani, B. and Kawalek, P. (2007) 'SMEs & IS innovations adoption: a review & assessment of previous research', *Academia Revista Latinoamericana de Administracion*, Vol. 39, pp.47–70.
- Salleh, N.A.M. and Rohde, F. (2005) 'Firm enacted capabilities and information system adoption in small and medium-sized enterprise' [online] <http://www.iima.org/CHIMA/CHIMA%205.3%201%20Salleh-1.pdf> (accessed 5 September 2011).
- Samar, E.D. (2011) 'Revisiting the SMEs in the Philippines: challenges and issues', *Philosophy of Doctorate*, pp.1–16.
- Scupola, A. (2009) 'SMEs' e-commerce adoption: perspectives from Denmark and Australia', *Journal of Enterprise Information Management*, Vol. 22, Nos. 1/2, pp.152–166 [online] <http://www.emeraldinsight.com/10.1108/17410390910932803> (accessed 6 April 2011).
- Sebora, T.C., Lee, S.M. and Sukasame, N. (2009) 'Critical success factors for e-commerce entrepreneurship: an empirical study of Thailand', *Small Business Economics*, Vol. 32, No. 3, pp.303–316 [online] <http://www.springerlink.com/openurl.asp?genre=article&id=doi:10.1007/s11187-007-9091-9> (accessed 7 July 2011).
- Shaikh, G.Y., Marri, H.B. and Irani, Z. (2008) 'An investigation into the effects of computer-integrated manufacturing systems on the productivity of SMEs in Pakistan', *International Journal of Value Chain Management*, Vol. 2, No. 1, pp.76–89 [online] <http://www.inderscience.com/link.php?id=016119> (accessed 28 June 2011).
- Sharma, M.K. and Bhagwat, R. (2006) 'Practice of information systems: evidence from select Indian SMEs', *Journal of Manufacturing Technology Management*, Vol. 17, No. 2, pp.199–223 [online] <http://www.emeraldinsight.com/10.1108/17410380610642278> (accessed 20 March 2011).
- Singh, G., Naz, R. and Pathak, R. (2009) 'Internationalization of SMEs: a challenge for Fiji' [online] <http://www.swinburne.edu.au/lib/ir/onlineconferences/agse2009/000158.pdf> (accessed 24 January 2012).
- Singh, G., Pathak, R. and Naz, R. (2010) 'Issues faced by SMEs in the internationalization process: results from Fiji and Samoa', *International Journal of Emerging Marketing*, Vol. 5, No. 2, pp.153–182.
- Spielkamp, A. and Rammer, C. (2009) 'Financing of innovation-threshold and options', *Management & Marketing*, Vol. 4, No. 2, pp.3–18.
- Swami, Y. (2010) '90pc of SMEs fail', *Fiji Times Online*, 18 September.
- Tan, K.S., Chong, S.C., Lin, B. and Eze, U.C. (2009) 'Internet-based ICT adoption: evidence from Malaysian SMEs', *Industrial Management & Data Systems*, Vol. 109, No. 2, pp.224–244 [online] <http://www.emeraldinsight.com/10.1108/02635570910930118> (accessed 30 May 2011).
- Tan, K.S., Chong, S.C., Lin, B. and Eze, U.C. (2010) 'Internet-based ICT adoption among SMEs: demographic versus benefits, barriers, and adoption intention', *Journal of Enterprise Information Management*, vol. 23, No. 1, pp.27–55.
- Wakim, R. (2011) 'SMEs must take advantage of unified communications: Roy Wakin', *SMES Times*, 4 April [online] <http://smetimes.tradeindia.com/smetimes/face-to-face/2011/Apr/04/smes-must-take-advantage-of-unified-communications-roy-wakim.html> (accessed 1 April).
- Walsh, M.F. and Lipinski, J. (2009) 'The role of the marketing function in small and medium sized enterprises', *Journal of Small Business and Enterprise Development*, Vol. 16, No. 4, pp.599–585.
- Wanjohi, A.M. (2010) 'Challenges facing SMEs in Kenya', *Buzzle.com* [online] <http://www.buzzle.com/articles/challenges-facing-smes-in-kenya.html> (accessed 28 March 2011).

- Wiboonchutikula, P. (2001) 'Small and medium enterprises in Thailand: recent trends', World Bank Institute [online] <http://siteresources.worldbank.org/WBI/Resources/wbi37191.pdf> (accessed 6 August 2011).
- Wood, E. (2001) 'Marketing information systems in tourism and hospitality small- and medium-sized enterprises: a study of internet use for market intelligence', *International Journal of Tourism Research*, Vol. 3, No. 4, pp.283–299.