# THE RELATIONSHIP BETWEEN INFORMATION TECHNOLOGY AND COMPETITIVE ADVANTAGES AMONG SMALL AND MEDIUM TOURISM ENTERPRISES: KOTA KINABALU, SABAH

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### ABSTRACT

Understanding how IT contributes to enterprises' competitive advantages has long been of interest. While IT improved the business operation and communication to the extent that some enterprises managed to be competitive through the utilization of IT system, some enterprises seemed do not benefit from it. This study seeks to clarify the relationship between IT and competitive advantages among small and medium enterprises (SMEs) in Malaysia by focusing on tour and travel agents in Kota Kinabalu, Sabah. Several theories such as the resource-based view, market-based view and Porter's model of competitiveness are discussed to further explain the association between these two variables. IT Infrastructure, IT Capability Agent and IT Competencies are the elements of IT while Customer Service, Low Cost, Agility, Innovation and Differentiation are the elements of competitive advantages that were included in this study. The element of strategic planning is added in the relationship as a moderator to the relationship between variables. A total of 111 responses from 364 distributed questionnaires were used for the analysis of this study. Factor analysis extracted one more factor in IT elements which is Modularity and deleted out the element of agility from competitive advantages. The results showed that the relationship between IT and competitive advantages is positive, high and significant; with element IT Infrastructure has the most influence on competitive advantages. However, the result of hierarchical regression analysis suggested that strategic planning does not moderate the relationship but it is more of a factor contributing to competitive advantages. These results showed the importance of integrating IT into business operation to meet information processing demands in dynamic environments. Further, this paper provides both theoretical and managerial implications for the industry and suggestions for future research.

# CHAPTER 1

## INTRODUCTION

This chapter discussed the overview of the research that was conducted. The background, research problems, research objectives, research questions, limitation of the research and significance of the research were briefly stated. Therefore, this chapter aimed to answer why there is a need to conduct the research in the following topic and the importance of the findings of the research to parties involved in the research.

# **Background of the Study**

Tourism is an information intense processing industry where the supply chain activities are dependent to information technologies to promote tour and travel packages, to process air ticket reservations, hotel reservations, to communicate between suppliers and intermediaries as well as to gather information about the customers (Schertler, 2009; Sheldon, 2010; Inkpen, 2010; Poon, 2011). Information technologies, especially the Internet, have substantially changed the playing field for tourism stakeholders, providing new challenges and opportunities. Furthermore, consumers are getting sophisticated and rely deeply on information technology (IT) such as the Internet to search for travelling packages and interesting places to visit around the world (Buhalis, 2008). The IT advancement has been proved to offer more advantages to tourism enterprise in order to provide flexible, specialised, accessible and interactive products to the customers (Hojeghan & Esfarangeh, 2011).

Additionally, Grant and Royle (2011) indicated that apart from increasing the ability of tourism enterprises to respond to challenges in timely manner, IT also facilitates competitive advantages by adding some values to the tourism services. As such, not only the quality and quantity of the services can be the source of competitive advantage but also the way tourism enterprises to communicate and share information with customers and other stakeholders (Elly & Botter, 2011). According to Tavitiyaman, Qu and Zhang (2011), IT capabilities must be aligned with the business strategy and implementation in order to achieve competitive advantages or else IT will be meaningless or do not serve its full purpose or not being optimized.

A study by Citroen (2011) summed up that there is a potential influence of ICT on strategic decision-making including speeding up the process, eliminating ambiguity by providing more choices, improved projecting accurateness and enhanced both internal and external communication. These are done usually through strategic planning tools such as strategy map, SWOT analysis, competitor analysis grid, scenario planning and balanced scorecard (Turban, King, Lee, Liang & Turban, 2012). Nevertheless, Soteriou and Coccossis (2010) reported that the tools most frequently used in tourism planning are the traditional strategic tools like cost-benefit analysis and feasibility studies. The Internet, however, plays an increasingly important part in organizational strategy. Entrepreneurs and managers need to consider the Internet as a tool for collecting information and distributing it to where it is required.

The tourism industry was the second largest foreign exchange contributor after manufacturing goods and the seventh largest contributor to the Malaysian economy collected in a Gross National Income (GNI) of RM60.6billion in 2012 (Malaysia Tourism Annual Report, 2012). In 2013, the receipt has increased to RM65.44billion

(Ministry of Tourism and Culture Malaysia, 2014). The Government, having recognised the potential of the industry, has mapped out an outline of focuses for the Tourism and Culture Ministry through different activities to empower a supportable improvement for the industry as the nation heads towards attaining high-salary status by 2020. The "Visit Malaysia Year 2014" was launched in January 2013 by the YAB Prime Minister to achieve 28.8 million in foreign tourist arrivals and RM76 billion in tourism receipts (Ministry of Tourism and Culture Malaysia, 2013). The year of 2013 can be seen as a preparation year through massive campaigning and marketing of events and tourism products to foreigners using various information communication technologies specifically through the Internet by the Ministry (Keng, 2013). eTourism concept is now starting to gain popularity by using e-brochures through the websites of tour and travel agents to expose potential travellers about the attractions in Malaysia (Ministry of Tourism and Culture Malaysia, 2013). Therefore, tourism enterprises need to be ready for the anticipated tourists' arrivals by equipping themselves with the needed capacity in order to boost the tourism industry. As such, they need to be competitive and efficient to process orders and to deliver faster services to the travellers.

# Statement of the Problem

According to Kordha and Gorica (2009), tourism enterprises who adopted IT in its business tend to be efficient in constructing and updating travel packages than those who have yet to adopt IT. Due to the traditional and manual business processes, tourism enterprises faced extra overhead costs due to large amount of paper usages, extra costs on communication and overtime by employees to complete checkings and reservations (Mihajlovic, 2012). This led to delay in processing and confirming