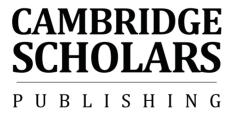# The Leadership Imperative

# The Leadership Imperative:
# Technology Adoption and Strategic Management in Travel Firms in Jamaica

By

## Andrew Spencer

**CAMBRIDGE
SCHOLARS**

P U B L I S H I N G

I dedicate this work to my darling wife and soul mate, Diana. You have always supported my dreams and believed in me in ways that even I don't believe. You allowed me to go thousands of miles away from you to follow my dreams and then gave up your life to follow me half way across the world. Sharing this journey with you daily has made the book worth doing and only confirms that you're the meaning and the inspiration in my life. I love you with all my heart.

# TABLE OF CONTENTS

# LIST OF ILLUSTRATIONS

# LIST OF TABLES

# PREFACE

This work is the product of research for a PhD in Tourism Strategy conducted at Bournemouth University. The motivation came from observations of the fragile nature of the Jamaican retail travel market in an age of growing e-tourism and technology adoption. Classical theories of adoption such as the diffusion of innovation theory, and the technology acceptance model, and literature on pertinent theories which have been highlighted as drivers of adoption such as the *Resource-Based View, Firm Strategy, Culture* and the *Digital Divide* have been thoroughly reviewed. Prior to this however, the afore-mentioned classical adoption theories are contrasted with the Post-Internet debate which explored *Information Asymetry* and *Disintermediation*. Having conducted this review it was determined that the leadership/ownership role had not been sufficiently emphasized in technology adoption, therefore this PhD thesis sought to more clearly identify these personal factors in combination with the previously explored factors. The overarching theory of *Organizational Decision-Making* was used to provide a framework to identify drivers of decision-making processes in general and then apply these to the internet adoption context. This resulting book aims to identify the combination of antecedents of technology adoption for travel firms and distil factors to identify the key determinant of the adoption of the internet for sales and marketing purposes in small, owner-managed travel firms. It examines the firm characteristics which are associated with adoption behaviour such as strategy and resources, as well as external factors such as culture and the digital divide. In addition to external and firm factors, personal factors such as ownership and leadership are explored at various stages of adoption.

A predominantly qualitative methodology was used to interview travel agencies in the context of Jamaica. All firms which have similar characteristics in terms of ownership and management structure, in particular where owners are themselves the managers and provide leadership for the organization, were interviewed. The owner-managers of these firms were interviewed to gather deep perspectives from local industry experts on industry challenges, current technology involvement and future directions. Exploratory descriptive quantitative methods were used to analyze firm characteristics and their relationships to internet

adoption for sales and marketing as well as the intention to use these technologies in firms, while a deeper exploration into owner-managers was achieved through qualitative enquiry. The findings indicate that the leadership role is more significant than has been previously posited.

The contribution to knowledge is new in that it takes a unique approach to an understanding of technology adoption in firms by creating a comprehensive conceptual framework for adoption based on previous research and then creates a model that shows the factors and variables that drive adoption at each stage of the adoption process from a personal leadership perspective as well as the organizational perspective. Ultimately it is hoped that this focus on each stage of adoption will provide insights into firm adoption behaviour as a consequence of leadership characteristics.

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kept me in your thoughts and your prayers, a big thank you is extended to you and I will be forever indebted. Most of all, thanks to God for the inspiration and guidance from beginning to end.

# INTRODUCTION

This work focuses on the adoption of Information and Communication Technologies (ICTs) in firms by moving from the generic to the specific. Mainstream theories of Strategic Management and Organizational Decision-Making provide useful insights about organizational behaviour in general, and inform the more focused discussion surrounding technology adoption decision-making and in particular technology adoption decisions in small, owner-managed travel firms.

The idea of using ICTs in the travel industry is not a novel one and stems from the first reservation systems in the 1950s to the tourist information systems like TIS and Gulliver of the 1980s (Werthner 1995(a); Werthner 1996; Werthner and Klein 1999) to major global distribution systems (GDSs) like SABRE and Amadeus in the 1990s to the enormous number of current travel activities on the Web. Now more than ever however, it brings a multiplicity of players together with relatively easy access to each other and each other's information base. The implication of this is clearly that a more level playing field has been created with more options available to the creators of products and services and the final consumer. Internet booking brings new independence for suppliers and travelers (Poon, 2001). New value chains and value systems are emerging and the players within the industry have to redesign their strategy under the power of ICTs (Buhalis, 2002).

While this work ultimately focuses on the adoption of the internet for sales and marketing purposes, there are certain preconditions which must be met in order for firms to reach certain levels of ecommerce adoption. The work of Moital et al. (2009) espouses the concept of innovation interdependence which identifies the necessity of previous technology conditions in order for ecommerce to take place. For example, the adoption of the internet is necessary in order for internet sales and marketing activity to take place. Likewise the adoption of computer technology is important in firms in order for internet adoption to take place.

This dependency relationship at each level of adoption allows for this work to be approached from the innovation interdependence perspective and facilitates the exploration of all levels of technology adoption (computers, internet and ecommerce). The logic is that the understanding

of a higher level of technology adoption presupposes an understanding of lower levels of adoption which are prerequisites to that higher-order adoption practice. Therefore the hierarchical approach of investigation in this study assesses computer adoption, internet adoption, website adoption (general information), ecommerce adoption and social media adoption.

Since 2000 it has been argued that there are varying levels of internet readiness on the international landscape. Canadians and North Americans in general were keen users. According to Law and Leung (2000) Europe lagged behind North America by 14-18 months for internet penetration. Although there is now a smaller disparity between Europe and North America, the developing world and in particular the Caribbean typically lags behind both. There are obvious implications for countries which are slower on the uptake of ICTs and for businesses operating in those contexts. Intermediaries in Jamaica, which are predominantly travel agencies that focus on the outbound traveler, may not experience some global issues such as disintermediation at the same rate as more developed economies and may therefore become less strategic and proactive. This is due in part to feelings that the locals who are outbound travelers in the region are not internet enthusiasts, because of a high risk perception in making online purchases; a view which coincides with the work of Lin et al. (2009).

The travel firms in Jamaica are predominantly outbound agencies; however a discussion of the inbound travel climate and the digital divide (unequal technology access) which exists between tourists and destinations is useful to the extent that inbound travel provides a gap which may be filled by these local agencies. The inbound market has been largely ignored by these firms on the grounds that it does not provide a commission in the same way that outbound travel does; this represents a short-sighted view and does not take into consideration issues of value-adding and dynamic packaging. While the digital divide may have been reduced, more recently, Minghetti and Buhalis (2010) still identified that there are multiple technological divides which exist between tourists and destinations within developed countries and between developed and developing countries. This will lead to varying levels of digital exclusion.

Previous research on the digital divide has not explored the tourism context in the way that this has been done by the work of Minghetti and Buhalis (2010). In particular it points to important marketing and communication challenges between tourism generating countries and tourism destinations. It is increasingly evident that high-tech tourists, regions or enterprises meet in an electronic marketplace and interact directly on electronic platforms, which greatly reduces the need for spatial

as well as temporal synchrony for information and distribution. Minghetti and Buhalis (2010, p. 278) articulate that:

> "The study of the digital divide is critical for less technologically developed regions that need to expand their ICT usage to be able to promote their offerings, interact with consumers, and reduce their dependency on intermediaries."

An important argument from this article is that medium- and low-digital-access tourists and destinations still depend on analog transactions and physical intermediaries to develop their planning processes for stimulating vacations in these destinations. This is very applicable to the Jamaican context which is a relatively low –digital access destination catering to high-digital access markets such as the United States and the United Kingdom. There is still a fairly high dependence on physical intermediaries in these tourist generating countries as the tourist board and tourism and hospitality enterprises maintain sophisticated relationships with agencies in the American Society of Travel Agents and the Association of British Travel Agents.

Three issues emerge as a result of this arguable overdependence. The first is that high-tech tourists in these high-access countries who prefer to interact in the electronic marketplace may not be captured in the island's marketing efforts. The second is that the destination image may be affected when high-tech tourists are unable to sufficiently interact with the destination in cyber space. According to Govers et al. (2007, p. 19) "covertly induced and autonomous agents, in particular, have a dramatic influence" over destination image in the minds of consumers. These agents include television, magazines and the internet. While a significant amount of Jamaica's marketing budget is spent on television advertising (Williams and Spencer, 2010), internet promotion and interaction receive far less attention. The major implication is that initial television exposure may lead potential tourists who are high-tech, in search of information and booking options on the web, which may create a poor destination image when these needs are not met.

The third and most significant issue is that local travel agencies in Jamaica do not play a role in driving inbound travel and tourism to the island. These agencies, which have seen a decrease of more than 50% in the number of companies in operation over the last ten years, typically cater to the outbound market. This is so because they do not get a commission for inbound travel sales. The ability of agents to leverage their importance may however come from an improved capacity to meet the need for an online presence for the country. These agencies now receive

little attention from statutory bodies and a greater contribution to the island's tourism may present a strong case for governmental collaboration and support. The challenge however is that many of the firms do not engage in more than simple internet activities of emailing, while less than 5% of these firms have active company websites, according to preliminary data in this study. The question of what stimulates these companies to adopt various levels of internet technology becomes a pivotal one to any discussion of their changing role.

## Industry Challenges and the External Environment

This work was influenced by the observation that travel agencies in Jamaica, particularly at the time when the concept of travel disintermediation was fairly new to the region, started facing significant challenges with drastic commission reductions that saw the number of firms decline from 105 to 43 over the period of 1999-2009, according to the president of the Jamaica Association of travel Agents (JATA). A closer examination revealed that there were very few changes to operational procedures in these firms over this period despite the changes which were taking place in the global market place. The most static area of operations related to technology use. Subsequent to the adoption of Global Distribution Systems (primarily Sabre and Amadeus) in the 1990s, there was very little new adoption of technologies in particular those which have a direct impact on sales and marketing despite the global internet revolution.

This presented the need to understand why there was such a low level of adoption in these firms despite the need for a rejuvenation of business practices through innovative business models. An understanding of why internet adoption for sales and marketing is low in these firms may provide insights into an explanation for why firms with similar characteristics in similar contexts have high or low levels of adoption. This research takes a comprehensive look at possible drivers before identifying a key determinant. The theoretical context further explains pertinent issues and challenges in the global environment.

Studies related to technology adoption may be categorized as pre-internet or post-internet phase studies. Dominant works in the pre-internet phase had their foundations in the work of Rogers (1962) and Davis (1989). Fundamental differences in these schools of thought lie in their approaches to understanding the drivers of adoption. In Rogers's (1962) diffusion of innovations, he focuses on innovation, communication and the role of the social system, while in Davis's (1989) technology acceptance model, the emphasis is on individual perceptions about whether a

particular technology innovation is easy to use or meets individual needs (usefulness).

In the post-internet phase, the debate suggests that technology is now more pervasive and widespread than earlier technologies such as those which enhanced the productivity of farming processes for example those originally studied by Rogers (1962). The industrialized world over the last 30 years has been making a transformation from an industrial economy to an information economy, and this may be seen in the development of the literature. According to Parker (1988), information, rather than land or capital, will drive the creation of wealth and prosperity over the next several decades. Technology is irreversibly changing the business world and internal organizational operations. Drucker (1990) further argues that there is a transformation in which it is knowledge and not capital, natural resources or labour, which has the greatest impact as a means of production.

Technology which facilitates knowledge transfer allows for competitive advantage for businesses (Porter, 2001). There is a difficulty however in providing a succinct definition of ICT. Buhalis (2002) points out that ICTs include hardware, software, groupware, netware, as well as the intellectual capacity to develop, programme and maintain the equipment. Due to the complexity and breadth of these electronic tools that facilitate the strategic management of organizations, it is important to note that this book aims to focus on what is arguably the most pervasive of these tools; the internet.

Although conceived in 1969 the internet never had widespread use as we know it today until 1991. In comparison to other technologies the internet spread much faster throughout the world and all dimensions of organizations and industries have to be re-examined in the light of the power of this new ICT (Klein 1996; Bakos 1998; Amit and Zott 2001). Other theorists in the *post-internet phase* argue that the internet affects every part of the business's operation from internal processes to external relationships, as well as modifying and restructuring entire economic sectors (Kalakoa and Whinston 1996; Gatty 1998; Ghosh 1998; Timmers 1998; Wirtz 2001). The reality is that the reach of the internet has spread across geographical regions more than any other technological development (Tang and Yang, 2011). The most striking characteristic is its ability to permeate multiple economic sectors and industries and transform the business operations internally and externally.

# The Research Context

Travel and tourism has emerged as the leading economic activity due to the economic crisis of 2008 which has affected the bauxite industry in Jamaica. Understanding the local economic environment within which these firms operate is paramount. The country is a middle-income, oil-importing country that attempted diverse economic development strategies during the 1970s and 1980s. The major sectors of the economy were bauxite and alumina, tourism, manufacturing, and agriculture (Statistical Institute of Jamaica, 2010). Bauxite and alumina, in particular, set the pace for Jamaica's post World War II economic growth through new investment and foreign exchange earnings. Bauxite production declined rapidly in Jamaica in the 1980s however, because of the prolonged recession in the world aluminum industry, global oversupply, and the departure of multinational producers. Tourism declined in the 1970s, but recovered between 1980 and 1986, thus becoming the second most important sector of the economy. According to Meditz and Hanratty (1987), manufacturing, a quite diversified sector, underwent structural changes in the 1980s when production was refocused on exports rather than on the domestic market. Agriculture, the heart of the Jamaican economy for centuries, has been in relative decline for decades since World War II.

With a population of 2.7 million people (STATIN, 2010), the social context has played a role in shaping technology perceptions as well as leadership traits in this relationship-oriented society. A major vehicle for this influence is the formal education system. Before independence from Great Britain in 1962, much of the educational system was provided by churches. Since then, the state has brought most schools into the public sector, although some private schools remained (Whyte, 1983). The authorities have prioritized universal literacy and, in the early twenty-first century, 88 percent of adult Jamaicans could read and write. Tuition is free in so-called basic (primary) and secondary schools. Compulsory education lasts, in theory, until age 16, but some 120,000 children aged between 12 and 16 are not enrolled in school. Higher education courses are offered at a campus of the University of West Indies in Kingston as well as at University of Technology (formerly the College of Arts, Science and Technology), Northern Caribbean University, the Norman Manley School of Law, the College of Agriculture, the United Theological College, and teacher training colleges. In recent years numerous offshore universities from the United States have added to the number of offerings.

Studies in tourism have existed at the University of the West Indies since the 1970s, with students completing their final 2 years in the Bahamas. In 2006 the campus in Jamaica created a full three year programme for students wishing to stay in the country to complete their tourism education. The other universities mentioned above have also contributed to tourism and hospitality training. Technology training saw significant growth when the College of Arts, Science and Technology became the University of Technology. These studies are usually undertaken by the more scientifically inclined and the trickle down of technology skills to the rest of the country has been slow; a direct impact on business in the island.

The travel firms operate within the limitations of the technology which is available in the society which makes the technological context a critical element of understanding firm behaviour. Despite other challenges with broadband access for the population, Jamaica has a fully digital telephone communication system with a mobile penetration of over 95%.The country's three mobile operators: Cable and Wireless (marketed as LIME – Landline, Internet, Mobile and Entertainment), Digicel, and Oceanic Digital (operating as MiPhone and now known as Claro since late 2008) – have spent millions in network upgrade and expansion. Both Digicel and Oceanic Digital were granted licences in 2001 to operate mobile services in the newly liberalised telecom market that had once been the sole domain of the incumbent Cable and Wireless monopoly.

With wireless usage increasing, landlines supplied by Cable and Wireless have declined from just over half a million to roughly about three hundred thousand as of 2006. A new entrant to the Jamaican communications market, Flow Jamaica, recently laid a new submarine cable connecting Jamaica to the United States. This new cable increases the total number of submarine cables connecting Jamaica to the rest of the world to four. The implication is that a desire to engage in ecommerce could be supported by this improvement in technology infrastructure.

As a developing nation, Jamaica has much to gain from being a full participant in the global economy. Because the country's primary trading partner is the United States, it is critical that they establish and maintain the infrastructure necessary to engage those consumers as fully as other nations around the world. Given the limited GDP of the nation and the skills of its inhabitants, Jamaica must continue to develop or face record deficits in Balance of Payments. Tourism, Agriculture, and Mining currently provide a substantial portion of the country's revenue. All of these local industries suffer from deficient technology by U.S. standards.

Jamaica has never been a major tourist generating country. Most of the travel associated with the island is inbound. Tourism began in Jamaica in the 1890s, when the United Fruit Company, seeking to use the excess capacity of its ships, encouraged cruises to Jamaica, and tourist hotels were constructed on the island. Tourism, however, did not flourish until after World War II, when accelerated depreciation allowances for investment in that sector helped to triple the number of hotels between 1945 and 1970. Inbound travel to the island has traditionally been dominated by the US traveler due to close proximity. Outbound travel has also largely been to the United States due to a high concentration of the Diaspora in that country. As a major destination Jamaica receives far more tourists than it generates. Data on the travel activities of Jamaicans to other countries for vacation or business is virtually non-existent; however it is expected that locals typically travel to visit friends and relatives given the limited economic means of the average household. While the actual statistics do not exist for outbound vacation travelers, the number of Jamaicans living in other countries suggests that there is a fairly significant pull factor for locals to visit.

The Jamaican Diaspora is unusually large, with some estimates indicating that as many individuals of Jamaican descent may currently be living outside the country as within it. The Diaspora is concentrated in three countries: the United States, Canada, and the United Kingdom. About 637,000 Jamaican foreign born lived in the United States in 2008, with approximately 123,500 in Canada in 2006 and 150,000 in the United Kingdom in 2008. This data is according to the official statistical bureaus in each country. Travel from Jamaica is usually handled by physical intermediaries. These outbound travel agencies have faced significant challenges over the last decade. This is evidenced by an alarming decrease in the number of agencies with the number moving from 105 to 43 between 1999 and 2009. In 2000 American Airlines, British Airways and the regional carrier Air Jamaica cut commission from 9% to 6% for travel agencies in the region.  According to the *Jamaica Gleaner* (2000) when Jamaican travel agencies attempted to boycott the sale of American Airlines tickets in response to the 3% cut in commissions in 2000, their efforts proved futile as the airline, which accounts for approximately 70% of air traffic to the region, simply decided that direct bookings was an option. The agencies' position was further weakened when Air Jamaica and British Airways followed suit with similar cuts just two months later. Further commission cuts were experienced in 2009 from 6% to 3%. This and other changes in airline reservation models has undoubtedly lead to displacement of some Jamaican travel agencies, even resulting in some

unregistered agencies transacting business illegally. According to the Minister of Tourism, these agencies have no insurance or protection for the client and several have got into trouble with customers who pay for travel which did not materialise (*Jamaica Gleaner*, 2011).The article also states that in an attempt to punish these rogue agencies, the Jamaican parliament has recently approved the legislation to increase the fine from J$20 for each day they operate illegally, to a maximum fine of J $1million.

It is clear that the current business model where these firms only cater to the outbound market to provide a limited set of services seems to be failing. This research posits that in addition to a re-examination of the market, the business practices and processes within these firms such as their technology usage rate, types of technology adopted and the purposes for which they have been adopted, must be assessed with a view to informing a more adaptable business model.

# A Note on Methodology

The aim of the research investigation is to identify and assess the key driver/barrier of internet adoption for sales and marketing purposes in small, owner-managed travel firms. Consequently the following objectives emerged:

1. To examine the combination of antecedents and drivers for various levels of technology adoption in travel firms.
2. To investigate the relationship between Ownership/Leadership and technology adoption in owner-managed small firms.
3. To investigate the influence of internal firm factors such as strategy and resources in technology adoption in owner-managed small firms.
4. To investigate external firm factors such as the digital divide and culture in technology adoption in owner-managed small firms.
5. To develop a model of technology adoption for owner-managed small travel firms that identifies the characteristics of leaders and firms at varying levels of technology adoption.

While the debate has existed mainly between Positivism and Interpretivism, and while these have both influenced the methods employed in numerous research projects, there is greater grounding in the research perspective surrounding *Critical Social Science* to achieve the aims of this work. Embedded in *Critical Social Science* is the idea that there is an opportunity to provide critique that reveals true conditions and help people into action

(Neuman, 2006). It focuses on supplying individuals and societies with the tools needed to change the world around them. More importantly, it allows for exploration through multiple layers beneath the surface, to uncover underlying structures and highlights that the purpose of social science is to understand social meaning in context. A dialectical orientation is adopted as knowledge allows people to see and alter deeper structures. Fundamentally however, the primary reason for research under this paradigm is that it aims to smash myths and empower people to change society (Neuman, 2006).

This validates the need to explore the Jamaican context to identify the multiplicity of considerations facing local agencies, as opposed to adopting a "one-size fits all" approach that would immediately suggest that the drivers of diffusion of innovation and technology acceptance are universal. It also supports the idea that the firms should never be comfortable in existing situations but attempt to explore all possibilities, to include threats and opportunities. The research aims to address the issues through deep explorations into the thoughts and feelings of stakeholders to gain explanatory insights. This research process is primarily an inductive one with a deductive element, as it explores issues through the deep qualitative inquiry of a small sample and identifies what is generalizable.

If assessed on a continuum between *Positivism* and *Interpretivism*, this research finds more of its philosophical underpinnings in *Critical Social Science*. More specifically within this paradigm, there is a subscription to the concept of *Bounded Autonomy,* which is an approach to human agency and causality that makes the assumption that there is some degree of subjectivity in human actions but only within limits that are clearly identifiable. Therefore it recognizes that there is a certain degree of objectivity in those boundaries or limits but that within those parameters there may be room for subjectivity in exploring causality and the actions of the human agent. This approach therefore blends determinism (a feature of positivism) and voluntarism (a feature of interpretivism) to show how structure and agency interact. Previous research on technology adoption has primarily utilized deterministic, positivist approaches (see for example Davis, 1989; Bagozzi et al. 1992; Lederer et al. 1998; Fuchs et al. 2009). The blended approach in this work operates on the foundation that people will make choices but only based on what they deem to be possible, which is a function of what they think can happen within identifiable limits. These limits to subjectivity may be cultural or material. Cultural factors are those constraints placed on an individual's autonomy such as values, beliefs and norms; while material factors are those which surround resource constraints. With this in mind the research attempts to explore the

reality of Jamaican travel agencies, which may or may not be significantly different from other realities. Jamaican travel agencies have been chosen due to a significant decline in the number of firms and the lack of research in the travel industry since its inception. The lessons learned here may bear some relevance to an understanding of similar industries and societies. The essential characteristics to determine similarity include small, owner-managed travel firms in relationship-oriented, developing economies.

Since this research is primarily a qualitative one, which adopts an inductive approach, it does not warrant the extensive use of existing measurements in the planning phase as this would likely cripple the flexibility needed to engage in the Template Analysis in an effective way. Neuman (2006) argues that qualitative researchers typically do not refine abstract ideas into theoretical definitions early in the process. Instead rudimentary working ideas are refined during the data collection and analysis process. Through gathering and analyzing qualitative data, the researcher develops new concepts, formulates definitions for major constructs and considers relationships among them. These are eventually linked to create theoretical relationships. Conceptualization therefore flows from the data which has been collected. Operationalization in this process comes before conceptualization. It however still takes place during data collection and analysis. The operationalization of qualitative research is a description of how working ideas were developed while making observations and collecting data. It is more of an "after the fact" description than a preplanned technique which shows how specific data and preliminary ideas about this data become constructs.

The concepts of reliability and validity are typically notions within the positivist paradigm. While reliability addresses the extent to which results are consistent over time or generalizable, validity is concerned with the extent to which a study measures that which it intended to (Golafshani, 2003). Whereas these two issues may never be fully resolved in the qualitative paradigm, there is still a need to demonstrate that research in this paradigm is credible and trustworthy. According to Patton (2002) validity determines reliability in qualitative research. The research design while using dominant qualitative methods, incorporated closed ended quantitative data which was analysed in tandem with qualitative data to make the analysis more robust. Although the quantitative, deductive element of the study was minimal it provided a foundation for deeper qualitative inquiry. Using the semi-structured interview, the series of questions were guided by the objectives and a rudimentary conceptual framework. This provided a deductive element, however the dominant

inductive approach has been validated through a detailed template analysis technique to identify themes across cases. The results are generalizable and transferable only to the extent that samples share the characteristics of small, owner-managed travel firms in a similar developing country context.

While it may be argued that the level of reliability and validity is reduced through adopting a qualitative approach, the dominant approaches taken to the study of technology adoption, leadership, culture, digital divide, resources and strategy have been predominantly quantitative and reductionist. A critically important observation is that the two major concepts being researched (technology adoption and leadership) suffer from similar methodological constraints. The majority of studies on technology adoption rely heavily on survey-based quantitative approaches (see for example Bagozzi, Davis and Warshaw, 1992; Lederer, Maupin, Sena and Zhuang, 1998; Fuchs, Hopken, Foger and Kunz, 2009). The same is true for mainstream leadership studies (see for example Cho, 1998; Cole and Mehran, 1998; Anderson and Reeb, 2003; Welch, 2003; Ghobadian and O'Regan, 2006). These studies have been important in identifying key variables for further exploration but the intellectual debate is now at a juncture where it would benefit from deeper insights which cannot be gained from factor analysis or ordinary least squares regression.

## The Primary Research Process

The nature of the work necessitated a pilot study and two phases of data collection. The pilot study tested the instrument for phase 1 which included all of the relevant constructs identified in the literature such as culture, the digital divide, resources, strategy and leadership. Ten respondents were interviewed to determine the suitability of questions.

The data collection for phase 1 was aimed at meeting the following objectives:

- To investigate the relationship between Ownership/Leadership and technology adoption in owner-managed small firms.

- To investigate the influence of internal firm factors such as strategy and resources in technology adoption in owner-managed small firms.

- To investigate external firm factors such as the digital divide and culture in technology adoption in owner-managed small firms.

The above objectives comprise three of the five objectives in this study and are output related. In this book there are four output objectives and one input/process-related objective. This means that four of the objectives are expected to be met through the findings of the primary research while one objective is aimed at influencing the data collection itself. The input/process-related objective emerged from the literature and helped to design the instrument which was used in phase 1 of data collection. This objective was:

- To examine the combination of antecedents and drivers for various levels of technology adoption in travel firms.

This instrument was constructed by utilizing concepts which were tested in a variety of studies related to technology adoption. In order to probe and ask the most appropriate questions a number of concept maps in addition to variables and constructs used in previous research, are used to create a guide. These concepts emerge from the rudimentary conceptual framework seen in *Fig 1-2*. While conceptual frameworks do not typically emerge this early in qualitative research, a flexible, revisable, rudimentary framework helps in streamlining ideas for the qualitative researcher (Vaughan, 2008). The interview instrument was a semi-structured one. The unstructured approach was not taken because the concepts are not completely new but are rather being applied in a new way. Despite a dominant qualitative methodology being used, the first set of questions on technology adoption used a closed-ended approach for the phase 1 instrument to allow for a descriptive analysis of the respondents' technology involvement. The subsequent sections of the instrument which focus on organizational decision-making, leadership and macro-factors, are designed predominantly with open-ended questions which allow for deep explorations into attitudinal concerns and processes within the firm.

Theorists in organizational decision-making theory such as Huber and McDaniel (1986) highlighted that organizational environments of the future are likely to be characterized by greater complexity. They called for organizations to recognize that the centrality of the organization rests in what decisions are made and how these decisions are made. This makes it particularly important to get to the root of what drives decisions for individuals and ultimately organizations. Given the complexity mentioned above a single component model of attitude would not be suited for the instrument. The decision was therefore taken to use affective-cognitive models of attitude otherwise known as the multi-component model. This

has primarily been used in psychology and consumer behaviour research (see for example Schiffman and Kanuk, 2000; Youn, 2000) however it has been applied to the organizational decision-making framework in this research. It has also not been used in the study of firm technology adoption prior to this work.

Rogers (1994) innovations adoption model provides a comprehensive group of innovation characteristics which have been adapted and applied to assess leaders' perceptions of an innovation. Given the fact that the leaders being interviewed are also owners of these firms, three key characteristics were explored initially as these directly affect an owner's return on investment: relative advantage, perceived risk and image. Compatibility and Complexity were later assessed based on how employees react to technologies.

- *Relative advantage* was addressed using five statements which addressed the general importance of technology in work processes and moved to more detailed questions about making work simpler and faster (Eason, 1988).
- *Perceived risk* associated with using technology was addressed in three open-ended questions which addressed the risk of investment from the perspective of time and money (Wernerfelt, 1984; Mowery et al. 1998) given that owner-managers are likely to focus on these types of returns on investment.
- *Image* was measured through two questions: one relating to how competitors view the firm and the other related to customers' views (Gronroos, 1993). These constructs were taken from the work of Gronroos in the marketing literature.
- The issue of complexity was covered through questions about whether technology was easy to use (Davis, 1989), easy to learn to use (Lederer, 1998) and whether it made work easier or harder.
- *Compatibility* was assessed by whether a technology was a good fit for the tasks being carried out in organizations (Peteraf, 1993). One open-ended question borrowed from the work of Petaraf covered this issue. Additionally the researcher developed a question which asked how the benefits of a new technology were assessed before being introduced.

The primary data in this phase was collected using semi-structured in-depth interviews with the top executive of 31 travel agencies in Jamaica. The total population of agencies is 43, however only those with owner-managers were interviewed as their level of autonomy in firms is greater.

Additionally only those firms which were International Air Transport Association (IATA) certified were interviewed. The other firms were either a part of chain operations or did not have IATA status. The entire target sample of 31 was interviewed as there were no major limitations to collecting this data apart from the time constraint for executives. The questions in the interview brief were guided by the conceptual framework and the literature; however participants were allowed to speak freely about other related matters. The instrument employed closed-ended questions for firm description followed by probing open-ended questions. Interviews were taped and transcribed to control interview length and ensure that all data was recorded.

Interviews were taped and transcribed. The decision was taken to manually identify themes through complete immersion in the data. This process involved writing a case study using all the data for each firm and then conducting a cross-case and comparative analysis across responses to questions in the semi-structured interviews through the use of an outcomes matrix. This allowed for the grouping of answers according to themes. Common themes were then identified among firms which had similar types of adoption levels. From the phase one analysis adoption levels were identified as computer adopters, internet adopters, website adopters, ecommerce adopters and social media adopters. This was determined based on similarity in technology use among groups of firms.

*Computer adopters* was used to describe firms at the bottom of the hierarchy that were simply engaged in the use of computer terminals and hardware for back office accounting functions or for front office functions such as sales. Firms which do not use online sales tools other than GDSs are also placed in this category since their adoption was simply based on the free provision of the system by the supplier. *Internet adopters* represent firms in which the internet is used only for emailing and web browsing. *Website adopters* refer to the firms which have created and used company websites for general and marketing information sharing. Websites in this case typically provide static information. *E-commerce adopters* refer to firms which use websites for actual bookings and payment, while *social media adopters* would refer to firms in which social media is used for promotion and interaction which results in sales activities. Each firm was categorized as being at one of two stages within each of these levels based on the work of Damanpour (1991): initiation or implementation. While the data analysis for phase one allowed for description of the firms, it did not allow for the question of "why" to be answered sufficiently. After completing this phase, the question of why firms were at each level could not be answered conclusively, as the factors

of digital divide, culture, strategy and resources, did not adequately answer this question as discussed in the subsequent findings chapters. Phase one however highlighted an importance in the leadership role. Although this indicated some degree of causation, it did not allow for the development of a model, which could explain each level of adoption which emerged. At this stage it was determined that a second phase of data collection would allow for more robust findings, which could identify leadership variables that may influence adoption behavior in firms. This was guided by constructs in the most dominant leadership research surrounding the transformational/transactional paradigm.

The exploration of owners' feelings through in-depth, semi-structured interviews allowed for the adoption of the Template Analysis technique (Crabtree and Millar, 1999). Template analysis is the process of organising and analysing textual data according to themes. This can be text produced or used in the context of the evaluation irrespective of the evaluation activity, i.e. data not generated by the evaluation (Crabtree and Miller, 1999). This therefore allows for broader underlying structures to be included in the analysis. This was also strengthened through a cross-case analysis matrix (Patton, 2002). The in-depth interviews were transcribed verbatim so that the exact words of respondents could be used in the categorizations to follow.

Phase 2 was designed to meet the following objective:

-   To develop a model of staged technology adoption for owner-managed small travel firms that identifies the characteristics of leaders and firms at varying levels of technology adoption.

In meeting this objective the second instrument was designed in a much more focused manner than the previous instrument and relied solely on an open-ended qualitative-type instrument to gather data. The instrument used in phase 2 is a completely qualitative one, which seeks to strengthen and validate the leadership constructs and variables identified in phase 1 of the primary data collection. These questions were more grounded in the transformational leadership literature, as leadership type was identified as the major influencing factor in driving various levels of adoption for the firms under investigation. The instrument is a very concise one which seeks to be extremely focused and not as broad and comprehensive as the previous instrument. This instrument which focuses on transformational leadership attributes used the 4 general constructs identified by Bass and Aviolo (2003) in the Multifactor Leadership questionnaire as a guide.