TRAVEL AGENCIES RESPONSE TO INTERNET EVOLUTION IN NAIROBI COUNTY: AN ANALYSIS OF COMPETITIVE STRATEGIES

BY

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H87/15197/08

THESIS SUBMITTED IN FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY (TOURISM MANAGEMENT) IN THE SCHOOL OF HOSPITALITY AND TOURISM OF KENYATTA UNIVERSITY

OCTOBER 2015
DECLARATION

This thesis is my original work and has not been presented for a degree in any other university or award.

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DEDICATION

To my dear husband, Benard, our daughters Stephanie and Stacy and my parents, Peter and Ann for being there for me throughout the entire process.
ACKNOWLEDGEMENT

The successful completion of this thesis has involved various individuals and/or organizations. I therefore take this opportunity to sincerely thank all those who supported me in one way or another.

First and foremost, I give all the glory and honor to the Almighty God for being my all in all. He gave me the strength and provided all I needed.

I am indebted to my employer (Moi University) for facilitating this study. The one year study leave and the partial financial support accorded to me were highly appreciated.

Special thanks also go to my supervisors Dr. Manyara, Dr. Tromp and Professor Odunga for their valuable guidance and advice. Despite having busy schedules and mostly out of the country, they critically looked at this work and gave the necessary insights that helped in shaping it.

Further, this thesis would have remained a dream had it not been for the travel agencies who willingly and voluntarily gave all the necessary information that I needed for the study. I also wish to express my gratitude to my entire research assistants, Mr. Mbae, Mr. Manyasi and Ms. Kibue. Finally, special thanks to Mr. Kitheka for guiding me through the process of data analysis. Mr. Antony D. Bojana deserves gratitude for editing the final work.
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OPERATIONAL DEFINITIONS OF TERMS

The following terms were used in this study to convey the meaning shown below:

**Business Models** - Describe the rationale of how an organization creates, delivers, and captures value- economic, social or other forms of value.

**Disintermediation** - The elimination of the intermediaries within the distribution channel, propelled by the electronic means that enable consumers to access and transact directly with suppliers and destinations.

**Global Distribution Channel** - A large and sophisticated electronic travel reservation system used globally.

**Information and Communication Technology** - An umbrella term that describes all technologies for the manipulation and communication of information.

**Informediary** - An electronic intermediary that provides and/or controls information flow in cyberspace often aggregating information and selling to others.

**Internet Distribution System** - A collection of networks consisting of more than 2000 internet reservation systems, travel websites, online reservation systems, online travel agencies (OTA), and travel portals which specialize in internet marketing of travel and related services directly to consumers (Conyette, 2015).

**Intermediation** - The act of linking supplier with the travelling public.
**Reintermediation** - The process through which a once disintermediated player is able to reenter the value-added chain that supports buyer-seller transaction, often enhanced by the application of ICT, and thus effectively fights back against other competitors that have created pressures for disintermediation.

**Service Charge** - Mark-up price, which is the difference between the price travel agencies can obtain the service and the price they can charge when selling the service.

**Telecommunication** - The transmission of signals over long distance, including not only data communication but also the transmission of images and voices using radio, television, telephony and communication technology.

**Tourism Distribution System** – Channels used to pass and share information in the tourism industry to the relevant stakeholders.

**Travel Portal** - It is the booking engine used in the travel industry.

**Web 1.0** - web technology that is controlled by tourism service providers

**Web 2.0** - integrated web technology used by both service providers and clients.

**Zero Commission Model** - A mechanism by which a travel agency receives no commission from bookings made of travel components such as air transport, accommodation from the principal.
ABBREVIATIONS AND ACRONYMS

AGFI- Adjusted Goodness of Fit Index

B2B- Business to Business

B2C- Business to Client

CCK- Communication Commission of Kenya

CFI- Comparative Fit Index

CRS – Computerized Reservation System

EMT- Electronic Money Transfer

DF – Degrees of Freedom

DOI- Diffusion of Innovation

GDS – Global Distribution Systems

GFI- Good of Fit Index

IBM- International Business Machines Corporation

ICTs- Information communication technologies

IDS- Internet Distribution System

IFMIS- Integrated Financial Management Information Systems

KATA- Kenya Association of Travel Agents

KATO- Kenya Association of Tour Operators

KMO– Kaiser Meyer Olkin

NFI- Normed Fit Index

RMR- Root Mean Square Residual

RMSEA- Root Mean Square Error of Approximation
RTGS-Real Time Gross Settlement
SEM- Structural Equation Modeling
SMEs- Small and Medium Enterprises
SPSS – Statistical Package for Social Sciences
SRMR- Standardized Root Mean Square
TAs – Travel Agencies
VOIP- Voice Over Internet Protocol
ABSTRACT

Innovations in internet advances have brought diverse challenges and opportunities for the travel agency sector. This study analyzed the implications of internet advances and the competitive strategies adopted by travel agencies in Nairobi County. It specifically evaluated the extent to which travel agencies have adopted and use internet developments, challenges and perceived benefits of the internet advances, the competitive strategies adopted to cope with the internet advances and the extent to which the Government of Kenya policies in ICTs facilitate travel agencies’ to cope with internet innovations. The study used a conceptual framework and Diffusion of Innovation Theory in order to relate theory to practice. A mixed approach was used, which incorporated survey design, analytical design and concurrent transformative strategy. The research used census to include all the (Kenya Association of Travel Agent) travel agencies in Nairobi and purposive approach to select the respondents. The study focused on all the 74 travel agencies which are registered by Kenya Association of Travel Agents (KATA) in Nairobi, the ministry of tourism and Kenya Data Network Limited. However, 55 travel agencies responded with a sample size of 110 respondents. Data was collected by use of questionnaires, documentary analysis and semi-structured interviews. The chief ICT officer from the Ministry of Tourism and external affairs manager at Kenya Data Network Limited responded to the interviews. Data analysis involved use of thematic, descriptive statistics and structural equation modeling to establish the relationships between the dependent and independent variables. The results of the study established that TAs in Nairobi are mainly family and independent businesses. They offer amalgamation of services and target diverse clientele as a strategic approach. They are aware of multiplicity of ICTs in existence, nonetheless, their core reason for internet adoption relates to the critical source of information necessary for business transactions. Further, the internet advances adoption depends on the need, relevance and perceived internet benefits. Internet facilitates information processing, storage, accessibility of information, increased efficiency, wider coverage, cost effectiveness and networking. The main challenges travel agencies encounter included loss of clients through disintermediation, cost of coping with the internet dynamism and also lack of ICTs expertise and lack of government support. The main strategies adopted are going online, customer relationship management, product diversification and continuous training of staff. The legal environment within which TAs operate is unsystematic and lack updated laws that would assist them cope with the technological shift. Additionally, the study established that there exists a relationship between the internet advances and the strategies adopted by the Travel Agencies, the perceived internet benefits and the strategies adopted. However, there is no relationship between the extent of internet adoption and use and the strategies adopted by travel agencies in response to the internet developments. The study proposes to the government of Kenya through the Ministry of East Africa Affairs, Commerce and Tourism to provide the necessary enabling environment to enhance travel agencies adopt the dynamic ICT advances and the best strategies in the global value chain.
CHAPTER ONE

1.1 Introduction and Context of the Study
This chapter begins by analyzing the background to the study that led to the formulation of the research problem. This is followed by the purpose and specific objectives of the study. The hypotheses addressed in the study are basically derived from the specific objectives. Thereafter, the significance of the study, scope of the study and the limitations are highlighted.

1.2 Background to the Study
Research into the travel agency sector has mainly focused on the need for travel agents to adopt strategies and embrace technology that will enable them to cope with the ever changing technological environment (Buhalis & Costa, 2006; Livil, 2008). While such studies have been ongoing in the developed countries, not much has been done in most of the developing countries. Considerable research on how travel agencies (TAs) are adopting Information and communication technologies (ICTs) has, for example, been done in Europe, New Zealand and Egypt. In particular, a study that was carried out in Auckland, New Zealand among travel agencies focused on the perceptions, adoption and impacts of ICTs. The results indicated that the main survival strategies adopted by the travel agents were customer and niche market orientation but little is argued about sustainable strategies (Garkavenko & Milne, 2009).

ICT has proved to be a very dynamic field which affects travel agencies in diverse ways since the 1950s. The major advances of ICTs in the travel industry include computer reservation systems (CRS) which were initially started in 1950s by the airline
industry. The first CRS was organized by a partnership between American airlines and International Business Machine (IBM), this system is now known as Sabre (Zhou, 2004). CRS was known as an in-house reservation system was then transformed to GDS (Global Distribution Systems). The sector became highly concentrated and was eventually dominated by four large, global operators which were able to operate internationally via a closely-knit network of agreements with local operators (Pederson, 2005). The four were Amadeus, Galileo, Sabre and Worldspan. Today, all these GDSs have set up their own booking engines, which are also known as the online travel agencies. Further, the GDSs have advanced into internet distribution system (IDS) that facilitates purchase of travel products online (Conyette, 2015)

The use of internet emerged in the 1990s with broad effects from one country to another (Zhou, 2004). The internet changed the market structures, shaping the entire tourism value chain. In an effort to cope and sustain business, the existing intermediaries have taken the ICT as an integral component to ensure sustainability (Egger & Buhalis, 2008). In particular, the internet has turned into a useful medium which has created business opportunities for travel e-intermediaries. Moreover, companies have reinvented themselves online (Middleton, Fyall, Morgan & Ranchhod, 2009). The tourism industry is also embracing mobile technologies with the use of devices such as hand-held computers, mobile telephones and personal digital assistance which uses the internet technology (Cohen, 2010).

The advances of internet have shaped the travel agencies business practice fundamentally, causing various strategic responses. The overarching aim for many
travel agencies in the wake of new and rapidly changing ICT is to transform their businesses appropriately for gaining a more competitive. The airline, hotels, car rental chains and tour operators are increasingly encouraging clients to make booking directly through the use of their own sales outlets, mobile telephony and the internet (O’Conner, 2008). The main reason for such changes is to cut on their distribution cost, which is an integral aspect of strategic approach.

The internet innovations have altered the traditional intermediary role travel agencies played in distributing tourism products and services. New form of internet technology has brought dramatic shift to travel agencies’ business whereby the booking process is gradually phased out as commercial transactions are increasingly channeled through appropriate websites (Davidson & Rogers, 2006). According to Papatheodorou (2006) and Buhalis and Costa (2006), only players that can add value will be able to survive in the long run as intermediation is rapidly replaced by e- business models, and that is why the current study attempted to investigate the response of travel agencies to the internet developments.

With the increasing pressure, internet has brought strategic measures into the service providers. Measures like the introduction of zero-commission policy (no percentage payment given to TAs on airline sale) by airlines is being replaced by service fee. This has better assurance for ticket sale and is a strategic approach towards cutting the distribution costs.
Today, the airlines are adopting disintermediation (by passing of TAs) as a major driver towards change in an endeavor to link themselves directly to their customers (Doganis, 2006). The introduction of e-ticketing, commission caps and cuts and increased use of the ICTs by the airlines are major changes intended to substitute travel intermediaries with digital technology, hence reducing the distribution cost (Frew, 2004 and Page, 2009).

Advances in the internet have affected the travel and tourism industry, particularly in the area of automation and networking of distribution channels. The most radical change brought by ICTs is ‘disintermediation’, whereby tourism service providers are striving to sell their products directly to clients (Garkanenko & Milne, 2009; Wang, Li, Duan, Yan, Hi and Yang, 2007). Despite the disintermediation threats, most travel agencies are still thriving in their businesses, making this research critical to establish the nature of the competitive strategies they are using. While generally travel agencies all over the world are managing to adopt various strategies, very little is known in specific countries and urban settings. Travel agencies have continued to endure the ICTs challenges through restructuring and reorganization of their businesses (Zhou, 2004).

The extent to which travel agencies have embraced the recent innovations in the internet and repositioning themselves by offering their services online produces plenty of information, which however, requires an empirical analysis. For instance, in 2004, a number of mergers and acquisition took place to consolidate on-line players. The
biggest on-line travel groups that emerged were: Expedia, Travelocity, Priceline, Lastminute, Ebookers, Orbitz, among others (Buhalis & Costa, 2006).

According to Sigala, Liu and Murphy (2007), the on-line intermediaries are challenging the profitability of suppliers and traditional intermediaries forcing them to reconsider their competitive positioning and business models. For example, Expedia is an on-line travel agency which is linked to world span. It pioneered in changing the business model used to sell travel on-line. It has adopted two major models, that is, merchant and dynamic model (Sigala et al., 2007; Buhalis & Costa 2006).

According to Papatheodorous (2006), horizontal and vertical integration are some of the key strategies that are being used by the on-line travel agencies. On-line travel agencies use horizontal integration to expand their market share and market coverage and are able to gain a competitive advantage. Vertical integration is used to expand value chains and proposition through a comprehensive portfolio of both intermediaries and tourism service providers.

Lubbe (2005), pointed out that strategies that are being adopted by South African travel agencies include; consolidation of travel companies through franchising, consortiums, and restructuring of their revenue model, that is, from commission base to service fee base, increased use of technology and transformation of their business into niche markets.

In Kenya, Galileo Kenya recently joined the web forces and developed a booking engine known as ‘Going Safari’ (Galileo Kenya, 2008). However, there has been little
academic research on the travel agency sector focusing on how travel agencies are responding to the internet advances. The travel agencies’ response to internet innovations in Nairobi remains an understudied issue and is important for this research, with a view to establishing how they are responding to internet innovations as well as how government policy facilitates the TA sector within the ICT area.

1.3 Statement of the Problem and Justification
This research focused on travel agencies’ response to internet within three critical issues. First, although there has been ICT advancement and particularly the internet for sourcing and information dissemination, booking, financial transactions and marketing among travel agencies, there are very limited studies in Kenya indicating the extent to which the TAs utilize and the competitive strategies adopted by them. The implications of the internet innovation upon travel agencies business remain understudied, making it hard to understand the industry’s trends, competitiveness and repercussions within the Kenyan context.

Second, internet has triggered diverse response among the travel agencies without corresponding research to delineate competitive strategies adopted. Analyzing how travel copes with the internet innovations remains challenging due to unsystematic research, thereby creating incoherence.

Third, the Kenya Tourism policies and ICT policies that are directly related to travel agencies such as policies on private sector involvement, marketing and ICTs, remain conceptually misunderstood especially due to limited analysis. Despite the government of Kenya recognizing the importance of involvement of the private sector as an engine
to economic growth as outlined in Vision 2030, existing research does not address the tourism policy in the context of technologies such as on-line services and ticket-less travel. Generalization that internet is “phasing out” the travel agencies has to be qualified by concrete research which can inform the inadequacy of ICTs policy in content and specialization. In light of the above issues, the research sought to determine how the travel agencies are responding strategically to the challenges internet poses.

1.4 Purpose of the Study
The purpose of the study was to scrutinize the competitive strategies utilized by the travel agencies in the light of internet progression and its implications, in order to provide necessary informed knowledge on how to gain a more competitive advantage.

1.5 Objectives of the Study
The research was based on the following objectives:

1.5.1 General Objective
The general objective of this research was to examine the implications of internet advances and the competitive strategies adopted by travel agencies in Nairobi County.

1.5.2 Specific Objectives
i. To evaluate the extent to which travel agencies have adopted and use the internet developments.

ii. To investigate the challenges and perceived benefits of the internet advances on the travel agencies.

iii. To analyze the competitive strategies adopted by travel agencies to cope with the internet advances.
iv. To examine the extent to which the Government of Kenya policies in ICTs facilitate travel agencies’ to cope with internet innovations.

1.6 Research Hypotheses
The null hypotheses usually indicate that there is no relationship between the variables that are studied. The hypotheses are derived from the first three objectives, which were statistically tested. The following null hypotheses were tested in the study.

**H₀₁:** There is no significant relationship between internet advances and the strategies adopted by travel agencies.

**H₀₂:** There is no relationship between the extent of internet advances adoption and the strategies adopted by travel agencies.

**H₀₃:** There is no relationship between the perceived benefits and the strategies adopted by travel agencies.

1.7 Research Question
i. What are the challenges experienced by travel agencies due to internet advances?

ii. How do the Government of Kenya policies in ICTs facilitate travel agencies’ to cope with internet innovations?

1.8 Significance of the Study
The result of this research will enable the travel agencies to understand the existing internet innovations and effectively utilize its potential. The travel agencies especially in Nairobi will gain a competitive edge with increased knowledge. Small and medium
scale travel agencies stand particularly to benefit with regard to how they can make use of Internet innovation relevant in the tourism industry in order to remain in business and become even more relevant to the industry. The research may also establish the opportunities of the adoption of internet advances in the operations of travel agencies in Kenya and provide necessary information on the dynamic character of internet which can form an important basis to adopt viable strategies. The research findings may also give an informed situation of the government ICT policies and be a good ground for necessary reforms to improve the quality of travel agencies. The study will also add value to the body of knowledge, especially in academia. Ultimately, the outcome of the research will serve as a blueprint for entrepreneurs to chart the right course of action for the development of ICT facilities and infrastructure in the travel agency activities in the tourism industry.

1.9 Limitations of the Study
Preliminary investigation in the process of developing this research showed that the respondents especially among travel agencies shared relevant information openly, which contributed to the completion of this research. However, there was a possibility that some would be reluctant to reveal their competitive strategies due to competition threat. It is hoped that the responses were a true reflection of what they practice. Further, there were limited documentations on the Kenyan context.

1.10 Delimitation of the Study
The study was conducted at Nairobi County. The focus was specifically on all travel agencies that are members of Kenya Association of Travel Agents (KATA). The key
respondents included directors and ICT responsible staffs. The research focused on how the travel agencies are responding to internet advances, the extent to which they have adopted the internet innovations, their implications and the competitive strategies TAs have adopted. Further, existing government ICT policy framework relevant to travel agencies business was analyzed.

1.11 Theoretical Framework
The adoption and use of internet advances is a critical ground for TAs to gain a more competitive advantage. The advances affect the strategies and TAs business operations. Small business owners and managers play an important role in facilitating this change because they typically hold the decision-making power (Karanasios & Burgess, 2008). Awareness and perceived benefits of a technology are particularly to create knowledge upon which the TA can make informed decision on adoption of ICT (Alam & Noor, 2009).

This research was informed by Diffusion of Innovations Theory (DOI), which is an important basis for travel agencies to explain how they cope with internet innovations and the competitive strategies adopted in order to remain relevant. Diffusion of Innovations Theory explains that innovation tends to move sequentially starting with slow penetration, followed by fast-paced adoption and eventually slows down once more.

According to Roger (1999), diffusion of innovations comprises a “broad social psychological and sociological” theory which describes the adoption patterns of innovations, and gives basis to predict “whether and how a new invention will be
successful.” This theory is useful to explain the “potential application to information technology ideas, artifacts and techniques.” The DOI shows a logical process through which various technological innovations evolve, which includes knowledge, persuasion, decision, implementation and confirmation. The following table shows the stages through which a technological innovation passes:

**Table 1.1: Technological Innovations Stage**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Exposure to its existence, and understanding of its functions</td>
</tr>
<tr>
<td>Persuasion</td>
<td>The forming of a favourable attitude to it</td>
</tr>
<tr>
<td>Decision</td>
<td>Commitment to its adoption</td>
</tr>
<tr>
<td>Implementation</td>
<td>Putting to its use</td>
</tr>
<tr>
<td>Confirmation</td>
<td>Reinforcement based on positive outcomes from it</td>
</tr>
</tbody>
</table>

**Source:** Adapted from Rodger (1999)

According to Standing and Vasudavan (2000), studies which have examined the diffusion of innovation highlight five general characteristics upon which the diffusion of innovation theory can be studied, namely; Relative Advantage, Compatibility, Complexity, Trialability and Observability. Table 1.2 provides details of these characteristics.
Table 1.2: Characteristics of Innovation Theory

<table>
<thead>
<tr>
<th>Relative advantage</th>
<th>Definition</th>
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<tr>
<td>Relative advantage</td>
<td>The degree to which it is perceived to be better than what it supersedes</td>
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<tr>
<td>Compatibility</td>
<td>Consistency with existing values, past experiences and needs</td>
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<td>Complexity</td>
<td>Difficulty of understanding and use</td>
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<tr>
<td>Trialability</td>
<td>The degree to which it can be experimented with on a limited basis</td>
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<tr>
<td>Observability</td>
<td>The visibility of its results</td>
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Sources: Rogers (1999)

1.11.1 Criticism of the Diffusion of Innovation Theory
The Diffusion of Innovation Theory was used in the early twentieth century in Europe focusing on individuals as “decision makers”, but since 1960s, it focused on the organizations as units of adoption (Apperson & Wikstrom, 1997). DOI theory focuses on five characteristics that influence the adoption of an innovation. However, according to Reino, Alzua-Sorzabel and Baggio (2013) additional features such as acceptability (willingness of staff to address gaps for new innovations to match new technological adoption) and affordability (Capacity to cope with new innovations putting pressure on TAs budgets) are essential. As the internet evolves, the TAs are constantly evolving new ways and therefore, theoretical reflection is important based on the dynamic, fast pace and technical challenges.

1.12 Conceptual Framework
The conceptual model focused on ICT advances in TAs, particularly the internet, the challenges and benefits that emanate from internet advances, the government ICT policies and competitive strategies adopted by the TAs. The framework has an
important basis for application to examine the nature of response by TAs in Nairobi as a result of internet innovations and implications (Figure 1.1). The variables in the framework included Independent, dependent and intervening variables.

**Independent Variables**
The main independent variables in the study included ICT developments/advances that is CRS, GDS, internet advances in TAs, perceived internet advances benefits by TAs, these benefits included; enhanced communication within the firm and between firms, information processing and storage and ease of accessing information. Challenges affecting TAs businesses which encompass disintermediation, lack of government support, commission caps & cuts, emergence of E-Travel agencies, lack of skilled staff Extent of internet adoption and use was also an independent variable. The indicators included, the mode of communication, the type of internet advances adopted, application of the internet, mode of accessing and the frequency of use of the internet by the TAs.

**Dependent Variable**
The dependent variable in the study was the competitive strategies adopted by the TAs in response to ICTs development. The strategies included going online, increased use of technology, product diversification, niche markets, focus on consumer, consolidation.

**Intervening Variable**
Government policies in ICT were the intervening variable in the study. This variable links the independent and the dependent variables. Adoption of ICT advances and strategies may be influenced by a number of factors, many of which are beyond the control of the TAs. Government ICT regulation is considered important in this study.
According to Organization for Economic Co-operation and Development (2008), the Government ICT regulations should facilitate and create favourable environment for the TAs to adopt competitive strategies and embrace innovations. It should also address regulatory reforms to reduce the ICT cost and develop standards and international framework for e-commerce for ICT use.

**Relationships between the Variables**

The framework recognized that ICTs innovations are very dynamic and have had a major influence on the strategies adopted by TAs. The evolution of internet influences on the TAs business operations. The nature of their business causes them to adopt and use the internet innovations that are relevant and also to counteract the challenges that come with the advances. Buhalis and Law (2008); Ip, Rosanna and Law (2010), indicated that the ICTs innovations not only generated a new paradigm-shift, but have also changed their operational practices. Further, innovations have caused the traditional TAs to lose business and their competiveness.

The Government of Kenya plays a major role in promoting the TAs in the adoption of ICTs advances and the best strategies in the global value chain. The government ICT regulations are responsible for development of advanced and high technological infrastructure related to ICT use, reduce ICT costs, develop standards and international framework relevant for ICT adoption.

The TAs adopts various strategies in order gain a more competitive advantage and to remain relevant. They have also developed competitive strategies to counter the
challenges that come with the internet. Buhalís (2003) confirmed that proliferation of ICTs in the travel industry has caused a wide range of strategic approaches.

The internet innovations brought diverse challenges and opportunities in the TAs businesses. However, the internet innovations adopted and used by TAs were mainly based on the perceived benefits accrued from them. Similarly, Alam and Noor (2009) and Abou-Shouk, Megicks and Lim (2013) recognized that TAs adopted ICTs based on a comprehensive understanding of the future ICTs perceived benefits that would lead to competitive advantage rather than mere operational benefits. Perceived benefits are also linked to the Diffusion of Innovation (DOI) used in this study, which indicated that one of the determinants of an innovation is the relative advantage ensued from it.
**Figure 1.1: ICTs Innovations, Impacts, Level of Adoption and Strategies**

**Source:** Author

### Application of the Theory

The Diffusion of Innovation theory explains the adoption model of innovation. It explains the potential application to technology ideas and techniques. The theory systematically explains how innovation evolves and the need to adopt them. Any
innovation brings diverse implications that would lead to adoption of tactics. In this study, the proliferation of internet cause divergent implication to TAs and they need to adopt the internet advances and strategies in order to remain significant. The theory determines the applicability of the various technological innovations stages and five characteristics crucial in adoption of internet advances and competitive strategies in TAs. Firstly, it is prudent for the TAs to be aware of the internet advances and to understand how the innovations are used. Secondly, the TAs needs to form a favourable attitude towards the advances. Thirdly, commitment towards adoptions and use is necessary in terms of setting apart annual financial allocation, frequent research and investing on the relevant advances. Fourthly, the implementation stage indicates how the TAs uses the internet in their business. Fifthly, reinforcement is based on benefits accrued and the challenges that emanate from the adopted innovation.

The relative advantage indicates that adoption is based on the benefits achieved from it. Compatibility is based with the consistency with the TAs needs and relevance. Complexity demonstrates that the challenges that comes with the adoption of the innovation, while trialabilty is the experimentation of the adopted innovation before fully adopting it in future. Finally, observation is whereby the TAs are capable of achieving a more competitive advantage. The additional characteristics that are acceptability and affordability as pointed by Reino et al. (2013) influences the extent of adoption and use of the internet innovation.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
This chapter analyses the existing literature, establishing the various knowledge gaps, related to the strategies that travel agencies have adopted in response to the internet advances. Although essential research on the various facets of the TAs exists, some dimensions have remained in exhaustively addressed or virtually lacking in facts. The degree to which telecommunications and the internet are used as sources of information and communication, have not been clearly clarified. The chapter also analyses the TAs in terms of how the internet trends bears on their competitiveness- a matter which has remained for a long time implicit.

The concept of strategies, which traditionally lay emphasis on survival tactics, is examined, bringing the need for perspective of competitive strategies. Further, the chapter reviews the government’s ICT policy framework indentifying the conceptual flaws, and the factors that either support or militate against TAs growth. In particular, the policy directions on technologies like on-line services and ticket-less travel are explored. The fundamental gaps related to how travel agencies strategically respond to the challenges internet poses, were identified and formed the basis for the study.

2.2 Historical Development of Travel Agencies
TAs have been in existence for over 170 years now, started in 1841 by Thomas Cook in UK as a booking agent by arranging a one-day rail excursion in England (Lubbe, 2000; Bhatia, 2012). In the next over half a century time up to 1900, Thomas industrial
initiatives shaped into vibrant enterprise in Europe, operating train excursions, sales agencies, travellers cheques and guiding tours. Like other sectors of the economy, sporadic interruptions by World war one and two affected the business.

By mid 1950s, about 100 years since the TAs began, the business started the air charted based inclusive holiday packages. This expanded to organized and mass tourism with the introduction of jet aircraft services. The growth of air travel in 1960s led the TAs to expand into general travel and tours on mass scale and smaller group travel (Lubbe, 2000; Seaton & Bennet 1996). By the end of twentieth century, the TAs experienced increased flexibility in holiday due to changes in consumer demand.

Cheung and Lam (2009) in their study, “How Travel Agency survives in the e-Business world?” Pointed out that TAs have evolved into three phases known as intermediation, disintermediation and reintermediation. Intermediation is whereby the TAs acts as middlemen between tourism service providers and the customers. In this phase, the traditional TAs dominates the market. Disintermediation is the second phase whereby the TAs are by passed by the service providers and face competition by the online TAs. Finally, reintermediation is whereby the TAs reposition and re-define their role in the distribution chain.

In the current millennium, several changes are being experienced, whose impacts continue to unfold. These included the deregulation of the airline industry, rapid advances in technology and changes in consumer demands and behaviour. These changes have affected the TAs in terms of their main revenue base especially with the
airline industry; it also led to reduction of their businesses due to the introduction of airline loyalty programmes (Lewis & Talalayvesky, 1998; Goldener & Richie, 2009). Advancement of internet has led to disintermediation while changes in consumer demands and behaviour have caused a change in mass tourism into new tourism. Further innovations have been experienced such as the emergence of virtual travel agencies, the social media and e-commerce which continue to lead to new sophisticated customers who are able to use these resources bypassing the travel agents. Although, historically, travel bookings were made via telephone or through a travel agent over the last decade, electronic bookings have become the norm rather than the exception. They are indeed a major source of revenue for travel companies (Natasha, Connolly & Brewer, 2010). These changes can be seen in terms of their business offerings and the impacts they experienced in the business and eventually shifting from mere survivors, to strategist.

2.3 ICTs Developments in the Travel Industry
The ICTs and the travel industry are inseparable. The travel industry has used ICTs ever since. The airline industry was the pioneer in the adoption of ICTs in the travel industry. The American Airlines in collaboration with the International Business Machines (IBM) developed the first airline computer reservation system in 1953 which was known as SABRE (Zhou, 2004). The CRSs installed terminals in travel agencies to assist remote printing of travel documents such as tickets, boarding passes, itinerary and invoices. But, due to an increasing demand by travel agencies to access a number of carriers from a single terminal and information on value added products at a destination, CRSs were then developed into Global Distribution Systems (GDS) (Buhalis, 2004).
The GDS led to important innovations such as electronic ticketing, e-commerce, graphic seat selection, lowest fare search and ability for TA and travellers to view public, negotiated, consolidator and web fares (Bidgoli, 2004).

In the early 1990s, GDSs became travel supermarkets, offering information and reservation capabilities for entire range of travel products (Buhalis, 2004). Strategic alliances, consolidations, mergers and interrelationships between CRSs resulted into four major GDS-Sabre, Worldspan, Amedeus, and Galileo (Karcher, 1996; Pender, 2001). In 2004, mergers and acquisitions took place and a number of on-line travel groups emerged, such as, Expedia, Travelocity, Priceline, Lastminute, Orbitz and Opodo (Buhalis & Costa, 2006). These online travel agencies are either owned or operated using the GDS systems. The advancement of the internet technology occurred in the late 1990s. The internet is perceived as a threat as well as an opportunity for the TAs (Stabler, Papatheodorous & Sinclair, 2010). The success of CRS and GDS paved way for the internet (Bidgoli, 2004). Other ICTs that have emerged include; mobile technologies and call centres (Middleton et al., 2009) and travel portal.

Researchers such as Buhalis and Law (2008) and Ip, Rosanna and Law (2010) noted that the development of computer reservation systems (CRSs) in the 1970s, global distribution systems (GDSs) in the late 1980s, and the internet in the 1990s not only generated a new paradigm-shift, but also changed operational practices in the industries. The internet has lead to development of brand websites, booking engines, and online TAs. Further developments include cybermediaries, customer engagement technology (CET), social media and travel community sites (Rensburg, 2014). The web 1.0 was
mainly controlled by tourism service providers, however, web technology (Web 2.0) is more inclusive (ibid). New strategies such as customer relationship management (CRM) have evolved which deals with attracting, retention and extensions of customers with the support of technology (Almunawar, Anshari & Susanto, 2012).

This shows that travel agencies have undergone tremendous changes as a result of the internet innovations. It is increasingly becoming difficult for the traditional travel agencies to sustain businesses, which have been losing market share and their competitiveness. While research has been conducted to show the survival tendencies of travel agencies, little has focused on competitive strategies.

2.4 Internet Adoption and Use by Travel Agencies
Adoption and use of internet is critical, due to the nature of their business. Diverse researchers have recognized that ICTs are crucial in TAs businesses. ICTs are used for description, promotion, distribution, amalgamation, organization, and delivery of tourism products (Cheng & Cho, 2011). They are also used for information exchange, tourism product distribution, building complicated itineraries in minutes, providing up-to-date schedules (Pender & Sharpley, 2005). Sahadev and Islam (2005), Law, Leung and Buhalis (2009) observed that ICT adoption is expected to improve service quality, enhance efficiency, reduce cost and expand the global markets. The GDS are used for reservation, information search, client management and for issuing travel documents (ibid).

The internet, on the other hand, is used for developing business, marketing and promotion, information sourcing, partnering and integrating travel businesses with
service providers (Patricia, 2008). Abou-Shouk, Lim and Megicks (2013) in their study “Internet adoption by Travel Agents; a Case of Egypt” identified that the dominant uses of internet by the Egyptians TAs were; providing TAs Information, communicating with customers, searching for competitors and customers, receiving customers bookings, bidding for contracts and monitoring hits websites. However, the TAs have not utilized its full potential to secure more competiveness.

Further, Abouk-Shouk and Lim (2012) on their study “Drivers of E-commerce Adoption in Egyptian Travel Agents” identified that the key drivers were; adapting to technological change, globalization consequences, suppliers developments, competitors and customers pressures, benefits of adoption, changes in the structure of the travel market, managers/owners commitment to ICTs adoption and the future survival of TAs. Nevertheless, more than 50 per cent of TAs were still non-adopters.

Wanjau, Macharia & Ayodo (2012) in their study, “Factors affecting Adoption of Electronic Commerce among Small, Medium Enterprises in Kenya: Survey of Tour & Travel Firms in Nairobi”. Observed that 96.7% of the SMEs had adopted E-commerce and the key uses included ticketing, hotel reservations, tour packages and advertising. However, marketing and online payment indicated a low use of E-commerce.

2.5 ICT Challenges Facing Travel Agencies
The internet advances have put great pressures on travel agencies and the following factors are significant to this research:
2.5.1 Disintermediation
Tourism service providers such as the airlines and tour wholesalers are slowly bypassing the travel agents by selling their products and services directly to clients. The changes in the distribution chain are mainly as a result of advances in technology (Cooper, Fletcher, Flyall, Gilbert & Wanhill, 2008; Wang, 2007; Page & Connell; Davidson & Rogers; Doganis; Sharpley, (2006); Buhalis, 2003). As a result of disintermediation, the need for TAs has declined (Wensveen, 2007). However, the face-to-face selling, their expertise and ability to save time on information search give the TAs an added advantage (Holloway, 2004; Bogdanovych, Berger, Simoff & Sierra, 2006; Goeldner & Ritchie, 2009).

2.5.2 Zero Commission Model
The introduction of zero commission by airlines is likely to be adopted by other tourism service providers (Amadeus, 2007). The travel agency businesses have experienced commission cuts and caps by airlines for the past few years. This has caused a change in the revenue model by travel agencies mostly dealing with airlines (Kochan & Schmalensee, 2003; Salam & Stevens; Pease, Rowe and Cooper, 2007; Ashton, 2009). Goeldner & Ritchie (2009) point out that as a result of commission cuts and caps, the TAs have adopted a service fees model for air tickets; however, the new model puts them at a price disadvantage because the airlines are able to sell their tickets at a cheaper rate. The TAs have also diversified their products such as selling more cruises, tour packages and emphasis on leisure travel.
2.5.3 Competition
The emergence of the major online travel agencies has provided a new form of competition for the travel agencies. The new players have demonstrated a spectacular growth and rapid market place penetration, thus they have gained a significant market share. As a result, traditional travel agencies are losing their market share, as consumers are moving to on-line intermediaries or suppliers directly (Papath eodorous; Khosrowpour; Bhatia, 2006; Cooper et al., 2008; Plunkett, 2007; Bamford & West, 2010).

2.5.4 Technology
The travel agency of the future will need to offer “one-to-one connection” with the customer (Brandon, O’conell, Ruane & Wims, 2003). As the pace of life increases, service, and in particular, speed and quality of service will be paramount. Technology will allow agencies to render personalized service efficiently. For far too long now, travel agencies have been viewed as, and have viewed themselves as, “airline-centric”. There is need to become more “customer-centric.” Technology will enable agencies to provide “customer centric” travel solutions. On the other hand, the travel agencies have been affected by the rise of internet use and mobile phones by clients and service providers.

According to the travel industry of America, 75 per cent of all the travelers use the internet for at least some portion of their travel planning. In particular, the internet has influenced the travel purchase behaviour, e-commerce and online booking. Clients easily make reservations, review frequent flyers accounts and check flight status (Goeldner & Ritchie, 2009). “Surveys show the public perceive that the lowest fares
are on the internet” (Ibid). Further, it has led to developments in World Wide Web, communication and emergence of virtual distribution channels (Sharpley, 2006; Nelson et al., 2010).

2.5.5 New Approaches to the Market
Ease of access of information and depth of information have stimulated new knowledgeable customers who search for travel information online rather than through the travel agencies (Dasgupta, 2011). Therefore, the TAs need to develop new and creative ideas and services to offer their customers. There is a large percentage of the public whose perception of the travel agency is only to make a flight reservation and issue the ticket. Professional travel agencies offer so much more to their customers. They forge a close relationship through relationship marketing; provide travel consulting services and expert-mediated advisory service (Novak & Schwabe, 2009).

The internet is a routine service and enables agencies to sell to clients anywhere and anytime. There is need to harness the internet to enhance traditional activities and services. There is need to give TAs new ways of interacting and contacting their customers. These needs require research to ascertain their viability towards competitiveness. Further, Marshall, Taylor and Yu (2006) in their study identified that forces such as ICT impacts, e-ticketing, changes to commission arrangements, consolidation in the industry works towards eliminating the TAs.

2.6 Strategies Adopted by Travel Agencies
Today and widely, travel agencies are developing defensive strategies to protect their position. Aggressive strategies to capitalize on emerging opportunities are intended to
counteract the challenges. Such strategies include; consolidation of travel companies through mergers, acquisition, franchising and formation of consortiums (Lubbe, 2005). Other strategies include; product diversification, niche markets, value adding services, increased adoption of new technology and restructuring of their traditional business model (Zhou, 2004). Gharavi and Sor (2005) indicate that, the travel agencies responded in the diverse ways such as marketing themselves directly to potential corporate clients, using the internet to attract customers through the reintermediation strategy and joining the virtual communities and consolidation through franchises.

In a study on strategies used the Australian brick and mortar TAs by Kayani, Grath and Larsen (2015) asserted that the brick & Mortar TAs differentiated themselves from internet TAs by offering competitive pricing, services that overcome complexity in travel planning, one-stop-shop, niche markets and traditional payments option.

Ku, Yang and Huang (2012) in their study on “partnership choice: Adaption of strategic collaboration between travel agencies”, identified customer competence, attachment relationship and targeting different levels of customers through collaboration as the major trend between distribution and TA’s strategy.

A study by Oladimeji, Olofin and Raji (2014) investigating the benefits of information and communication technologies (ICTs) on practices of enterprises noted that the main competitive strategies adopted by enterprises including differentiating products offered to customers and establishing long term relationships with them, nonetheless, there was no well defined strategy for ICT use and adoption.
Limited research has been done to delineate the competitive oriented strategies, making it hard to establish whether or not the travel agencies can stand the ICT changes in the market. The online travel agencies tend to use both horizontal and vertical integration to expand their market share and market coverage as well as to compete with both online and offline intermediaries. The vertical integration is used to expand value chains and proposition through a comprehensive portfolio of both intermediaries and tourism suppliers (Papatheodorous, 2006). A study by Bèdard (2005) in Canada revealed a successful transformation of a small independent travel agency as shown in Figure 2.1

**Figure 2.1: Pyramid of adoption of new technologies**

**Source:** Bèdard (2005)

The pyramid of adoption to new technologies (Figure 2.1) illustrates four key sustainable strategies that are necessary for adaptation to service technologies.
According to Bèdard (2005), training, use and acquisition of new technologies are key strategic features for companies. Training at the top of the pyramid is the core strategy in a knowledge-based society. Acquisition and use of technology feature at the bottom. Partnership, alliance, group and consortium are key consolidations adopted by companies to remain competitive. These strategies are explained below.

**Training**

Training in new technologies involves creating awareness, monitoring and dissemination of knowledge. For companies to remain competitive, Bèdard points out that knowledge acquisition and manpower training are necessary. Companies must integrate new employees with skills in new technologies to pass the knowledge to the existing employees. “Training and related strategic anchors of knowledge-based society through sensitization and dissemination and technology watch must be part of a company’s regular activities” (Bèdard 2005, p. 421).

**Acquisition**

It involves the setting aside of finances to attain new technologies. Companies must include in their budget how much they intend to invest in new technologies that meet their needs. They should also consider suppliers that offer them quality and best price for acquisition of those technologies. Beyond acquisition, updating and replacing of the new technologies is critical, as well as considering the benefits of consolidation.

**Use**

This implies the use of new technologies. Technologies can be used internally and externally. The internal includes back office operations such as management and control while external functions include marketing, promotion and building customer loyalty.
Consolidation

This includes partnership, alliance, group and consortium which are different types of associative structures that are formed and joined by an increasing number of companies as a new trend by companies to be more strategic and remains competitive in the market. The pyramid (Figure 2.1) was used by Bèdard (2005) as a theoretical framework for the strategic transformation of the Voyages Bergeron Company in Canada whereby seven stages were linked to the pyramid as blueprint for the transformation process;

Stage 1: Deciding whether to go ahead with the strategic transformation of the agency

This involved the awareness stage, whereby the owners of the company learnt about the TAs in the era of e-commerce. This prompted them to investigate the possibilities of the transformation and eventually decided to proceed with the strategic transformation of the company.

Stage 2: Designing and developing the transactional website

This involved a detailed comparative analysis of transaction websites of successful companies. They outsourced the services of expertise to design the website for them. The owners were actively involved in the design and development process of the website. This was essential in order to keep in touch with the clients and the employees of the company.
**Stage 3: Involving travel agency staff**

In this stage, the employees were enlightened about the transformations process of the company through various forums such as staff meeting and a conference. As a result, the change was taken positively.

**Stage 4: Implementing the online reservation system**

This involved a strategic selection of a technology provider that was to implement the transactional website. The provider had to be an active B2B company that supplies the research and reservation tools used by the majority of wholesalers with whom company did business. Moreover, it had to be in the position to enter the B2C market in association with the company.

**Stage 5: Testing the new website**

This involved collaboration between the owners, employees and the technology provider. The testing stage was successfully done within one month.

**Stage 6: Launching the new website**

Promotional campaigns were done through trade journals, flyers and online contest. The launch of the website attracted a huge existing and potential clients and a noticeable increment was recorded.

**Stage 7: Assessing the success of the transformation**

There was incredible improvement of the company in terms of sales, number of clients, existing and potential of their suppliers. Even though competitors joined the trend, the company had leading position.
2.7 Government of Kenya policies in ICTs

According to Organization for Economic Co-operation and Development (2008), the Government ICT policy should have the following features:

- Focus on areas where the TAs are incapable of providing what is necessary to improve the performance of the tourism industry especially small companies.
- Create favourable environment to encourage large, medium and small tourism enterprises to adopt the best strategies in global value chains and embrace innovations.
- Address regulatory reforms to reduce the ICT costs and develop standards and international framework for e-commerce for ICT use.
- Emphasis on ICT skills in education and training.
- Develop generic technologies and technological infrastructure related to ICT use.

Munyua (2006) points out that the government plays a critical role in ICT policy formulation. On the same note, Kandiri (2007) observes that government should not only support internet uses and applications, but also implement collaboration between private, public and civil society, with a clear agenda by providing a legal framework to make the policy acceptable.

Based on an analysis of ICT policies in Africa by Tamakong (2007), the study noted that the major challenges facing Africa included; inadequate infrastructure, insufficient human resources and inadequate access. However, plans were underway to resolve the issues. The plans included partnership with local and foreign investors, facilitation of
human resources training and creation of a conducive environment for ICTs access by exporting ICT products and services.

Further, according to Tamakong (2007), Kenya ICT policy, indicated efforts such as allocation of enough resources towards ICTs accessibility, introduction of ICT training at all levels of education, attracting and retaining skilled ICTs expertise. In addition, the nation intends to curb ICTs insecurity such as issues related to privacy, e-security, ICT legislation and cyber crimes.

According to Njagih and Mwangi (2012), the Kenya’s ICT policy (2006) was based on Economic Recovery Strategy for wealth and employment creation (2003-2007). The major strengths of the policy included:

- Expanded ICT infrastructure through undersea cables such as TEAMS, EASSY, LION-2 and SEACOM that have facilitated internet access.
- Kenya Communication amendment (2009) was implemented to regulate the Information and Communication sector and facilitates the Communication Commission of Kenya (CCK) to control issues related to unfair competition.
- Regulation of universal access, tariffs, interconnectivity and fair competition.
- Review of the national ICT policy in order to stimulate the development of advanced and high capacity ICT infrastructure countrywide (Matiangi, 2012).
- CCK initiated a national cyber security framework and national computer incident response team to deal with cyber security issues (CCK).
• The CCK also recognizes training centres such as the African Virtual University and Strathmore University as the key institutions that facilitate access to quality and higher education through innovative use of ICTs.

• Further, the CCK indicates that Kenya has attracted investors by hosting IBM’s the first African research laboratory, Nokia—the mobile telephone company (Africa’s headquarters) and Google—the search engine—the first Sub-Saharan African office in Kenya.

Weakness
Waema and Ndung’u (2012), in their research noted that the following weakness of the ICT policy:
• Though the ICT policy of 2006 had been under review since 2009, it lacked subsequent updates.
• Overlapping roles of the key ICT policy and regulatory institutions (Kenya ICT board and National Communications Secretariat).

According to Kandiri (2007), the country has a shortage of locally generated information needed for efficient performance of travel agencies and other sectors. The potential of ICTs within the service industry remains largely untapped and the country lacks an integrated policy and comprehensive legal regime to address the institutional framework, issues and challenges facing the service sector (Outa, Gerlad & Wele, 2006). Moreover, the ICT policy process lacks political will, which has been reflected in the absence of a national strategy and ineffective coordination between different government departments and agencies with ICT responsibilities (Ibid).
Tourism Policy on ICTs

On the other hand, the tourism policy (2006) pointed out that the future role of TAs as information givers and as sales outlet would deteriorate, however, if strategically managed, the ICT innovations could be utilized to open new opportunities for the Kenyan tourism. In addition, planners and decision-makers are encouraged to be proactive and become experts as information managers. Further, TAs should have ICT facilities, trained staff to collect, store and disseminate comprehensive and high quality information about tourism products. It also encourages and supports further development and improvement of national and tourism websites.

At the beginning of this millennium, it was clear that tourism, though a crucial sector, operated without a coherent and comprehensive national policy (Ikiara, 2001). To date, not much has changed and the policies are scattered in other national sectoral policies making retrieval and efficient use challenging. The Kenya’s tourism policy was divided into tourism development, infrastructural development, sustainable tourism development, training, pricing, role of the public sector, role of the private sector, public-private sector partnership, participation of Kenyans, role of foreign investors, security of tourists, marketing and promotion, aviation, regional cooperation, and wildlife policy (Ikiara, 2001).

It is not clear the extent to which the existing policy enhances or hampers effective use of ICT technology. Research has emphasised on the key policies that are directly related to travel agencies such as policies on private sector involvement, marketing and promotion and ICTs are critical, an issue that prompted the study. The government of
Kenya recognizes the importance of the involvement of the private sector as an engine for economic growth, though it has not specifically addressed travel agencies. In addition, the tourism policy has not addressed the role of technology such as on-line services and ticketless travel in the industry, yet technology tends to slowly phase out the travel agencies (Ibid).

2.8 Summary of the Research Gaps
The literature review has described the extent to which travel agencies use ICT, competitive strategies to cope with ICTs and the extent to which the Government of Kenya ICT and tourism polices facilitated travel agencies’ to cope with ICT innovations. There are various consequences that are directly linked to technological changes, which give TAs unprecedented challenges. But, knowledge is limited on the situation in Nairobi. The tourism service providers have taken advantage of the new technologies and can now sell their products and services directly to clients and how this affects Kenyan scenario is an issue that concerns the study. The consequence of disintermediation, where the need for TAs has declined is of importance, the question is ‘are the TAs in Nairobi declining in significance’?

Further, the revenue model adopted by other tourism service providers has been found to put TAs at a price disadvantage since the airlines are able to sell their tickets at a cheaper rate, yet little has been investigated on this issue in Nairobi to determine whether the effects are similar or otherwise. Moreover, the entry of new players in the industry has provided a new form of competition for the travel agencies. As a result, traditional travel agencies are losing their market share, as consumers are moving to on-
line intermediaries or suppliers (Bamford & West, 2010), but without comparative studies, such information is at best an assumption.

The rise of internet use and mobile phones by clients and service providers is also seen to have consequently affected the travel agencies but they are found to have adopted survival tactics. Moreover, very little is argued on competitive strategies they are adopting to cope and position their businesses effectively in the ensuing challenges.

The literature indicates that various strategies have been adopted by TAs globally. However, all these give a general representation of the strategies, hence a close scrutiny of TAs in Nairobi is critical to give a more inclusive perspective capturing the country level. Further, the review observes that although there are tourism and ICT policies in Kenya, it is not clear in terms of how they enhance or hamper effective use of ICT technology in TAs.

In a nutshell, the literature reveals that internet innovations are very dynamic. Moreover, the role of the travel agent is being challenged greatly by internet advances. The sector is, however, considerably understudied to fully explain the current technologies and how the TAs are responding, making this a priority research topic. Finally, the following issues forms the thrust of the study:

1. Very little research has been conducted to establish the extent to which the travel agencies are effectively adopting and utilizing the internet and its implications upon their businesses. Without any further studies, the problem would remain unclear and unhelpful to the industry.
2. With the dearth of studies, it is difficult to delineate the competitive strategies, making the establishment of whether or not the travel agencies can stand the internet changes in the market consistently imprecise.

3. The policy situation is wanting in many dimensions. Research which has emphasised on the key policies that are directly related to travel agencies such as policies on private sector involvement, marketing and promotion and ICTs is critical, but lacking both in process, presentation and is, therefore, incomprehensible.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
The chapter focuses on the procedures and modalities that were used in the study. The chapter covers the research design, determination and identification of the population sample size, sampling design, sampling procedure, the instruments of data collection, validity and reliability of data collected, sources of data, methods of data collection and methods of analyzing the data.

3.2 Research Design
Research design is a plan of activities that researchers take on during the period of study and constitutes the blueprint for collection, measurement and analysis of data. Kothari (2004) defines research design as the plan and structure of investigating, so conceived as to obtain answers to research questions. On their part, Ngau and Kumssa (2004) explains research design as the way a study is planned and conducted, the procedures and techniques employed to answer the research questions.

The study recognized that there are four design approaches, which comprise quantitative, qualitative, and analytical and mixed designs (Charles & Mertler, 2008). The study used mixed method design that captured specifically the survey, analytical designs and concurrent transformative strategy. Creswell (2009) notes, that survey design is a quantitative method that describes the trends, attitudes or opinions of a population. By incorporating a survey design, the researcher was able to bring an
understanding of extent of adoption and use of internet, the implication of internet on their businesses and the competitive strategies adopted by TAs to remain afloat.

The analytical design focused on the historical aspects and this enabled the examination of the Kenyan government role on TAs policy development relating to ICT and tourism. The designs for the study were able to provide diversity; they entailed selecting subjects to participate in the study to gather primary data and also do a comprehensive review of related literature so as to gather secondary data.

Concurrent transformative strategy involve use of a specific theoretical perspective as well as simultaneous collection of open and closed ended data (Creswell, 2009). The method was used to obtain data from the TAs, which incorporated open and closed ended strategy in the questionnaires and DOI theory. The method specifically collected information based on the extent of adoption and use of internet innovations, challenges and perceived internet benefits, competitive strategies adopted and how the Government supports the TAs in provision of ICT.

The mixed approach was effective in bringing out in a mutual manner the qualitative, analytical and quantitative methods in data collection and analysis. Further, it helped in the integration of the information and provided a broader perceptive as result of combining the different methods (Creswell, 2009). Quantitative research was based on numerical measurements of extent of adoption and use of internet advances by TAs, perceived internet benefits and competitive strategies adopted to cope with the internet advances also argued in previous studies (Murray, 2003). Conversely, qualitative
research permitted the research to go beyond the statistical results capturing challenges of internet advances, competitive strategies adopted and how the Government of Kenya facilitates the TAs cope with the internet in this study (Mugenda and Mugenda, 1999). Further, analytical was useful in critical review of the Government of Kenya policies related to ICTs.

3.3 Study Area
The study area was Nairobi, the capital city of Kenya. The choice of this was based on its capacity to host most of the travel agencies that are licensed by the Ministry of Tourism and are members of Kenya Association of Travel Agents (KATA). According Kenya Travel Agents Guide (2010-2011), the total number of registered TAs in Kenya were 94. Nairobi hosted the majority with 74 TAs (79%). Moreover, Nairobi is a major hub for diverse TAs businesses as well as headquarters for most companies all over the country and globally (ibid). Hence, promising opportunity for essential information to the research.

3.4 Target Population
A population is the total collection of elements about which inferences are made and refers to all possible cases which are of interest for a study (Sekaran, 2003). In addition, Kothari (2004) defines the target population as the total number of respondents in the total environment of interest to the researcher. The target population was drawn from all the 74 registered KATA TAs in Nairobi. The respondents for this study consisted of director and ICT responsible staff drawn from each of the 74 KATA registered TAs. Further, the study also included the Ministry of Tourism and Kenya
Data Networks Limited. The respondents involved were the chief ICT officer from the Ministry of Tourism and the external affair manager from Kenya Data Networks Limited.

### 3.5 Sampling Techniques
The quality of any research is influenced by the appropriateness of methodology, instrumentation and suitability of the sampling strategy that has been adopted (Cohen, Manion & Marrison, 2007). The study used census survey for inclusion of all the 74 KATA registered TAs in Nairobi. Four of the TAs were selected randomly for pretesting. Purposive approach was also used to select the respondents. The respondents included the directors and ICT responsible staffs from each of the remaining 70 TAs. The respondents were considered central in providing information related to extent of internet adoption and use, implications of internet advances and competitive strategies adopted due to their leadership and technical capacity in the organization. Moreover, as contingency plan, the directors whose schedules could not be flexible due to time constraints they were allowed to recommend senior travel consultants to help complete questionnaires. Further, the chief ICT officer from the Ministry of Tourism and the external affair manager from Kenya Data Networks Limited were also selected by use of purposive sampling technique.

#### Table 3.1: Sampling Framework

<table>
<thead>
<tr>
<th>Categories</th>
<th>Sampling Technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel Agencies</td>
<td>Census</td>
</tr>
<tr>
<td>Ministry of Tourism</td>
<td>Purposive</td>
</tr>
<tr>
<td>Kenya Data Networks limited</td>
<td>Purposive</td>
</tr>
</tbody>
</table>
3.6 Sample Size

Warwick and Lininger (1975) argue that, the main factor considered in determining the sample size is the need to keep it manageable enough. This enables the researcher to derive from it detailed data at an affordable cost in terms of time, finances and human resource (Mugenda & Mugenda, 1999). Further, Patton (2002) argues that the sample size depends on what one wants to know, the purpose of the inquiry, what is at stake, what will be useful, what will have credibility and what can be done with available time and resources. These arguments form an important basis for this research and the selected sample size and criterion are as follows.

Travel Agencies

The total number of licensed travel and tourism companies in Nairobi according to the Ministry of Tourism list (2010) was 1585. This list however, was a mix-up of travel and tourism related business and created an ambiguity as to the specific companies focusing on travel agencies. To get a more accurate list of those operating specifically in the travel agencies, the research focused on those registered by Kenya Association of Travel Agents. According to the Kenya Travel Agents Guide (2010), which is a KATA publication, there were 74 registered travel agencies in Nairobi. The study therefore, included all TAs registered by the Kenya Association of Travel Agents (KATA) in Nairobi county and those who also were compliant with government regulation (licensing).

The sample size for this research was, therefore, derived from all the 74 KATA registered TAs, as it provides a clear number of the travel agencies operating in Nairobi,
ssince the larger the sample, the greater the accuracy of the results. 4 TAs were used for pre-testing and therefore, 70 TAs were used for the study.

**Government and Private Sector**

Purposive sampling was used to select the chief ICT officer from the Ministry of Tourism and the external affairs manager at Kenya Data Network limited. These institutions and respondents were considered key to provide information related to how the Government of Kenya policies in ICT facilitates the TAs to cope with internet advances.

**Table 3.2: Sample Size**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel Agencies</td>
<td>70</td>
</tr>
<tr>
<td>Ministry of Tourism</td>
<td>1</td>
</tr>
<tr>
<td>Kenya Data Networks limited</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>72</strong></td>
</tr>
</tbody>
</table>

**3.7 Data Collection**

This section presents the research instruments and the data collection procedure adopted in this study.

**3.6.1 Research Instruments**

The research instruments used in this study were questionnaires, semi-structured interviews and reading of documents. The questionnaires included both structured (closed-ended) and unstructured (open-ended) which were mainly used to collect detailed information on internet adoption and use, challenges and perceived internet benefits and competitive strategies used by TAs in response to internet advances. A
questionnaire is a careful designed instrument consisting of a set of items to which the respondents are expected to react, usually in writing (Amin, 2005). Questionnaires were appropriate for the study because they are wide ranging and self-administered and were made anonymous. They also enabled the researcher to collect quantitative data from the close-ended sections and qualitative data from the open-ended sections.

Analysis of various documents such tourism policy, ICT policy, journals, books and semi-structured interviews were also important instruments incorporated to examine how the Government of Kenya polices facilitate travel agencies to cope with internet innovations. Review of ICT and tourism policy documents was important in order to understand the situation at hand. Further, the semi-structured interviews were carried out with the chief ICT officer at the Ministry of Tourism and external affairs manager at the Kenya Data Networks (A privately incorporated internet service provider). This was crucial to elicit more information on how the government of Kenya facilities the TAs to cope with internet advances.

3.7 Pre-Testing
The questionnaires were validated through a pre-testing exercise. Out of the 74 agencies, four were selected randomly for pre-testing of the instruments. This enabled the improvement of the questionnaire, ensuring that the language was clear and communication was possible to deliver the research findings.

3.7.1 Reliability
Reliability is the extent to which results are consistent over time and an accurate representation of the total population under study and if the results of a study can be
reproduced under a similar methodology, then the research instrument is considered to be reliable (Winter, 2000). Kirk and Miller (1986) identify reliability as comprising the degree to which a measurement, given repeatedly, remains the same, the stability of a measurement over time and the similarity of measurements within a given time period. However, while the researcher may be able to prove the research instrument repeatability and internal consistency, and therefore, reliability, the instrument itself may not be valid. Mugenda and Mugenda (2003:95) posit that, for reliability and validity to exist, the data collection technique must yield information which is relevant to the research.

Further, reliability refers to the consistency, stability or dependability of the data. A measuring instrument is reliable if it provides consistent and dependable results (Kothari, 2004). A reliable measurement is one that if repeated a second time, will give the same results as it did the first time. If the results are different, then the measurement is unreliable (Mugenda, 2008).

The evaluation of reliability of the data collection instrument was conducted by means of Kappa coefficient to check the percentage agreement between measures or responses on various items of the questionnaire. Kappa is always less than or equal to 1. A value of 1 implies perfect agreement and values less than 1 imply less than perfect agreement. Statistical analysis was conducted using SPSS version 20. The values were classified as shown below:
Table 3.3: Kappa coefficient Table

<table>
<thead>
<tr>
<th>Kappa</th>
<th>Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 0</td>
<td>Less than chance agreement</td>
</tr>
<tr>
<td>0.01 – 0.20</td>
<td>Slight agreement</td>
</tr>
<tr>
<td>0.21 – 0.40</td>
<td>Fair agreement</td>
</tr>
<tr>
<td>0.41 – 0.60</td>
<td>Moderate agreement</td>
</tr>
<tr>
<td>0.61 – 0.80</td>
<td>Substantial agreement</td>
</tr>
<tr>
<td>0.81 – 0.99</td>
<td>Almost perfect agreement</td>
</tr>
</tbody>
</table>

Source: Viera and Garret (2005)

The data collection instrument in (Appendix 1) used in this study had a combination of both open-ended and closed-ended questions. The open-ended questions required narrative responses. Eight respondents (two from each travel agency) from four travel agencies completed the questionnaires during pilot testing. Target respondents were directors and ICT responsible staff.

Computing Kappa Coefficient

Analysis focused on 36 questions. The agreement of the responses was high. Kappa coefficient indicated a substantial agreement.

Table 3.4: Reliability tests

<table>
<thead>
<tr>
<th>Items</th>
<th>Kappa</th>
<th>Kappa 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies adopted by TAs in Response to ICTs</td>
<td>0.76</td>
<td>0.59, 0.92</td>
</tr>
<tr>
<td>Perceived ICT benefits (impacts)</td>
<td>0.66</td>
<td>0.49, 0.82</td>
</tr>
<tr>
<td>ICT Developments (Innovations)</td>
<td>0.76</td>
<td>0.59, 0.92</td>
</tr>
<tr>
<td>Government policies in ICT</td>
<td>0.67</td>
<td>0.45, 0.89</td>
</tr>
<tr>
<td>ICT Adoption and Usage</td>
<td>0.78</td>
<td>0.61, 0.95</td>
</tr>
<tr>
<td>Environmental factors (Challenges)</td>
<td>0.72</td>
<td>0.55, 0.89</td>
</tr>
</tbody>
</table>

95% confidence Intervals for k=k ± 1.96

Source: Viera and Garret (2005)
Items measuring perceived ICT benefits indicated substantial agreement (k=0.66; 95% CI: 0.49; 0.82). Similarly, substantial agreement was obtained in the questions concerning strategies adopted by TAs in response to ICTs (k=0.76; 95% CI: 0.59; 0.92), ICT developments (k=0.76; 95% CI: 0.59; 0.92), government policies in ICT (k=0.67; 95% CI: 0.45; 0.89), ICT adoption and usage (k=0.78; 95% CI: 0.61; 0.95) and environmental factors (k=0.72; 95% CI: 0.55; 0.89). Based on these reliability test results therefore, the research instrument was therefore employed in the evaluation of travel agencies response to internet advances in Nairobi.

3.7.2 Validity
Validity indicates the degree to which an instrument measures what it is supposed to measure (Kothari, 2004). Validity in research has evolved within empirical conceptions which concern universal laws, evidence, objectivity, truth, actuality, deduction and reason (Joppe, 2000) and “determines whether the research truly measures that which it was intended to measure or how truthful the research results are.” Finally, Golafshani (2003) sum-up that, reliability and validity “research reveals two strands: First, with regard to reliability, whether the result is replicable. Second, with regard to validity, whether the means of measurement are accurate and whether they are actually measuring what they are intended to measure.”

In this research and based on the foregoing argument, precision and credibility for the questionnaire were checked through a pre-testing procedure among selected TA firms. The researcher carried out a pre-testing to ensure that the questionnaire was effective in collecting the relevant information. A preliminary version of the questionnaire was first
discussed with the supervisors before pre-testing. The aim was to improve the validity of the data collection instrument. The questionnaires were then pretested with 8 respondents from four travel agencies. Two respondents in each TA were issued with a similar questionnaire and a comparison was done to ensure that the responses given were valid.

A combination of the close-ended and open-ended was intended to secure adequate responses, while Lickert scale (e.g. 1-strongly disagree, 2-disagree, 3-undecided, 4-agree, 5-strongly agree) contribute to gauge the different ranges of extent of use of ICT in various TA firms. The Diffusion of Innovation Theory, which was employed in the research, has been tested before (Rogers, 1999) while the conceptual framework adopted in the study has usefully been applied by Garkavenko and Milne (2009) in the study of New Zealand TAs in the Internet era: responses, impacts and relationship. Comprehensive literature review moreover, validated the sources of data.

3.8 Data Collection Process
The researcher obtained research authorization from the National Council for Science and Technology before administering the questionnaires to the TAs. Research assistants were thoroughly trained both in interpretations of responses from respondents and also in the procedure of administration. They accompanied the researcher in pre-testing and modifying the research instruments to comprehend fully the purposes and methods of data collection. The researcher together with the research assistants administered the questionnaires by dropping personally to the respondents from TAs and dates for picking the questionnaire were scheduled. On the other hand, appointments were
secured through phone call to the chief ICT officer and the external Affairs Managers. Semi-structured interviews were carried out on face-to-face and the responses were recorded in writing. Tourism policy, ICT policy and other documents related to Government of Kenya ICT policy were consolidated for critical analysis.

### 3.9 Data Analysis

According to Bryman (2000), analysis can be defined as the process of bringing order to the data, organizing what is there into patterns, categories and descriptive units and looking for relationship between them.

#### 3.9.1 Qualitative Data

The data was organized and prepared for analysis. Thematic analysis involves identifying, analyzing and reporting patterns within data (Braun & Clark, 2006). In this study thematic technique was used to analysis the open-ended data and data from the critical review of Government of Kenya ICT related policies and journals. This method helped in capturing data related to systematic adoption of internet advance using DOI theory, challenges, competitive strategies and Government of Kenya ICT facilitation to TAs. The process involved a critical literature review, generation of codes, searching, reviewing, defining and naming the themes and finally producing a report.

#### 3.9.2 Quantitative Data

Quantitative data were analyzed by use of descriptive statistics to arrive at frequency counts, percentages, means and standard deviations. Descriptive statistics enabled the researcher to describe the aggregation of raw data in numerical terms and in tandem with other studies (Neuman 2000:317). Statistical Package for Social Sciences (SPSS)
and Microsoft excel were used to process the numerical data tallied from the questionnaire items. Further, factor analysis (FA) and structural equation modeling (SEM) were used for testing of the hypotheses as follows:

**Factor Analysis**
Factor analysis (FA) using SPSS version 20 was conducted to identify the appropriate items for further analysis using structural equation modeling (SEM). Factor Analysis (more properly exploratory factor analysis) is typically used to confirm the latent factor structure for a group of measured variables. According to Kothari (2004), it is used to represent relationships among sets of interrelated variables. Latent factors are unobserved variables which typically cannot be directly measured; but, they are assumed to cause the scores we observe on the measured variables. FA is a model-based technique. It is concerned with modelling the relationships between measured variables, latent factors, and error.

In general terms, exploratory factor analysis is concerned with whether the covariances or correlations between a set of observed variables $x_1, x_2, \ldots, x_q$ can be ‘explained’ in terms of a smaller number of unobservable latent variables or common factors, $f_1, f_2, \ldots, f_k$, where $k < q$ and hopefully much less.

**Structural Equation Modelling**
Structural equation modelling (SEM) using SPSS Amos software version 20 was used to test the relationship between the independent variables and the dependent variables in the proposed model and to establish if the independent variables predict the dependent variables. SEM is a statistical modelling technique used to establish relationships
between variables. The key feature of this technique is that observed variables are understood to represent a small number of latent variables that cannot be directly measured, but only inferred from observed variables (Pynnönen, 2010). It is also capable of analyzing both observed and latent variables. Further, SEM is a more robust statistical data analysis technique which specifies estimates and tests theoretical relationships between observed endogenous variables and latent unobserved exogenous variables.

Structural equation modelling (SEM) grows out of and serves purposes similar to multiple regression, but in a more powerful way which takes into account the modelling of interactions, non-linearities, correlated independents, measurement error, correlated error terms, multiple latent independents each measured by multiple indicators, and one or more latent dependents also each with multiple indicators. The SEM approach starts with model specification that links the variables assumed to affect other variables and directionalities of those effects. It allows evaluation of the entire models and also explicits representation of measurement error, which brings a higher level perspective to the analysis (Kline, 2011). In the estimation process, SEM produces regression weights, variances, covariances and correlations in its iterative procedures converged on a set of parameter estimates.

Through the process of estimation, fit statistics should be evaluated to test whether the proposed model was fit to the data or not or if any modification is required to increase the fit. Acceptable models fit is indicated by either GFI, AGFI, CFI values exceeding 0.90 and RMSEA and RMR values below 0.07 as shown in Table 3.3.
Model Fit Indices
A variety of fit indices are available that help evaluate model fit. Two classes of fit indices are incremental fit indices and absolute fit indices (Hooper, Coughlan & Mullen, 2008). Absolute fit indices include Model chi-square ($\chi^2$), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), Root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR). Incremental fit indices, also known as relative fit indices include Normed-fit index (NFI) and CFI (Comparative fit index). With regard to which indices should be reported, it is not necessary or realistic to include every index included in the program’s output (Ibid). While there are no golden rules for assessment of model fit, reporting a variety of indices is necessary because different indices reflect a different aspect of model fit (ibid).

Model chi-square ($\chi^2$)
The chi-square value is the traditional measure for evaluating overall model fit. A good model fit would provide an insignificant result at a 0.05 threshold (Barrett, 2007 as cited in Hooper et al., 2008). The chi-square statistic is an essence statistical significance test and it is sensitive to sample size which means that the Chi-square statistic nearly always rejects the model when large samples are used (Bentler & Bonnet, 1980; Jöreskog & Sörbom, 1993 as in cited Hooper et al., 2008). On the other hand, where small samples are used, the Chi-Square statistic lacks power and because of this may not discriminate between good fitting models and poor fitting models (Kenny & McCoach, 2003 as cited in Hooper et al., 2008).
Goodness-of-fit Statistic (GFI) and the Adjusted Goodness-Of-Fit Statistic (AGFI)
The Goodness-of-Fit statistic (GFI) was created as an alternative to the chi-square test and calculates the proportion of variance that is accounted for by the estimated population covariance (Tabachnick & Fidell, 2007 as cited in Hooper et al., 2008). Recommended values of 0.90 or higher are recommended for the GFI. Related to the GFI is the AGFI which adjusts the GFI based upon degrees of freedom. As with the GFI, values for the AGFI also range between 0 and 1 and it is generally accepted that values of 0.90 or greater indicate well fitting models (Hooper et al., 2008).

Root mean square residual (RMR) and standardised root mean square residual (SRMR)
The RMR and the SRMR are the square root of the difference between the residuals of the sample covariance matrix and the hypothesised covariance model (Hooper et al., 2008). The range of the RMR is calculated based upon the scales of each indicator. Values for the SRMR range from zero to 1.0 with well fitting models obtaining values less than 0.05 (Byrne, 1998; Diamantopoulos & Siguaw, 2000 as cited in Hooper et al., 2008).

CFI (Comparative fit index)
The Comparative Fit Index takes into account sample size and performs well even when sample size is small (Tabachnick & Fidell, 2007 as cited in Hooper et al., 2008). Values for this statistic range between 0.0 and 1.0 with values closer to 1.0 indicating good fit. CFI values of 0.95 or higher are recommended (Hu & Bentler, 1999 as cited in Hooper et al., 2008).
### Table 3.5: Model of fit indices criterion

<table>
<thead>
<tr>
<th>Fit Index</th>
<th>Recommended Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GFI</td>
<td>≥0.95</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥0.90</td>
</tr>
<tr>
<td>CFI</td>
<td>≥0.95</td>
</tr>
<tr>
<td>RMR</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>RMSEA</td>
<td>&lt; 0.07</td>
</tr>
</tbody>
</table>

GFI = Goodness-Of-Fit Index  
AGFI = Adjusted Goodness-Of-Fit Index  
CFI = Comparative Fit Index  
RMR = Root Mean Square Residual  
RMSEA = Root Mean Square Error Of Approximation.

**Source**: Adapted from Hooper, Coughlan and Mullen (2008)

#### 3.9.3 Path Diagram

The path diagram (Figure 3.1) shows the model for the data. The model shows the hypothesized relationships between independent variables (predictors) and the dependent variables (Strategies adopted by TAs in response to ICTs). The predictors are: ICT developments (innovations), perceived impacts of ICT (impacts) and ICT adoption and use.

In the model, strategies adopted by TAs in response to internet advances has paths to it from perceived internet benefits, internet developments (innovations) and internet adoption and use, the study predict strategies adopted by TAs in response to ICTs from perceived internet benefits of internet developments (innovations) and internet adoption and use as shown in the Figure 3.1. Error variables have been added to internet adoption and use and strategies adopted by TAs in response to internet innovations.
The study was based on the premise that there is a relationship between strategies adopted by TAs in response to internet advances and perceived internet benefits, internet developments (innovations) and internet Adoption and use. Furthermore, the relationship between internet developments (innovations) and strategies adopted by TAs in response to internet advances is mediated by internet adoption and use. In addition, the relationship between Perceived internet benefits and Strategies adopted by TAs in response to internet advances is mediated by internet adoption and usage as shown in Figure 3.1. The following hypotheses were formulated as follows:

**Figure 3.1 Path Diagram**

The study was based on the premise that there is a relationship between strategies adopted by TAs in response to internet advances and perceived internet benefits, internet developments (innovations) and internet Adoption and use. Furthermore, the relationship between internet developments (innovations) and strategies adopted by TAs in response to internet advances is mediated by internet adoption and use. In addition, the relationship between Perceived internet benefits and Strategies adopted by TAs in response to internet advances is mediated by internet adoption and usage as shown in Figure 3.1. The following hypotheses were formulated as follows:
**H₀₁:** There is no significant relationship between internet advances and the strategies adopted by travel agencies.

**H₀₂:** There is no relationship between the extent of internet advances adoption and the strategies adopted by travel agencies.

**H₀₃:** There is no relationship between the perceived benefits and the strategies adopted by travel agencies.
CHAPTER FOUR
FINDINGS AND DISCUSSION

4.1 Introduction
This chapter presents the study findings. This study derived data from two main sources, namely; primary and secondary data. The purpose of the study was to analysis the competitive strategies adopted by the TAs in Nairobi County in response to the internet evolution. Further, the study focused on the adoption and use of internet advances, challenges and perceived benefits of internet advances and how the Government of Kenya facilitates the adoption of ICTs. The chapter gives detailed information on the findings and discussion based on the objectives, research questions and hypotheses test.

4.2 Response Rate
The study targeted all the 70 KATA registered travel agencies (TAs) in Nairobi. Out of the 70, a total number of 55 TAs participated in the study, giving a response rate of 78.6 % (Figure 4.1). Two questionnaires were issued to each travel agency. The respondents included director and ICT responsible staff. In cases where directors were unavailable, senior travel consultant helped in completing the questionnaire. The response rate for the respondents were 46 directors (83.6%), 44 ICT responsible staff (80%) and 20 (36%) senior travel consultants. The questionnaires issued to the director or senior travel consultant and ICT responsible staff were similar and therefore they were merged to authenticate the responses given by the respondents, giving a total respondent rate of 55. Further, the study targeted the chief ICT officer from the Ministry of Tourism and
the external affairs manager from Kenya Data Network Limited. These gave 100% response rate.

![Response Rate Diagram]

**Figure 4.1: Response Rate**

### 4.3 Descriptive Statistics

#### 4.3.1 Demographic Characteristics of Respondents

A total of 55 TAs responded to the survey questionnaires as shown in Figure 4.2. While the research did not focus precisely on gender equity, the findings reflect that the sample is biased towards females. Out of these respondents, 47.3% were male and 52.7% were female. Similarly, Cheng and Cho, (2010) in their study also observed that female were more predominant than their male counterparts. This also concurs with a global report on women, which indicated that travel and tourism provides unique job opportunities for women. The reason is that it is a sector that offers self-employment in which most women would prefer due to flexibility and high growth prospects (UNWTO and UN Women, 2010).
4.3.2 Profile of Travel Agencies

The study sought to outline the general characteristics of the TAs operations which were considered relevant before focusing on the specific objectives, research questions and hypotheses. These included the years the TAs had used the internet, kind of services offered, ownership structure and the type of clientele served.

Number of Years of Internet Use by Travel Agencies

Based on the findings of this research, the travel agencies have been using the internet for a period ranging from less than five years to over fifteen years. 18 TAs (32.7%) have used ICT for over 15 years as shown in Table 4.1. The variation in adoption is mainly based on the ownership structure, duration of operation and the size of the company. Abou-shouk et al., (2012) observed previously that small and medium enterprises especially in developing countries in which most of the travel agencies are characteristically in that category are slow adopters of ICTs. Further, TAs in Nairobi are
majorly independent and family business, hence the initial investment of ICTs may be limiting.

**Types of TAs Services**
The results of this study indicated that all the companies’ offer amalgamation of services in their businesses in order to increase their revenue and as a tactic of achieving economy of scale. However, it emerged that all the TAs offer Tour Packages, 49 TAs (98.1%) offer air ticketing services. In addition, 52 offer hotel booking (94.5%) 42 offer visa processing (82.4%) and 46 offer car rental (83.6 %) services as shown in Table 4.1. The travel agencies have traditionally offered air ticketing and tour packages as their major service. This concurs with Longhi (2008) who indicated that a very important share of TAs turnover results from the sales of air tickets. Cheung and Lam (2009) indicated that tour packages are popular with the clients because they are cost-effective and convenient. Most clients also prefer a one stop shop. Though airlines have cut commission previously paid to TAs, they have strategically repositioned themselves by charging a service fees for any ticket sold. Further, product diversification is a strategic approach in TAs.

**Ownership Structure**
The results of this study revealed that 21(38.2%) TAs have independent ownership structure, 15 TAs (27.2%) are family businesses, 6 TAs (11.0%) Chain, 8 TAs (14.5%) network and 1 TA (1.8%) franchise as shown in Table 4.1. Franchise business emerges as the least preferred mode of business. Similarly, Garkavenko (2007) posits that majority of the TAs in New Zealand were independent/family though, franchise and
chain were also popular unlike the TAs in Nairobi. Based on the findings of this research, the TAs in Nairobi are mainly small and medium companies and have not realized the essence of consolidation which is an associative structure formed and joined by an increasing number of companies globally as a new trend to be more strategic and remains competitive in the market in the internet era as pointed out by Bédard (2005).

**Clientele Served**
The study results indicate that 54 TAs serve individual and corporate clients (98.2%) while 52 (94.5%) serve group clients. The TAs serves different clientele as a strategic approach to their business. Cheung and Lam, (2009) noted that TAs that focus on corporate clients because they are capable of negotiating compensation structure with airlines.
Table 4.1: Profile of Travel Agencies

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of TAs</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Years of Firm has used internet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5 Years</td>
<td>4</td>
<td>7.3</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>18</td>
<td>32.7</td>
</tr>
<tr>
<td>11-15 Years</td>
<td>15</td>
<td>27.3</td>
</tr>
<tr>
<td>Over 15 Years</td>
<td>18</td>
<td>32.7</td>
</tr>
<tr>
<td>Kinds of Services offered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Ticketing</td>
<td>49</td>
<td>98.1</td>
</tr>
<tr>
<td>Visa Processing</td>
<td>42</td>
<td>82.4</td>
</tr>
<tr>
<td>Tour Packages</td>
<td>55</td>
<td>100</td>
</tr>
<tr>
<td>Airport Transfers</td>
<td>42</td>
<td>82.4</td>
</tr>
<tr>
<td>Hotel Booking</td>
<td>52</td>
<td>94.5</td>
</tr>
<tr>
<td>Car Rental</td>
<td>46</td>
<td>83.6</td>
</tr>
<tr>
<td>Ownership Structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>21</td>
<td>38.9</td>
</tr>
<tr>
<td>Family Business</td>
<td>15</td>
<td>27.8</td>
</tr>
<tr>
<td>Chain</td>
<td>6</td>
<td>11.1</td>
</tr>
<tr>
<td>Franchise</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>Network</td>
<td>8</td>
<td>14.8</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>7.3</td>
</tr>
<tr>
<td>Clientele Served</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individuals</td>
<td>54</td>
<td>98.2</td>
</tr>
<tr>
<td>Groups</td>
<td>52</td>
<td>94.5</td>
</tr>
<tr>
<td>Corporate</td>
<td>54</td>
<td>98.2</td>
</tr>
<tr>
<td>Others</td>
<td>13</td>
<td>23.6</td>
</tr>
</tbody>
</table>

4.3.3 Extent of Adoption and Use of Internet Advances

The study sought to evaluate the extent of adoption and use of internet advances. The objective was divided into two sections; extent of adoption of internet and use of internet advances.

4.3.3.1 The Extent of Adoption of Internet Advances

The extent of adoption of the internet advances was assessed by use of Diffusion of Innovation (DOI) theory. DOI theory provides a useful framework for analyzing the procedures used by the TAs in adoption of internet towards competitive strategies (Tarafder et al., 2010). According to the theory, there are various stages involved in
technological innovations. The first stage is knowledge, whereby the adopter is exposed to the technological existence and gets familiar to its functionality. Both qualitative and quantitative data were used to analyse the extent of adoption by using technological innovations stages according to DOI theory.

Existing Internet Innovation Familiar to TAs (Knowledge)
TAs in Nairobi collectively identified vast internet innovations in the current market. In the conceptual framework adopted in this study, the ICT developments and innovations included CRSs, GDSs, and internet; travel portals, informediaries, internet distribution system, social media, community sites and web 2.0. The study gave a more comprehensive list of the ICT innovations, that the TAs are familiar with and using in Nairobi. These included mobile computing, online booking, electronic ticketing, global distribution system (GDS), electronic money transfer (EMT), online check-in, direct networking, virtual reality, voice over internet protocol (VOIP), social networks e.g. twitter, facebook, website tagging, video conferencing, integrated financial management information systems (IFMIS), real time gross settlement (RTGS), cloud computing and real time money transfer. These were categorized as; Online services, Internet Distribution System, Social Media and Cybermediaries as shown in Figure 4.3.
Five key factors have emerged based on this study related to the innovations.

1. This study found that, apart from the changes going on in the existing technologies, there are also new inventions such as cybermediaries (cloud computing) and Online services such as Real time gross settlement (RTGs) and real time money transfers, which are recent inventions. Although the new innovations and inventions bring new products in the market, they generally come with their unique sophistication, which creates fresh knowledge gaps, which demand investment in training and the actual purchase of the new technologies. The TAs like other entrepreneurs, are continually under threat as it neither easy to
predict the pace at which new invention will enter the market nor how this can impact on their work.

2. It is evident that while ICTs are important among TAs, their adoption differs considerably. Major patterns were established whereby the knowledge of the technology is divergent whereby none uses all the technologies available in the market. Rather each TA tends to use several ICT innovations according to their needs. While therefore, the adoption is confirmed, it is not always collective.

3. Some technologies were found to be adopted across all the TAs such as the Internet Distribution System. The IDS is important to all because it is a source of information and a reservation tool. This shows that while technology tends to influence the TAs operations, it is only viable in terms of relevance to the nature of the work that matter most.

4. Finally, the studies found that all the TAs have adopted a variety of technologies commensurate with their needs. In this respect, the proliferation of technology does not automatically mean it has to be adopted, and where it is adopted does not indicate a coherent sequence as consideration of added value affect choices.

Positive attitude towards Internet innovations (Persuasion)

According to Bèdard (2005), training is a core value in companies in order to remain relevant and competitive due to the dynamic nature of ICTs. The TAs in Nairobi are in tandem with training as a core value. 54% of the TAs (Figure 4.4) indicated that they facilitated their staff to form a favourable attitude through training in various forms
such as workshops and seminars, sensitization programmes and giving incentives on training, communication (creation of awareness of new internet advances) and accessibility of the innovation through availing internet connectivity. However, there is no strategic sequence followed.

![Persuasion](image)

**Figure 4.4: Favourable Attitude toward Internet**

**Commit towards New ICTs Adoption (Decision)**

The next stage of DOI theory is decision which involves commitment to its adoption. The decision to adopt is exclusively the responsibility of decision-makers in any organization. According to the findings of this study, 60% of the TAs (Table 4.2) in Nairobi indicated that they were committed to adoption of new ICTs in various ways such as setting aside budgetary allocation towards ICT innovations which conform to their annual allocation and their mission. They also engage themselves in regular research of new ICT in the market of its relevance. Eventually, they invest in the new ICT innovations and either outsources or recruits expertise on ICT and ensures that the
new ICT is sustainable. However, the procedure is not consistent. The financial (60%), staff commitment (58.2%) and time committed between ICT and other staff (52.7%) of the TAs in the process of adopting ICT is generally average with the respondents confirming this status. In the study, the time commitment did not measure with the desire to integrate ICT in their firms with a dismal 43.6% of the respondents confirming that the firms commit time to ICT development as shown in Table 4.2. This is despite the fact that the study has shown that TAs have a sufficient interest in adoption of the internet advances. Bèdard (2005) argues that, the issue of budget is pivotal when companies are considering adapting new technologies. Moreover, the type of technology that match the company’s needs, financial considerations, suppliers, durability, the nature of the products and the viability in terms of providing the necessary solutions are major areas which form the basis for the company’s decisions in adopting it.
Table 4.2: Commitment towards ICTs by TAs

<table>
<thead>
<tr>
<th>Item</th>
<th>Sufficient</th>
<th>N</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the financial commitment to ICT adoption compared to the firm's needs?</td>
<td>Sufficient</td>
<td>12</td>
<td>21.8</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
<td>33</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Inadequate</td>
<td>3</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>48</td>
<td>83.3</td>
</tr>
<tr>
<td>What is the time commitment to ICT development related to your firm sustainability?</td>
<td>Sufficient</td>
<td>21</td>
<td>38.2</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
<td>24</td>
<td>43.6</td>
</tr>
<tr>
<td></td>
<td>Inadequate</td>
<td>3</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>48</td>
<td>83.3</td>
</tr>
<tr>
<td>What is the time commitment/cooperation between ICT and staff when new ICT innovations are introduced</td>
<td>Sufficient</td>
<td>13</td>
<td>23.6</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
<td>29</td>
<td>52.7</td>
</tr>
<tr>
<td></td>
<td>Inadequate</td>
<td>6</td>
<td>10.9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>48</td>
<td>83.3</td>
</tr>
<tr>
<td>How would you rate staff training on ICT?</td>
<td>Sufficient</td>
<td>11</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
<td>32</td>
<td>58.2</td>
</tr>
<tr>
<td></td>
<td>Inadequate</td>
<td>5</td>
<td>9.1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>48</td>
<td>83.3</td>
</tr>
</tbody>
</table>

New ICT Adoption Sequence (Implementation)

The study also sought to find out whether the TAs followed any sequence when adopting ICTs. Five stages are considered effective when an organization adopts technology (Rogers, 1999). Based on the findings of this study, all the TAs (Figure 4.5) studied have adopted internet although the adoption sequence was not systematic. Furthermore, it emerged that the adoption was mostly based on the needs and the unique characteristic of each organization rather than market strategic sequences, as explained by Diffusion of Innovation Theory (Ibid. Rogers 1999). This means that the
TA misses out on the progression from slow to gradual process, which is considered an important measure of new invention success and also is the basis of competitiveness.

![Diagram showing percentages of respondents involved in different stages of implementation process]

**Figure 4.5: Implementation process**

**Reinforcement of Positive Outcomes from ICT Innovations (Confirmation)**

The final stage of DOI theory is confirmation whereby an organization reinforces the technological innovations based on its positive outcome. The results of this study indicate that most TAs in Nairobi reinforce positive outcomes from ICT innovations in different ways. While they are involved in broad range of activities, these appear as survival tactics as none indicated a clear process on how the new technology is adopted.

Some of the efforts can be summarized in five main areas as follows;

1. **Training**: this includes communicating to staff, shareholders and sensitizing staff.

2. **Out-sourcing professionals**: to support the firms in technical areas where there are no internal capacities
3. Reduce technophobia: building culture of confidence, by encouraging employees to constantly use the new technology and innovation.

4. Upgrading of ICT: Ensuring efficiency and increasingly investing in various software and equipment in the market and carrying out maintenance: repairs.

5. Research on innovations to be adopted. The TAs keep track of innovations and getting them, but respondents did not indicate whether there is a clear way of doing it.

Although these are important activities, to achieve technological leadership, a coherent sequence is necessary.

**Perceptions of ICT Compared to Previous Practices (Relative Advantage)**

DOI theory indicates 5 major characteristics that facilitate adoption of ICT innovations. These include relative advantage, compatibility, complexity, trialability and observability. According to the study, the TAs pointed out that they had gained a relative advantage from the new technology.

Based on the perception of new ICT as compared to the practices which existed before adopting ICT, TAs indicated that new ICT has increased efficiency and reliability, cost effectiveness, wider coverage (client), internal, interdepartmental and external collaboration through networking. In addition, it has also led to faster access to information, reduced workforce and it saves time and energy, reduces errors and is accountable as shown in Figure 4.6. On the contrary, Thorn and Chen (2008) in their study noted that ICTs benefits were more customer-oriented which included improved
customer service, information exchange with customers, enhanced company image, faster response to customers and access to new customers.

![Chart](chart.png)

**Figure 4.6: Relative Advantage**

**Consistency with the TAs Needs**

83.6% of the TAs indicated that the introduction of internet is consistent with the firms needs and is incrementally empowering with new knowledge as shown in Figure 4.7.
Complexity in Understanding and Using ICT

The study, however, revealed a number of difficulties experienced in understanding and using new technologies as follows:

1. Employees’ resistance to change due to challenges of awareness on how to use the internet innovation.
2. System breakdown and software virus attacks.
3. Expensive to acquire new technology due to constant change of the innovations.
4. Lack of adequate expertise and new information/knowledge gaps caused by new internet advances models.
Figure 4.8: ICT Perceptiveness and Use

Experimentation of New ICT before Adoption

Since the advent of internet, many TAs have moved to adopt it, more as survival tactic, but this creates difficulties whereby there is no clear investment approach. The study found that, the firms prefer adopting internet innovation, initially experimenting on a limited basis before adopting it fully in future. This was confirmed by (72.7%) of the TAs as shown in Figure 4.9. The overwhelming majority supported the need for future experimentation of technology before it is adopted. This is a clear indication that TAs are aware of the need for strategic approach to ICT, though they have not fully moved to that direction.
4.3.3.2 The Extent of Use of Internet Advances

The extent of use of internet was based on type of ICT used, general level of the use of internet by the employees, use of internet, mode of communication, mode of storing information, application of internet technology, mode of sharing and disseminating information, Travel agencies linked to a GDS, computer networking, mode of accessing the internet, sources of information and advice, type of information retrieved frequently and kind of services offered using internet.

ICTs have emerged with many changes and TAs are challenged to “dynamically re-engineer their processes and functions in order to add value to the distribution channel” and particularly to remain operational (Bèdard, 2005). Technology has had a phenomenal impact on the distribution of travel products, particularly the way in which each intermediary accesses the consumer. There’s variability in the adoption and use of new technology and the effect it has had to date on travel distribution.
Types of ICTs Used

This study examined the type of ICTs used by various travel agencies in Nairobi. The study findings revealed that the most commonly used ICTs in travel agencies in Nairobi are Computers, telephones (landlines and mobiles), GDS and fax machines. 100% of travel agencies use computers and mobile phones (for accessing the internet). Furthermore, 78.2% of the travel agencies use global distribution system (GDS), 83.6% use landlines and 50.9% use fax machines as shown in Figure 4.10. The type of ICTs used is mainly based on the relevance to their business. TAs in Nairobi combine both traditional and the current ICTs in order to remain competitive and relevant in the business. Divergently, New Zealand travel agencies mainly used e-mails, internet, computer reservation systems/global distribution systems, database software, online booking systems and virtual private network (for afterhours access) (Garkavenko & Milne, 2009).
This study also examined the level of use of internet by employees. The findings indicated that 29 (52.7%) of the travel agencies have their employees using the internet between (60-80%). Furthermore, this study also found that 3 (5.5%) of the travel agencies have between 20% and 40% of their employees using internet as shown in Table 4.3. 6 (10.9%) of travel agencies have between 40% and 60% of their employees using internet while 17 (30.9%) have between 60% and 80% using internet. The study reveals that the level of internet use by employees is above average. The internet use by employees is mainly based on availability the internet and skills required to use the internet advances. A previous study by Cheng and Cho (2010) indicated that

Figure 4.10: Types of ICTs Adopted
determinants of new ICTs use by employees included perceived usefulness, ease of use and consistency with the past experience.

**Table 4.3: Level of Internet Use by Employees**

<table>
<thead>
<tr>
<th>Categories %</th>
<th>Number of employees</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-40</td>
<td>3</td>
<td>5.5</td>
</tr>
<tr>
<td>40-60</td>
<td>6</td>
<td>10.9</td>
</tr>
<tr>
<td>60-80</td>
<td>29</td>
<td>52.7</td>
</tr>
<tr>
<td>80-100</td>
<td>17</td>
<td>30.9</td>
</tr>
</tbody>
</table>

**How Internet Advances are Used**

This study identified the main ways in which the TAs use the internet. The findings indicate that 92.7% of the Travel Agencies use internet for communication, 87.3% use internet to conduct business transactions and 58.2% use internet for networking as shown in Table 4.4. This is an indication that communications and business transactions are the most preferred uses of internet. Abou-Shouk et al., (2012) pointed out that the TAs used ICTs in diverse ways. In addition to communication and business transaction, they were also used for bidding for contracts, monitoring hits on the website. Patricia (2008) also states that they were used for marketing and promotion, partnering and integrating travel businesses with service providers. Cheng and Cho (2011) also noted that the internet advances are used for description, promotion, distribution, amalgamation, organization, and delivery of tourism products. The use of the internet innovation depends on relevance, the nature of business and activities to which it is applied.
Table 4.4: Internet Uses

<table>
<thead>
<tr>
<th>Categories</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>51</td>
<td>92.7</td>
</tr>
<tr>
<td>To conduct business transactions</td>
<td>48</td>
<td>87.3</td>
</tr>
<tr>
<td>Networking</td>
<td>32</td>
<td>58.2</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Source: Researcher, 2014

Modes of Communication

Travel agencies use both online and traditional modes of communication. Based on the findings of this research, 98.2% of the travel agencies use online but other modes of communication remains important, including telephone (96.4%), fax (69.1%), print media (65.5%) and face to face (65.5%) as shown in Figure 4.11. Agents able to combine face-to-face and online options are likely to retain their businesses. Cheung and Lam (2009) reiterate that human interaction is irreplaceable in TAs business as it enables them to provide value-added information to clients on travel products and destinations.

![Figure 4.11: Mode of Communication](image-url)
Modes of Storing Information

Galileo system and soft copy are considerably utilized as modes of storing information. The study findings indicate that 80% of the travel agencies use Galileo system, 89.1% use soft copy and 74.5% use office files (hard copies) as shown in Figure 4.12. This is an indication that the traditional office files are still popular as a method of storing information. The study also found that, 90.2% of the TAs prefer a combination of soft and hard copy to store information as shown in Figure 4.12.

Applications of Internet Technology

80% of travel agencies use internet technology for sending and receiving information. Other uses include market research (65.5%), marketing of their products (69.1%), reservations (65.5%) and browsing for individual development (32.7%) as shown in Figure 4.13. Patricia (2008), noted that internet was increasingly used for travel planning, information sourcing and marketing and promotion by TAs in Europe, however, the internet need to be utilized for research, business development, contrasting
of products and prices, partnering and integrating travel business with service providers. Further, TAs in Egypt indicated that they used the internet for information search, interacting with customers, monitoring customers, suppliers and competitors, reservation and bidding for contracts (Abou-Shouk et al., 2012).

![Bar chart showing modes of sharing and disseminating information]

**Figure 4.13: Application of Internet**

**Modes of Sharing and Disseminating Information**

The study found that internet is the most preferred (98.2%) mode of sharing and disseminating information followed by face-to-face (67.3%). Other methods used include print media (56.4 %.), and telegram/ fax (29.1%) as shown in Figure 4.14. This indicates that the use of telegram/ fax which were used considerably in the past has significantly declined.
Travel Agencies Linked to GDS

Based on the findings of this research, all TAs are linked to Global Distribution System (GDS). The two main types used include Galileo and Amadeus, while Sabre and World Span are the least commonly used as shown in Figure 4.15. Consistently, Lubbe (2003) also established that Galileo was used by 90% of the TAs in South Africa followed by Amadeus. Buhalis (2008) indicated that GDS is critical in TAs for checking availability and making travel service reservations. The GDS is a key technology adopted by TAs, due to its relevance in their businesses.

Figure 4.14: Sharing and Disseminating Information
The results of this study indicated that 96.4% of TAs have computers which are networked as shown in Figure 4.16.

**Figure 4.16: Computer Networking**

**Mode of Accessing Internet**

Internet was found to be used very frequently and with availability in all the offices. In addition, the TAs use other services such as telephone, cyber, modems and laptops while away from the office.
98.2% of TAs in Nairobi access internet within the office while 43.6% access internet using a modem (laptops); 14.5% of TAs access internet in cybercafé while 16.4% access internet using their phones as shown in Figure 4.17. The results of this study reveal that the internet is easily accessible to the TAs, though mobile phone technologies are still underutilized by TAs.

**Sources of Information and Advice**

One of the most important components of travel agencies services is sourcing information and advice for day-to-day operations. Based on the finding of this research, the greatest source of information for travel agencies in Nairobi is the internet (89.1%), followed by staff consultations (65.5%) and GDS (63.6%) as shown in Figure 4.18. These sources of information are collectively used very frequently by travel agencies in Nairobi. However, GDS is an important information source for all types of travel products and increasingly the internet has become even more critical due to wider geographical customer base (Bidgoli, 2004).
The TAs generally attaches much importance to these sources of information and advice. It emerged that, a major reason for adoption of internet is that it has became a critical source of information that the TAs cannot do without. The type of information frequently received by TAs includes information on flights (89.1%), Information on ticketing and booking (92.7%), information on car hiring (58.2%) and information on holiday tours (78.2%) as shown in Table 4.5. This information is relevant in their multiplicity of services offered by them.
Table 4.5: Information Frequently Retrieved

<table>
<thead>
<tr>
<th>Categories</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information on flights</td>
<td>49</td>
<td>89.1</td>
</tr>
<tr>
<td>Information on ticketing and booking</td>
<td>51</td>
<td>92.7</td>
</tr>
<tr>
<td>Information on car hiring</td>
<td>32</td>
<td>58.2</td>
</tr>
<tr>
<td>Information on holiday tours</td>
<td>43</td>
<td>78.2</td>
</tr>
</tbody>
</table>

To be competitive and visible, the TAs needs other types of information such as current market trends (changes in exchange rates), recreation activities, and exhibition and trade fairs. This also comes with demands for the majority of TAs to establish daily routines for gathering data so as to be updated.

Kinds of Services Offered Online
Travel agencies in Nairobi offer a variety of services online. Based on the study findings, 89.1% of the travel agencies use internet for air ticketing, 87.3% for travel packages, 90.9% for hotel booking, 52.7% for visa processing, 56.4% for car rentals and 72.7% for airport transfers as shown in Figure 4.19.
Figure 4.19: Services Offered Using ICTs

4.3.4 Benefits of ICTs to TAs

The second objective sought to evaluate the challenges and perceived internet benefits on TAs. This objective was analysed and discussed into two sections. Based on research findings, ICT provides advantages to TAs with regard to communication, information processing, storage and access as shown in Table 4.6.

Table 4.6: ICTs Benefits

<table>
<thead>
<tr>
<th>ICT Impacts</th>
<th>N</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean Score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhances communication within the firm</td>
<td>55</td>
<td>0%</td>
<td>0%</td>
<td>1.8%</td>
<td>30.9%</td>
<td>67.3%</td>
<td>1.35</td>
<td>0.52</td>
</tr>
<tr>
<td>Enhances communication between firms</td>
<td>55</td>
<td>0%</td>
<td>0%</td>
<td>3.6%</td>
<td>40%</td>
<td>56.4%</td>
<td>1.47</td>
<td>0.57</td>
</tr>
<tr>
<td>Facilitates information, processing and storage.</td>
<td>55</td>
<td>0%</td>
<td>0%</td>
<td>1.8%</td>
<td>45.5%</td>
<td>52.7%</td>
<td>1.49</td>
<td>0.54</td>
</tr>
<tr>
<td>Facilitates access to information.</td>
<td>55</td>
<td>0%</td>
<td>0%</td>
<td>3.6%</td>
<td>29.1%</td>
<td>67.3%</td>
<td>1.36</td>
<td>0.56</td>
</tr>
</tbody>
</table>
Communication within the Firm
The TAs were asked whether ICTs have provided clear advantage for communicating within the firm, 30.9% of the respondents agreed while 67.3% strongly agreed as shown in Table 4.6; 1.8% of the respondents didn’t give an opinion on this item (undecided option). The percentage of “agree” and “strongly agree” responses was very high, an indication that most respondents felt that ICT enhances communication within the firm. The mean score on this item was 1.35 and standard deviation 0.52.

Enhances Communication between Travel Agencies
When asked whether ICTs have provided clear advantage for communicating between firms, 40% of the respondents agreed while 56.4% strongly agreed as shown in Table 4.6; 3.6% of the respondents didn’t give an opinion on this item (chose undecided option). The percentage of “agree” and “strongly agree” responses was very high, an indication that most respondents felt that ICT enhances communication between the firms. The mean score on this item was 1.47 and standard deviation 0.57.

Facilitates Information Processing and Storage
When asked whether ICTs have provided clear advantage for information processing and storage, 45.5% of the respondents agreed while 52.7% strongly agreed as shown in Table 4.6; 1.8% of the respondents didn’t give an opinion on this item (chose undecided option). The percentage of “agree” and “strongly agree” responses was very high, an indication that most respondents felt that ICT enhances information processing and storage. The mean score on this item was 1.49 and standard deviation 0.54.
Facilitates Access to Information

When asked whether ICTs have provided clear advantage for accessing information, 29.1% of the respondents agreed while 67.3% strongly agreed as shown in Table 4.7; 3.6% of the respondents didn’t give an opinion on this item (chose undecided option). The percentage of “agree” and “strongly agree” responses was very high, an indication that most respondents felt that ICT facilitates access to information. The mean score on this item was 1.36 and standard deviation 0.56.

4.3.5 Challenges Experienced by TAs in Nairobi

The respondents were asked to identify the major challenges they experienced in advent of internet innovation. Table 4.7 outlines the multiplicity of challenges experienced by TAs. According to the findings as shown in Table 4.7, disintermediation with (90%) emerged in the study as the most outstanding challenge. There is an increasing trend where most clients are accessing services online such as flight booking online rather than directly through the TAs. The TAs studied admitted that, despite the importance of online booking as modern approach to business with cost-effective and convenient to client, it has drastically reduced business to travel agencies in Nairobi. This concern conforms to various global studies which have cited a shift where, individual tourism service providers (e.g., airlines, tour wholesalers) sell products and services directly to clients, bypassing the TAs (Ibid, Cooper et al., 2008; Wang, 2007; Page & Connell; Davidson & Rogers; Doganis; Sharpley, (2006); Buhalis, 2003).

Although internet has been accessible among the TAs, the cost has been prohibitive. Moreover, lack of in-house experts specially the management in regard to new ICT
trend is a major constraint. Many firms are finding it difficult to cope with new technology due to lack of qualified staff, commission cuts and caps, competition and internet insecurity compound the problem. On the contrary, a previous study by Garkavenko and Milne (2009) indicates that the major challenges that faced New Zealand TAs were commission cuts and caps, more knowledgeable clients, health concerns, terrorism, direct supply by principals, competition by online TAs, lack of government support and unskilled staff. These were general issues unlike the current study which focused more on ICTs related issues.

Table 4.7: ICT Challenges

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Travel Agencies</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disintermediation</td>
<td>50</td>
<td>90</td>
</tr>
<tr>
<td>Lack of Government Support</td>
<td>32</td>
<td>58</td>
</tr>
<tr>
<td>Competition</td>
<td>43</td>
<td>78</td>
</tr>
<tr>
<td>Virtual Travel Agencies</td>
<td>32</td>
<td>58</td>
</tr>
<tr>
<td>Cost Implications</td>
<td>47</td>
<td>80</td>
</tr>
<tr>
<td>Internet Insecurity</td>
<td>33</td>
<td>60</td>
</tr>
<tr>
<td>Commission Cuts and Caps</td>
<td>42</td>
<td>76</td>
</tr>
<tr>
<td>Continuous Training</td>
<td>31</td>
<td>56</td>
</tr>
<tr>
<td>Unskilled Staff</td>
<td>36</td>
<td>65</td>
</tr>
</tbody>
</table>

4.3.6 Competitive Strategies Adopted by TAs in Response to Internet Advances
The third objective sought to analyze the competitive strategies adopted by travel agencies in response to the internet advances. The responses were based on closed and open-ended data. The following are the close-ended responses by the TAs in Nairobi. Travel agencies have devised several ways of coping with the challenges brought about by the internet innovations (Figure 4.20).
Figure 4.20: Strategies Adopted by TAs

Going Online
The study established that that with the advances of the internet, many TAs have positioned themselves and invested in the ICTs. Going online had the highest level of adoption with (80%) as shown in Figure 4.20. Increase of the internet use is a vital factor which brings competitive advantage for TAs and drastically changes the approach of TAs business. Álvarez et al. (2007) in their study showed that the development of the internet applications, for example, has changed buying habits of tourism products. Furthermore, according to Abou-shouk et al. (2012), travel and tourism have become the single largest category of products/services sold over the internet hence, the development of the internet as a marketing channel for tourism products and services have affected retail travel agencies as SMEs. Wholesale travel
agencies can create portals (e-dreams) and traditional travel agencies can obtain many advantages from using the internet to offer complementary services to their customers, but this can only yield results when there is corresponding capacity in the firms to handle.

**More Focus on Clients**

More focus on clients than on service providers is another strategy that is highly adopted by the TAs in Nairobi with 76.4% of the respondents confirming this status. This is an indication of a shift which concurs with Gharavi and Sor (2005) on TAs marketing themselves directly to potential clients. The TAs traditionally focused more on the service providers but this trend is changing drastically as a result of emergence of the internet. The trend is facilitated by TAs capability to forge into close relationships with the clients. According to Bèdard (2005), competitiveness for the new millennium will be improved by investing in and by developing a strong relationship marketing strategy, so as to attract and retain them.

**Product Diversification**

Other preferred strategies include product diversification as confirmed by 69.1% of the respondents, product diversification offers a variety of services which increase choice and more important, translated into a “one stop shop”.

**Increased Use of ICT**

In addition, 65.5% of the respondents stated that increasing use of ICT is an effective way to respond to new technology. This is countering the threat posed by ICT and turning it into an opportunity. The ICT is a crosscutting perspective used as a re-
intermediation strategy, which cushions them from the dis-intermediation threats and ensures that they remain in the markets.

**Consolidation and Focus on Niche Market**
The study found that, focus on niche market with (49.1%) and consolidation with (10.9%) are the least competitive strategies adopted by TAs in Nairobi. While these strategies are popular in the global market, they are very scarcely adopted as forms of response to internet evolution in the Kenyan context.

**4.3.6.1 Additional Strategies Adopted by Travel Agencies in Nairobi**
The TAs were further asked to indicate other important competitive strategies which they had adopted in order to improve their business in the wake of internet innovations. The strategies were categorized as customer relationship management, online marketing, staff oriented (Training and Motivation), diversification (Product and Company) and product segmentation. Customer relationship management (80%), online marketing (76.4%), diversification (72.7 %) and training (65.5%) as shown in (Figure 4.21) emerged to be the most popular competitive strategies that facilitate the TAs to remain afloat. Ku, et al (2012) in their study noted that customer competence, attachment to customer relationship and targeting different levels of customers as the core strategies adopted in Taiwan. Oladimeji, et al (2014) pointed out that the major strategies adopted by enterprises in Nigeria included product differentiation and establishing long term relationships with clients.
Figure 4.21: Additional Strategies adopted by TAs

**Business Differentiation from Online Travel Agencies**

TAs differentiate themselves from online travel agencies by offering credit services to clients, Face-to-face communication, product diversification, professionalized customer care, relationship marketing, follow ups on clients, personalized services, sustainable services, strategic location and strong marketing technique. Other efforts include; strong management team, technological competitiveness and targeting qualified staff. These were further categorized as customer (80%), product (76.4%), ICT (72.7%) and organization oriented (63.6%) as shown in Figure 4.22. On the contrary, Kayani et al. (2015) indicated that the brick and mortar TAs differentiate themselves from the online TAs by offering competitive pricing, overcoming complexity in travel planning for clients, product diversification, niche market and offering traditional payment options.
4.3.7 How the Government of Kenya Policies in ICTs Facilitates Travel Agencies’ Cope with Internet Innovations

This research question was based on an in-depth analysis of the text of the National ICT policy. Further, publications and other material both in text and through the internet, that explore the creation of the national ICT policy and the implementation process were analysed. These were materials expected to address the state of ICT in the country generally and how it affects the market players especially within the tourism industry, particularly within the travel agencies. Although, there have been unsubstantiated indications that there is a new 2011 draft of the national ICT policy, the earlier draft may for now retain precedence. Further, the study was done through various investigations into the government institutions and market players that are directly involved in the making of the ICT policy. These included the Ministry of information, the Communication Secretariat of Kenya, the ICT Board of Kenya, Kenya Data Networks as a major internet service provider in the region, and varied business establishments that engage in the business of travel and tours. Open-ended items
particularly on how the Government of Kenya (GoK) facilitated them in ICTs were also issued to TAs and semi-structured interviews were specifically administered to Kenya Data Networks and Ministry of Tourism. The subsequent were the findings:

**Government Provision of ICT**

This study found that most TAs in Nairobi are still facing myriad of challenges due limited or inefficient facilitation of the appropriate ICT as presented in Table 4.8. The major problems identified by the TAs are as follows:

Many firms find the existence of complex legal framework and enforcement mechanism challenging. Although efforts to enact laws to regulate the ICT have been on-going, the study found that, still lack of clear policies on ICT constrains TAs. Current ICT Laws are not only inadequate, but are as complicated as they are abstract and bureaucratic. Regulation of ICT done without fully involving all the stakeholders undermines growth. Moreover, ICTs dynamism are not cost-effective and stresses the TAs enterprises impacting their capacity to compete effectively at regional and international levels.

Other challenges cited by the TAs include, lack of government support, whereby they pointed out that they were limited in terms of high taxation and other annual government revenues. They also indicated that they are not facilitated in acquiring new knowledge of the ICTs innovations due to low funded and equipped ICT training centres. In addition, ICTs gadgets from oversees are of inferior quality and the programs are mostly outdated. They also expressed that the ICT innovations were complicated to use and not reliable due to network system breakdown and power
blackouts. Nonetheless, there are too far many problems. Some of the TAs threatened with closure and the facilitative role of the government is viewed as both inadequate and inconsistent with the market trends.

**Table 4.8: Lack of Government Support**

<table>
<thead>
<tr>
<th>Challenges related to Government Support in ICTs</th>
<th>Travel Agencies</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lack of clear policies related to ICTs and TAs</td>
<td>29</td>
<td>52.7</td>
</tr>
<tr>
<td>2. Complex ICT innovations</td>
<td>32</td>
<td>58.1</td>
</tr>
<tr>
<td>3. Lack of involvement of relevant stakeholders</td>
<td>28</td>
<td>50.9</td>
</tr>
<tr>
<td>4. Lack of ICT capacity management</td>
<td>30</td>
<td>54.5</td>
</tr>
<tr>
<td>5. Inadequate ICT infrastructure</td>
<td>34</td>
<td>61.8</td>
</tr>
<tr>
<td>6. Lack of protective online security</td>
<td>32</td>
<td>58.1</td>
</tr>
<tr>
<td>7. Insufficient regulatory reforms to reduce ICTs</td>
<td>38</td>
<td>69.0</td>
</tr>
<tr>
<td>8. Lack of facilitation in acquiring new knowledge</td>
<td>35</td>
<td>63.6</td>
</tr>
</tbody>
</table>

**Analysis of ICT Related Policies**

Based on secondary data analysis, the major issues that emerged were;

The government has contributed to ICT through policy enactment, but still there are unresolved grievances. In Vision 2030, the Government of Kenya commits itself to set up a dynamic ICT to improve economic development in all sectors. This extends to earlier policy pledges which recognized ICT as pivotal to economic development which were made in earlier policies such as (policy- wealth creation and employment, Ministry of planning and National Development, 2003). Despite these efforts, ICT has yet to be integrated in all the sectors of the economy effectively.
The policy for instance recognises that the major challenge that has been facing e-commerce as lack of legal and regulatory framework. To this challenge the national ICT policy has as a strategy, for the government to enact appropriate legislation that would support e-businesses. There has therefore been development in the creation of various regulations to monitor and guide different aspects of e-business. A good example is amendments to the Kenya Communications Act of 1998. These amendments effected regulations and protection for electronic payments and also mobile phone payments; M-pesa, Zap payments.

On a sectorial platform the status of ICT has considerably improved. This improvement is directly linked to the improvement of ICT infrastructure. Players such as the TAs in the tourism industry and its constituent market have thus indirectly benefited of this improvement.

In ideal circumstances, the policy ought to have an overall effect on the affordability of internet services by encouraging the deployment of broadband access technologies. This is however not the case as the capacity to do so is yet to be subsidised by the government and hence the cost of accessing internet services is still high.

The ICT capacity management within the tourism industry is however still wanting, as the use of ICT within the tourism industry as a whole is disjointed. The extent to which varied TAs are able to fully exploit ICT and its benefits is highly dependent on the financial wellness of individual.
There is, also, no existing threshold for the evolvement of ICT to promote healthy competition within the Tourism. This is a role that the government through the relevant ministry ought to ably play, and is yet conspicuously absent.

Furthermore, the lack of protective policies for online security is also a major factor through which TAs are reluctant to fully embrace the use of ICT in all their operations. The use of ICT by TAs as well as other players remains highly underutilized.

There is also a conspicuous gap of information sources that address ICT development and the tourism industry, especially those that pay specific focus to travel agencies. This state of affairs is largely attributable to the fact that generation of such information is very low both from market players, within the industry as well as the policy-makers.

Unionized organizations like KATA (Kenya Association of travel Agents) are yet to also consolidate information sources that would facilitate inflow of knowledge and research within the field. Many tour operators and travel agents exist unilaterally from similar establishments within the market. Without much desired interaction among them, the establishment of desired standards of adaptation to ICT innovations is lacking.

Comments on the government of Kenya support to TAs;

“Admittedly, the chief ICT officer from the Ministry of Tourism indicated that the ministry had done little in the end of initiating adoption to ICT infrastructure and the innovations that come with it”.
On the other hand, the external affairs manager from Kenya Data Networks pointed out that:

Out of four fibre optic cables that have so far been installed by internet service providers (ISPs), within the private sector, the government has only installed one. Further, the cost of operation for ISPs in the country is high, especially as regards the installations of the cable, what has for instance been estimated at Kshs. 15,000/- for one meter of cable on land.

A study by Abou-Shouk et al., (2012) on the contrary, pointed out the government of Egypt has given the ICT industry as a national priority. The public and the private sector are keen to be involved in this area. The government has launched initiatives to establish the required infrastructure and a conducive environment to enhance growth. This includes facilitation of telecommunication backbone, internet services, wireless local loop and smart village.

4.4 Hypotheses Testing
The hypotheses were subjected to structural equation modeling (SEM) using SPSS Amos software version 20. However, factor analysis was conducted to identify the appropriate items for the analysis.

4.4.1 ICT Developments (Innovations)
Factor analysis was carried out on items measuring ICT developments (Innovations). Kaiser's rule of retaining factors with eigenvalues larger than 1.00 was used in this analysis as the default. Three factors were extracted from the factor analysis of ICT developments and innovations, which accounted for cumulative variance of 73.4% as shown in Table 4.10. Respondents were asked the ICT developments and innovations
they were aware of and which ones they had implemented. Common ICT developments included GDS, Networking, Online Marketing, Online Booking, Video Conferencing, VOIP, Social Media and Mobile Telephony. Barlett's test of sphericity was significant, thus the hypothesis that the inter correlation matrix involving these four variables is an identity matrix is rejected. Thus from the perspective of Bartlett's test, factor analysis is feasible.

Table 4.9: KMO and Bartlett's Test

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</th>
<th>.686</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td>Approx. Chi-Square</td>
</tr>
<tr>
<td></td>
<td>df</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
</tr>
<tr>
<td></td>
<td>138.999</td>
</tr>
<tr>
<td></td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

Bartlett's test is statistically significant \( p-value<0.05 \), but a more discriminating index of factor analyzability is the KMO. For this data set, it is .686 which is greater than 0.5. A high value between 0.5 and 1.0 indicates that factor analysis is appropriate. Therefore, the KMO is suitable for factor analysis.
Table 4.10: Factor Analysis of ICTs Developments

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>2.921</td>
<td>36.511</td>
</tr>
<tr>
<td>2</td>
<td>1.825</td>
<td>22.811</td>
</tr>
<tr>
<td>3</td>
<td>1.129</td>
<td>14.108</td>
</tr>
<tr>
<td>4</td>
<td>.639</td>
<td>7.987</td>
</tr>
<tr>
<td>5</td>
<td>.499</td>
<td>6.235</td>
</tr>
<tr>
<td>6</td>
<td>.404</td>
<td>5.055</td>
</tr>
<tr>
<td>7</td>
<td>.345</td>
<td>4.311</td>
</tr>
<tr>
<td>8</td>
<td>.238</td>
<td>2.980</td>
</tr>
</tbody>
</table>

The component matrix Table 4.11 shows the loadings of the eight variables on each of the three factors extracted after rotation. Networking, Online Marketing and Online Booking are substantially loaded on Factor (Component) 1 while GDS, Social Media and Mobile Telephony are substantially loaded on Factor 2. VOIP and Video Conferencing are substantially loaded on factor 3. These factors are used as variables for further analysis in structural equation modelling (SEM).

Table 4.11: Rotated Component Matrix- ICT Development

<table>
<thead>
<tr>
<th></th>
<th>Component/Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>GDS</td>
<td>.140</td>
</tr>
<tr>
<td>Networking</td>
<td>.840</td>
</tr>
<tr>
<td>Online Marketing</td>
<td>.845</td>
</tr>
<tr>
<td>Online Booking</td>
<td>.878</td>
</tr>
<tr>
<td>Video Conferencing</td>
<td>.164</td>
</tr>
<tr>
<td>VOIP</td>
<td>-.027</td>
</tr>
<tr>
<td>Social Media</td>
<td>-.017</td>
</tr>
<tr>
<td>Mobile Telephony</td>
<td>.118</td>
</tr>
</tbody>
</table>
4.4.2 ICT Adoption and Use

Factor analysis was carried out on items measuring ICT adoption and use. Kaiser's rule of retaining factors with eigenvalues larger than 1.00 was used in this analysis as the default. Three factors were extracted from the factor analysis of ICT adoption and use, which accounted for cumulative variance of 64.9% as shown in Table 4.12.

**Table 4.12: Factor Analysis of ICTs Adoption and Use**

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>2.316</td>
<td>33.080</td>
</tr>
<tr>
<td>2</td>
<td>1.145</td>
<td>16.351</td>
</tr>
<tr>
<td>3</td>
<td>1.081</td>
<td>15.448</td>
</tr>
<tr>
<td>5</td>
<td>.599</td>
<td>8.559</td>
</tr>
<tr>
<td>6</td>
<td>.480</td>
<td>6.858</td>
</tr>
<tr>
<td>7</td>
<td>.433</td>
<td>6.181</td>
</tr>
</tbody>
</table>

Kaiser Rule opting for a three dimensional factor solution is also fairly well-supported by Catell’s Scree test (Scree Plot) as shown in Figure 4.23.
Figure 4.23: ICTs Adoption and Use Scree Plot

The component matrix Table 4.13 shows the loadings of the six variables on each of the three factors extracted after rotation. These include, commitment to ICT development in relation to firm competitiveness was loaded on Factor (component 1) while frequency of accessing internet, how often the TAs use sources of information and importance of sources of information are substantially loaded on Factor (component 2). Extent of using computers and financial commitment to internet adoption are substantially loaded on factor 3. These factors are used as variables for further analysis in SEM.
Table 4.13: Rotated Component Matrix- ICT Adoption and Use

<table>
<thead>
<tr>
<th></th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent of using computers</td>
<td>-.102</td>
<td>.029</td>
<td>.904</td>
</tr>
<tr>
<td>Frequency of accessing internet</td>
<td>.076</td>
<td>.662</td>
<td>.143</td>
</tr>
<tr>
<td>How often do you use sources of information</td>
<td>.448</td>
<td>.564</td>
<td>.265</td>
</tr>
<tr>
<td>Importance of sources of information</td>
<td>-.031</td>
<td>.808</td>
<td>-.094</td>
</tr>
<tr>
<td>Financial commitment to ICT adoption</td>
<td>.494</td>
<td>.171</td>
<td>.638</td>
</tr>
<tr>
<td>Commitment to ICT development in relation to firm competitiveness</td>
<td>.780</td>
<td>.124</td>
<td>-.028</td>
</tr>
<tr>
<td>Cooperation between IT and other staff when introducing ICT</td>
<td>.831</td>
<td>-.017</td>
<td>.065</td>
</tr>
</tbody>
</table>

4.4.3 Perceived Internet Benefits

Factor analysis was carried out on items measuring perceived ICT benefits (impacts). Kaiser's rule of retaining factors with eigenvalues larger than 1.00 was used in this analysis as the default. Two factors (components) were extracted from the factor analysis of perceived ICT benefits (impacts), which accounted for cumulative variance of 69.6% as shown in Table 4.14. To aid in the interpretation of these two components, varimax rotation with Kaiser Normalization was performed. The rotated solution revealed the presence of a simple structure, with the two components showing a number of strong loadings of variables substantially on only one component. Inspection of the rotated component matrix showed that communication explained 43.8% of the variance in perceived ICT benefits while information processing, storage and retrieval explained 25.8% of the variance in perceived ICT benefits as shown in Table 4.14. These factors are used as variables for further analysis using SEM.
Table 4.14: Factor Analysis of Perceived Internet Benefits

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>1.751</td>
<td>43.776</td>
</tr>
<tr>
<td>2</td>
<td>1.032</td>
<td>25.800</td>
</tr>
<tr>
<td>3</td>
<td>.766</td>
<td>19.154</td>
</tr>
<tr>
<td>4</td>
<td>.451</td>
<td>11.270</td>
</tr>
</tbody>
</table>

Kaiser Rule opting for two dimensional factor solutions is fairly well supported by Catell’s Scree test (Scree Plot) as shown in Figure 4.24.

![Scree Plot](image)

**Figure 4.24: Perceived ICTs Benefits Scree Plot**

Table 4.15 indicates that enhancing communication within the firm and enhancing communication between firms are substantially loaded on factor (Component 1)
while Information processing and storage and ease of accessing information are substantially loaded on Factor 2.

Table 4.15: Rotated Component Matrix-Perceived ICTs Benefits

<table>
<thead>
<tr>
<th>Items</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Enhancing communication within the firm</td>
<td>.770</td>
</tr>
<tr>
<td>Enhancing communication between firms</td>
<td>.892</td>
</tr>
<tr>
<td>Information processing and storage</td>
<td>.242</td>
</tr>
<tr>
<td>Ease of Accessing information</td>
<td>-.008</td>
</tr>
</tbody>
</table>

4.4.4 Strategies Adopted by TAs in Response to ICTs

Factor analysis was carried out on items measuring strategies adopted by TAs in response to ICTs. Kaiser's rule of retaining factors with eigenvalues larger than 1.00 was used in this analysis as the default. Three factors were extracted from the factor analysis of Strategies adopted by TAs in response to ICTs, which accounted for cumulative variance of 66.9% as shown in Table 4.16.

Table 4.16: Strategies Adopted by TAs

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of variance</td>
</tr>
<tr>
<td>1</td>
<td>1.906</td>
<td>27.235</td>
</tr>
<tr>
<td>2</td>
<td>1.622</td>
<td>23.167</td>
</tr>
<tr>
<td>4</td>
<td>.886</td>
<td>12.662</td>
</tr>
<tr>
<td>5</td>
<td>.664</td>
<td>9.489</td>
</tr>
<tr>
<td>6</td>
<td>.428</td>
<td>6.111</td>
</tr>
<tr>
<td>7</td>
<td>.367</td>
<td>5.247</td>
</tr>
</tbody>
</table>
Kaiser Rule opting for a three dimensional factor solution is also fairly well-supported by Catell’s Scree test (Scree Plot) as shown in Figure 4.25.

![Scree Plot](image)

**Figure 4.25: Strategies Adopted by TAs Scree plot**

The component matrix Table 4.17 shows the loadings of the six variables on each of the three factors extracted after rotation. These are more focus on consumer than service providers, increased use of ICT and Focus on niche market are substantially loaded on Factor (Component) 1 while product diversification and Going- online are substantially loaded on Factor 2. Consolidation is substantially loaded on factor 3. These factors are used as variables for further analysis in SEM.
Table 4.17: Rotated Component Matrix - Strategies Adopted by TAs

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidation</td>
<td>.206</td>
<td></td>
<td>.845</td>
</tr>
<tr>
<td>More focus on consumer than service providers</td>
<td>.610</td>
<td>.094</td>
<td>-.245</td>
</tr>
<tr>
<td>Increased use of ICT</td>
<td>.753</td>
<td>-.106</td>
<td>.211</td>
</tr>
<tr>
<td>Focus on niche market</td>
<td>.686</td>
<td>.224</td>
<td>.054</td>
</tr>
<tr>
<td>Product diversification</td>
<td>-.063</td>
<td>.890</td>
<td>-.034</td>
</tr>
<tr>
<td>Going- online</td>
<td>.305</td>
<td>.809</td>
<td>-.102</td>
</tr>
</tbody>
</table>

4.5 Structural Equation Modelling

Structural Equation Modelling (SEM) using AMOS version 20 was used to test the hypotheses. Since the factors (building blocks) are latent variable (un-observed), SEM was used to build the model (Figure 4.26).

4.5.1 Model Fit

This model fit sample data reasonably well as indicated by the selected overall goodness-of-fit statistics: Root mean square error of approximation (RMSEA) = 0.35 (<.05), Goodness of Fit Index (GFI) = 0.89 (= 0.9), Adjusted Goodness of Fit Index (AGFI) = 0.8, Root mean square residual (RMR) = 0.033 and Comparative Fit index (CFI) = 0.974 (>0.90). Figure 4.26 shows the results of structural equation modelling. The squares represent the observed variables, ovals represent the latent variables and the circles are for the error terms. Four latent variables have been used, which have been derived from factor analysis. These include ICT developments and innovations (Innovat), perceived internet benefits (Impacts), ICT adoption and use (adopted) and strategies adopted by TAs in response to ICTs (strategies). The ICTs innovations and perceived internet benefits are key drivers to internet adoption. The internet
development and Innovations are dynamic and cause the TAs to change their business operations. Due to the internet advances, the TAs are compelled to adopt various strategies in order to adapt to the technological changes and for their competitiveness.

Figure 4.26: Structural Equation Modelling Results
The standardized regression estimates are provided in Table 4.18. Two factors (perceived internet benefits and internet developments and innovations) significantly explained strategies adopted in response to internet advances (p value <0.001). Perceived internet benefits therefore, influences the strategies adopted by TAs in response to internet advances. Similarly, internet developments and innovations (innovat) influences strategies adopted by TAs in response to internet advances.

Table 4.18: Regression Weights

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies &lt;--- Innovation</td>
<td>0.111</td>
<td>0.113</td>
<td>0.981</td>
<td>0.0001</td>
</tr>
<tr>
<td>Strategies &lt;--- Adopted</td>
<td>-0.079</td>
<td>0.053</td>
<td>-1.480</td>
<td>0.136</td>
</tr>
<tr>
<td>Strategies &lt;--- Perceived Benefits</td>
<td>0.043</td>
<td>0.150</td>
<td>0.285</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

**Hypothesis One (H₀₁):** There is no significant relationship between internet advances and the strategies adopted by travel agencies.

As shown in Table 4.18, internet advances (Innovat) and Strategies adopted by TAs in response to ICTs (strategies) show a regression coefficient (β) of 0.111, which was statistically significant with (P-value<0.001). Hence, there was a weak positive relationship between internet advances and the strategies adopted by the TAs. The results of SEM rejected this hypothesis. Therefore, internet advances influence strategies adopted by TAs in response to ICTs. Previous descriptive results in this study indicated that going online and increased use of ICT were among the most popular strategies adopted by TAs in Nairobi. This is an indication that ICTs advances turn into an opportunity in TA businesses. This concurs with Buhalis (2003) who established
that proliferation of ICTs in the travel industry has caused a wide range of strategic approaches.

**Hypothesis Two (H₀₂):** There is no relationship between the extent of internet advances adoption and the strategies adopted by travel agencies.

The results of SEM have indicated regression coefficient (β) of -0.079 between adoption and use (adopted) and the Strategies adopted by TAs in response to ICTs (strategies) which was not statistically significant with (P-Value>0.136). The results of SEM indicated a weak negative relationship between ICT adoption and use by TAs in response to ICTs strategies. The results of SEM therefore retained this hypothesis. The strategies adopted by TAs are not necessary ICT-driven. This is in tandem with a previous study by Abouk-shouk and Lim (2012) who noted that the drivers of ICTs adoption were based on adapting to technological change, global consequences, suppliers development, competitors and customer pressures and future survival of TAs.

**Hypothesis Three (H₀₃):** There is no relationship between the perceived benefits and the strategies adopted by travel agencies.

The results of this null hypothesis indicates that perceived internet benefits has a statistically significant effect (p-value<0.001) on the ICTs adopted by TAs, with a regression coefficient (β) of 0.043. The results of SEM indicated that there is a strong positive relationship between perceived internet benefits and the strategies adopted by TAs. Therefore, SEM results rejected this hypothesis. This is an indication that TAs strategically adopts internet advances in accordance to the relative advantage they are
likely to accrue from the innovations. Similarly, a study of TAs in Egypt, indicated that
ICTs were strategically adopted based on a comprehensive understanding of the future
ICTs perceived benefits that would lead to competitive advantage rather than mere
operational benefits. (Abou-Shouk, Megicks & Lim, 2013). Further, a study by (Alam
& Noor, 2009) also established that perceived benefit has a significant relationship to
ICT adoption in service sectors in Malaysia.

Table 4.18: Summary of Hypotheses, Findings and Conclusion

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Type of Test</th>
<th>Research findings</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1: There is no significant relationship between internet advances and the strategies adopted by TAs</td>
<td>SEM</td>
<td>The results of this hypothesis indicated that the relationship between internet advances and strategies adopted had a regression coefficient (β) of 0.111 and p-value &lt;0.001. Therefore, there was a weak positive relationship</td>
<td>Hypothesis 1 was Rejected</td>
</tr>
<tr>
<td>Hypothesis 2: There is no relationship between the extent of internet adoption and the strategies adopted by TAs</td>
<td>SEM</td>
<td>The results indicated that the relationship between internet advances adoption and strategies adopted by TAs was not statistically significant with p-value &gt;0.136 and regression coefficient (β) of -0.079.</td>
<td>Hypothesis 2 was Retained</td>
</tr>
<tr>
<td>Hypothesis 3: There is no relationship between the perceived internet benefits and the strategies adopted by TAs.</td>
<td>SEM</td>
<td>The perceived benefits has a statistical significant effect where p-value&lt;0.001 and regression coefficient (β) of 0.043 on strategies adopted by TAs. Hence there was strong positive relationship</td>
<td>Hypothesis 3 was Rejected</td>
</tr>
</tbody>
</table>
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter summarizes the findings, conclusions and recommendations based on the analysis of the results of the study. Contributions of this study, its limitations and future research are also presented in this chapter.

This study investigated the adoption and use, challenges and perceived internet benefits on travel agencies in Nairobi as well as the competitive strategies TAs adopt in response to challenges brought about by internet developments and innovations. Moreover, the extent to which the government of Kenya facilitates the TAs to cope with the internet advances.

5.2 Summary
The results of this study indicate that the internet advances use by the TAs in Nairobi for the past two decades has been moderate. TAs in Nairobi are mainly independent and family businesses. Their core business includes air ticketing, tour packaging and hotel reservations. They serve all kinds of clientele, including individuals, groups and corporate.

Internet Developments, Adoption and Use
TAs have knowledge of multiplicity of internet innovations in existence. 98% of the TAs have adopted and use internet distribution system in form of GDS. They also use online services and the social media. 54% of the TAs enhances their staff to form a
favorable attitude toward the internet through training. Financial, staff and time committed between the internet advances and staff is generally average. Although all the TAs have adopted internet, the adoption of internet innovations was based on the need and unique characteristic of each TA rather the market sequence as explained by DOI. Moreover, the TAs reinforces on the innovations based on its relative advantage. The main use of internet is for communication and business transaction. These include emails, marketing their products, market research and reservation. Internet and face-to-face modes of communication are frequently used in their businesses for sharing and disseminating information. The study established that the main reason for internet adoption by TAs relates to the critical source of information necessary for business transactions.

**Challenges and Perceived Internet Benefits**
Most TAs in Nairobi were found to derive various benefits from internet. The internet enhanced communication within their firms and between firms. This facilitated information processing, storage and access. Further, new ICT facilitated accessibility of information, increased efficiency, wider coverage, cost effectiveness and networking. However, it is a threat to them because they experienced a number of challenges such as loss of clients through disintermediation, cost of coping with the dynamic internet advances and an ever growing demand for training their staff due to the shifting changes. Further, they also lacked in-house expertise in the area of ICTs, competition and change of their revenue model due to commission cuts and caps by the service providers. The study also found that lack of government support in relation to ICTs as an imperative problem which put great pressure on TAs.
Strategies Adopted by TAs in Response to Internet Innovations

The TAs have developed various strategies in response to the advances of the internet which include the following. This study establishes five fundamental strategies which reveal how TAs have responded to the innovations. First, going online- comprise the strategy upon which 80% of the TAs have adopted. This is the strategy whereby TAs positions themselves by investing in the ICT thereby increasing their competitiveness. Second, focus on clients is another strategy which concurs with Bedárd’s (2005) argument that competitiveness for the new millennium will be improved by investing in and by developing a strong marketing relationship strategy, so as to attract and retain them. Third, product diversification gives variety of services and translates firms into a “one stop shop”. Fourth, Increased use of ICTs is an effective re-intermediation strategy, which mitigates TAs from the, disintermediation threats and ensures that they remain in the markets. Fifth, though relatively important in the global market, consolidation and niche market are moderately adopted by TAs in Nairobi. Additional competitive strategies which are critical to TA businesses included customer relationship management, online marketing, product and company diversification and continuous training of their staff. Additionally, they differentiate themselves from online travel agencies by emphasizing on their customers which serves as a strategic re-orientation of TAs in Nairobi that implies long term success.

The structural equation modelling (Table 4.17) results which tested the hypotheses indicated that there exists a relationship between the internet advances and the strategies adopted by the TAs, and the perceived internet benefits and the strategies adopted the
TAs. However, there is a no relationship between the extent of internet adoption and use and the strategies adopted by the TAs in response to the internet developments.

**Government of Kenya Policies Facilitation**

Discussion on polices to facilitate travel agencies to cope with ICT innovations are recent and still evolving. Kenya National ICT policy substantively addresses the details of ICT as a main contributor to the overall multi-sectorial development. The policy is general and makes reference to the role ICT has to play in developing the tourism industry at large. This reference is overly generalized and the benefits that have thus far been experienced have been indirect and they appear indistinct. The key issues emerging from the ICT related policies are outlined as follows;

- ICT is yet to be integrated in all the sectors of the economy effectively
- Lack of legal and regulatory framework
- Development of various regulations to monitor and guide different aspects of e-business
- There is an improvement of ICT infrastructure
- Cost of accessing internet services is high
- The ICT capacity management within the tourism industry is wanting
- There is no existing threshold for the evolvement of ICT to promote healthy competition within the Tourism industry
- Lack of protective policies for online security
- Lack of information sources that address ICT development and the tourism industry especially those that focus to travel agencies
- Established standards of adaptation to ICT innovations are lacking
Based on the TAs, the following issues emerged as the main issues in relation to government of Kenya facilitation to the provision of ICTs.

- Lack of clear policies related to ICTs and TAs
- Complex ICT innovations
- Lack of involvement of relevant stakeholders
- Lack of ICT capacity management
- Inadequate ICT infrastructure
- Lack of protective online security
- Insufficient regulatory reforms to reduce ICTs cost
- Lack of facilitation in acquiring new knowledge

5.3 Conclusions
This study established that majority of the TAs have adopted the internet advances moderately, although the sequence of adoption is not systematic. Adoption is largely based on the unique characteristic of each organization rather than driven by clear market strategic sequences. The TAs are aware of the need for strategic approach to ICTs, though there are no significant efforts made to move to that direction. Further, they have not fully utilized the internet potentials in order to gain a more competitive advantage. TAs have adopted several competitive strategies, though the strategies are not adequate to enable them fully cope with the fast evolvement of technological changes and even policies by the government have yet to fully address the full range of ICTs in relations to the TAs needs. The study divulged the following main conclusions:

The TAs offers amalgamation of travel services and target clientele of different categories as a strategic business approach. They also use internet as modern mode of communication but still sustain relevant traditional modes including fax, print media
and face-to-face communication. Face-to-face is a friendly approach, while travel management and advising are becoming most essential service due to increased competition by online travel agencies. Communication, business transaction, market research and reservations are the main objectives of using the internet, in tandem with their core role of disseminating information and liaising with the service providers. Internet innovations are dynamic and always create a fresh knowledge gap, which demands high cost of investment in training and acquiring the innovation. The TAs have adopted and used different types of ICTs, however, they have not realized the full potential of the internet.

DOI theory gives a strategic approach to adoption of new innovations, however, the TAs in Nairobi do not have a coherent approach to internet innovation adoption. The adoption is based on the needs and unique characteristics of each TA. Further, the TAs adopt the innovation based on the perceived benefits that accrue from them. They also face challenges in their business such as disintermediation, cost related, and competition, change of their revenue model by service providers and lack of government support.

The major strategies initiated by TAs in response to ICT are going online, focus on clients, product diversification, and customer relationship management, online marketing, company diversification and continuous training of their staff. Additionally, they differentiate themselves from online travel agencies by emphasizing on their customers this is geared towards attracting and retaining the customers as the new approach of competitiveness. The results of the study revealed that the strategies
adopted by the TAs in Nairobi are to some extent related to the internet advances. Moreover, the strategies are also related to the perceived internet benefits. Most firms in Nairobi suffer due to limited or inefficient facilitation of the appropriate ICT policies by the government. The legal environment within which TAs operate is unsystematic and lack updated laws that would assist them cope with the technological shift. The policies related to ICT are not consolidated for easy access and therefore, fail to capture the full range of changes that ICT constantly bring; the situation is confounded by low involvement of stakeholders in the industry in formulation of the ICTs policy hence limiting the direction of the policy.

5.4 Recommendation for Policy

i. The study recommends to the government of Kenya through the Ministry of East Africa Affairs, Commerce and Tourism to provide the necessary enabling environment through ICT capacity management, formulation of protective policies for online security and stakeholders involvement in ICT policy formulation to the Travel Agencies to enable them adopt the dynamic ICT advances and adopt the best strategies in the global value chain.

ii. The government through the Ministry of Information and Communication Technologies need to address regulatory reforms to reduce the ICTs costs and develop standards and international frameworks for online services for internet use. Further, they need to facilitate internet service providers to increase the bandwidth at affordable rates.

iii. The private sector specifically KATA (Kenya Association of Travel Agents)
should explore adequately how to engage government, and enhance information facilitation though market research and publicity and also monitor the technological trends.

iv. As a strategic re-orientation the TAs should forge a close relationship with the service providers as their core business partners. It would be prudent to enhance contractual arrangement, whereby the TAs would sell for the service providers and increase their gains as the undue competition existing is counterproductive.

v. In addition to the major strategies adopted by the TAs in Nairobi, there are other strategies that have been successful globally such as niche markets and consolidation in form of mergers and franchising. The TAs need to consider the viability of such strategies in order to gain a more competitive edge.

vi. An extemporized adoption of ICT which characterizes many TAs is limiting, therefore, the TAs need to systematically adopt internet innovations through clear and comprehensive experimentation and follow tested approaches, such as diffusion of innovation, which provided a logical process of adopting. This can be enhanced by emulating the best practices of successful TA businesses.

vii. Lack of sufficient financial commitment in the dynamic nature of ICTs continually makes the TAs to lag behind and to overcome this problem, there is need for financial commitment in their annual or long-term planning. This would help in staff training and upgrading of essential innovations. As part of
the holistic planning, time allocation would be an essential component to follow
the adoption of new internet advances.

5.5 Recommendations for Further Research
The current study focused on TAs in Nairobi. There is need for other comparative
studies, for example to evaluate how TAs operates in other regions in Kenya. Nairobi as
a capital city may have its exceptional advantage and disadvantage.

The study established that TAs have adopted diverse competitive strategies, however, it
necessary to find out why TAs in Nairobi rarely adopt other successful global
competitive strategies like consolidation in form of partnership, alliances and
franchising. It also focused on TAs as one of the intermediaries in the distribution chain.
It is also necessary to investigate the service providers (Airlines, Hoteliers and Car
Rental Companies) and the customers view of the TAs in the wake of internet
dynamism.
REFERENCES


Pease, W., Rowe, M., Cooper, M. (2007). *Information and communication technologies in support of the tourism industry*. USA and UK: Idea group Inc.


APPENDICES
APPENDIX I

QUESTIONNAIRE FOR TRAVEL AGENCIES

DIRECTOR

This questionnaire is to collect data for purely academic purposes. The research seeks to assess the sustainable strategies adopted by travel agency companies in the advent of modern ICTs. All information will be treated with strict confidentiality and used for academic purposes only. Do not put any name or identification on this questionnaire.

Answer all questions as indicated by either filling in the blank or ticking the option that applies.

SECTION A: GENERAL INFORMATION

1. Number of years the firm has used internet?
   - Less than 5 years [ ]
   - 6- 10 years [ ]
   - 11- 15 years [ ]
   - over 15 years [ ]

2. Kind of services the firm currently offers (please indicate as many as needed)
   - Air Ticketing [ ]
   - Visa processing [ ]
   - Travel packages [ ]
   - Airport transfers [ ]
   - Hotel booking [ ]
   - Car rental [ ]
   - Others (please specify) ______________________________

3. Ownership structure of the firm
   - Independent [ ]
   - Family business [ ]
   - Chain [ ]
   - Franchise [ ]
   - Network [ ]
   - Others (please specify) ______________________________

4. Clientele served in the firm
   - Individuals [ ]
   - Groups [ ]
   - Corporate [ ]
   - Others (please specify) ______________________________
5. Position currently held
   a) Director
   Or
   b) ICT responsible staff
   Or
   c) Other (specify) …………………………..

6. Your gender? Male Female

7. What is the general level of use of internet by employees in the firm
   Less than 20% 20-40% 40-60% 60-80% 80-100%

SECTION B: TRAVEL AGENTS EXTENT OF ICTS USAGE

8. What mode of communication is often used in everyday business in your firm?
   Computers (email) Telephones
   Fax Print media e.g. letters, posters, handouts
   Face to face

9. Channels of communication most effective in promoting your firm’s services
   Internet Telephone
   Print media e.g. Posters, brochures & Handouts Face to face

10. Mode of Storing Business Information
    Galileo system
    Office files (hard copy)
    Softcopy (Removable and non-removable disks)
    Other (please specify)
11. Mode of disseminating and sharing this information
   - Internet
   - Print media e.g. brochures, journals
   - Telegram, fax
   - Face to face

12. Type of ICTs adopted in your firm
   - Internet
   - Mobile phones
   - Phones i.e. land lines
   - Fax machines
   - Global Distribution System (GDS)
   - Others (please specify)

13. How is internet used in your firm?
   - Communication
   - To conduct business transactions
   - For networking
   - Other (please specify)

14. Are you linked to a GDS? Please circle
   - Yes
   - No

15. If yes (please specify)
   - Galileo
   - Amadeus
   - Sabre
   - Worldspan

16. No. of computers in your firm
   - Less than 5
   - 5 – 10
   - 11 – 20
   - Above 20

17. Are your computers networked?
   - Yes
   - No

18. Extent of using internet
   - Very frequently
   - Frequently
   - Rarely
19. Mode of accessing the Internet
   - Within the office
   - Cyber Café
   - Phone
   - Traveling e.g. modem, laptop

20. Frequency of accessing internet
   - Very frequently
   - Frequently
   - Rarely
   - Never

21. Application of key technology – internet
   - Research (on the markets)
   - Browsing (for individual enlightenment)
   - Marketing of our products
   - Receiving and sending information
   - Reservations (ticketing, hotel booking, car hire)

22. Kind of services the firm currently offer in your using internet (please indicate as many as needed)
   - Air ticketing
   - Travel packages
   - Hotel booking
   - Others (please specify) _____________________________________________

23. Sources of information & advice (day-to-day running).
   - Internet
   - Other operators in the tourism industry through phone
   - Print media (guides, journals and directories)
   - Kenya Tourism Board
   - Staff consultations
   - GDS

24. How often do you use the sources mentioned in Q 23?
   - Very frequently
   - Frequently
   - Rarely
25. Importance of the above sources of information
   - Very Important
   - Important
   - Undecided

26. Type of Information most frequently received
   - Information on flights
   - Information on ticketing & booking
   - Information on car hiring
   - Information on holiday tours

27. Additional information your firm would like to have daily
   - Current market trends (changes/exchange rates)
   - Recreation activities
   - Exhibitions and trade fairs
   - Others (please specify)

SECTION C: INFORMATION AND COMMUNICATION TECHNOLOGY IMPACTS

28. Indicate the major challenges being experienced by your firm in the advent of internet innovations.
   i. ........................................................................................................
   ii. ........................................................................................................
   iii. ......................................................................................................
   iv. ......................................................................................................
   v. ......................................................................................................
29. Indicate the major challenges experienced in your organization related to government provision of ICTs.
   a. ………………………………………………………………………………………………
   b. ………………………………………………………………………………………………
   c. ………………………………………………………………………………………………

30. What recommendations would you make to the government to improve the facilitation of ICTs? State in the order of importance.
   a. ………………………………………………………………………………………………
   b. ………………………………………………………………………………………………
   c. ………………………………………………………………………………………………

31. In your opinion (focus your firm) do you think internet has provided?
   a. Clear advantage for communicating within the firm
      Strongly agree □    Agree □    Undecided □    Disagree □    Strongly disagree □
   b. Clear advantage for communicating between firms
      Strongly agree □    Agree □    Undecided □    Disagree □    Strongly disagree □
   c. Clear advantage for information processing and storage
      Strongly agree □    Agree □    Undecided □    Disagree □    Strongly disagree □
   d. Clear advantage for accessing information
      Strongly agree □    Agree □    Undecided □    Disagree □    Strongly disagree □
SECTION D: ICT ADOPTION AND STRATEGIC ISSUES

32. Internet adoption in your firm

i. List the internet innovations which your firm is aware of?
   a. .............................................................................................................
   b. .............................................................................................................
   c. .............................................................................................................
   d. .............................................................................................................
   e. .............................................................................................................

ii. Which among the above is your firm able to use?
    _______________________________________________________________
    _______________________________________________________________
    _______________________________________________________________
    _______________________________________________________________
    _______________________________________________________________

iii. How does your firm ensure that staff form a favorable attitude towards internet innovations?
    _______________________________________________________________
    _______________________________________________________________
    _______________________________________________________________
    _______________________________________________________________
    _______________________________________________________________
iv. How does your firm commit itself to adoption of internet innovations?

_____________________________________________________________

_____________________________________________________________

_____________________________________________________________

v. a) Do you have a sequence of how internet innovation is adopted in your firm?

Yes [ ] No [ ]

b) If the answer is yes, describe the sequence from the first to the last steps of its adoption.

_____________________________________________________________

_____________________________________________________________

_____________________________________________________________

vi. How does your firm reinforce positive outcomes from internet innovations?

_____________________________________________________________

_____________________________________________________________

_____________________________________________________________

33. Important characteristics of an innovation:

a. State how internet is perceived compared to the practices which existed in your firm before adopting internet innovation?

_____________________________________________________________

_____________________________________________________________

_____________________________________________________________
b. Is the introduction of internet consistent with the needs in your firm?

____________________________________________________________


c. Identify the difficulties experienced in understanding and using internet innovation

____________________________________________________________


____________________________________________________________


d. Based on your past experience, is it necessary to experiment new internet innovation on a limited basis in the future before adoption?

____________________________________________________________


34. Commitment towards ICT (tick where appropriate)

<table>
<thead>
<tr>
<th></th>
<th>What is the financial commitment to ICT adoption compared to the firm needs?</th>
<th>sufficient</th>
<th>fair</th>
<th>Inadequate</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>What is the time commitment to ICT development related to your firm sustainability?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>What is the time commitment/cooperation between internet and other staff when new internet innovations are introduced?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>How would you rate staff training on ICT?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
35. Indicate how your firm has coped with the following

a. Service providers, e.g. hotels, airlines. Selling directly to clients

________________________________________________________________________

________________________________________________________________________

b. The online travel agencies

________________________________________________________________________

________________________________________________________________________

c. Lack of qualified staff?

________________________________________________________________________

________________________________________________________________________

d. Lack of government support?

________________________________________________________________________

________________________________________________________________________

e. Commission caps and cuts by service providers?

________________________________________________________________________

________________________________________________________________________

f. Any other issue (please specify)

________________________________________________________________________
36. To what extent has your firm adopted any of the following strategies in response to internet challenges?

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidation</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Going online</td>
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37. How do you feel that your business differentiates itself from online travel agencies?

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38. Suggest the three most important strategies which you consider can improve your firms business in the wake of internet innovations?

a. ..............................................................

b. ..............................................................

c. ..............................................................

Thank you very much for taking your time to fill this questionnaire.

END
APPENDIX 2

QUESTIONNAIRE FOR TRAVEL AGENCIES

ICT PERSONNEL

This questionnaire is to collect data for purely academic purposes. The research seeks to assess the sustainable strategies adopted by travel agency companies in the advent of modern ICTs. All information will be treated with strict confidentiality and used for academic purposes only. Do not put any name or identification on this questionnaire.

*Answer all questions as indicated by either filling in the blank or ticking the option that applies.*

SECTION A: GENERAL INFORMATION

1. Number of years the firm has used internet?
   - Less than 5 years [ ] 6-10 years [ ] 11-15 years [ ] over 15 years [ ]

2. Kind of services the firm currently offers (please indicate as many as needed)
   - Air Ticketing [ ] Visa processing [ ]
   - Travel packages [ ] Airport transfers [ ]
   - Hotel booking [ ] Car rental [ ]
   - Others (please specify) ______________________________

3. Ownership structure of the firm
   - Independent [ ] family business [ ]
   - Chain [ ] franchise [ ]
   - Network [ ]
   - Others (please specify) ______________________________

4. Clientele served in the firm
   - Individuals [ ]
   - Groups [ ]
   - Corporate [ ]
   - Others (please specify) ______________________________
5. Position currently held
   c) Director
   Or
   d) ICT responsible staff
   Or
   c) Other (specify) …………………………..

6. Your gender? Male Female

7. What is the general level of use of internet by employees in the firm
   Less than 20%  20-40%  40-60%  60-80%  80-100%

SECTION B: TRAVEL AGENTS EXTENT OF ICTS USAGE

8. What mode of communication is often used in everyday business in your firm?
   Computers (email) Telephones
   Fax Print media e.g. letters, posters, handouts
   Face to face

9. Channels of communication most effective in promoting your firm’s services
   Internet Telephone
   Print media e.g. Posters, brochures & Handouts Face to face

10. Mode of Storing Business Information
    Galileo system
    Office files (hard copy)
    Softcopy (Removable and non-removable disks)
    Other (please specify)
11. Mode of disseminating and sharing this information
   Internet    Print media e.g. brochures, journals
   Telegram, fax     Face to face

12. Type of ICTs adopted in your firm
   Internet    Mobile phones
   Phones i.e. land lines    Fax machines
   Global Distribution System (GDS)
   Others (please specify)    

13. How is internet used in your firm?
   Communication    To conduct business transactions
   For networking
   Other (please specify)    

14. Are you linked to a GDS? Please circle    Yes or    No
15. If yes (please specify)
   Galileo    Amadeus    Sabre    Worldspan

16. No. of computers in your firm
   Less than 5    5 – 10    11 – 20
   Above 20

17. Are your computers networked?
   Yes    No

18. Extent of using internet
   Very frequently    Frequently    Rarely
19. Mode of accessing the Internet
   Within the office  
   Cyber Café  
   Traveling e.g. modem, laptop  

20. Frequency of accessing internet
   Very frequently  
   Frequently  
   Rarely  
   Never  

21. Application of key technology – internet
   Research (on the markets)  Browsing (for individual enlightenment)  
   Marketing of our products  Receiving and sending information  
   Reservations (ticketing, hotel booking, car hire)  

22. Kind of services the firm currently offer in your using internet (please indicate as many as needed)
   Air ticketing  
   Travel packages  
   Hotel booking  
   Others (please specify)  

23. Sources of information & advice (day-to-day running).
   Internet  
   Other operators in the tourism industry through phone  
   Print media (guides, journals and directories)  
   Kenya Tourism Board  
   Staff consultations  
   GDS  

24. How often do you use the sources mentioned in Q 23?
   Very frequently  
   Frequently  
   Rarely  
25. Importance of the above sources of information
   - Very Important
   - Important
   - Undecided

26. Type of Information most frequently received
   - Information on flights
   - Information on ticketing & booking
   - Information on car hiring
   - Information on holiday tours

27. Additional information your firm would like to have daily
   - Current market trends (changes/exchange rates)
   - Recreation activities
   - Exhibitions and trade fairs
   - Others (please specify) __________________________________________

SECTION C: INFORMATION AND COMMUNICATION TECHNOLOGY

IMPACTS

28. Indicate the major challenges being experienced by your firm in the advent of internet innovations.
   
   i. ........................................................................................................
   
   ii. .................................................................................................
   
   iii. ..............................................................................................
   
   iv. ...............................................................................................  
   
   v. ...............................................................................................
29. Indicate the major challenges experienced in your organization related to government provision of ICTs.

d. .............................................................................................................

e. .............................................................................................................

f. .............................................................................................................

30. What recommendations would you make to the government to improve the facilitation of ICTs? State in the order of importance.

d. .............................................................................................................

e. .............................................................................................................

f. .............................................................................................................

31. In your opinion (focus your firm) do you think internet has provided?

a. Clear advantage for communicating within the firm

   Strongly agree □    Agree □    Undecided □
   Disagree □    Strongly disagree □

b. Clear advantage for communicating between firms

   Strongly agree □    Agree □    Undecided □
   Disagree □    Strongly disagree □

c. Clear advantage for information processing and storage

   Strongly agree □    Agree □    Undecided □
   Disagree □    Strongly disagree □

d. Clear advantage for accessing information

   Strongly agree □    Agree □    Undecided □
   Disagree □    Strongly disagree □
SECTION D: ICT ADOPTION AND STRATEGIC ISSUES

32. Internet adoption in your firm

vii. List the internet innovations which your firm is aware of?

f. .................................................................

g. .................................................................

h. .................................................................

i. .................................................................

j. .................................................................

viii. Which among the above is your firm able to use?

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________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

ix. How does your firm ensure that staff form a favorable attitude towards internet innovations?

________________________________________________________________________

________________________________________________________________________

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________________________________________________________________________
x. How does your firm commit itself to adoption of internet innovations?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

xi. a) Do you have a sequence of how internet innovation is adopted in your firm?

   Yes  ☐  No  ☐

   b) If the answer is yes, describe the sequence from the first to the last steps of its adoption.

__________________________________________________________________________

__________________________________________________________________________

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xii. How does your firm reinforce positive outcomes from internet innovations?

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__________________________________________________________________________

33. Important characteristics of an innovation:

   e. State how internet is perceived compared to the practices which existed in your firm before adopting internet innovation?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
f. Is the introduction of internet consistent with the needs in your firm?

____________________________________________________________


g. Identify the difficulties experienced in understanding and using internet innovation

____________________________________________________________

____________________________________________________________

____________________________________________________________

h. Based on your past experience, is it necessary to experiment new internet innovation on a limited basis in the future before adoption?

____________________________________________________________

____________________________________________________________

35. Commitment towards ICT (tick where appropriate)

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<thead>
<tr>
<th></th>
<th>sufficient</th>
<th>fair</th>
<th>Inadequate</th>
<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>What is the financial commitment to ICT adoption compared to the firm needs?</td>
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<tr>
<td>2</td>
<td>What is the time commitment to ICT development related to your firm sustainability?</td>
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<td>3</td>
<td>What is the time commitment/cooperation between internet and other staff when new internet innovations are introduced?</td>
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<td>4</td>
<td>How would you rate staff training on ICT?</td>
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</table>
35. Indicate how your firm has coped with the following

a. Service providers, e.g. hotels, airlines. Selling directly to clients

_____________________________________________________________

_____________________________________________________________

g. The online travel agencies

_____________________________________________________________

_____________________________________________________________

h. Lack of qualified staff?

_____________________________________________________________

_____________________________________________________________

i. Lack of government support?

_____________________________________________________________

_____________________________________________________________

j. Commission caps and cuts by service providers?

_____________________________________________________________

_____________________________________________________________

k. Any other issue (please specify)

_____________________________________________________________
36. To what extent has your firm adopted any of the following strategies in response to internet challenges?

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<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>N/A</th>
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<tbody>
<tr>
<td>Consolidation</td>
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<td>More focus on consumer than service providers</td>
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<tr>
<td>Increased use of ICT</td>
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<td>Focus on niche market</td>
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<td>Product diversification</td>
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37. How do you feel that your business differentiates itself from online travel agencies?

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38. Suggest the three most important strategies which you consider can improve your firms business in the wake of internet innovations?

d. ............................................................................................................................

e. ............................................................................................................................

f. ............................................................................................................................

*Thank you very much for taking your time to fill this questionnaire.*

*END*
### APPENDIX III

**KATA TRAVEL AGENCIES IN NAIROBI**

<table>
<thead>
<tr>
<th>COMPANY NAME</th>
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<tbody>
<tr>
<td>1. AFRICAN TOUCH SAFARIS</td>
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<td>2. AGM TOURS &amp; TRAVELS LTD</td>
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<td>3. AIR MASTERS</td>
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<td>4. AKARIM AGENCIES LTD (NBI)</td>
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<td>5. AMAZING TOURS &amp; TRAVEL LTD</td>
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<td>6. AMEET TRAVEL AND TOURS</td>
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<td>7. ARCHERS TOURS &amp; TRAVEL LTD</td>
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<td>8. BASEL TOURS &amp; TRAVEL</td>
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<td>9. BCD TRAVEL</td>
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<td>10. BRIDGING THE WORLD TRAVEL</td>
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<td>11. CARLSON WAGONIT TRAVEL</td>
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<td>12. CATALYST TRAVELS LTD</td>
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<td>13. CHARLESTONE TRAVEL LTD</td>
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<td>14. CHRONICAL TOURS &amp; TRAVEL</td>
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<td>15. CONNECT TRAVEL</td>
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<td>16. COTTS TRAVEL &amp; TOURS</td>
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<td>17. CRANE TRAVELS LTD</td>
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<td>18. CROWN TOURS &amp; CAR HIRE LTD</td>
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<td>19. DEBONAIR TRAVEL LTD</td>
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<td>21. ELITE TRAVEL SERVICES (NBI)</td>
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<td>22. EQUATORIAL TRAVEL LTD</td>
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<td>23. EXPRESS TRAVEL GROUP</td>
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<td>25. FLY AIR LTD</td>
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<td>26. GEORGE TOWN TRAVEL &amp; TOURS</td>
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<td>27. GOING PLACES</td>
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<td>28. HOLIDAY BAZAAR LTD</td>
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<td>29. HRG KENYA, ELITE TRAVEL SERVICES</td>
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<td>30. IMPERIAL AIR SERVICES</td>
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<td>31. INCENTIVE TRAVEL LTD</td>
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<td>34. KATE FREIGHT &amp; TRAVEL LTD</td>
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<td>36. MUTHAIGA TRAVEL LTD</td>
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<td>37. NORTH AND SOUTH TRAVEL LTD</td>
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<td>38. PAGO AIRWAYS SERVICE LTD</td>
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<td>39. PALBINA TOURS LTD</td>
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