

# **Information and communication technologies: Kazakhstan travel market perspective.**

V. Garkavenko<sup>a, b</sup>,  
G. Tiberghien<sup>a</sup>,  
S. Surnina<sup>a</sup> and  
D. Gimranova<sup>a</sup>

<sup>a</sup> Bang College of Business,  
Kazakhstan Institute of Management, Economics and Strategic Research (KIMEP),  
Kazakhstan  
gvlad@kimep.kz

<sup>b</sup>New Zealand Tourism Research Institute, Auckland University of Technology,  
New Zealand

## **Abstract**

This pilot study investigates the impact of Information and Communication Technologies (ICTs) on the tourism industry in Kazakhstan. Empirical research is based on in-depth structured interviews conducted in 2009 which were carried out with owners, wholesalers, and travel sector experts in Almaty. We also used an on-line of the prospective consumers to explore the demand side of the travel e-commerce in the country. A notable finding of the study was the considerable heterogeneity of ICT adoption levels between different industry sectors as well as between different businesses within one sector. Generally ICT adoption by Kazakhstan tourism businesses was considerably lower compared to western countries. It was also established that although prospective consumers have generally positive attitudes towards ICTs, they have strong reservations towards shopping on-line naming security and the complexity of the shopping process as main reasons for not buying through the internet. It is concluded that there is still no strong demand from prospective outbound Kazakhstan tourists for online services. However, the internet and the m-internet are popular media for information searches and should be considered by the tourism industry as a means of reaching consumers.

**Keywords:** Information and Communication Technologies, ICT adoption and perception, internet, m-internet, Kazakhstan tourism industry, consumers.

## **1 Introduction**

The impact of Information and Communication Technologies (ICT), and the internet in particular, is a dominant issue in the tourism industry today. ICT has dramatically changed the tourism industry and altered the way of doing business (Buhalis, 2004). The development of the internet has made information easily accessible to consumers, and has therefore established a direct link between consumers and suppliers. For instance, last year B2C online travel sales reached over \$90 billion in the USA alone (eMarketer, 2009). The internet is now a mainstream medium, and according to eMarketer research, the internet population will grow to nearly 200 million users in 2009, or 65% of the population in the USA alone (eMarketer, 2008). By 2013, it is

expected that nearly 70% of population will be online, which amounts to 221 million people. Retail e-commerce also boomed in Europe during 2008 – for instance in France according to the Federation du E-commerce et de la Vente a Distance (FEVAD) online sales rose nearly 30%, reaching Euro 20.1 billion (Karin von Abrams, 2008). According to the internet market analysis by ROMIR Monitoring (2009), the Kazakhstan and Russian internet markets are the fastest growing in Europe. However, it is unclear if the Kazakhstan tourism industry is following international patterns and trends as the level of ICT adoption by the Kazakhstan tourism industry is poorly researched. To integrate successfully into the international market, the industry will be forced to adopt ICT to participate in such fields as airline networks, travel product marketing in order to reach prospective customers, as well as to improve operational efficiency.

The study aims to empirically explore the perception, adoption and impact of ICT by tourism industry businesses in Almaty and by their prospective consumers in Kazakhstan. Almaty has been chosen as a starting point for our research as it is the former capital of Kazakhstan and is still the largest city and a major commercial centre of the country with numerous tourism businesses.

## **2 Methods**

Presented pilot research is the first exploratory stage of full scale research on the Kazakhstan tourism industry. It is based on 10 in-depth semi-structured interviews using open-ended questions conducted in 2009, carried out with owners (travel agencies, tour operators, destinations), wholesalers (tour operators), senior management (hotels, airlines) and travel sector experts (government representatives) in Almaty. The duration of the interviews was varying from 1 to 2 hours. The interviews were designed to produce a considered response to certain issues, including background about the firm and the individual, main competitors, the use of ICTs and associated issues, and the future of the industry. Notes were taken during the interviews which were also tape-recorded and then transcribed. Subsequent analysis of the interviews was employed to identify common themes. The analysis of the data began with categorising and coding the emerging themes as described by Rubin and Rubin (2005).

A fully-structured on-line questionnaire implemented by the international group of researchers to address broad issues related to the psychological and social profiles of different countries' residents was analysed (Rybina & Garkavenko, 2009). Our group used a section relevant to the presented study as secondary data to investigate ICT adoption and perception by the prospective consumers in Kazakhstan. The following questions were addressed in the on-line questionnaire and were used in the presented exploratory research: 1) Convenience of buying through the internet compared with a brick-and-mortar shop; 2) Privacy issues when shopping on-line; 3) Risk of on-line transactions. A judgemental sample was used for data collection and a group of white collars was chosen on the basis of their high-level technology adoption and frequent travels abroad. Four hundred on-line questionnaires were sent, 285 filled

questionnaires returned. The survey (and relational database) was designed to ensure confidentiality. The quantitative data obtained were analysed using SPSS for Windows (Everitt, Landau & Leese, 2001; Foster, 2001).

### **3 Results**

#### **3.1 ICT adoption by the Kazakhstan tourism industry**

Presented data is the first stage of the full-scale research that aims to identify the main issues in the Kazakhstan tourism industry and locate the understanding of ICT impact on the industry within the context of current international trends. It was found that overall the perception and attitude towards ICT among interviewees is positive. The stated advantages of employing ICT included accuracy in conducting transactions, lowered costs of communication, increased speed in processing, improved access to information, and a potentially broader market to sell to. However, new technologies were often not recognised as part of core development strategies by interviewees. High cost of the initial investment and lack of IT specialists in the industry were identified as entry barriers to cyberspace. The level of ICT adoption is variable between the different sectors and between different businesses within one sector, and generally is much lower compared to that of western countries. Airlines represented by Air Astana and Prime Aviation are the earliest adopters of ICT and they are fully integrated to the international airline network through CRS and GDS, Air Astana using on-line booking systems for the consumers. The hotel industry, however, varies in ICT adoption. The biggest hotels are presented by the major international chains such as Hyatt Regency International, Intercontinental, Regent and Holiday Inn. These hotels keep their ICT systems up to international standards. These systems focus on the in-house management for single hotels, as well as their distribution through such electronic channels as CRS and GDS. Property Management Systems (PMS) are also in use to facilitate the front office, sales, planning and operation functions. Small hotels are not as motivated in ICT implementation – some of them prefer to connect directly with travel agents to attract tourists, and they do not have any web presence. Their ICT use is mainly restricted to PMS. Regarding tour operators, their activities and ICT adoption are defined by the demand: a considerable number of consumers normally purchase “tourist packages” arranged by tour operators and often use charter flights and small accommodation establishments for their annual holidays. The interview analysis showed that Kazakhstan tour operators tend to be reluctant to focus on IT for their strategic planning. They regard ICT exclusively as a facilitator of their current operations, as efficient technology reduces certain administration costs. ICT adoption is restricted to just one particular Global Distribution System (GDS) – Amadeus. The travel agents’ sector also varies in the level of ICT adoption – there are about 700 travel agencies in Almaty alone, but only about 30 travel agencies have access to GDS (again Amadeus only). Travel agencies use the internet for the B2B model, for instance to sell tickets to smaller non-GDS connected agencies. The direct representation of the airlines is less popular among the smaller agencies mainly because of the cost. The majority of TAs businesses are presented by small businesses (less than 10 employers) that do not have access to any GDS and their usage of ICT is

limited to simple e-mails, internet messengers (ICQ, Skype) and phones. Interview analysis showed that only one interviewee is planning to invest in ICT and consider ICT as a strategic tool for his TA business. The majority of them have websites, but TAs are mainly concerned with web presence rather than web site performance. According to the interviewees, there is a lack of trained staff with practical skills including IT skills. Interview analysis also identified perception of the prospective consumers as not e-commerce savvy or e-commerce ready. Consumers according to the interviewees are not familiar or comfortable with the on-line buying and booking process. However, it was noted by some interviewees that the consumer is very knowledgeable about destinations and that the consumer uses the internet for information searches.

### **3.2 ICT adoption by prospective consumers**

Although the internet market in Kazakhstan is one of the fastest growing in Europe, according to the World Bank ICT Statistics internet penetration in 2006 was only 9% while at the same time, mobile phone density was 78% (World Bank Statistic, 2006). Interestingly, according to the Kazakhstani Statistics Agency (2009a) the number of internet network subscribers in 2008 was 600,000 out of 15mln living in Kazakhstan (approximately 4% of the population), and the number of mobile network subscribers in 2008 was 16mln (more than 100%) (Kazakhstani Statistics Agency, 2009b). E-commerce in Kazakhstan is at its developing stage. It was interesting to investigate the attitudes towards the internet among the ICT savvy cohort of population. Consumers' survey showed that internet adoption among the respondents is 100%. The respondents' group is characterised by a positive attitude towards the ICT. They perceive themselves as very confident ICT users who have no problem searching any information through the internet. However, there are some strong reservations regarding buying on-line. The privacy issues, security and complexity of the shopping process were found to be main reasons for being wary of using the internet for shopping.

## **4 Conclusions**

The presented study on the Kazakhstan travel market reveals some tendencies and themes for the future full-scale research. In-depth interviews analysis with industry specialists, senior management and owners of tourism businesses in the biggest city Almaty showed that overall the Kazakhstan tourism industry is a laggard in ICT adoption. Airlines are pioneers in ICT adoption and are fully integrated to the international market through GDS and CRS. The main form of ICT in use among small businesses such as travel agencies and boutique hotels is e-mail. Although the majority of respondents point out the advantages of employing ICT, such as accuracy in conduction transactions, lowered costs of communication, increased speed in processing, improved access to information, and a potentially broader market to sell to, ICT is not perceived as a strategic tool worth the capital investments. Only a minority of bigger chain and franchise tourism and hospitality businesses have access to GDS or other cyberspace connection. Cost and lack of demand are the main factors

of low ICT adoption by the small tourism businesses. The research has also revealed some pressure factors on the tourism industry such as the lack of specialists both in the tourism field and IT.

Exploratory research on the consumer's ICT adoption is limited to using only secondary data for analysis. Thus the results can be treated as very preliminary, and only indicative of issues of interest for further research. This analysis revealed that although a white-collar cohort of prospective consumers generally has a positive attitude towards ICTs, they have strong reservations towards shopping on-line, naming security and complexity of shopping process as main reasons for not buying through the internet. It is concluded that there is still no strong demand from prospective outbound Kazakhstan tourists for online services. This finding coincides with the Kazakhstan travel experts' perception of the consumer as someone who is not comfortable buying on-line. However, as questionnaire analysis shows the internet and the m-internet are popular mediums for information searches and should be considered by the tourism industry as a means of reaching consumers. Further study is planned and in the process of its implementation to confirm and develop the main findings of the presented exploratory study.

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