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ANALYSIS OF THE GAP BETWEEN NEW HOTEL TECHNOLOGIES AND GUESTS' ABILITY TO USE THEM

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ABSTRACT

The **purpose** of this study was to analyze the gap between the new technologies that the hotels offer to their guest and their ability or knowledge to use these technologies. With this study the hoteliers will be able to identify when exist a digital divide risk with their guests. Since, nowadays do not always match the technologic services offered by the hotels and the guest technological needs and abilities. This gap will be detect by the analysis of the hotel and of the guest based on the three main variables that affect the digital divide.

To develop this study, firstly, a deductive theoretical part of the research question has been done, by analyzing the background of the digital divide, detecting and analyzing his main variables and an analyzing the technological services offered in the lodging industry. Secondly, to develop the **fieldwork**, a quantitative technique was used by collecting secondary data and using the sampling technique.

Once analyzed the data collected it was possible to **conclude** that an hotelier can detect the gap between the guest technological domain and the technology offered by the hotel. In addition to that, it was possible to find out that the digital divide has three main variables, which are the geographic, generation and economic variable and also was possible to classify the hotels and guests based on these variables. Besides, it has been found out that the digital divide it is bigger when a guest is traveling and staying in a hotel of his or her same country than when is traveling to another country of their culture or continent. In addition, after the analysis of the results it can be also concluded that the economic variable it is very influential in the digital divide.

Afterwards, some **recommendations** and further work were pointed out in order to continue improving on the detection of the digital divide on the lodging industry.

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Yaiza Garcia Vilchez

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A

ADR
Average daily rate, 45, 46

G

GDP
Gross domestic product, 12, 17, 18
GNI
Gross national income, 25, 27, 28, 29, 44

H

HDI
Human development index, 25, 26, 43, 44

I

ICTs
Information and communication technologies, 11, 12
IT
Information technology, 12, 16, 18, 42

N

NCR
World Leader in consumer transaction technologies, 14

O

OECD
Organisation of the Economic Co-operation and development, 12, 13, 15, 16, 17, 18, 42, 45, 50

P

PC
Personal computer, 16
PLC
Programmable logic controller, 15
PLT
Power line transient, 15

S

SMEs
Small and medium-size enterprises, 12

U

UNWTO
World Tourism Organization, 25
USA
United States of America, 15, 17

W

WSIS
World summit of the information society, 15, 16

1. INTRODUCTION

Nowadays technology is very present in the majority of the industries. Especially in the hospitality industry, where currently is implementing a lot of technology in different departments and daily tasks. It is used to improve the guest satisfaction and also to make easier some process and tasks (Dede, P. and Poorani, A., 2006).

Besides, technology had a lot of advantages during the lasts years and can, be influential for into the guest stay experience Cobanoglu (2011). Depending on the generation, the incomes and the country of origin the guest experience and satisfaction will be different. Moreover, the experience will be different as well depending on the hotel characteristics based on the same three variables.

This thesis is about the analysis of the meeting point between the offer and demand in a technological level in the tourist accommodation. With it, the hotel will be able to identify the digital divide either for a lack of technology offered or for ignorance from the guest side to use it depending on the position of the guest and the hotel on the three variables (geographic, economic and generational).

Furthermore, this research can provide an overview of which kind of guest profile match better in each hotel based on the destination characteristics. What can be useful for the hotelier side to identify which guest profiles will need an extra service to increase the overall stay satisfaction. This extra service will be different depend on the guest situation (feeling of lack of technology or ignorance to use the technology).

In addition, this study can be also useful for the guest to identify in which destination the technology divide will be smaller and as a consequence the stay satisfaction in terms of technology will be better.

1.2 MOTIVATION

The research topic chosen decision was based on the all knowledge received during the four years of the bachelor (Tourism and hospitality management) and the observation of the tourist comments about their experiences with the technology services offered by the hotels during my internships in different hotels and countries.

During my trip to Peru I could experiment the digital divide that exist between the hotel technology services offered and the guest technology needs. I went to visit the Island of the Sun, situated in the southern part of Lake Titicaca on the state of Bolivia. This island has 14,3 square meters and the only way to access is by boat from the town of Challapampa (Bauer, B. and Stanish, C., 2002). There are not paved roads or motor vehicles on the island and live around 800 families who are indigenous from Quechua and Aymara origin. Their main economic activity is fishing, farming and tourism (Bauer, B. and Stanish, C., 2002). There are only two hotels, four restaurants and two or three places with access to Internet in the island and are very expensive and with slow connection.

When we reach the hotel we realized that we did not had any kind of Internet connection and the hot water was not working when the light was not connected so during the first day we had trouble to find how the hot water worked.

All these experiences impact me a lot and make me to realize that the digital divide also exist when you are traveling. Also, I was thinking that then when the inhabitants from Island of the Sun will travel to Spain they will also experience this digital divide but on the other way around. This is why I started to think about this final dissertation topic.

In addition, during a lot of sessions with professional guest that come to the classes or with our teachers' classes, we learn that nowadays, technology is being developed in the hospitality industry. Besides, I realized that the technology offer by the different hotels is not the same in all of them as well as the knowledge of the guest to use them. For this reason exist a gap between the technologies that the hotel offers and the ability of some guest to use them, as well as, a gap between the necessity of technologies by some guest and the technology offered by the lodging industry.

This is why I want to do a research on the gap between the new technologies that the hotels offer to their guest and their ability to use these technologies, in order that the hotels will be capable to have more information about their target.

1.3 OBJECTIVE

The overall aim of this study is to analyze the gap between the new technologies that the hotels offer to their guest and their ability to use these technologies. In order that the hotelier will be able to identify and act, when exist a digital divide risk with the guest. Identify it; analyzing the guests' characteristics based on the three digital divide variables (geographic, economic and generation) and the hotel characteristics.

Therefore, the following objectives have been formulated.

1.3.1 OBJECTIVES OF THE RESEARCH

1. Critical analyze in the literature review of the importance of the elimination of the digital divide and find out the main variables of the digital divide.

2. Critical analyze in the literature review of the technologies services in the lodging industry.

3. Classify the hotels and the guests based on the digital divide variables.

4. Analyze and detect the gap that exists between the hotel technology services offered and the guest knowledge based on the three main variables.

Considering this, with this research proposal it is expected to measure the gap between the new hotel technologies and guests' ability to use them with a detailed knowledge of the literature review and with an wide analyze of the methodology.

2. LITERATURE REVIEW

In this section is going to developed the theoretical part of the research question using the most important existing theoretical references related with the topic and will end with a conceptual framework to have a clear visualization of the literature review.

Firstly, a background of the digital divide is going to be analyzed to understand what is the digital divide and to detect the main variables of the digital gap between the hotel and the guest to after be able to measure the gap between the hotel technology services and the guest knowledge. Secondly, it is going to be analyzed deeply each of the three main digital divide variables in order to have a better knowledge of the variables and to find out which is the digital divide that exist when a determinant guest is traveling to a determinant destination. Thirdly, the technological services are analyzed to know the trends and the development of the technology in hotels.

2.1 BACKGROUND

The use of computer and Internet grew rapidly (Chinn, M. and Fairlie, R., 2004). An example of that is that based on Chinn, M. and Fairlie, R., study in 2004 in 1990 there were only 2.5 personal computers per 100 people in the world and in 2001 there were 9 personal computers per 100 people in the world. The same happened with the Internet use that in 1990 in the world was nearly 0% and in 2001 grew to 8.1% (Chinn, M. and Fairlie, R., 2004).

In addition, nowadays according to (Ramalingam, A. and Kar, S., 2014). Ramalingam, A. and Kar, S., (2014) technology is very present in the hotels and not all the guest knows how to use the technology services offered and the new technological tools in the hotels and this is call the digital divide. However, Tourism has as a driver of social and economic development (Cooper et al. 2008) cited in (Minghetti, V. and Buhalis, D., 2009) explained that the ICTs in tourism can benefit the social and the economic conditions of the countries.

The Organization for Economic Cooperation and Development (2001, p. 4) defined the digital divide as “the gap between individuals, households, business and geographic areas at different socio-economic levels with regards both to their opportunities to access ICTs (Information and communication technologies) to their use of the Internet for a wide variety of activities”.

Minghetti and Buhalis define the digital divide from another perspective, stating that "a digital gap also exists within a destination, since public organizations versus private operators and big enterprises versus SMEs (Small and medium-size enterprises) can have different material access, different propensity to innovation as well as different skills and engagement with ICTs" (2010, p.275).

The digital divide it is also created by the technological disparities and the exclusion of individuals, organizations and communities who are unable to attend to the entire distribution network (Minghetti, V. and Buhalis, D., 2009).

What it is clear is that as explained by Selwyn (2004) cited in (Minghetti, V. and Buhalis, D., 2009) when individuals, communities and organizations cannot determine their own destiny and do not have full participation in the network society, the digital divide can lead to digital and social exclusion.

There are several factors that affect the adoption of IT, one of these factors that create the digital divide is the different level of economic development of countries (Minghetti, V. and Buhalis, D., 2009), the being per capita GDP (Dewan, S., Ganley, D. and Kraemer, K., 2005). Besides, the telecommunication network is not the same in all the countries (Aqili, 2008) and this is another factor that helps to create the digital divide because the technology cost it is different (Dewan, S., Ganley, D. and Kraemer, K., 2005). However, the advantages in the wireless telecommunications and the actions of some organizations, national governments and civil society groups developing activities at different levels are helping to reduce the gap in the telecommunication networks (Aqili, 2008). According to Warschauser (2004) cited in (Minghetti, V. and Buhalis, D., 2009, p.1) "What is most important about ICT is not so much the availability of a computing device or the Internet line, but rather the people's ability to make use of that device and line to engage in meaningful social practices."

As explained by (Sheldon, 1997) cited in (Minghetti, V. and Buhalis, D., 2009) it is also in the tourism industry that there is unequal access and an unequal use of information and communication technology and nowadays this inequality is even more noted because the information, communication technologies and the Internet have revolutionized the structure and organization of tourism system. A reason of that is that the digital divide is different depending on the geographic location (OECD, 2001) because the access to the telecommunications

infrastructures is different.

To measure the digital divide OECD, Dewan, S., Ganley, D. and Kraemer, K., (2005) and Cullen, (2001) explains that it depends also in other variables apart from the geographic location. Those variables are incomes, educations, ages, employments, gender and depending on if the people has disabilities or not.

Carr in 2007 also agreed that the digital divide is linked to demographic and socio-economic characteristics and that those characteristics are geographic location, the income and education but also added the variables of race, gender, age (generation), skills, awareness, political, cultural and psychological attitudes.

One of the studies from the OECD made during the 2000 show that there is an also small difference in the use of the new technologies based on gender. The study shows that in United States the men tend to use the technologies in the older age groups and on United Kingdom "52% of men accessed the Internet in 2000 but only 39% of women" (OECD, 2001, pag. 21).

2.2 DIGITAL DIVIDE VARIABLES

2.2.1 GENERATION VARIABLE

Today's tourists involve different generations: the traditionalist (Born before 1945), the baby boomers (1946-1961), the generation X (1962-1981), the generation Y or Millennials (1981-2000) and the generation Z (2001- now).

As mention by (Poushter, J., Bell, J. and Oates, R., 2015) the Internet access and smartphone ownership rates are higher between the people that born in an era of massive technological advancement that the ones that no

Some of the Baby boomers characteristics include optimism, politically conservative, and they are active, competitive, and focus on personal achievement and accomplishment", Frandsen, (2009) cited in (Fenich et al., 2011, p. 50). For the Baby Boomers the technology is not part of their lives, "they were at the very start of the technology" (Fenich et al., 2011, p. 32) and the first computers that they used were very big and slow because when they were born computers and cell phones did not exist and now they have been forced to use it. This is the reason why this

generation does not feel comfortable with technology (Fenich et al., 2011).

The X generation, who are very independent, as explained by Fenich (2011) grew up with the desktop computers, the first laptops and some video games. Some of the generation X characteristics include that "are technologically savvy, adaptable, resilient, very creative, and multi-task" (Fenich et al., 2011 p.33). But still 61% of them check the news via television instead of us Internet as mention by Krugman (2010). Another characteristic explained by Frandsen, (2009) is that they are more family oriented than baby boomers and they give less importance to the work.

For Generation Y the technology is in their hands 24/7, "they are the first generation to have been surrounded by technological households of computers and digital media their entire lives" (Fenich et al., 2011 p.40). Millennials who are also called Generation Y are the technology generation and seventy-five percent of them use smart phones and tablets while travelling (NCR Travel, 2014). Furthermore, they are one of the most significant segments of the travel industry, since nowadays, Millennials travel 4.2 times a year whilst older generations travel 2.9 times a year (Expedia, 2013). For these reasons Millennial travellers have become a challenge for the hospitality industry, which is forcing the lodging sector to include technology in the daily tasks as well as amenities to improve the service, offered to the guest. This generation tends to work better in groups rather than individually (Frandsen, 2009). As well as Generation X they are multitasks and technologically savvy but for them, family and work has to be balanced and they have a passion to be continually learning. (Fenich et al., 2011). It is also interesting to know that some of the characteristics of this generation is that most of them check the news via the internet and 76 % of them use social networking sites as mention by Krugman (2010) cited in.

The Generation Z is the one that has Internet technology at a younger age and they have been exposed to an unprecedented amount of technology in their upbringing (Fenich et al., 2011). Generation Z has been very influenced in terms of communication and education by the technology such as that nowadays the phones included apps to learn the basic things such as the numbers as mention by Krugman (2010). Furthermore, another characteristic for this generation is that the majority of the generation Z members own a cell phone and they use their mobile phones daily more than they watch TV and use the computer. For them, the speed and the reliability of the apps and platforms are very important factors (Fenich et al., 2011). In addition, they spent most of their time online in private communications to be in contact with their friends and family and they to not apply a lot to real life situations what means that they interact with people who they otherwise

would not have met in the real world Frandsen, (2009).

This means that as explained by the OECD in 2001 depending on the education and the environment, the penetration of the technology is lower for older people than for younger people. For example, there is a 59% of probability that a 26-year-old person will access to Internet while only 20% for a person with 50-year-old (Poushter, J., Bell, J. and Oates, R., 2015).

2.2.2 GEOGRAPHIC LOCALIZATION VARIABLE

As explained by Carr in 2007 and by the OECD in 2001 the geographic location is another variable that affect to the digital divide.

As mention by Dewan and Kraemer (2000) in (Dewan, S., Ganley, D. and Kraemer, K., 2005) there is a large gap of the use of technology between developed, developing and non developed countries. Moreover, the digital divide it is more present in the rural areas than in the urban areas (Carr, 2007) and (OECD, 2001) and as a consequence of that the Internet access it is more present in the urban areas rather than in rural areas. Another indicator of the fact that the digital divide is more present in rural areas is that the members of households in urban areas tend to have occupations that required the use of computer and Internet (OECD, 2001). Besides, the citizens of the rural areas tend to have lower incomes and the ICT cost are higher because of the accesibility. In addition, the capacity and quality of access in rural areas and the networking infrastructures usually are more expensive. But as mention by (Poushter, J., Bell, J. and Oates, R., 2015) nowadays, accessing the Internet do not requires anymore fixed line to a computer because in many nations cell phones are used as the main tool to access to internet. Nevertheless, nowadays there are new possibilities for universal access to the Internet and to contribute to the elimination of the digital divide in rural areas (Van Dijk, J., 2006). Some of these new possibilities that allow having lower access prices are the use of Power lines (PLT and PLC) and the Satellite communications (Van Dijk, J., 2006).

According to World Summit on the Information Society (WSIS), (2005) cited in (Aqili, 2008) on the African continent and in Pakistan there are only few Internet users compared with other places in the world. WSIS (2005) cited in (Aqili, 2008) give some evidences to that fact such as that in USA there are more than eight times as many Internet users than on the African continent, in Japan three times and in Germany twice. WSIS (2005) cited in (Aqili, 2008) also mention that even

Tunisia is the second World Summit on Information Society has a big difference in internet penetration rate with Switzerland, which is the first World Summit on the Information Society. According to Poushter, J., Bell, J. and Oates, R., (2015) the 76 % of people in Chile 73% in Russia, 67 % in Venezuela, 43 % in Vietnam and 42% in Philippines have access to the Internet.

The reason of this big difference is because the number of Internet users has more importance on the rate of the digital divide than the fixed phone lines and mobile subscribers Cullen's (2003). Another reason of these differences between the different countries is because of the population of the nations as the bottom nations in terms of access rates are the ones with more population such as Indonesia where only 24% of the population has access, India with a 20% of population, Bangladesh 11% and Pakistan 8% (Poushter, J., Bell, J. and Oates, R., 2015).

According to that, Cullen (2003) cited in (Aqili, 2008) guarantee that under equal conditions and regardless of ICT infrastructures, the digital divide can be reduced if the non-internet users received training because the number of Internet users will be increased. Besides, Peters (2003) and Ono and Zavodny (2006) cited in (Aqili, 2008) support Cullen's (2003) view adding that connections and computers are insufficient if the users do not use technology in an effectively way because IT access do not necessary means use of technology.

As explained by Cullen (2001) bringing the Internet technology to the world's poorest communities do not make sense because what they need is very basic technology that help to develop the education, enhance the delivery of healthcare, improve animal husbandry and crop management.

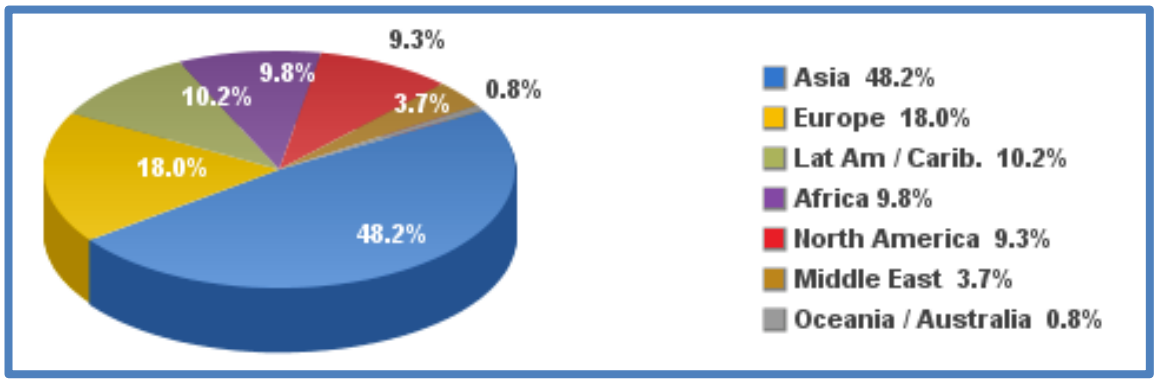
OECD during their study in 2000 concluded that there is also a significant difference between the access to and use of ICT's depending on the ethnic and cultural background. Besides, the difference in PC and Internet penetration between different ethnics groups it is also show in data from the United States (OECD, 2001). Those data show that white citizens have the highest penetration rates after the Asian Americans. On the other hand, Hispanic and African American citizens have considerably lower access. (OECD, 2001). On the other hand the users from emerging and developing countries are accessing to Internet daily (Poushter, J., Bell, J. and Oates, R., 2015).

Furthermore, the study from OECD in 2000 reveals that the language with more than 94% of links to page on secure servers is the English. In consequence, all the other languages represents less than 1%, except the German and the French that represents a little bit more than the 1%. This

is why people who read or speak English are more likely to access to Internet (Poushter, J., Bell, J. and Oates, R., 2015).

Last but not least on the Figure 1 it is represented the Internet users in the world by regions on November 2015.

Figure 1: Internet users in the world by region on November 2015



Source: Internet users in the world by region on November 2015 (2015) [Online image]. Available from: <http://www.internetworldstats.com/stats.htm> [Accessed 12 March 2016].

2.2.3 ECONOMIC VARIABLE

The economic variable directly affects the digital divide and it is bigger on the people with low incomes (Cullen, 2001) and as defined by the National Telecommunications & Information Administration in 1999 the digital divide is between the "haves" and "have-nots". "The internet does not have appeal for low-income and low-educated people" (Katz, J. and Rice, R., 2002, p.93)

The influential Gartner Group report (2001) cited in Cullen (2001) explains that there is a very strong correlation between the digital divide and the socio-economic status of the people. This report is based on data collected in 2000 in the USA and shows that only 35% and 59% of the households in the groups with the lower socio-economic and in the groups of lower middle income have access to Internet respectively and while in the upper middle income and in the top income groups, the Internet users represent 73 % and 83% respectively.

Another clear example of the correlation between the digital divide and the income is that in the countries with the lowest GDP per capita only 4.4% habitants use Internet, while in the countries with the highest GDP per capita 95,6% habitants use Internet (OECD, 2001). In addition,

Internet access rates are higher in richer and more developed economies and lower in nations that are less economically developed such as in South-Africa (Poushter, J., Bell, J. and Oates, R., 2015).

All these findings show that there is a high correlation between the digital divide and the IT investments (Dewan, S., Ganley, D. and Kraemer, K., 2005). An explanation of that is that to use Internet and technologies there is the need to have infrastructure and it is not a primary need.

Nevertheless, year-by-year the importance of income in the digital divide is being reduced during the recent years because of the declining cost of the computer equipment and Internet access cost such as the connection cost, peripherals… (Van Dijk, 2006). Another reason because those infrastructures are becoming cheaper is the increase of competition and because it is not any longer a monopoly, but still it is an expensive service (OECD, 2001) and not affordable for everyone. For that reason the families with the lowest GDP per capita decide to use their money for other services that are primary need rather than for the technology service. The countries with higher incomes are more likely to have their own computers and landline connections than the poorer countries. (Poushter, J., Bell, J. and Oates, R., 2015). The computer ownership it is related with the probability of using the Internet and as studied by Poushter, J., Bell, J. and Oates, R., (2015) exist a 35% of probability for a person without a computer to use internet while exist 42% of probability for a person with computer at home (Poushter, J., Bell, J. and Oates, R., 2015).

Nevertheless, Dewan, S., Ganley, D. and Kraemer, K., (2005) explain that even nowadays the IT penetration levels are increasing in rich and in poor countries is in the poor countries where has a higher rate and as a consequence the gap as a percentage of average penetration is shrinking. Van Dijk (2006) explain that from 2000-2002 the technology gap in the northern developed countries started to decline when the categories with high income and education reached a partial saturation and as consequence de people with lower income and education started to catch up (NTIA, 2002., Horrigan and Rainie, 2002a,b; Eurobarometer 56–63, 2001–2005). However, the digital divide in the developed countries is still widening (Van Dijk, 2006).

It is important to have into account that the low incomes not only affect to the acquisition of a computer or a digital equipment, it also affect to the level of education of the user. If the user does not has enough incomes to pay extra things, it is possible that they are not going to be able to have classes to learn how to manage the hardware, software…. and the problem of a lack of skills will appear and will increase aswell the digital divide. (Finn, S. and Korukonda, A., 2004)

2.3 HOTEL TECHNOLOGY SERVICES

Technology in the hotels means operational efficiency, enhancing service quality and also reducing some costs (Ramalingam, A. and Kar, S., 2001). Furthermore, (Buhalis, D., Jafari, J. and Werthner, P., 1997) cited in (Dede, P. and Poorani, A., 2006) supports that implementation of technology in the hospitality industry would help to satisfy the tourism demand, which they consider decisive for the industry to thrive.

Nevertheless, the adaptation of the technology in the hospitality industry years of history, as it as on few was a few years ago, in 1970s (Erdem, M., Schrier, T. and Brewer, P., 2009; Kasavana, M. and Cahill, J., 2007; Sammons et at., 2002) cited in (Cobanoglu et al., 2011). This means that the technology in hotels is a relatively recent service and as a result of that there is comparatively little research on it.

As Cobanoglu (2011) explains, the adaptation of technology in hotels was in two levels:

- Managerial level
- Operational level

For in-room guest services designed to offer a more comfortable and safe environment such as mini-bars, electronic locks and safes, alarm clocks, climate control systems, fire alarm and security systems, desktop computers and others. (Lee, S., Barker, S. and Kandampully, J., 2003; Collins, G. and Cobanoglu, C., 2008).

This in-room guest services are classified in the table below:

Table 1: Classification of the in-room guest services

Technology	Description
Voice over IP (VoIP)	Use of Internet protocols instead of analog media to transfer voice data.
In-room Pay-Per-View (PPV)	Digital video, available over a television

Technology	Description
	platform, available on a payment basis.
Voicemail/messaging	Phone-based service the enables a caller to leave a voice mailbox message
In-room accessible outlets	Electrical outlets conveniently located for hotel guest access and use room
High-speed Internet access (HSIA)	Internet connectivity at speeds of 1 to 100 Megabits per second (Mbps)
In-room safe	Electronic safe that can be opened by electronic card or personalized code
In-room control panel	Console controls room amenities (e.g., lights, temperature curtains, blinds)
Universal battery charger	Device capable of charging the batteries of various equipment and mobile devices.
Electronic locking systems	Access security by electronic media (e.g., magnetic stripe, smart card, RFID, NFC)
In-room game system	Entertainment system available in a hotel guest room (e.g., Wii or PlayStation)
In-room fitness system	Specialty devices for physical exercise in hotel guest room (e.g., treadmill unit)

Technology	Description
In-room video checkout	Television interface enabling express folio review, account settlement, and checkout.

Source: Collins and Cobanoglu (2008)

Even though the implementation of technology in the hospitality industry took place few years ago, currently the applications and technology facilities are continuing to grow in this industry and will play an even more essential role in service delivery than currently (Beatson, A., Coote, L. and Rudd, J., 2006).

Nowadays hotels are increasing the in-room technology service offered as well as in the whole hotel (Ertem, M., Schrier, T. and Brewer, P., 2009; and Kim et al., 2008) cited in (Cobanoglu et al., 2011). However, (Dishaw, M. and Strong, D., 1999; Kim, 2007) cited in (Taegoo et al., 2010) mentions that technology does not fit for all the guest and for this reason each kind of guest needs a particular kind of technology. Added to the non universal use of technology, (Ham et al., 2005) in (Cobanoglu et al., 2011) with the results of some investigations, in an study of upscale Koren hotels, concluded that some guest-related interface applications such as call accounting, electronic locks, energy management, in-room entertainment, minibar and information services are not improving the guest satisfaction.

A classification of the guest oriented technologies according to expectations of importance and satisfaction with performance have been created by (Beldona, S. and Cobanoglu, C., 2007) cited in (Cobanoglu et al., 2011):

1. Express check-in/out, remote control TV and in-room high speed Internet access are the applications and facilities that this group use and they ranked them with a high level of importance and performance.
2. Give a high importance but low performance to the wireless Internet access. Alarm clock, easily accessible electrical outlets and on-line reservations capabilities. (The people that belong to this category give importance to the technology when they have to chose a hotel but it is not judged as important during the evaluation of the stay)

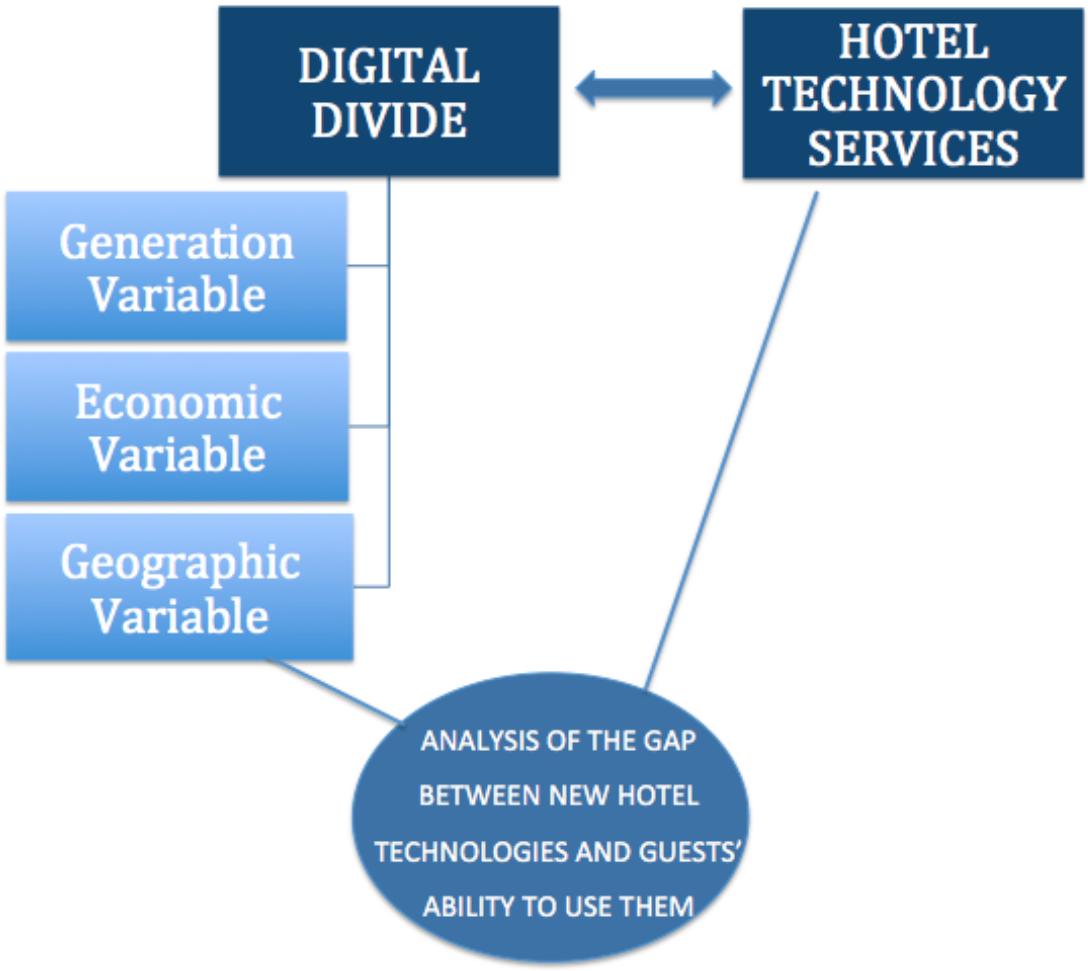
3. People that belong to this group give a low importance to the technologies when they book a hotel but a high importance in-house. (Web TV, Pay-Per-View movies, and in-room personal computers.
4. This group give low importance in technology for booking and the stay and the applications used for that group are videoconferencing capabilities, wireless access to hotel website, business center services and plasma screen television.

After looking at this it is possible to conclude that it depends on the type and the variety of technological amenities and depending on the group that the guest belongs to, the satisfaction is going to be different and consequently it is going to affect the loyalty and the possible future customers of the company (Cobanuglu et al., 2011). So this means that not all kinds of technological amenities have the same impact on every guest.

2.4 CONCEPTUAL FRAMEWORK

This conceptual framework is an analysis of the data explained in the literature review where the different points established have been studied in order do an "*analysis of the gap between new hotel technologies and guests' ability to use them*".

In order to draw conclusions, digital divide concept and most important variables that affect to the technological gap have been detected and analyzed through different authors. Afterwards, the hotel technology services offered by the hotels have been studied to have an overview of the technology services in the hospitality industry


DIGITAL DIVIDE
HOTEL TECHNOLOGY SERVICES
Generation Variable
Economic Variable
Geographic Variable
ANALYSIS OF THE GAP BETWEEN NEW HOTEL TECHNOLOGIES AND GUESTS' ABILITY TO USE THEM

3. METHODOLOGY

As mentioned in the objectives, the aim of this dissertation is to analyze the gap between the new technologies that the hotels offer to their guest and the guests' ability to use these technologies. During this chapter it is going to be explained the type of method chosen, the research approaches, research design and the data collection techniques applied in order to achieve the aim objectives and be able to analyze the gap. In addition to that this chapter is going to be useful to identify when the hotel has risk that the guest satisfaction will be decrease because of the technology services offered and to establish some conclusions.

In addition, useful information is given for Hospitality Industry professionals that could be interested in knowing their target better and the gap that can exist between the service offered and the ability of the guest to use the service. Furthermore, these professionals can use this information to adapt their products and services and as a consequence improve guest satisfaction and guest loyalty.

3.1 RESEARCH METHODS

The research approach methods that can be used to make an analysis can be deductive or inductive. After the analysis of all the methods the method that is going to be used in this final dissertation to achieve the main objective and to after propose a new model to detect the position of a hotel by ensuring the guest ability to use the offered technology is going to be deductive. The reason of this election is because the research proposal is based on theory, supplying previous theoretical assumptions, collecting data and then there will be a predictive hypothesis (Altinay, L. & Paraskevas, A., 2008).

Moreover, there are three different methods for the research design, qualitative, quantitative and mixed methods. Each one has different strengths and benefits and depending on the situation the appropriate one will be applied. The one used in this dissertation is going to be quantitative, because it aims to determine how one variable affects another in a population, by quantifying the relationships between different variables. Statistical methods such as relative frequencies, difference between means, correlation coefficients… are used to quantify the relationships between these variables. (Altinay, L. & Paraskevas, A., 2008). In addition, quantitative

research focuses on numerical data and it consists of data analysis that generates or uses numerical data (Saunders, M., Lewis, P. & Thoenhill, A., 2007).

In addition, sampling process is going to be used. Sampling technique consist on select a representative subset to study the topic and with that be able to have conclusions (Altinay, L. & Paraskevas, A., 2008)

Finally, primary or secondary data can be used. Primary data consist on collecting new data through observation, in-depth and group interviews, questionnaires... (Saunders, M., Lewis, P. & Thoenhill, A., 2007). Secondary data consist on using data that have been already collected for some other purpose (Saunders, M., Lewis, P. & Thoenhill, A., 2007) and after analyze these data to provide additional interpretations, different knowledge…. (Bulmer et al. 2009) cited on (Saunders, M., Lewis, P. & Thoenhill, A., 2007). After the analysis of the two way of collecting data, for this final dissertation have been chosen to use secondary data as it was consider more useful in order to reach the main objective. The secondary data collected used was taken from different sources. Regarding the information of the 90% of the most visited countries around the world was taken from the UNWTO tourism highlights report (2015 edition). The selection of the 450 hotel and their room price was made through "Trivago.com" choosing the most popular hotels in the website because is nowadays, one of the most checked websites by the tourists when are selecting a hotel. The hotel age information has been extracted from the different hotel websites, online articles and calling to the hotels. Regarding the index for the geographic destination was took from the Human development index (HDI) report from the United Nations development program. From this same report the Gross national income (GNI) per capita during the 2014 (last report published) was taken. In addition the range of the years of the different generations have been extracted from different academic paper such as the one from (Poushter, J., Bell, J. and Oates, R., 2015).

3.2 DATA COLLECTION

Firstly, an exhaustive research process of the main academicals journals and reports of the tourism and technology field during the literature review has been done to find which are the main variables that affect on the digital divide. Secondly, a selection of the destinations around the world that attracted the 90% of the tourists during the 2014 has been find out based on the last World Tourism Organization (UNWTO) Report. These destinations are going to be the sample analyzed

during this final dissertation from different point of view, from the tourist destinations and from the country of origin of the tourists' point of view.

Furthermore, the two different points of view are going to be analyzed considering the three main digital divide variables (geographic, economic and generation).

Regarding the tourist destination point of view, the geographic variable is going to be defined using the Human development Index (HDI) 2014 report (last report published) of each destination to give a numeric value to the geographic variable for the hotel based on the country development.

After, a research of four hundred and fifty hotels from the destinations around the world that attracted the 90% of the tourists during the 2014 has been done. This research has been done considering the most popular hotels in "trivago.com" from these forty-five destinations. From all these hotels it has been decided to search the price for a double room with check-in on the 9th of September and check-out on the 10th of September. These dates has been chosen because according to Lonely Planet on the article "Travel in September: the expert's choice" September is the best season to travel and does not matter where part of the world you travel. A normalization of all the hotel prices and an average of the price normalization of the different ten hotels of each different destination have been done to define a hotel price for the each destination.

Furthermore, to give a value to the generation variable for the hotels an analysis of the different inauguration dates of the previous selected hotels has been find out. This information has been extracted from the different hotel websites, online articles and calling to the hotels. This research has been done in order to calculate the hotel age and be able to normalize all the ages. Thus do an average of the different ten hotels of each different destination based on the normalization to define the hotel generation for each destination.

Afterwards, the three variables have been analyzed from the country of origin of the tourists' point of view.

For the geographic variable the same method that for the hotel has been used analyzing the Human development Index (HDI) 2014 report (last report published) of the country of origin.

Regarding the economic variable, the data has been extracted also from the Human development Reports using the Gross national income (GNI) per capita during the 2014 (last report published). These data has been normalized to be able to compare with the same variable for the hotels.

Finally, to find the index for the guest generation variable has been divided in 5 different generations based on different studies from different authors such us (Fenich et al., 2011) or (Poushter, J., Bell, J. and Oates, R., 2015). For each generation has been calculated the average age and these figures have been normalized to give a value to each generation.

When all the variables have been defined in values for both points of views (from the tourist destinations and from the country of origin of the tourists' point of view) these information is compared and presented in a graphic. In addition an Index it is calculated using the "absolute number". The absolute number is used since, from a geometric point of view, it defines as its distance between two complex numbers.

Besides, the economic variable values from both points of views has been used to define an index that show which is the effort that has to be done by each tourist from the different countries to go to the different destinations. This index has been calculated dividing the average price of the hotel by the average salary of each country. With this index it is possible to find out to travel to which destinations means more economic effort for each tourist, depending on the origin country.

4. FINDINGS AND DISCUSSIONS

In this chapter some of the most representative results of the data analysis are presented. The data was collected as mentioned in the previous chapter and subsequently processed in order to answer to the aim and objectives described in chapter 1 (section 1.3 Objective and 1.3.1 Objectives of the research) of this final dissertation.

4.1 FINDINGS BASED ON DATA COLLECTION

The analysis of the data collection will provide a larger knowledge to the reader about the actual gap that exist between the hotel technology services offered by the hotels and the guest ability and needs to use them.

Figure 2: Sample of the economic effort of the guest when is staying in a determinant destination

		GUEST						
		2929	53959	64992	52821	76628	56431	52947
HOTEL DEST	Hotel economic avg	Cambodia	Hong Kong ((	Norway	Saudi Arabia	Singapore	Switzerland	United States
Cambodia	56,430	0,193	0,004	0,002	0,004	0,000	0,003	0,004
Croatia	220,590	0,774	0,035	0,028	0,036	0,023	0,033	0,036
Egypt	200,982	0,704	0,031	0,025	0,032	0,020	0,030	0,032
Hong Kong ((	190,152	0,666	0,029	0,023	0,030	0,019	0,028	0,030
Indonesia	53,238	0,181	0,003	0,001	0,003	0,000	0,003	0,003
Korea (ROK)	205,314	0,720	0,032	0,026	0,033	0,021	0,031	0,033
Macao (Chin	265,848	0,934	0,044	0,035	0,045	0,029	0,042	0,045
Netherlands	256,614	0,901	0,042	0,034	0,043	0,028	0,040	0,043
Portugal	217,626	0,763	0,035	0,028	0,036	0,022	0,033	0,035
Saudi Arabia	284,544	1,000	0,047	0,038	0,049	0,031	0,045	0,049
Singapore	196,650	0,689	0,031	0,024	0,031	0,019	0,029	0,031
United State	227,088	0,797	0,036	0,029	0,037	0,024	0,035	0,037

The Figure 2 is a sample of the destinations and country of origin of the guests, that represent the economic effort that a guest has to do depending on his or her nationality and depending on the destination chosen to travel. On this figure it is compared the Gross national income (GNI) per capita during the 2014 for the guests with the normalized average hotel economic price for the different destinations. In the figure there is a sample of the most representative cases (guest that have to do more effort and guest that have to do less effort from all the 45 nationalities analyzed) are show. It is possible to see in red that the guests that have to do a bigger effort to travel are the people from Cambodia when is traveling to Croatia, Egypt, Hong Kong, Korea, Macao, Netherlands, Portugal, Saudi Arabia, Singapore and United States. On the other hand, in green it is represented when an inhabitant from Hong Kong, Norway, Singapore, Switzerland are traveling to

Cambodia and to Indonesia the economic effort that has to do it is almost irrelevant compared with the others. As well as when an inhabitant from United States and Saudi Arabia is traveling to Indonesia.

In the following five figures are represented five graphics that show the digital divide that exist between different destinations and different guests depending on the three digital divide variables (geographic, economic and generation variable). The small table that appears on the figures it is represent the different index for the three variables depending on the hotel and on the guest characteristics.

The index of the geographic variable for the guest represents the Human development index that has the country of origin of the guest and for the hotel represents the human development index that has the destination country.

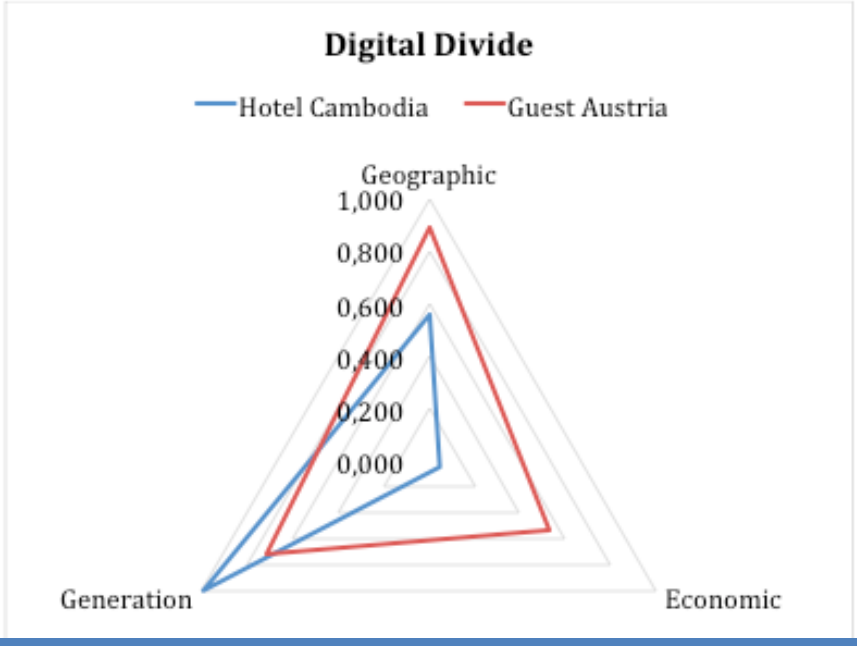
The economic variable index for the guest represented on the table is the normalized Gross national income (GNI) per capita. The economic variable index for the hotel represented on the table is the result of the calculation of the average room price of the ten hotels analyzed for each of the forty-five destinations that then the result of normalized this average with the four hundred and fifty hotels analyzed and this last result is the index used. What means that the economic index for the hotel is the normalized average of the room price of the four hundred and fifty hotels.

In addition, the generation index for the hotel and for the guest it is calculated in the same way as the economic variable index for the hotel but with the age of the hotel and the age of the guest instead of the room price. What means that the generation index for the hotel is the normalized average of the age of the four hundred and fifty hotels and the generation index for the guest is the normalized average of the age of each generation (traditional, baby boomers, generation X and generation Y).

Last but not least, in the next five figures the digital index for each situation it is also show. The digital index represent the gap that exist between the guest and the hotel and it is calculated by multiply the geographic, economic and generation variable of the destination and divided in two in order to have the volume. Then the same is done with the guest variables. When the two indexes are found for the destination and for the guest the absolute value it is calculates for these two indexes and the result it is the digital divide index. It is important to note that as higher is the index bigger is the gap that exist between the guest and the hotel and the other way around.

Figure 3: Digital Divide between a hotel from Cambodia and a guest from Austria.

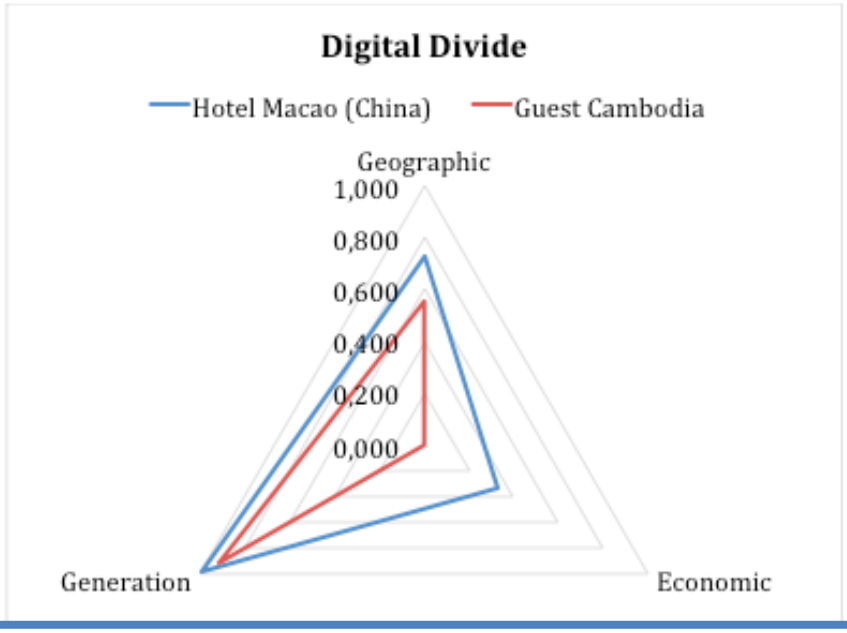
	Geographic	Economic	Generation	
Hotel Cambodia	0,555	0,047	0,991	0,013
Guest Austria	0,885	0,534	0,717	0,169
			Index	***0,156***



In the graphic from the Figure 3 it is represented the digital divide that exist between Cambodia (hotels) as a destination represented in blue and from the country of origin of the tourists' (Austria) point of view represented in red. This graphic takes into account the three main variables that affect the digital divide, geographic, economic and generation variable. In addition, the graphic it is made by the normalized data collected previously about the hotels and the guests for the three variables. With all this data represented and compared in the graphic some findings are shown. Analyzing the geographic variable the guest country (Austria) has a Human Development index of 0,885. Austria has a higher Human Development Index than the destination country (Cambodia), which is 0,555. Regarding the economic variable the guest economic level normalized it is much higher than the normalized cost of the room in Cambodia from an index of 0,534 to an index of 0,047 for Cambodia. Also, it is important to mention that the Austrian tourist analyzed in this graphic is from the generation Y (Millennial). Thus, there is a gap between the generation of the hotels in Cambodia and the guest generation. As Millennials has an index of 0,716 and the normalized average of the analyzed hotels in Cambodia have an index of 0,991. The result of the total index of the digital divide from this situation is 0,156.

Figure 4: Digital Divide between a hotel from Macao (China) and a guest from Cambodia.

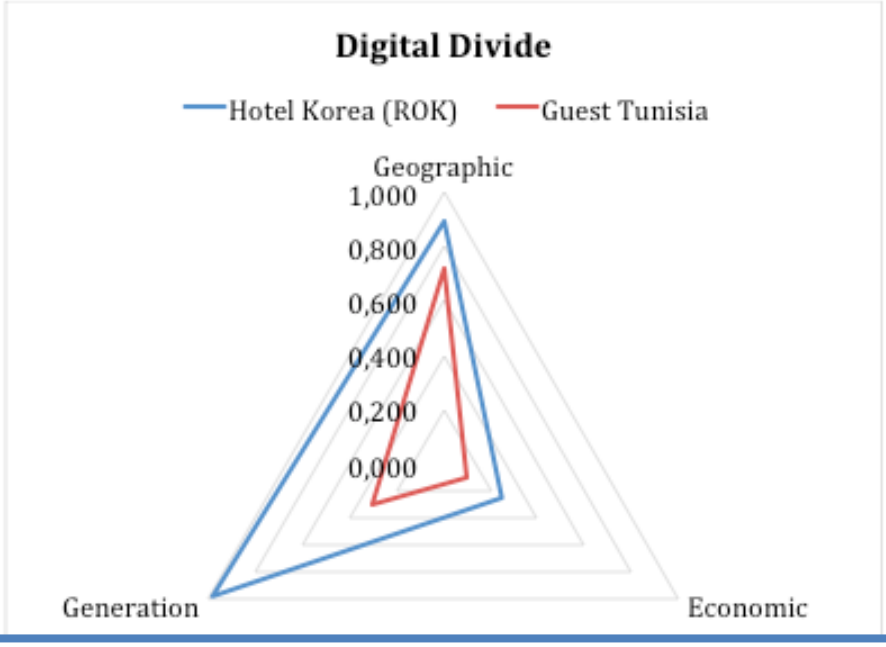
	Geographic	Economic	Generation	
Hotel Macao (China)	0,727	0,330	0,992	0,119
Guest Cambodia	0,555	0,000	0,917	0,000
			Index	***0,119***



The graphic from the Figure 4 represent the digital divide that exist between a guest that is from Cambodia (red line in the graphic) and is traveling to a hotel in Macao (China) (blue line in the graphic). On this case, all the variables (geographic, economic and generation) have higher value for the hotel than for the guest. The biggest gap between the guest and the hotel it is visible on the economic variable, where the average normalized price of the hotel in Macao is 0,330 and it is much higher than the average normalized of the Gross national income of the guest with 0,000. On the other hand the generation of the guest analyzed on this graphic it is generation Z with an index of 0,917 and the analyzed hotels from Macao have a generation of 0,992. What means that the gap on the generation variable between the hotel and the guest it is almost insignificant. Last but not least, the geographic variable for the Cambodia means a 0,555 based on the Human development index while for Macao it is slightly higher with an index of 0,727 what compared with the economic variable do not means a big gap between the hotel and the guest. The result of the total index of the digital divide from this situation is 0,119.

Figure 5: Digital Divide between a hotel from Korea and a guest from Tunisia.

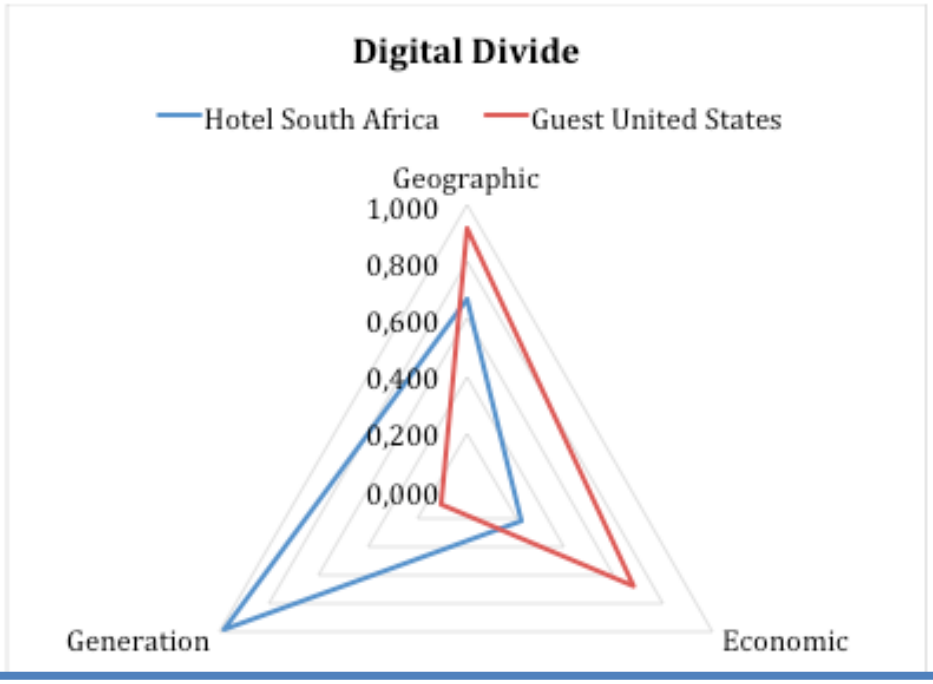
	Geographic	Economic	Generation	
Hotel Korea (ROK)	0,898	0,248	0,981	0,109
Guest Tunisia	0,721	0,101	0,306	0,011
			Index	***0,098***



The graphic above (Figure 5), represent the gap that exist when an inhabitant from Tunisia (red line in the graphic) travel and stay in a hotel in Korea (blue line in the graphic). On the three variables the guest it is behind the hotel level. This guest is from the baby boomers generation and the guest generation variable gives a value of 0,306 while for the hotel in Korea represent an index of 0,981. For this reason, on this variable there is the major gap in the graphic between the hotel and the guest. On the other hand the gap that exist on the economic and geographic variable are not as bigger than the generation. For the economic value the guest it is represented with an index of 0,101 and the hotel with an index of 0,248. Regarding the geographic variable the Human development index of both countries is similar; Korea has an index of 0,898 and Tunisia 0,721. This is the reason because even the generation gap it is huge the digital divide index it is only 0,098.

Figure 6: Digital Divide between a hotel from South Africa and a guest from United States

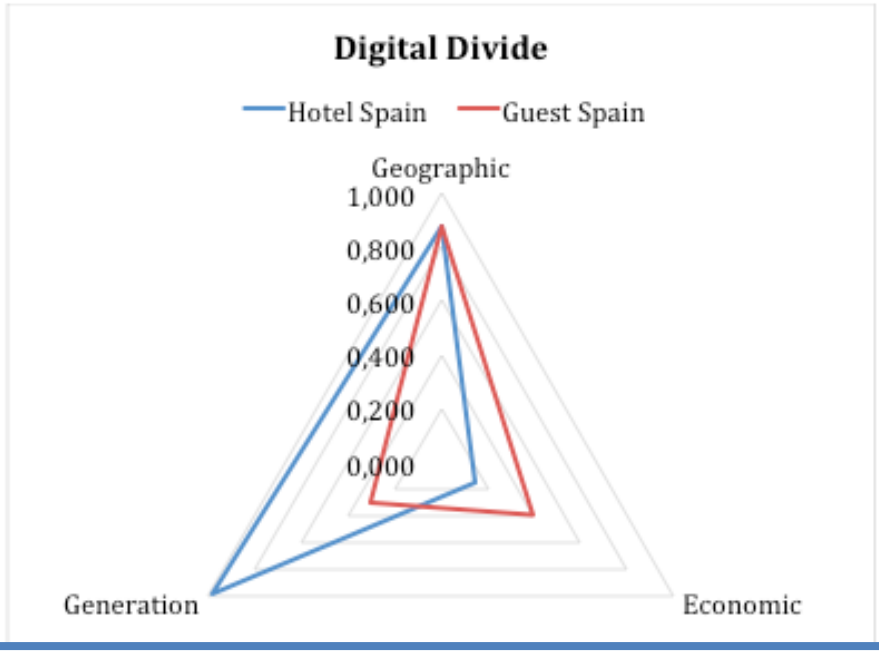
	Geographic	Economic	Generation	
Hotel South Africa	0,666	0,227	0,988	0,075
Guest United States	0,915	0,679	0,106	0,033
			Index	***0,042***



In this graphic (Figure 6) it is represented the gap that exist when an American from the traditional generation (born before 1945) represented in red on the graphic, travel to South Africa hotel, represented in blue on the graphic. It is show that the analyzed hotels in South Africa are new and compared with the guest age exist a big gap from an index of 0,988 on the hotel generation variable to an index of 0,106 for the guest generation variable. However, on the economic and geographic variable the guest index it is higher than the hotel index. The economic level from the American guest has an index of 0,679 and compared with the other countries it is much higher than the average normalized price of the hotels in the South Africa with an index of 0,227. In addition, the human development Index of South Africa (0,666) it is below the human development Index of United States (0,915). The overall index of the digital divide gap between an American tourist and a hotel from South Africa it is 0,042.

Figure 7: Digital Divide between a hotel from Spain and a guest from Spain

	Geographic	Economic	Generation	
Hotel Spain	0,876	0,147	0,983	0,063
Guest Spain	0,876	0,395	0,306	0,053
			Index	***0,010***



In the Figure 7, it is represented when a Spanish guest (red line in the graphic) stay in a hotel on his or her country (blue line). It is possible to analyze that on the geographic variable there is not any gap as it is the same country and the Human development index (0,876) it is the same for the hotel and for the guest. At the same time the guest that it is represented in the graphic is from the baby boomers generation (0,306) and exist a gap between the guest and the average Spain hotels (0,983). As the average from the hotels analyzed from Spain during this final dissertation give a result of the last generation while the guest is from baby boomer generation. Looking to the economic variable the guest has a higher index (0,395) than the hotel average price normalized (0,147). Regarding the overall gap index, on this case is 0,010.

Figure 8: Sample digital divide index

	GUEST GENERATION	Traditional	Baby boome	Baby boome	Baby boome	Baby boome	Baby boome	Baby boome	Baby boome	Gen. Y	Gen. Y	Gen. Z
	GUEST	Singapore	Austria	China	Czech Repub	Italy	Macao (Chin	Spain	Taiwan (pr, c	Bulgaria	Japan	Singapore
HOTEL DEST		0,048	0,075	0,014	0,043	0,054	0,014	0,053	0,014	0,048	0,147	0,418
Bulgaria	0,035	0,013	0,040	0,020	0,008	0,020	0,020	0,018	0,020	0,013	0,113	0,383
Cambodia	0,013	0,035	0,062	0,002	0,030	0,042	0,002	0,040	0,002	0,035	0,134	0,405
China	0,041	0,007	0,034	0,027	0,001	0,013	0,027	0,011	0,027	0,007	0,106	0,377
Germany	0,075	0,027	0,000	0,060	0,032	0,021	0,060	0,022	0,060	0,027	0,072	0,343
Hungary	0,045	0,003	0,030	0,030	0,002	0,010	0,030	0,008	0,030	0,003	0,102	0,373
India	0,048	0,000	0,027	0,034	0,005	0,006	0,034	0,005	0,034	0,000	0,099	0,370
Indonesia	0,014	0,034	0,061	0,000	0,028	0,040	0,000	0,038	0,000	0,034	0,133	0,404
Japan	0,044	0,004	0,031	0,030	0,001	0,010	0,030	0,009	0,030	0,004	0,103	0,374
Malaysia	0,041	0,007	0,034	0,027	0,002	0,013	0,027	0,012	0,027	0,007	0,106	0,377
Russian Federation	0,046	0,002	0,029	0,031	0,003	0,008	0,031	0,007	0,031	0,002	0,101	0,372
Saudi Arabia	0,147	0,099	0,072	0,133	0,104	0,093	0,133	0,094	0,133	0,099	0,000	0,271
Taiwan (pr, of China)	0,033	0,015	0,042	0,018	0,010	0,022	0,018	0,020	0,018	0,015	0,114	0,385
Tunisia	0,053	0,005	0,022	0,038	0,010	0,002	0,038	0,000	0,038	0,005	0,095	0,365
Ukraine	0,043	0,005	0,032	0,028	0,000	0,012	0,028	0,010	0,028	0,005	0,104	0,375
Vietnam	0,054	0,006	0,021	0,040	0,012	0,000	0,040	0,002	0,040	0,006	0,093	0,364

In the table 8 it is represented a sample of the most representative digital divide index. As mention before the digital divide index represent the gap that exist between the guest and the hotel and it is calculated by multiply the geographic, economic and generation variable of the destination and divided in two in order to have the volume. Then the same is done with the guest variables. When the two indexes are found for the destination and for the guest the absolute value it is calculate for these two indexes and the result it is the digital divide index. It is important to note that as higher is the index bigger is the gap that exist between the guest and the hotel and the other way around. In the Figure 8 It is possible to see the ten guests, in green, that from all destinations and countries of origin analyzed that have less digital divide during their stay in a destination and based on the three main variables (geographic, generation and economic) are the following:

- A guest from Singapore from the traditional generation when is traveling to India.
- A guest from Austria and born between 1946-1961 (baby-boomer) when is traveling to Germany.
- A guest from the baby boomer generation from China when is traveling to Indonesia.
- A guest from Czech Republic (baby boomer) when is traveling to Ukraine.
- A guest from Italy and from the baby boomer generation when is traveling to Vietnam.
- A guest from Macao (China) born during the baby boomer generation traveling and staying in a hotel in Indonesia.
- A guest from the baby boomer generation from Spain when is traveling to Tunisia.
- A guest from Taiwan and born between 1946-1961 (baby-boomer) when is traveling to Indonesia.
- A guest from Bulgaria from generation Y when is staying in India.
- A millennial guest from Japan when is traveling and staying in Saudi Arabia.

On the other hand, in the Figure 8 it is show the ten guests, in red, that from all destinations and countries of origin analyzed that have a bigger digital divide during their stay in a destination and based on the three main variables (geographic, generation and economic). This situation with a bigger digital divide is when a guest from Singapore is traveling and staying in a hotel in the following destinations:

- Bulgaria.
- Cambodia.
- China.
- Hungary.
- Indonesia.
- Japan.
- Malaysia.
- Russian Federation.
- Taiwan.
- Ukraine.

Figure 9: Digital divide index when tourists are traveling to their country

	Traditional	Baby boomer	Generation X	Generation Y	Generation Z
Belgium	0,029	0,017	0,063	0,112	0,158
Bulgaria	0,028	0,014	0,001	0,013	0,027
China	0,036	0,027	0,017	0,007	0,002
Germany	0,048	0,003	0,054	0,108	0,159
Hong Kong (China)	0,068	0,005	0,058	0,125	0,188
Indonesia	0,011	0,005	0,002	0,008	0,015
Italy	0,069	0,033	0,003	0,040	0,076
Kazakhstan	0,075	0,056	0,037	0,016	0,003
Mexico	0,040	0,027	0,013	0,001	0,015
Norway	0,022	0,058	0,137	0,221	0,301
Saudi Arabia	0,117	0,061	0,004	0,056	0,112
Singapore	0,058	0,033	0,124	0,221	0,312
Sweden	0,038	0,015	0,067	0,123	0,175
Switzerland	0,052	0,016	0,083	0,154	0,222
Taiwan (pr, of China)	0,028	0,018	0,009	0,001	0,011
United Kingdom	0,046	0,001	0,043	0,091	0,135
United States	0,090	0,028	0,034	0,099	0,161

On the Figure 9 it is represented the most representative digital divide index that exist when tourists are staying in a hotel on their country. To create this table it has been analyzed the digital divide index from 225 tourists. What means that have been analyzed the index of tourist from the forty-five nationalities analyzed and from the five different generations (traditional, baby boomer, generation X, generation Y and generation Z) when are staying in a hotel in their country. The index that in this figure appears in green represent the tourists that have less digital divide when are staying in a hotel in their country. The guest characteristics that have less digital gap when are deciding to travel and stay in their country are the following:

- A German from baby boomer generation.
- A British from baby boomer generation.
- A Bulgarian from Generation X.
- An Indonesian from Generation X.
- An Italian from Generation X.
- A Saudi Arabian from Generation X.
- A Mexican from Generation Y.
- A Taiwanese from Generation Y.
- A Chinese from Generation Z.

- A Kazakh from Generation Z.

On the other hand, the index that in the Figure 9 appears in red represent the tourists that have more digital divide when are staying in a hotel in their country. The guest characteristics that have more digital gap when are deciding to travel and stay in their country are the following:

- A Norwegian from Generation Y.
- A Singaporean from Generation Y.
- A Belgian from Generation Z.
- A German from Generation Z.
- A Chinese from Hong Kong from Generation Z.
- A Norwegian from Generation Z.
- A Singaporean from Generation Z.
- A Swedish from Generation Z.
- A Swiss from Generation Z.
- An American from Generation Z.

Figure 10: Average and Standard Deviation of the Digital Divide Index when tourists stay in a hotel in their country

	Traditional	Baby boomer	Generation X	Generation Y	Generation Z	TOTAL
AVERAGE	0,056	0,034	0,037	0,059	0,082	**0,054**
STANDARD DEVIATION	0,026	0,023	0,031	0,051	0,076	**0,042**

On the Figure 10 it is represented the average and the standard deviation of the Digital Divide Index when tourist from the different five generations from the forty-five nationalities are staying in a hotel in their country. This index has been calculated with the average of the index of all the digital divide index when a tourist is traveling to their country and then the standard deviation has been done. It is possible to see in the figure, in green, that the tourists from the baby boomer generation are the ones that nowadays have less digital gap when are staying to a hotel of their same country. On the other hand, the tourists from the Generation Z are the ones that nowadays are going to have a bigger digital divide when are traveling and staying in their country (represented in red).

Last but not least, the figure show that the total average of the digital divide index of the 225 analyzed tourists that stay in a hotel in their country is 0,054 and the average of the standard deviation of the index of 225 tourists is 0,042.

5. CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In this chapter, the conclusions of this final dissertation based on the main objectives of the study are presented. These conclusions take into consideration the literature review and the findings obtained with the data collection. Afterwards, the limitations that had been faced along the project will be mention and explained. Finally, in the third section, the recommendations for future lines of research are provided.

5.1 CONCLUSIONS

First of all with this study it is possible to conclude that an hotelier can detect the gap between the guest technological domain and the technology offered by the hotel.

Looking at the **first objective**, though undertaking the literature review, it had been possible to analyze the digital divide and find out his main variables. As Ramalingam, A. and Kar, S., (2014) mentioned, nowadays technology is very present in the hotels and a big number of guests do not knows to use the technology services offered and the new technological tools in the hotel. In addition, according to Selwyn (2004) the digital divide can lead to digital and social exclusion when the guests do not have full participation in the network society. With all these facts it is possible to realize of the current importance of the digital divide in the hospitality industry. Besides, according to Manghetti, V. and Buhalis, D., (2009) the digital divide affect negatively to the guest satisfaction and experience. What means that if the hotelier detects the digital gap and is capable to control it, this wills means an increase of the satisfaction and the experience of the guest in-house. On the other hand, as mentioned by Manghetti, V. and Buhalis, D., (2009) there are several factors that affect the adoption of IT and according to Dewan, S., Ganley, D. and Kraemer, K., (2005) and Aqili (2008) and after the analysis of the literature review have been concluded that there are three main variables that affect on the digital divide. The generation is one of these three variables. Carr (2007), OECD (2001), Dewan, S., Ganley, D. and Kraemer, K., (2005) and Cullen, (2001) agreed that the digital divide is linked to the age (generation). According to (Poushter, J., Bell, J. and Oates, R., 2015) the generation is one of these three main variables because the digital divide rates are lower between the people that born in an era of massive technological advancement that the ones

that no. Another of the main variables is the geographical localization. According to Aqili (2008) and Carr (2007) the geographic localization is one of the digital divide variables as the technological access is not the same in all the countries. Another reason of the importance of the geographic localization on the use of the technology is that as affirmed by Kraemer (2000) there is a large gap of the use of technology between developed, developing and not developed countries. The last but not less important main variable of the digital divide is the economic level, as explained by Cullen (2001) and "The influential Gartner Group report" (2001), the socio-economic status of the people directly affects the digital divide and it is bigger on the people with low incomes.

The **second objective** of the study was to analyze, though undertaking the literature review, the technology services in the lodging industry. As was mentioned in Chapter 2.3 by Erdem, M., Schrier, T. and Brewer, P., 2009; Kasavana, M. and Cahill, J., 2007; Sammons et at., 2002, the adoption of the technology in the hospitality industry it is very recent with only few years of history. Nowadays, according with Ramalingam, A. and Kar, S., (2014) technology in hotels means operation efficiency, enhancing services quality and reducing some costs. As concluded by Cobanuglu et al., (2011) depend on the type and variety of technological services and depending on the guest the satisfaction and the experience is going to be different and consequently the technological services are going to affect the guest loyalty.

According to the **third objective** of classify the hotels and the guest based on the digital divide variables have been done defining different techniques depending on the variable after a deep analysis of all the possible techniques. This finally defined technics have been explained previously on the chapter 3.2. Firstly the hotels have been decided to classify. The technique chosen to classify the hotels depending on the generation variable had been the following. Have been done an analysis of the different inauguration dates of the hotels and then the calculation of the hotel age have been found and finally the age has been normalized. For defined the hotel geographic variable have been used the Human development Index (HDI) 2014 report (last report published) of each destination to give a numeric value to the geographic variable for the hotel based on the country development. Finally for the last hotel variable, economic variable, the technique used was firstly to find out the room price and then this value has been normalized. Regarding the techniques defined to classify the guests based on the digital divide variables are the following. For the generation variable, the guest generations have been divided in 5 based on different studies from different authors such us (Fenich et al., 2011) or (Poushter, J., Bell, J. and

Oates, R., 2015). For each generation has been calculated the average age and these figures have been normalized to give a value to each generation. For the geographic guest variable the same technique as for the hotel has been use of extracting the Human development Index (HDI) 2014 report (last report published) of each origin country of the guest to give a numeric value to the geographic variable for the guest based on the country development. Finally the guest has been classify depending on the economic variable extracting the data from the Human development Reports using the Gross national income (GNI) per capita during the 2014 (last report published), data that after has to be normalized.

Hence, after having the hotels and the guest classify, the **fourth objective** of analyze and detect the gap that exists between the hotel technology services offered and the guest knowledge based on the three main variables have been done. It have been found that when the guest are traveling to their same continent the digital divide it is smaller and as a consequence the satisfaction and the experience of the guest it is better than when are traveling to a different continent. At the same time, when the guest it is traveling to an other culture the digital divide it is bigger than the guest that are traveling to a country with the same culture. However, usually, the digital divide it is bigger when a guest is traveling and staying in a hotel of his or her same country than when is traveling to another country of their culture or continent. A reason of that can be that the economic variable it is very influential because as the price of the hotels are fixed based on the demand the hotels are not taking into account the incomes of the locals, they are considering the incomes of the potential guests which are usually from other countries. In addition, the threshold of the digital divide index it is better that will be fixed by each hotel depending on their needs and objectives. Although the recommended threshold of the digital divide index based on the study will be less than 0,373. This recommendation is based and done after the analysis of the 10125 cases as the major risk of digital divide on these cases starts on this index.

5.2 LIMITATIONS

Several factor have been limited the research result of which prior and current research studies on the topic together with the lack of time to carry out the deep analysis are the most important to be mentioned. Consequently, the accuracy of the research might have been affected as a result of these limitations.

As a consequence of the lack of prior and current research studies on the topic, it was very difficult to gather relevant academic papers and journals in order to develop the literature review. This is the reason why not all the sources are from the last years and the majority of the reports used to collect the data are from the 2014. Luckily, some reports undertaken by prestigious organizations in the area such as OECD (2001) were published and lot of relevant and interesting information for the research could be extracted. At the same time, another limitation has been my lack of the technology knowledge about all the destinations.

The limited amount of time available was another important limitation. Only the destinations around the world that attracted the 90% of the tourist during the 2014 have been analyzed (forty-five destinations). In addition only four hundred and fifty hotels (ten of each destination) have been analyzed.

Regarding the lack of an established model to calculate the digital divide difficult and slows the research, as there was the need to create and test the new model and after analyze the results applied in to the chosen destinations.

Furthermore, the limited access to the hotel rates affect on the fact that the study had been done with a room price for a determinant date rather than with the ADR for the whole year of each hotel.

Therefore, because of all the factors mentioned above, it is possible that the findings, recommendations and improvements are not as accurate or precise as wanted.

5.3 RECOMMENDATIONS

The digital divide unfortunately it is also present in the lodging industry. For this reason, it will be very interesting and profitable if each hotelier detect the digital gap that exist between the guest technological domain and the technology offered by the hotel in order to increase the guest satisfaction and improve the experience of the guest. In addition, if this study is done by each hotel analyzing the gap that exist between their hotel and their target rather than the gap that exist between the hotels of a determinant destinations and the guest the results will be more accurate and precise.

Therefore, it is necessary to actualize the data such as the HDI or the GNI since the data provided on this study is from 2014 as it is the last data published. It would be also very interesting to be able to actualize the data automatically with the last published reports. As well as actualize the ADR of each hotel automatically year after year as the age of the hotel when it will be renovated.

Last but not least, another further possible work that can be done with this study is to value or weight the importance and the influence of each variable on the digital divide in order to get a more accurate and precise digital divide index for each situation. As well as try to fit an extra variable with some special technological particularities of the hotels when it will exist. Besides, in further works some recommendations can be provided to the hotelier to help to reduce the digital divide between the hotel and the guest and as a consequence improve the guests' satisfaction and experience during their stay.

Finally, when taking in to account the diverse recommendations that have been mentioned, it is important to bear in mind the advice and limitations listed before in order to achieve successful results.

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7. APPENDICES

Appendix 1: Table of the economic effort of the guest when is staying in a determinant destination

		GUEST						
		22050	42261	43859	41187	15596	2929	42155
HOTEL DEST	Hotel economic avg	Argentina	Australia	Austria	Belgium	Bulgaria	Cambodia	Canada
Argentina	131,556	0,055	0,025	0,024	0,026	0,080	0,458	0,025
Australia	178,752	0,077	0,037	0,035	0,038	0,112	0,626	0,037
Austria	168,948	0,072	0,034	0,033	0,035	0,105	0,591	0,034
Belgium	113,544	0,046	0,021	0,020	0,021	0,068	0,395	0,021
Bulgaria	88,692	0,034	0,015	0,014	0,015	0,052	0,307	0,015
Cambodia	56,430	0,019	0,007	0,006	0,007	0,030	0,193	0,007
Canada	186,846	0,081	0,039	0,037	0,040	0,117	0,654	0,039
China	107,844	0,044	0,019	0,018	0,020	0,064	0,375	0,019
Croatia	220,590	0,097	0,047	0,045	0,048	0,139	0,774	0,047
Czech Republic	125,058	0,052	0,023	0,022	0,024	0,076	0,435	0,024
Dominican Rep	150,024	0,063	0,030	0,028	0,031	0,093	0,524	0,030
Egypt	200,982	0,087	0,042	0,040	0,043	0,126	0,704	0,042
France	174,648	0,075	0,036	0,034	0,037	0,109	0,611	0,036
Germany	145,236	0,061	0,028	0,027	0,029	0,089	0,507	0,029
Greece	170,772	0,073	0,035	0,033	0,036	0,106	0,597	0,035
Hong Kong (China)	190,152	0,082	0,039	0,038	0,041	0,119	0,666	0,040
Hungary	102,828	0,041	0,018	0,017	0,019	0,061	0,357	0,018
India	141,474	0,059	0,028	0,026	0,028	0,087	0,494	0,028
Indonesia	53,238	0,018	0,006	0,005	0,006	0,028	0,181	0,006
Italy	182,628	0,079	0,038	0,036	0,039	0,114	0,639	0,038
Japan	96,330	0,038	0,016	0,016	0,017	0,057	0,334	0,016
Kazakhstan	182,856	0,079	0,038	0,036	0,039	0,114	0,640	0,038
Korea (ROK)	205,314	0,089	0,043	0,041	0,044	0,129	0,720	0,043
Macao (China)	265,848	0,118	0,058	0,056	0,060	0,170	0,934	0,058
Malaysia	101,688	0,041	0,018	0,017	0,018	0,060	0,353	0,018
Mexico	116,622	0,048	0,021	0,020	0,022	0,070	0,406	0,021
Morocco	140,448	0,059	0,027	0,026	0,028	0,086	0,490	0,027
Netherlands	256,614	0,113	0,056	0,053	0,057	0,163	0,901	0,056
Norway	124,260	0,051	0,023	0,022	0,024	0,075	0,433	0,023
Philippines	127,908	0,053	0,024	0,023	0,025	0,078	0,446	0,024
Portugal	217,626	0,095	0,046	0,044	0,048	0,137	0,763	0,046
Russian Federation	112,290	0,046	0,020	0,019	0,021	0,067	0,390	0,020
Saudi Arabia	284,544	0,127	0,063	0,060	0,064	0,182	1,000	0,063
Singapore	196,650	0,085	0,041	0,039	0,042	0,124	0,689	0,041
South Africa	189,810	0,082	0,039	0,038	0,041	0,119	0,665	0,039
Spain	130,644	0,054	0,025	0,024	0,026	0,080	0,455	0,025
Sweden	138,168	0,058	0,027	0,025	0,028	0,085	0,482	0,027
Switzerland	169,176	0,072	0,034	0,033	0,035	0,105	0,592	0,034
Taiwan (pr, of China)	89,718	0,035	0,015	0,014	0,015	0,052	0,310	0,015
Tunisia	131,898	0,055	0,025	0,024	0,026	0,080	0,460	0,025
Turkey	189,810	0,082	0,039	0,038	0,041	0,119	0,665	0,039
Ukraine	108,528	0,044	0,019	0,018	0,020	0,065	0,377	0,019
United Kingdom	143,184	0,060	0,028	0,027	0,029	0,088	0,500	0,028
United States	227,088	0,100	0,049	0,046	0,050	0,144	0,797	0,049
Vietnam	145,236	0,061	0,028	0,027	0,029	0,089	0,507	0,029

		GUEST						
		12547	19409	26660	11883	10512	38056	43919
HOTEL DEST	Hotel economic avg	China	Croatia	Czech Repub	Dominican R	Egypt	France	Germany
Argentina	131,556	0,102	0,063	0,044	0,108	0,123	0,029	0,024
Australia	178,752	0,141	0,088	0,062	0,149	0,169	0,041	0,035
Austria	168,948	0,132	0,083	0,058	0,140	0,159	0,039	0,033
Belgium	113,544	0,087	0,053	0,037	0,092	0,105	0,024	0,020
Bulgaria	88,692	0,066	0,040	0,027	0,070	0,080	0,017	0,014
Cambodia	56,430	0,039	0,023	0,015	0,042	0,048	0,008	0,006
Canada	186,846	0,147	0,093	0,065	0,156	0,177	0,044	0,037
China	107,844	0,082	0,050	0,035	0,087	0,099	0,022	0,018
Croatia	220,590	0,175	0,111	0,079	0,185	0,210	0,053	0,045
Czech Republic	125,058	0,096	0,060	0,041	0,102	0,116	0,027	0,022
Dominican Rep	150,024	0,117	0,073	0,051	0,124	0,141	0,034	0,028
Egypt	200,982	0,159	0,100	0,071	0,168	0,191	0,048	0,040
France	174,648	0,137	0,086	0,061	0,145	0,165	0,040	0,034
Germany	145,236	0,113	0,070	0,049	0,120	0,136	0,032	0,027
Greece	170,772	0,134	0,084	0,059	0,142	0,161	0,039	0,033
Hong Kong (China)	190,152	0,150	0,094	0,067	0,159	0,180	0,045	0,038
Hungary	102,828	0,078	0,048	0,033	0,083	0,094	0,021	0,017
India	141,474	0,110	0,068	0,048	0,116	0,132	0,031	0,026
Indonesia	53,238	0,037	0,021	0,014	0,039	0,045	0,007	0,005
Italy	182,628	0,144	0,090	0,064	0,152	0,173	0,043	0,036
Japan	96,330	0,072	0,044	0,030	0,077	0,088	0,019	0,016
Kazakhstan	182,856	0,144	0,090	0,064	0,152	0,173	0,043	0,036
Korea (ROK)	205,314	0,162	0,102	0,073	0,172	0,195	0,049	0,041
Macao (China)	265,848	0,212	0,135	0,096	0,225	0,255	0,065	0,056
Malaysia	101,688	0,077	0,047	0,032	0,082	0,093	0,021	0,017
Mexico	116,622	0,089	0,055	0,038	0,095	0,108	0,025	0,020
Morocco	140,448	0,109	0,068	0,047	0,115	0,131	0,031	0,026
Netherlands	256,614	0,205	0,130	0,093	0,217	0,246	0,063	0,053
Norway	124,260	0,095	0,059	0,041	0,101	0,115	0,027	0,022
Philippines	127,908	0,098	0,061	0,043	0,104	0,119	0,028	0,023
Portugal	217,626	0,173	0,109	0,077	0,183	0,207	0,052	0,044
Russian Federation	112,290	0,086	0,053	0,036	0,091	0,104	0,023	0,019
Saudi Arabia	284,544	0,228	0,145	0,103	0,241	0,273	0,070	0,060
Singapore	196,650	0,155	0,098	0,069	0,164	0,187	0,046	0,039
South Africa	189,810	0,150	0,094	0,067	0,158	0,180	0,045	0,038
Spain	130,644	0,101	0,063	0,044	0,107	0,122	0,028	0,024
Sweden	138,168	0,107	0,067	0,047	0,113	0,129	0,030	0,025
Switzerland	169,176	0,133	0,083	0,059	0,140	0,160	0,039	0,033
Taiwan (pr, of China)	89,718	0,067	0,041	0,028	0,071	0,081	0,017	0,014
Tunisia	131,898	0,102	0,063	0,044	0,108	0,123	0,029	0,024
Turkey	189,810	0,150	0,094	0,067	0,158	0,180	0,045	0,038
Ukraine	108,528	0,082	0,051	0,035	0,087	0,100	0,022	0,018
United Kingdom	143,184	0,111	0,069	0,048	0,118	0,134	0,032	0,027
United States	227,088	0,180	0,114	0,081	0,191	0,217	0,055	0,046
Vietnam	145,236	0,113	0,070	0,049	0,120	0,136	0,032	0,027

		GUEST						
		24524	53959	22916	5497	9788	33030	36927
HOTEL DEST	Hotel economic avg	Greece	Hong Kong ((	Hungary	India	Indonesia	Italy	Japan
Argentina	131,556	0,048	0,018	0,052	0,241	0,132	0,034	0,030
Australia	178,752	0,068	0,027	0,074	0,330	0,182	0,049	0,043
Austria	168,948	0,064	0,025	0,069	0,311	0,172	0,046	0,040
Belgium	113,544	0,041	0,015	0,044	0,207	0,113	0,028	0,025
Bulgaria	88,692	0,030	0,010	0,033	0,160	0,087	0,021	0,018
Cambodia	56,430	0,017	0,004	0,018	0,099	0,053	0,011	0,009
Canada	186,846	0,072	0,029	0,077	0,345	0,191	0,051	0,045
China	107,844	0,038	0,014	0,042	0,196	0,107	0,027	0,023
Croatia	220,590	0,086	0,035	0,093	0,409	0,226	0,062	0,055
Czech Republic	125,058	0,046	0,017	0,049	0,229	0,125	0,032	0,028
Dominican Rep	150,024	0,056	0,022	0,061	0,276	0,152	0,040	0,035
Egypt	200,982	0,078	0,031	0,084	0,372	0,206	0,056	0,049
France	174,648	0,067	0,026	0,072	0,322	0,178	0,048	0,042
Germany	145,236	0,054	0,021	0,059	0,267	0,147	0,038	0,034
Greece	170,772	0,065	0,026	0,070	0,315	0,174	0,046	0,041
Hong Kong (China)	190,152	0,073	0,029	0,079	0,351	0,194	0,052	0,046
Hungary	102,828	0,036	0,013	0,039	0,187	0,102	0,025	0,022
India	141,474	0,053	0,020	0,057	0,260	0,143	0,037	0,033
Indonesia	53,238	0,015	0,003	0,017	0,093	0,049	0,010	0,008
Italy	182,628	0,070	0,028	0,075	0,337	0,186	0,050	0,044
Japan	96,330	0,034	0,011	0,036	0,174	0,095	0,023	0,020
Kazakhstan	182,856	0,070	0,028	0,076	0,338	0,186	0,050	0,044
Korea (ROK)	205,314	0,080	0,032	0,086	0,380	0,210	0,057	0,050
Macao (China)	265,848	0,105	0,044	0,113	0,494	0,274	0,076	0,067
Malaysia	101,688	0,036	0,012	0,039	0,185	0,101	0,025	0,021
Mexico	116,622	0,042	0,015	0,046	0,213	0,116	0,029	0,026
Morocco	140,448	0,052	0,020	0,056	0,258	0,142	0,037	0,032
Netherlands	256,614	0,101	0,042	0,109	0,477	0,265	0,073	0,065
Norway	124,260	0,045	0,017	0,049	0,227	0,124	0,032	0,028
Philippines	127,908	0,047	0,017	0,051	0,234	0,128	0,033	0,029
Portugal	217,626	0,085	0,035	0,091	0,403	0,223	0,061	0,054
Russian Federation	112,290	0,040	0,014	0,044	0,205	0,112	0,028	0,024
Saudi Arabia	284,544	0,113	0,047	0,122	0,529	0,294	0,082	0,073
Singapore	196,650	0,076	0,031	0,082	0,364	0,201	0,055	0,048
South Africa	189,810	0,073	0,029	0,079	0,351	0,194	0,052	0,046
Spain	130,644	0,048	0,018	0,052	0,239	0,131	0,034	0,029
Sweden	138,168	0,051	0,019	0,055	0,253	0,139	0,036	0,032
Switzerland	169,176	0,064	0,025	0,069	0,312	0,172	0,046	0,040
Taiwan (pr, of China)	89,718	0,031	0,010	0,033	0,162	0,088	0,021	0,018
Tunisia	131,898	0,049	0,018	0,052	0,242	0,133	0,034	0,030
Turkey	189,810	0,073	0,029	0,079	0,351	0,194	0,052	0,046
Ukraine	108,528	0,039	0,014	0,042	0,197	0,108	0,027	0,023
United Kingdom	143,184	0,053	0,020	0,058	0,263	0,144	0,038	0,033
United States	227,088	0,089	0,036	0,096	0,421	0,233	0,064	0,057
Vietnam	145,236	0,054	0,021	0,059	0,267	0,147	0,038	0,034

		GUEST						
		20867	33890	12547	22762	16056	6850	45435
HOTEL DEST	Hotel economic avg	Kazakhstan	Korea (ROK)	Macao (Chin	Malaysia	Mexico	Morocco	Netherlands
Argentina	131,556	0,058	0,033	0,102	0,053	0,078	0,192	0,023
Australia	178,752	0,082	0,047	0,141	0,074	0,108	0,263	0,034
Austria	168,948	0,077	0,044	0,132	0,070	0,102	0,249	0,031
Belgium	113,544	0,049	0,028	0,087	0,045	0,066	0,165	0,019
Bulgaria	88,692	0,037	0,020	0,066	0,033	0,050	0,127	0,013
Cambodia	56,430	0,021	0,010	0,039	0,019	0,029	0,078	0,006
Canada	186,846	0,086	0,050	0,147	0,078	0,113	0,276	0,035
China	107,844	0,046	0,026	0,082	0,042	0,062	0,156	0,017
Croatia	220,590	0,102	0,060	0,175	0,093	0,135	0,327	0,043
Czech Republic	125,058	0,055	0,031	0,096	0,050	0,074	0,182	0,021
Dominican Rep	150,024	0,067	0,039	0,117	0,061	0,090	0,220	0,027
Egypt	200,982	0,093	0,054	0,159	0,084	0,123	0,297	0,039
France	174,648	0,080	0,046	0,137	0,072	0,106	0,257	0,033
Germany	145,236	0,065	0,037	0,113	0,059	0,087	0,213	0,026
Greece	170,772	0,078	0,045	0,134	0,071	0,103	0,251	0,032
Hong Kong (China)	190,152	0,087	0,051	0,150	0,079	0,116	0,281	0,036
Hungary	102,828	0,044	0,024	0,078	0,040	0,059	0,148	0,016
India	141,474	0,063	0,036	0,110	0,057	0,084	0,207	0,025
Indonesia	53,238	0,019	0,009	0,037	0,017	0,027	0,073	0,005
Italy	182,628	0,084	0,049	0,144	0,076	0,111	0,269	0,034
Japan	96,330	0,041	0,022	0,072	0,037	0,055	0,139	0,015
Kazakhstan	182,856	0,084	0,049	0,144	0,076	0,111	0,270	0,035
Korea (ROK)	205,314	0,095	0,056	0,162	0,086	0,125	0,304	0,040
Macao (China)	265,848	0,125	0,074	0,212	0,114	0,164	0,395	0,053
Malaysia	101,688	0,043	0,024	0,077	0,039	0,058	0,147	0,016
Mexico	116,622	0,051	0,028	0,089	0,046	0,068	0,169	0,019
Morocco	140,448	0,063	0,036	0,109	0,057	0,083	0,205	0,025
Netherlands	256,614	0,120	0,071	0,205	0,110	0,158	0,381	0,051
Norway	124,260	0,055	0,031	0,095	0,049	0,073	0,181	0,021
Philippines	127,908	0,056	0,032	0,098	0,051	0,075	0,186	0,022
Portugal	217,626	0,101	0,059	0,173	0,092	0,133	0,322	0,042
Russian Federation	112,290	0,049	0,027	0,086	0,044	0,065	0,163	0,018
Saudi Arabia	284,544	0,134	0,080	0,228	0,122	0,177	0,423	0,058
Singapore	196,650	0,091	0,053	0,155	0,082	0,120	0,290	0,038
South Africa	189,810	0,087	0,051	0,150	0,079	0,115	0,280	0,036
Spain	130,644	0,058	0,033	0,101	0,052	0,077	0,191	0,023
Sweden	138,168	0,061	0,035	0,107	0,056	0,082	0,202	0,024
Switzerland	169,176	0,077	0,045	0,133	0,070	0,102	0,249	0,031
Taiwan (pr, of China)	89,718	0,037	0,020	0,067	0,034	0,051	0,129	0,013
Tunisia	131,898	0,058	0,033	0,102	0,053	0,078	0,192	0,023
Turkey	189,810	0,087	0,051	0,150	0,079	0,115	0,280	0,036
Ukraine	108,528	0,047	0,026	0,082	0,042	0,063	0,157	0,018
United Kingdom	143,184	0,064	0,037	0,111	0,058	0,085	0,210	0,025
United States	227,088	0,106	0,062	0,180	0,096	0,139	0,337	0,045
Vietnam	145,236	0,065	0,037	0,113	0,059	0,087	0,213	0,026

		GUEST						
		64992	7915	25757	22352	52821	76628	12122
HOTEL DEST	Hotel economic avg	Norway	Philippines	Portugal	Russian Fede	Saudi Arabia	Singapore	South Africa
Argentina	131,556	0,014	0,165	0,046	0,054	0,019	0,011	0,105
Australia	178,752	0,021	0,227	0,065	0,076	0,028	0,017	0,146
Austria	168,948	0,020	0,214	0,061	0,071	0,026	0,016	0,137
Belgium	113,544	0,011	0,142	0,039	0,045	0,015	0,008	0,090
Bulgaria	88,692	0,007	0,109	0,028	0,034	0,010	0,005	0,069
Cambodia	56,430	0,002	0,067	0,016	0,019	0,004	0,000	0,041
Canada	186,846	0,023	0,238	0,068	0,079	0,029	0,018	0,153
China	107,844	0,010	0,134	0,036	0,043	0,014	0,007	0,085
Croatia	220,590	0,028	0,282	0,082	0,095	0,036	0,023	0,181
Czech Republic	125,058	0,013	0,157	0,043	0,051	0,017	0,010	0,100
Dominican Rep	150,024	0,017	0,189	0,053	0,062	0,022	0,013	0,121
Egypt	200,982	0,025	0,256	0,074	0,086	0,032	0,020	0,165
France	174,648	0,021	0,222	0,063	0,074	0,027	0,016	0,142
Germany	145,236	0,016	0,183	0,051	0,060	0,021	0,012	0,117
Greece	170,772	0,020	0,216	0,062	0,072	0,026	0,016	0,139
Hong Kong (China)	190,152	0,023	0,242	0,069	0,081	0,030	0,019	0,155
Hungary	102,828	0,009	0,127	0,034	0,040	0,013	0,007	0,081
India	141,474	0,015	0,178	0,050	0,058	0,021	0,012	0,114
Indonesia	53,238	0,001	0,063	0,014	0,017	0,003	0,000	0,038
Italy	182,628	0,022	0,232	0,066	0,078	0,029	0,018	0,149
Japan	96,330	0,008	0,119	0,032	0,037	0,012	0,006	0,075
Kazakhstan	182,856	0,022	0,232	0,066	0,078	0,029	0,018	0,149
Korea (ROK)	205,314	0,026	0,262	0,075	0,088	0,033	0,021	0,168
Macao (China)	265,848	0,035	0,341	0,100	0,116	0,045	0,029	0,220
Malaysia	101,688	0,009	0,126	0,034	0,040	0,013	0,007	0,080
Mexico	116,622	0,011	0,146	0,040	0,047	0,016	0,009	0,093
Morocco	140,448	0,015	0,177	0,049	0,058	0,020	0,012	0,113
Netherlands	256,614	0,034	0,329	0,096	0,112	0,043	0,028	0,212
Norway	124,260	0,013	0,156	0,043	0,050	0,017	0,010	0,099
Philippines	127,908	0,013	0,160	0,044	0,052	0,018	0,010	0,102
Portugal	217,626	0,028	0,278	0,080	0,094	0,036	0,022	0,179
Russian Federation	112,290	0,011	0,140	0,038	0,045	0,015	0,008	0,089
Saudi Arabia	284,544	0,038	0,366	0,107	0,125	0,049	0,031	0,236
Singapore	196,650	0,024	0,250	0,072	0,084	0,031	0,019	0,161
South Africa	189,810	0,023	0,241	0,069	0,081	0,030	0,018	0,155
Spain	130,644	0,014	0,164	0,045	0,053	0,018	0,010	0,105
Sweden	138,168	0,015	0,174	0,048	0,057	0,020	0,011	0,111
Switzerland	169,176	0,020	0,214	0,061	0,071	0,026	0,016	0,137
Taiwan (pr, of China)	89,718	0,007	0,110	0,029	0,034	0,010	0,005	0,070
Tunisia	131,898	0,014	0,166	0,046	0,054	0,019	0,011	0,106
Turkey	189,810	0,023	0,241	0,069	0,081	0,030	0,018	0,155
Ukraine	108,528	0,010	0,135	0,036	0,043	0,014	0,007	0,086
United Kingdom	143,184	0,016	0,180	0,050	0,059	0,021	0,012	0,115
United States	227,088	0,029	0,290	0,084	0,098	0,037	0,024	0,187
Vietnam	145,236	0,016	0,183	0,051	0,060	0,021	0,012	0,117

		GUEST						
		32045	45636	56431	12547	10404	18577	8178
HOTEL DEST	Hotel economic avg	Spain	Sweden	Switzerland	Taiwan (pr, c	Tunisia	Turkey	Ukraine
Argentina	131,556	0,035	0,023	0,017	0,102	0,124	0,066	0,160
Australia	178,752	0,051	0,033	0,026	0,141	0,171	0,093	0,219
Austria	168,948	0,047	0,031	0,024	0,132	0,161	0,087	0,207
Belgium	113,544	0,030	0,019	0,014	0,087	0,106	0,056	0,137
Bulgaria	88,692	0,021	0,013	0,009	0,066	0,081	0,042	0,105
Cambodia	56,430	0,011	0,006	0,003	0,039	0,049	0,024	0,064
Canada	186,846	0,053	0,035	0,027	0,147	0,179	0,097	0,230
China	107,844	0,028	0,017	0,013	0,082	0,100	0,053	0,130
Croatia	220,590	0,064	0,043	0,033	0,175	0,213	0,116	0,272
Czech Republic	125,058	0,033	0,021	0,016	0,096	0,117	0,063	0,151
Dominican Rep	150,024	0,041	0,027	0,020	0,117	0,142	0,077	0,183
Egypt	200,982	0,058	0,038	0,030	0,159	0,193	0,105	0,248
France	174,648	0,049	0,032	0,025	0,137	0,167	0,090	0,214
Germany	145,236	0,040	0,026	0,019	0,113	0,138	0,074	0,177
Greece	170,772	0,048	0,032	0,024	0,134	0,163	0,088	0,209
Hong Kong (China)	190,152	0,054	0,036	0,028	0,150	0,182	0,099	0,234
Hungary	102,828	0,026	0,016	0,012	0,078	0,095	0,050	0,123
India	141,474	0,039	0,025	0,019	0,110	0,134	0,072	0,172
Indonesia	53,238	0,010	0,005	0,003	0,037	0,046	0,023	0,060
Italy	182,628	0,052	0,034	0,026	0,144	0,175	0,095	0,224
Japan	96,330	0,024	0,015	0,010	0,072	0,089	0,047	0,115
Kazakhstan	182,856	0,052	0,034	0,026	0,144	0,175	0,095	0,225
Korea (ROK)	205,314	0,059	0,039	0,031	0,162	0,197	0,107	0,253
Macao (China)	265,848	0,079	0,053	0,042	0,212	0,258	0,141	0,330
Malaysia	101,688	0,026	0,016	0,011	0,077	0,094	0,050	0,122
Mexico	116,622	0,031	0,019	0,014	0,089	0,109	0,058	0,141
Morocco	140,448	0,038	0,025	0,019	0,109	0,133	0,071	0,171
Netherlands	256,614	0,076	0,051	0,040	0,205	0,249	0,136	0,318
Norway	124,260	0,033	0,021	0,016	0,095	0,117	0,062	0,150
Philippines	127,908	0,034	0,022	0,016	0,098	0,120	0,064	0,155
Portugal	217,626	0,063	0,042	0,033	0,173	0,210	0,114	0,269
Russian Federation	112,290	0,029	0,018	0,013	0,086	0,105	0,055	0,135
Saudi Arabia	284,544	0,085	0,057	0,045	0,228	0,276	0,152	0,354
Singapore	196,650	0,056	0,037	0,029	0,155	0,189	0,103	0,242
South Africa	189,810	0,054	0,036	0,028	0,150	0,182	0,099	0,233
Spain	130,644	0,035	0,022	0,017	0,101	0,123	0,066	0,158
Sweden	138,168	0,037	0,024	0,018	0,107	0,130	0,070	0,168
Switzerland	169,176	0,048	0,031	0,024	0,133	0,161	0,087	0,207
Taiwan (pr, of China)	89,718	0,022	0,013	0,009	0,067	0,082	0,043	0,107
Tunisia	131,898	0,035	0,023	0,017	0,102	0,124	0,066	0,160
Turkey	189,810	0,054	0,036	0,028	0,150	0,182	0,099	0,233
Ukraine	108,528	0,028	0,017	0,013	0,082	0,101	0,053	0,130
United Kingdom	143,184	0,039	0,025	0,019	0,111	0,135	0,073	0,174
United States	227,088	0,066	0,044	0,035	0,180	0,219	0,120	0,281
Vietnam	145,236	0,040	0,026	0,019	0,113	0,138	0,074	0,177

		GUEST			
		39257	52947	5092	
HOTEL DEST	Hotel economic avg	United Kingd	United States	Vietnam	INDEX
Argentina	131,556	0,028	0,019	0,261	0,061
Australia	178,752	0,040	0,028	0,357	0,098
Austria	168,948	0,037	0,026	0,337	0,086
Belgium	113,544	0,023	0,015	0,224	0,053
Bulgaria	88,692	0,016	0,010	0,173	0,035
Cambodia	56,430	0,008	0,004	0,108	0,013
Canada	186,846	0,042	0,029	0,373	0,098
China	107,844	0,021	0,014	0,212	0,041
Croatia	220,590	0,051	0,036	0,442	0,107
Czech Republic	125,058	0,026	0,017	0,247	0,059
Dominican Rep	150,024	0,032	0,022	0,298	0,061
Egypt	200,982	0,046	0,032	0,402	0,082
France	174,648	0,039	0,027	0,348	0,088
Germany	145,236	0,031	0,021	0,289	0,075
Greece	170,772	0,038	0,026	0,341	0,077
Hong Kong (China)	190,152	0,043	0,030	0,380	0,101
Hungary	102,828	0,020	0,013	0,202	0,045
India	141,474	0,030	0,020	0,281	0,048
Indonesia	53,238	0,007	0,003	0,101	0,014
Italy	182,628	0,041	0,029	0,365	0,087
Japan	96,330	0,018	0,012	0,189	0,044
Kazakhstan	182,856	0,041	0,029	0,365	0,085
Korea (ROK)	205,314	0,047	0,033	0,411	0,109
Macao (China)	265,848	0,063	0,045	0,534	0,119
Malaysia	101,688	0,020	0,013	0,200	0,041
Mexico	116,622	0,024	0,016	0,230	0,047
Morocco	140,448	0,030	0,020	0,279	0,050
Netherlands	256,614	0,061	0,043	0,515	0,141
Norway	124,260	0,026	0,017	0,246	0,063
Philippines	127,908	0,027	0,018	0,253	0,047
Portugal	217,626	0,050	0,035	0,436	0,107
Russian Federation	112,290	0,022	0,015	0,221	0,046
Saudi Arabia	284,544	0,068	0,049	0,572	0,147
Singapore	196,650	0,045	0,031	0,393	0,106
South Africa	189,810	0,043	0,030	0,379	0,075
Spain	130,644	0,027	0,018	0,259	0,063
Sweden	138,168	0,029	0,020	0,274	0,066
Switzerland	169,176	0,037	0,026	0,337	0,088
Taiwan (pr, of China)	89,718	0,016	0,010	0,175	0,033
Tunisia	131,898	0,028	0,019	0,261	0,053
Turkey	189,810	0,043	0,030	0,379	0,086
Ukraine	108,528	0,021	0,014	0,214	0,043
United Kingdom	143,184	0,031	0,021	0,284	0,070
United States	227,088	0,053	0,037	0,455	0,123
Vietnam	145,236	0,031	0,021	0,289	0,054

Appendix 2: Table of the digital divide index

	GUEST GENERATION	Traditional	Traditional	Traditional	Traditional	Traditional
	GUEST	Argentina	Australia	Austria	Belgium	Bulgaria
HOTEL DEST		0,011	0,026	0,026	0,024	0,007
Argentina	0,061	0,049	0,034	0,035	0,036	0,053
Australia	0,098	0,087	0,072	0,072	0,074	0,091
Austria	0,086	0,075	0,060	0,060	0,062	0,079
Belgium	0,053	0,042	0,027	0,027	0,029	0,046
Bulgaria	0,035	0,023	0,008	0,009	0,010	0,028
Cambodia	0,013	0,001	0,013	0,013	0,011	0,006
Canada	0,098	0,087	0,072	0,072	0,074	0,091
China	0,041	0,030	0,015	0,015	0,017	0,034
Croatia	0,107	0,096	0,081	0,081	0,083	0,100
Czech Republic	0,059	0,048	0,033	0,033	0,035	0,052
Dominican Rep	0,061	0,049	0,034	0,035	0,036	0,054
Egypt	0,082	0,071	0,056	0,056	0,058	0,075
France	0,088	0,077	0,062	0,062	0,064	0,081
Germany	0,075	0,064	0,049	0,049	0,051	0,068
Greece	0,077	0,065	0,050	0,051	0,052	0,069
Hong Kong (China)	0,101	0,090	0,075	0,075	0,077	0,094
Hungary	0,045	0,033	0,018	0,019	0,020	0,038
India	0,048	0,037	0,022	0,022	0,024	0,041
Indonesia	0,014	0,003	0,012	0,011	0,010	0,007
Italy	0,087	0,076	0,061	0,061	0,063	0,080
Japan	0,044	0,033	0,018	0,018	0,020	0,037
Kazakhstan	0,085	0,074	0,059	0,059	0,061	0,078
Korea (ROK)	0,109	0,098	0,083	0,083	0,085	0,102
Macao (China)	0,119	0,107	0,093	0,093	0,094	0,112
Malaysia	0,041	0,030	0,015	0,015	0,017	0,034
Mexico	0,047	0,036	0,021	0,021	0,023	0,040
Morocco	0,050	0,038	0,023	0,024	0,025	0,043
Netherlands	0,141	0,130	0,115	0,115	0,117	0,134
Norway	0,063	0,052	0,037	0,038	0,039	0,056
Philippines	0,047	0,035	0,020	0,021	0,022	0,040
Portugal	0,107	0,096	0,081	0,081	0,083	0,100
Russian Federation	0,046	0,035	0,020	0,020	0,022	0,039
Saudi Arabia	0,147	0,136	0,121	0,121	0,123	0,140
Singapore	0,106	0,095	0,080	0,080	0,082	0,099
South Africa	0,075	0,063	0,048	0,049	0,050	0,068
Spain	0,063	0,052	0,037	0,037	0,039	0,056
Sweden	0,066	0,054	0,039	0,040	0,041	0,059
Switzerland	0,088	0,076	0,061	0,062	0,063	0,081
Taiwan (pr, of China)	0,033	0,021	0,007	0,007	0,009	0,026
Tunisia	0,053	0,041	0,026	0,027	0,028	0,046
Turkey	0,086	0,074	0,059	0,060	0,061	0,079
Ukraine	0,043	0,031	0,017	0,017	0,018	0,036
United Kingdom	0,070	0,058	0,043	0,044	0,045	0,063
United States	0,123	0,112	0,097	0,097	0,099	0,116
Vietnam	0,054	0,043	0,028	0,029	0,030	0,047

	GUEST GENERATION	Traditional	Traditional	Traditional	Traditional	Traditional
	GUEST	Cambodia	Canada	China	Croatia	Czech Repub
HOTEL DEST		0,000	0,026	0,005	0,010	0,015
Argentina	0,061	0,061	0,035	0,056	0,051	0,046
Australia	0,098	0,098	0,072	0,093	0,088	0,083
Austria	0,086	0,086	0,060	0,081	0,076	0,071
Belgium	0,053	0,053	0,028	0,048	0,044	0,039
Bulgaria	0,035	0,035	0,009	0,030	0,025	0,020
Cambodia	0,013	0,013	0,013	0,008	0,003	0,002
Canada	0,098	0,098	0,073	0,093	0,089	0,084
China	0,041	0,041	0,016	0,036	0,032	0,027
Croatia	0,107	0,107	0,082	0,102	0,098	0,093
Czech Republic	0,059	0,059	0,033	0,054	0,049	0,044
Dominican Rep	0,061	0,061	0,035	0,056	0,051	0,046
Egypt	0,082	0,082	0,057	0,077	0,073	0,068
France	0,088	0,088	0,063	0,083	0,079	0,074
Germany	0,075	0,075	0,049	0,070	0,065	0,060
Greece	0,077	0,077	0,051	0,072	0,067	0,062
Hong Kong (China)	0,101	0,101	0,076	0,096	0,092	0,086
Hungary	0,045	0,045	0,019	0,040	0,035	0,030
India	0,048	0,048	0,022	0,043	0,038	0,033
Indonesia	0,014	0,014	0,011	0,009	0,005	0,000
Italy	0,087	0,087	0,062	0,082	0,078	0,073
Japan	0,044	0,044	0,019	0,039	0,035	0,029
Kazakhstan	0,085	0,085	0,059	0,080	0,075	0,070
Korea (ROK)	0,109	0,109	0,083	0,104	0,099	0,094
Macao (China)	0,119	0,119	0,093	0,114	0,109	0,104
Malaysia	0,041	0,041	0,016	0,036	0,032	0,026
Mexico	0,047	0,047	0,022	0,042	0,038	0,032
Morocco	0,050	0,050	0,024	0,045	0,040	0,035
Netherlands	0,141	0,141	0,116	0,136	0,132	0,126
Norway	0,063	0,063	0,038	0,058	0,054	0,049
Philippines	0,047	0,047	0,021	0,042	0,037	0,032
Portugal	0,107	0,107	0,081	0,102	0,097	0,092
Russian Federation	0,046	0,046	0,020	0,041	0,036	0,031
Saudi Arabia	0,147	0,147	0,122	0,142	0,138	0,132
Singapore	0,106	0,106	0,080	0,101	0,096	0,091
South Africa	0,075	0,075	0,049	0,070	0,065	0,060
Spain	0,063	0,063	0,038	0,058	0,054	0,049
Sweden	0,066	0,066	0,040	0,061	0,056	0,051
Switzerland	0,088	0,088	0,062	0,083	0,078	0,073
Taiwan (pr, of China)	0,033	0,033	0,007	0,028	0,023	0,018
Tunisia	0,053	0,053	0,027	0,048	0,043	0,038
Turkey	0,086	0,086	0,060	0,081	0,076	0,071
Ukraine	0,043	0,043	0,017	0,038	0,033	0,028
United Kingdom	0,070	0,070	0,044	0,065	0,060	0,055
United States	0,123	0,123	0,098	0,118	0,114	0,108
Vietnam	0,054	0,054	0,029	0,049	0,045	0,040

GUEST GENERATION / GUEST		Traditional Dominican R	Traditional Egypt	Traditional France	Traditional Germany	Traditional Greece
HOTEL DEST		0,005	0,004	0,022	0,027	0,013
Argentina	0,061	0,056	0,057	0,038	0,034	0,047
Australia	0,098	0,093	0,094	0,076	0,071	0,085
Austria	0,086	0,082	0,082	0,064	0,059	0,073
Belgium	0,053	0,049	0,050	0,031	0,027	0,040
Bulgaria	0,035	0,030	0,031	0,012	0,008	0,021
Cambodia	0,013	0,008	0,009	0,009	0,014	0,000
Canada	0,098	0,094	0,095	0,076	0,071	0,085
China	0,041	0,037	0,038	0,019	0,014	0,028
Croatia	0,107	0,103	0,104	0,085	0,080	0,094
Czech Republic	0,059	0,054	0,055	0,037	0,032	0,046
Dominican Rep	0,061	0,056	0,057	0,038	0,034	0,047
Egypt	0,082	0,078	0,079	0,060	0,056	0,069
France	0,088	0,084	0,085	0,066	0,061	0,075
Germany	0,075	0,070	0,071	0,053	0,048	0,062
Greece	0,077	0,072	0,073	0,054	0,050	0,063
Hong Kong (China)	0,101	0,097	0,097	0,079	0,074	0,088
Hungary	0,045	0,040	0,041	0,022	0,018	0,031
India	0,048	0,043	0,044	0,026	0,021	0,035
Indonesia	0,014	0,010	0,011	0,008	0,012	0,001
Italy	0,087	0,083	0,084	0,065	0,060	0,074
Japan	0,044	0,040	0,040	0,022	0,017	0,031
Kazakhstan	0,085	0,080	0,081	0,063	0,058	0,072
Korea (ROK)	0,109	0,105	0,105	0,087	0,082	0,096
Macao (China)	0,119	0,114	0,115	0,097	0,092	0,105
Malaysia	0,041	0,037	0,038	0,019	0,014	0,028
Mexico	0,047	0,043	0,043	0,025	0,020	0,034
Morocco	0,050	0,045	0,046	0,027	0,023	0,036
Netherlands	0,141	0,137	0,137	0,119	0,114	0,128
Norway	0,063	0,059	0,060	0,041	0,037	0,050
Philippines	0,047	0,042	0,043	0,024	0,020	0,033
Portugal	0,107	0,103	0,103	0,085	0,080	0,094
Russian Federation	0,046	0,041	0,042	0,024	0,019	0,033
Saudi Arabia	0,147	0,143	0,144	0,125	0,120	0,134
Singapore	0,106	0,101	0,102	0,084	0,079	0,093
South Africa	0,075	0,070	0,071	0,052	0,048	0,061
Spain	0,063	0,059	0,060	0,041	0,036	0,050
Sweden	0,066	0,061	0,062	0,043	0,039	0,052
Switzerland	0,088	0,083	0,084	0,065	0,061	0,074
Taiwan (pr, of China)	0,033	0,028	0,029	0,011	0,006	0,020
Tunisia	0,053	0,048	0,049	0,030	0,026	0,039
Turkey	0,086	0,081	0,082	0,063	0,059	0,072
Ukraine	0,043	0,038	0,039	0,021	0,016	0,029
United Kingdom	0,070	0,065	0,066	0,047	0,043	0,056
United States	0,123	0,119	0,119	0,101	0,096	0,110
Vietnam	0,054	0,050	0,051	0,032	0,028	0,041

	GUEST GENERATION GUEST	Traditional Hong Kong (	Traditional Hungary	Traditional India	Traditional Indonesia	Traditional Italy
HOTEL DEST		0,033	0,012	0,001	0,003	0,019
Argentina	0,061	0,027	0,049	0,059	0,057	0,042
Australia	0,098	0,065	0,086	0,097	0,095	0,079
Austria	0,086	0,053	0,074	0,085	0,083	0,067
Belgium	0,053	0,020	0,042	0,052	0,050	0,035
Bulgaria	0,035	0,001	0,023	0,034	0,031	0,016
Cambodia	0,013	0,020	0,001	0,012	0,010	0,006
Canada	0,098	0,065	0,086	0,097	0,095	0,079
China	0,041	0,008	0,030	0,040	0,038	0,023
Croatia	0,107	0,074	0,095	0,106	0,104	0,088
Czech Republic	0,059	0,026	0,047	0,058	0,056	0,040
Dominican Rep	0,061	0,028	0,049	0,060	0,057	0,042
Egypt	0,082	0,049	0,071	0,081	0,079	0,064
France	0,088	0,055	0,076	0,087	0,085	0,069
Germany	0,075	0,042	0,063	0,074	0,072	0,056
Greece	0,077	0,043	0,065	0,075	0,073	0,058
Hong Kong (China)	0,101	0,068	0,089	0,100	0,098	0,082
Hungary	0,045	0,012	0,033	0,044	0,041	0,026
India	0,048	0,015	0,036	0,047	0,045	0,029
Indonesia	0,014	0,019	0,003	0,013	0,011	0,004
Italy	0,087	0,054	0,075	0,086	0,084	0,069
Japan	0,044	0,011	0,032	0,043	0,041	0,025
Kazakhstan	0,085	0,052	0,073	0,084	0,082	0,066
Korea (ROK)	0,109	0,076	0,097	0,108	0,106	0,090
Macao (China)	0,119	0,086	0,107	0,118	0,115	0,100
Malaysia	0,041	0,008	0,029	0,040	0,038	0,022
Mexico	0,047	0,014	0,035	0,046	0,044	0,028
Morocco	0,050	0,017	0,038	0,049	0,046	0,031
Netherlands	0,141	0,108	0,129	0,140	0,138	0,122
Norway	0,063	0,030	0,052	0,062	0,060	0,045
Philippines	0,047	0,014	0,035	0,046	0,043	0,028
Portugal	0,107	0,074	0,095	0,106	0,104	0,088
Russian Federation	0,046	0,013	0,034	0,045	0,043	0,027
Saudi Arabia	0,147	0,114	0,135	0,146	0,144	0,128
Singapore	0,106	0,073	0,094	0,105	0,103	0,087
South Africa	0,075	0,041	0,063	0,074	0,071	0,056
Spain	0,063	0,030	0,052	0,062	0,060	0,045
Sweden	0,066	0,032	0,054	0,065	0,062	0,047
Switzerland	0,088	0,054	0,076	0,086	0,084	0,069
Taiwan (pr, of China)	0,033	0,000	0,021	0,032	0,030	0,014
Tunisia	0,053	0,020	0,041	0,052	0,049	0,034
Turkey	0,086	0,053	0,074	0,085	0,082	0,067
Ukraine	0,043	0,010	0,031	0,042	0,040	0,024
United Kingdom	0,070	0,036	0,058	0,069	0,066	0,051
United States	0,123	0,090	0,111	0,122	0,120	0,104
Vietnam	0,054	0,021	0,043	0,053	0,051	0,036

	GUEST GENERATION GUEST	Traditional Japan	Traditional Kazakhstan	Traditional Korea (ROK)	Traditional Macao (Chin	Traditional Malaysia
HOTEL DEST		0,022	0,010	0,020	0,005	0,011
Argentina	0,061	0,039	0,050	0,041	0,056	0,050
Australia	0,098	0,076	0,088	0,078	0,093	0,087
Austria	0,086	0,064	0,076	0,066	0,081	0,075
Belgium	0,053	0,032	0,043	0,033	0,048	0,042
Bulgaria	0,035	0,013	0,025	0,015	0,030	0,024
Cambodia	0,013	0,009	0,003	0,007	0,008	0,002
Canada	0,098	0,077	0,088	0,078	0,093	0,087
China	0,041	0,020	0,031	0,021	0,036	0,030
Croatia	0,107	0,086	0,097	0,087	0,102	0,096
Czech Republic	0,059	0,037	0,049	0,039	0,054	0,048
Dominican Rep	0,061	0,039	0,051	0,041	0,056	0,050
Egypt	0,082	0,061	0,072	0,063	0,077	0,071
France	0,088	0,067	0,078	0,068	0,083	0,077
Germany	0,075	0,053	0,065	0,055	0,070	0,064
Greece	0,077	0,055	0,066	0,057	0,072	0,065
Hong Kong (China)	0,101	0,080	0,091	0,081	0,096	0,090
Hungary	0,045	0,023	0,035	0,025	0,040	0,034
India	0,048	0,026	0,038	0,028	0,043	0,037
Indonesia	0,014	0,007	0,004	0,005	0,009	0,003
Italy	0,087	0,066	0,077	0,067	0,082	0,076
Japan	0,044	0,022	0,034	0,024	0,039	0,033
Kazakhstan	0,085	0,063	0,075	0,065	0,080	0,074
Korea (ROK)	0,109	0,087	0,099	0,089	0,104	0,098
Macao (China)	0,119	0,097	0,109	0,099	0,114	0,108
Malaysia	0,041	0,020	0,031	0,021	0,036	0,030
Mexico	0,047	0,026	0,037	0,027	0,042	0,036
Morocco	0,050	0,028	0,040	0,030	0,045	0,039
Netherlands	0,141	0,119	0,131	0,121	0,136	0,130
Norway	0,063	0,042	0,053	0,044	0,058	0,052
Philippines	0,047	0,025	0,037	0,027	0,042	0,036
Portugal	0,107	0,085	0,097	0,087	0,102	0,096
Russian Federation	0,046	0,024	0,036	0,026	0,041	0,035
Saudi Arabia	0,147	0,126	0,137	0,127	0,142	0,136
Singapore	0,106	0,084	0,096	0,086	0,101	0,095
South Africa	0,075	0,053	0,065	0,055	0,070	0,064
Spain	0,063	0,042	0,053	0,043	0,058	0,052
Sweden	0,066	0,044	0,056	0,046	0,061	0,055
Switzerland	0,088	0,066	0,077	0,068	0,083	0,077
Taiwan (pr, of China)	0,033	0,011	0,023	0,013	0,028	0,022
Tunisia	0,053	0,031	0,043	0,033	0,048	0,042
Turkey	0,086	0,064	0,076	0,066	0,081	0,075
Ukraine	0,043	0,021	0,033	0,023	0,038	0,032
United Kingdom	0,070	0,048	0,060	0,050	0,065	0,059
United States	0,123	0,102	0,113	0,103	0,118	0,112
Vietnam	0,054	0,033	0,044	0,035	0,049	0,043

	GUEST GENERATION	Traditional	Traditional	Traditional	Traditional	Traditional
	GUEST	Mexico	Morocco	Netherlands	Norway	Philippines
HOTEL DEST		0,007	0,002	0,028	0,042	0,002
Argentina	0,061	0,053	0,059	0,033	0,019	0,058
Australia	0,098	0,091	0,096	0,070	0,056	0,096
Austria	0,086	0,079	0,084	0,058	0,044	0,084
Belgium	0,053	0,046	0,052	0,025	0,011	0,051
Bulgaria	0,035	0,028	0,033	0,007	0,007	0,032
Cambodia	0,013	0,006	0,011	0,015	0,029	0,011
Canada	0,098	0,091	0,097	0,070	0,056	0,096
China	0,041	0,034	0,040	0,013	0,001	0,039
Croatia	0,107	0,100	0,106	0,079	0,065	0,105
Czech Republic	0,059	0,052	0,057	0,031	0,017	0,057
Dominican Rep	0,061	0,054	0,059	0,033	0,019	0,058
Egypt	0,082	0,075	0,081	0,054	0,040	0,080
France	0,088	0,081	0,087	0,060	0,046	0,086
Germany	0,075	0,068	0,073	0,047	0,033	0,073
Greece	0,077	0,069	0,075	0,048	0,035	0,074
Hong Kong (China)	0,101	0,094	0,099	0,073	0,059	0,099
Hungary	0,045	0,038	0,043	0,017	0,003	0,042
India	0,048	0,041	0,046	0,020	0,006	0,046
Indonesia	0,014	0,007	0,013	0,014	0,028	0,012
Italy	0,087	0,080	0,086	0,059	0,045	0,085
Japan	0,044	0,037	0,042	0,016	0,002	0,042
Kazakhstan	0,085	0,078	0,083	0,057	0,043	0,083
Korea (ROK)	0,109	0,102	0,107	0,081	0,067	0,107
Macao (China)	0,119	0,112	0,117	0,091	0,077	0,116
Malaysia	0,041	0,034	0,039	0,013	0,001	0,039
Mexico	0,047	0,040	0,045	0,019	0,005	0,045
Morocco	0,050	0,043	0,048	0,022	0,008	0,047
Netherlands	0,141	0,134	0,139	0,113	0,099	0,139
Norway	0,063	0,056	0,062	0,035	0,022	0,061
Philippines	0,047	0,040	0,045	0,019	0,005	0,044
Portugal	0,107	0,100	0,105	0,079	0,065	0,105
Russian Federation	0,046	0,039	0,044	0,018	0,004	0,044
Saudi Arabia	0,147	0,140	0,145	0,119	0,105	0,145
Singapore	0,106	0,099	0,104	0,078	0,064	0,104
South Africa	0,075	0,068	0,073	0,047	0,033	0,072
Spain	0,063	0,056	0,062	0,035	0,021	0,061
Sweden	0,066	0,059	0,064	0,038	0,024	0,063
Switzerland	0,088	0,080	0,086	0,060	0,046	0,085
Taiwan (pr, of China)	0,033	0,026	0,031	0,005	0,009	0,031
Tunisia	0,053	0,046	0,051	0,025	0,011	0,050
Turkey	0,086	0,079	0,084	0,058	0,044	0,083
Ukraine	0,043	0,036	0,041	0,015	0,001	0,040
United Kingdom	0,070	0,063	0,068	0,042	0,028	0,067
United States	0,123	0,116	0,121	0,095	0,081	0,121
Vietnam	0,054	0,047	0,053	0,026	0,013	0,052

	GUEST GENERATION GUEST	Traditional Portugal	Traditional Russian Fede	Traditional Saudi Arabia	Traditional Singapore	Traditional South Africa
HOTEL DEST		0,014	0,011	0,030	0,048	0,004
Argentina	0,061	0,047	0,049	0,031	0,012	0,056
Australia	0,098	0,084	0,087	0,068	0,050	0,094
Austria	0,086	0,073	0,075	0,056	0,038	0,082
Belgium	0,053	0,040	0,042	0,023	0,005	0,049
Bulgaria	0,035	0,021	0,024	0,005	0,013	0,030
Cambodia	0,013	0,001	0,002	0,017	0,035	0,009
Canada	0,098	0,085	0,087	0,068	0,050	0,094
China	0,041	0,028	0,030	0,011	0,007	0,037
Croatia	0,107	0,094	0,096	0,077	0,059	0,103
Czech Republic	0,059	0,045	0,048	0,029	0,011	0,055
Dominican Rep	0,061	0,047	0,050	0,031	0,013	0,056
Egypt	0,082	0,069	0,071	0,053	0,034	0,078
France	0,088	0,075	0,077	0,058	0,040	0,084
Germany	0,075	0,061	0,064	0,045	0,027	0,071
Greece	0,077	0,063	0,065	0,047	0,028	0,072
Hong Kong (China)	0,101	0,088	0,090	0,071	0,053	0,097
Hungary	0,045	0,031	0,034	0,015	0,003	0,040
India	0,048	0,034	0,037	0,018	0,000	0,044
Indonesia	0,014	0,001	0,003	0,015	0,034	0,010
Italy	0,087	0,074	0,076	0,057	0,039	0,083
Japan	0,044	0,031	0,033	0,014	0,004	0,040
Kazakhstan	0,085	0,071	0,074	0,055	0,037	0,081
Korea (ROK)	0,109	0,096	0,098	0,079	0,061	0,105
Macao (China)	0,119	0,105	0,108	0,089	0,071	0,114
Malaysia	0,041	0,028	0,030	0,011	0,007	0,037
Mexico	0,047	0,034	0,036	0,017	0,001	0,043
Morocco	0,050	0,036	0,039	0,020	0,002	0,045
Netherlands	0,141	0,128	0,130	0,111	0,093	0,137
Norway	0,063	0,050	0,052	0,034	0,015	0,059
Philippines	0,047	0,033	0,036	0,017	0,001	0,042
Portugal	0,107	0,094	0,096	0,077	0,059	0,103
Russian Federation	0,046	0,032	0,035	0,016	0,002	0,042
Saudi Arabia	0,147	0,134	0,136	0,117	0,099	0,143
Singapore	0,106	0,092	0,095	0,076	0,058	0,102
South Africa	0,075	0,061	0,064	0,045	0,027	0,070
Spain	0,063	0,050	0,052	0,033	0,015	0,059
Sweden	0,066	0,052	0,055	0,036	0,018	0,061
Switzerland	0,088	0,074	0,077	0,058	0,039	0,083
Taiwan (pr, of China)	0,033	0,019	0,022	0,003	0,015	0,029
Tunisia	0,053	0,039	0,042	0,023	0,005	0,048
Turkey	0,086	0,072	0,075	0,056	0,038	0,081
Ukraine	0,043	0,029	0,032	0,013	0,005	0,038
United Kingdom	0,070	0,056	0,059	0,040	0,022	0,065
United States	0,123	0,110	0,112	0,093	0,075	0,119
Vietnam	0,054	0,041	0,043	0,025	0,006	0,050

GUEST GENERATION		Traditional	Traditional	Traditional	Traditional	Traditional
GUEST		Spain	Sweden	Switzerland	Taiwan (pr,	Tunisia
HOTEL DEST		0,018	0,028	0,036	0,005	0,004
Argentina	0,061	0,042	0,033	0,025	0,056	0,057
Australia	0,098	0,080	0,070	0,062	0,093	0,094
Austria	0,086	0,068	0,058	0,050	0,081	0,082
Belgium	0,053	0,035	0,026	0,018	0,048	0,050
Bulgaria	0,035	0,016	0,007	0,001	0,030	0,031
Cambodia	0,013	0,005	0,015	0,023	0,008	0,009
Canada	0,098	0,080	0,071	0,063	0,093	0,094
China	0,041	0,023	0,014	0,006	0,036	0,038
Croatia	0,107	0,089	0,080	0,072	0,102	0,103
Czech Republic	0,059	0,041	0,031	0,023	0,054	0,055
Dominican Rep	0,061	0,043	0,033	0,025	0,056	0,057
Egypt	0,082	0,064	0,055	0,047	0,077	0,079
France	0,088	0,070	0,061	0,053	0,083	0,084
Germany	0,075	0,057	0,047	0,039	0,070	0,071
Greece	0,077	0,058	0,049	0,041	0,072	0,073
Hong Kong (China)	0,101	0,083	0,073	0,066	0,096	0,097
Hungary	0,045	0,027	0,017	0,009	0,040	0,041
India	0,048	0,030	0,020	0,012	0,043	0,044
Indonesia	0,014	0,004	0,013	0,021	0,009	0,011
Italy	0,087	0,069	0,060	0,052	0,082	0,083
Japan	0,044	0,026	0,016	0,009	0,039	0,040
Kazakhstan	0,085	0,067	0,057	0,049	0,080	0,081
Korea (ROK)	0,109	0,091	0,081	0,073	0,104	0,105
Macao (China)	0,119	0,101	0,091	0,083	0,114	0,115
Malaysia	0,041	0,023	0,014	0,006	0,036	0,037
Mexico	0,047	0,029	0,019	0,012	0,042	0,043
Morocco	0,050	0,032	0,022	0,014	0,045	0,046
Netherlands	0,141	0,123	0,113	0,106	0,136	0,137
Norway	0,063	0,045	0,036	0,028	0,058	0,060
Philippines	0,047	0,029	0,019	0,011	0,042	0,043
Portugal	0,107	0,089	0,079	0,071	0,102	0,103
Russian Federation	0,046	0,028	0,018	0,010	0,041	0,042
Saudi Arabia	0,147	0,129	0,120	0,112	0,142	0,143
Singapore	0,106	0,088	0,078	0,070	0,101	0,102
South Africa	0,075	0,056	0,047	0,039	0,070	0,071
Spain	0,063	0,045	0,036	0,028	0,058	0,059
Sweden	0,066	0,047	0,038	0,030	0,061	0,062
Switzerland	0,088	0,069	0,060	0,052	0,083	0,084
Taiwan (pr, of China)	0,033	0,015	0,005	0,003	0,028	0,029
Tunisia	0,053	0,034	0,025	0,017	0,048	0,049
Turkey	0,086	0,068	0,058	0,050	0,081	0,082
Ukraine	0,043	0,025	0,015	0,007	0,038	0,039
United Kingdom	0,070	0,051	0,042	0,034	0,065	0,066
United States	0,123	0,105	0,095	0,088	0,118	0,119
Vietnam	0,054	0,036	0,027	0,019	0,049	0,051

GUEST GENERATION		Traditional	Traditional	Traditional	Traditional	Traditional
GUEST		Turkey	Ukraine	United Kingc	United State	Vietnam
HOTEL DEST		0,009	0,003	0,024	0,033	0,001
Argentina	0,061	0,052	0,058	0,037	0,028	0,060
Australia	0,098	0,089	0,095	0,074	0,065	0,097
Austria	0,086	0,078	0,083	0,063	0,053	0,085
Belgium	0,053	0,045	0,051	0,030	0,021	0,052
Bulgaria	0,035	0,026	0,032	0,011	0,002	0,034
Cambodia	0,013	0,004	0,010	0,011	0,020	0,012
Canada	0,098	0,090	0,096	0,075	0,066	0,097
China	0,041	0,033	0,039	0,018	0,009	0,040
Croatia	0,107	0,099	0,105	0,084	0,075	0,106
Czech Republic	0,059	0,051	0,056	0,035	0,026	0,058
Dominican Rep	0,061	0,052	0,058	0,037	0,028	0,060
Egypt	0,082	0,074	0,080	0,059	0,050	0,081
France	0,088	0,080	0,085	0,065	0,056	0,087
Germany	0,075	0,066	0,072	0,051	0,042	0,074
Greece	0,077	0,068	0,074	0,053	0,044	0,075
Hong Kong (China)	0,101	0,093	0,098	0,078	0,068	0,100
Hungary	0,045	0,036	0,042	0,021	0,012	0,044
India	0,048	0,040	0,045	0,024	0,015	0,047
Indonesia	0,014	0,006	0,012	0,009	0,018	0,013
Italy	0,087	0,079	0,085	0,064	0,055	0,086
Japan	0,044	0,036	0,041	0,021	0,011	0,043
Kazakhstan	0,085	0,076	0,082	0,061	0,052	0,084
Korea (ROK)	0,109	0,101	0,106	0,086	0,076	0,108
Macao (China)	0,119	0,110	0,116	0,095	0,086	0,118
Malaysia	0,041	0,033	0,038	0,018	0,008	0,040
Mexico	0,047	0,039	0,044	0,024	0,014	0,046
Morocco	0,050	0,041	0,047	0,026	0,017	0,049
Netherlands	0,141	0,133	0,138	0,118	0,108	0,140
Norway	0,063	0,055	0,061	0,040	0,031	0,062
Philippines	0,047	0,038	0,044	0,023	0,014	0,046
Portugal	0,107	0,099	0,104	0,084	0,074	0,106
Russian Federation	0,046	0,037	0,043	0,022	0,013	0,045
Saudi Arabia	0,147	0,139	0,144	0,124	0,114	0,146
Singapore	0,106	0,098	0,103	0,082	0,073	0,105
South Africa	0,075	0,066	0,072	0,051	0,042	0,074
Spain	0,063	0,055	0,061	0,040	0,031	0,062
Sweden	0,066	0,057	0,063	0,042	0,033	0,065
Switzerland	0,088	0,079	0,085	0,064	0,055	0,087
Taiwan (pr, of China)	0,033	0,024	0,030	0,009	0,000	0,032
Tunisia	0,053	0,044	0,050	0,029	0,020	0,052
Turkey	0,086	0,077	0,083	0,062	0,053	0,085
Ukraine	0,043	0,034	0,040	0,019	0,010	0,042
United Kingdom	0,070	0,061	0,067	0,046	0,037	0,069
United States	0,123	0,115	0,120	0,100	0,090	0,122
Vietnam	0,054	0,046	0,052	0,031	0,022	0,053

	GUEST GENERATION GUEST	Baby boome Argentina	Baby boome Australia	Baby boome Austria	Baby boome Belgium	Baby boome Bulgaria
HOTEL DEST		0,033	0,076	0,075	0,071	0,021
Argentina	0,061	0,027	0,016	0,015	0,010	0,040
Australia	0,098	0,065	0,022	0,023	0,027	0,077
Austria	0,086	0,053	0,010	0,011	0,016	0,066
Belgium	0,053	0,020	0,023	0,022	0,017	0,033
Bulgaria	0,035	0,002	0,042	0,040	0,036	0,014
Cambodia	0,013	0,020	0,063	0,062	0,058	0,008
Canada	0,098	0,065	0,022	0,023	0,028	0,078
China	0,041	0,008	0,035	0,034	0,029	0,021
Croatia	0,107	0,074	0,031	0,032	0,037	0,087
Czech Republic	0,059	0,026	0,017	0,016	0,012	0,038
Dominican Rep	0,061	0,028	0,015	0,014	0,010	0,040
Egypt	0,082	0,049	0,006	0,007	0,012	0,062
France	0,088	0,055	0,012	0,013	0,018	0,068
Germany	0,075	0,042	0,001	0,000	0,004	0,054
Greece	0,077	0,043	0,000	0,001	0,006	0,056
Hong Kong (China)	0,101	0,068	0,025	0,026	0,031	0,081
Hungary	0,045	0,012	0,031	0,030	0,026	0,024
India	0,048	0,015	0,028	0,027	0,023	0,028
Indonesia	0,014	0,019	0,062	0,061	0,056	0,006
Italy	0,087	0,054	0,011	0,012	0,017	0,067
Japan	0,044	0,011	0,032	0,031	0,026	0,024
Kazakhstan	0,085	0,052	0,009	0,010	0,014	0,064
Korea (ROK)	0,109	0,076	0,033	0,034	0,039	0,089
Macao (China)	0,119	0,086	0,043	0,044	0,048	0,098
Malaysia	0,041	0,008	0,035	0,034	0,029	0,021
Mexico	0,047	0,014	0,029	0,028	0,023	0,027
Morocco	0,050	0,017	0,026	0,025	0,021	0,029
Netherlands	0,141	0,108	0,065	0,066	0,071	0,121
Norway	0,063	0,030	0,013	0,012	0,007	0,043
Philippines	0,047	0,014	0,029	0,028	0,024	0,026
Portugal	0,107	0,074	0,031	0,032	0,037	0,087
Russian Federation	0,046	0,013	0,030	0,029	0,025	0,025
Saudi Arabia	0,147	0,114	0,071	0,072	0,077	0,127
Singapore	0,106	0,073	0,030	0,031	0,035	0,086
South Africa	0,075	0,042	0,002	0,000	0,004	0,054
Spain	0,063	0,030	0,013	0,012	0,007	0,043
Sweden	0,066	0,033	0,011	0,009	0,005	0,045
Switzerland	0,088	0,054	0,011	0,013	0,017	0,067
Taiwan (pr, of China)	0,033	0,000	0,043	0,042	0,038	0,012
Tunisia	0,053	0,020	0,023	0,022	0,018	0,032
Turkey	0,086	0,053	0,010	0,011	0,015	0,065
Ukraine	0,043	0,010	0,033	0,032	0,028	0,022
United Kingdom	0,070	0,037	0,007	0,005	0,001	0,049
United States	0,123	0,090	0,047	0,048	0,053	0,103
Vietnam	0,054	0,021	0,022	0,021	0,016	0,034

	GUEST GENERATION GUEST	Baby boome Cambodia	Baby boome Canada	Baby boome China	Baby boome Czech Repub	Baby boome Italy
HOTEL DEST		0,000	0,074	0,014	0,043	0,054
Argentina	0,061	0,061	0,014	0,046	0,018	0,006
Australia	0,098	0,098	0,024	0,084	0,055	0,044
Austria	0,086	0,086	0,012	0,072	0,043	0,032
Belgium	0,053	0,053	0,021	0,039	0,011	0,001
Bulgaria	0,035	0,035	0,040	0,020	0,008	0,020
Cambodia	0,013	0,013	0,061	0,002	0,030	0,042
Canada	0,098	0,098	0,024	0,084	0,056	0,044
China	0,041	0,041	0,033	0,027	0,001	0,013
Croatia	0,107	0,107	0,033	0,093	0,065	0,053
Czech Republic	0,059	0,059	0,015	0,045	0,016	0,005
Dominican Rep	0,061	0,061	0,013	0,046	0,018	0,006
Egypt	0,082	0,082	0,008	0,068	0,040	0,028
France	0,088	0,088	0,014	0,074	0,046	0,034
Germany	0,075	0,075	0,001	0,060	0,032	0,021
Greece	0,077	0,077	0,002	0,062	0,034	0,022
Hong Kong (China)	0,101	0,101	0,027	0,087	0,058	0,047
Hungary	0,045	0,045	0,029	0,030	0,002	0,010
India	0,048	0,048	0,026	0,034	0,005	0,006
Indonesia	0,014	0,014	0,060	0,000	0,028	0,040
Italy	0,087	0,087	0,013	0,073	0,045	0,033
Japan	0,044	0,044	0,030	0,030	0,001	0,010
Kazakhstan	0,085	0,085	0,011	0,071	0,042	0,031
Korea (ROK)	0,109	0,109	0,035	0,095	0,066	0,055
Macao (China)	0,119	0,119	0,045	0,104	0,076	0,064
Malaysia	0,041	0,041	0,033	0,027	0,002	0,013
Mexico	0,047	0,047	0,027	0,033	0,004	0,007
Morocco	0,050	0,050	0,024	0,035	0,007	0,005
Netherlands	0,141	0,141	0,067	0,127	0,098	0,087
Norway	0,063	0,063	0,011	0,049	0,021	0,009
Philippines	0,047	0,047	0,027	0,032	0,004	0,008
Portugal	0,107	0,107	0,033	0,093	0,064	0,053
Russian Federation	0,046	0,046	0,028	0,031	0,003	0,008
Saudi Arabia	0,147	0,147	0,073	0,133	0,104	0,093
Singapore	0,106	0,106	0,032	0,092	0,063	0,052
South Africa	0,075	0,075	0,000	0,060	0,032	0,020
Spain	0,063	0,063	0,011	0,049	0,021	0,009
Sweden	0,066	0,066	0,009	0,051	0,023	0,011
Switzerland	0,088	0,088	0,013	0,073	0,045	0,033
Taiwan (pr, of China)	0,033	0,033	0,041	0,018	0,010	0,022
Tunisia	0,053	0,053	0,021	0,038	0,010	0,002
Turkey	0,086	0,086	0,012	0,071	0,043	0,031
Ukraine	0,043	0,043	0,031	0,028	0,000	0,012
United Kingdom	0,070	0,070	0,005	0,055	0,027	0,015
United States	0,123	0,123	0,049	0,109	0,080	0,069
Vietnam	0,054	0,054	0,020	0,040	0,012	0,000

	GUEST GENERATION	Baby boomer	Baby boome	Baby boome	Gen. Y	Gen. Y
	GUEST	Macao (China)	Spain	Taiwan (pr,	Australia	Austria
HOTEL DEST		0,014	0,053	0,014	0,179	0,176
Argentina	0,061	0,046	0,008	0,046	0,118	0,116
Australia	0,098	0,084	0,045	0,084	0,081	0,078
Austria	0,086	0,072	0,033	0,072	0,093	0,090
Belgium	0,053	0,039	0,001	0,039	0,125	0,123
Bulgaria	0,035	0,020	0,018	0,020	0,144	0,141
Cambodia	0,013	0,002	0,040	0,002	0,166	0,163
Canada	0,098	0,084	0,045	0,084	0,080	0,078
China	0,041	0,027	0,011	0,027	0,137	0,135
Croatia	0,107	0,093	0,054	0,093	0,071	0,069
Czech Republic	0,059	0,045	0,006	0,045	0,120	0,117
Dominican Rep	0,061	0,046	0,008	0,046	0,118	0,115
Egypt	0,082	0,068	0,030	0,068	0,096	0,094
France	0,088	0,074	0,035	0,074	0,091	0,088
Germany	0,075	0,060	0,022	0,060	0,104	0,101
Greece	0,077	0,062	0,024	0,062	0,102	0,100
Hong Kong (China)	0,101	0,087	0,048	0,087	0,078	0,075
Hungary	0,045	0,030	0,008	0,030	0,134	0,131
India	0,048	0,034	0,005	0,034	0,131	0,128
Indonesia	0,014	0,000	0,038	0,000	0,164	0,162
Italy	0,087	0,073	0,034	0,073	0,091	0,089
Japan	0,044	0,030	0,009	0,030	0,135	0,132
Kazakhstan	0,085	0,071	0,032	0,071	0,094	0,091
Korea (ROK)	0,109	0,095	0,056	0,095	0,070	0,067
Macao (China)	0,119	0,104	0,066	0,104	0,060	0,057
Malaysia	0,041	0,027	0,012	0,027	0,138	0,135
Mexico	0,047	0,033	0,006	0,033	0,132	0,129
Morocco	0,050	0,035	0,003	0,035	0,129	0,126
Netherlands	0,141	0,127	0,088	0,127	0,038	0,035
Norway	0,063	0,049	0,011	0,049	0,115	0,113
Philippines	0,047	0,032	0,006	0,032	0,132	0,129
Portugal	0,107	0,093	0,054	0,093	0,072	0,069
Russian Federation	0,046	0,031	0,007	0,031	0,133	0,130
Saudi Arabia	0,147	0,133	0,094	0,133	0,032	0,029
Singapore	0,106	0,092	0,053	0,092	0,073	0,070
South Africa	0,075	0,060	0,022	0,060	0,104	0,101
Spain	0,063	0,049	0,010	0,049	0,115	0,113
Sweden	0,066	0,051	0,013	0,051	0,113	0,110
Switzerland	0,088	0,073	0,035	0,073	0,091	0,089
Taiwan (pr, of China)	0,033	0,018	0,020	0,018	0,146	0,143
Tunisia	0,053	0,038	0,000	0,038	0,126	0,123
Turkey	0,086	0,071	0,033	0,071	0,093	0,090
Ukraine	0,043	0,028	0,010	0,028	0,136	0,133
United Kingdom	0,070	0,055	0,017	0,055	0,109	0,106
United States	0,123	0,109	0,070	0,109	0,056	0,053
Vietnam	0,054	0,040	0,002	0,040	0,124	0,122

Appendix 3: Digital divide index when tourists are traveling to their country

	GUEST GENERATION	Gen. Y	Gen. Y	Gen. Y	Gen. Z
	GUEST	Belgium	Bulgaria	Japan	Singapore
HOTEL DEST		0,166	0,048	0,147	0,418
Argentina	0,061	0,105	0,012	0,087	0,357
Australia	0,098	0,068	0,050	0,049	0,320
Austria	0,086	0,079	0,038	0,061	0,332
Belgium	0,053	0,112	0,005	0,094	0,365
Bulgaria	0,035	0,131	0,013	0,113	0,383
Cambodia	0,013	0,153	0,035	0,134	0,405
Canada	0,098	0,067	0,050	0,049	0,320
China	0,041	0,124	0,007	0,106	0,377
Croatia	0,107	0,058	0,059	0,040	0,311
Czech Republic	0,059	0,107	0,011	0,088	0,359
Dominican Rep	0,061	0,105	0,013	0,086	0,357
Egypt	0,082	0,083	0,034	0,065	0,336
France	0,088	0,077	0,040	0,059	0,330
Germany	0,075	0,091	0,027	0,072	0,343
Greece	0,077	0,089	0,028	0,071	0,341
Hong Kong (China)	0,101	0,064	0,053	0,046	0,317
Hungary	0,045	0,121	0,003	0,102	0,373
India	0,048	0,117	0,000	0,099	0,370
Indonesia	0,014	0,151	0,034	0,133	0,404
Italy	0,087	0,078	0,039	0,060	0,331
Japan	0,044	0,121	0,004	0,103	0,374
Kazakhstan	0,085	0,081	0,037	0,062	0,333
Korea (ROK)	0,109	0,056	0,061	0,038	0,309
Macao (China)	0,119	0,047	0,071	0,028	0,299
Malaysia	0,041	0,124	0,007	0,106	0,377
Mexico	0,047	0,118	0,001	0,100	0,371
Morocco	0,050	0,116	0,002	0,098	0,368
Netherlands	0,141	0,024	0,093	0,006	0,277
Norway	0,063	0,102	0,015	0,084	0,355
Philippines	0,047	0,119	0,001	0,100	0,371
Portugal	0,107	0,058	0,059	0,040	0,311
Russian Federation	0,046	0,120	0,002	0,101	0,372
Saudi Arabia	0,147	0,018	0,099	0,000	0,271
Singapore	0,106	0,060	0,058	0,041	0,312
South Africa	0,075	0,091	0,027	0,073	0,343
Spain	0,063	0,102	0,015	0,084	0,355
Sweden	0,066	0,100	0,018	0,082	0,352
Switzerland	0,088	0,078	0,039	0,060	0,330
Taiwan (pr, of China)	0,033	0,133	0,015	0,114	0,385
Tunisia	0,053	0,113	0,005	0,095	0,365
Turkey	0,086	0,080	0,038	0,061	0,332
Ukraine	0,043	0,123	0,005	0,104	0,375
United Kingdom	0,070	0,096	0,021	0,078	0,348
United States	0,123	0,042	0,075	0,024	0,295
Vietnam	0,054	0,111	0,006	0,093	0,364

		Traditional	Baby boomer	Generation Z	Generation Y	Generation Z	
	Argentina	0,049	0,027	0,006	0,017	0,039	
	Australia	0,072	0,022	0,028	0,081	0,131	
	Austria	0,060	0,011	0,038	0,090	0,139	
	Belgium	0,029	0,017	0,063	0,112	0,158	
	Bulgaria	0,028	0,014	0,001	0,013	0,027	
	Cambodia	0,013	0,013	0,013	0,013	0,013	
	Canada	0,073	0,024	0,025	0,076	0,124	
	China	0,036	0,027	0,017	0,007	0,002	
	Croatia	0,098	0,079	0,061	0,042	0,023	
	Czech Republic	0,044	0,016	0,012	0,041	0,069	
	Dominican Rep	0,056	0,048	0,039	0,030	0,021	
	Egypt	0,079	0,072	0,064	0,057	0,050	
	France	0,066	0,024	0,019	0,063	0,106	
	Germany	0,048	0,003	0,054	0,108	0,159	
	Greece	0,063	0,038	0,012	0,014	0,040	
	Hong Kong (China)	0,068	0,005	0,058	0,125	0,188	
	Hungary	0,033	0,010	0,012	0,036	0,058	
	India	0,047	0,045	0,043	0,040	0,038	
	Indonesia	0,011	0,005	0,002	0,008	0,015	
	Italy	0,069	0,033	0,003	0,040	0,076	
	Japan	0,022	0,019	0,060	0,103	0,144	
	Kazakhstan	0,075	0,056	0,037	0,016	0,003	
	Korea (ROK)	0,089	0,051	0,014	0,026	0,064	
	Macao (China)	0,114	0,104	0,095	0,085	0,075	
	Malaysia	0,030	0,009	0,012	0,034	0,055	
	Mexico	0,040	0,027	0,013	0,001	0,015	
	Morocco	0,048	0,045	0,041	0,038	0,034	
	Netherlands	0,113	0,060	0,007	0,049	0,103	
	Norway	0,022	0,058	0,137	0,221	0,301	
	Philippines	0,044	0,040	0,035	0,031	0,026	
	Portugal	0,094	0,068	0,042	0,015	0,011	
	Russian Federation	0,035	0,014	0,007	0,029	0,050	
	Saudi Arabia	0,117	0,061	0,004	0,056	0,112	
	Singapore	0,058	0,033	0,124	0,221	0,312	
	South Africa	0,070	0,062	0,054	0,045	0,037	
	Spain	0,045	0,010	0,024	0,061	0,095	
	Sweden	0,038	0,015	0,067	0,123	0,175	
	Switzerland	0,052	0,016	0,083	0,154	0,222	
	Taiwan (pr, of China)	0,028	0,018	0,009	0,001	0,011	
	Tunisia	0,049	0,042	0,034	0,027	0,019	
	Turkey	0,077	0,061	0,045	0,028	0,012	
	Ukraine	0,040	0,035	0,029	0,024	0,018	
	United Kingdom	0,046	0,001	0,043	0,091	0,135	
	United States	0,090	0,028	0,034	0,099	0,161	
	Vietnam	0,053	0,051	0,050	0,047	0,046	
AVERAGE		**0,056**	**0,034**	**0,037**	**0,059**	**0,082**	**0,054**
ESTÁNDAR DESVIATION		**0,026**	**0,023**	**0,031**	**0,051**	**0,076**	**0,042**