

Assistive Devices for Hearing Impaired Hotels Guests (Applying to Hurghada Resorts)

Soad Omran Mansour¹ & Sally Fathy Elsayed²

¹Tourism Studies Department, Faculty of Tourism and Hotel Management, Suez Canal University, Egypt

²Hotel Management Department, Faculty of Tourism and Hotel Management- October 6th University, Egypt

*Corresponding Author Email: Soad_omran@yahoo.com; Sally_18774@yahoo.com

ABSTRACT

Aim– People with disabilities, along with their families and friends, travel, shop, do business; engage in activities in the community just like everyone else. Hotels aiming to maximize their market share should think seriously in providing service that welcomes people with disabilities and service that could be better and satisfactory to everyone.

Under the Americans with Disabilities Act (ADA), hotels and motels must provide effective means of communications for persons who are deaf or hard of hearing to ensure that they have an equal opportunity to enjoy the services, accommodations, and amenities offered.

People who are deaf or hard of hearing use a variety of ways to communicate. The method of communication and the services or aids hotel staff provide will vary, depending upon the abilities of the guest and on the complexity and nature of the communications that are required. This increase the role of technology when designing guests' rooms by providing built-in communication features in a certain percentage.

This study aims to identify the importance to improve using of technology Assistive communication devices while designing guests' rooms to facilitate and improve accommodating people with hearing disabilities.

Design/methodology/approach– The data were collected via a questionnaire addressed to guests in Hurghada region.

Research limitations/implications– The research focused on a sample of the five star resort hotel's in Hurghada, Egypt.

Key words: *Disabilities, Guests' rooms design, Assistive communication telephone device*

INTRODUCTION

The importance of the global tourism industry is not appropriate enough to address the basic needs of people with disabilities (PwD). This has been further reinforced through the recent establishment of the United Nations' Convention on the Rights of Persons with Disabilities (United Nations, 2006).

Searching for customers' needs through hospitality market researches revealed rapid growth in the needs of people with disabilities in recent years (Ozturk *et al.* 2008; Grady and Ohlin, 2009). The size of the disabled market was estimated to be between 10 and 19% of the general population. This was suggested to be one main motive for hospitality studies (Kaufman-Scarborough

1998; Bull *et al.*, 2003; Huh and Singh, 2007). Many efforts were made to better understand people with disabilities. This may be due to the recent legislative endeavors rooted in US law and subsequently enacted in Europe and elsewhere.

The types of disabilities may vary. A disability can happen to anyone at any time. Some people are born with a disability. For others the disability may be a result of illness or due to an accident. Sometimes it happens because the person is getting older. In fact, many may eventually face some kind of limitations. There are many kinds of disabilities. They can be visible, hidden, and permanent or occur only at certain times (Kaufman-Scarborough, 1998; Grady and

Ohlin, 2009; Kim *et al.*, 2012).

People who have hearing loss may be deaf or hard of hearing. Like other disabilities, hearing loss has a wide variety of degrees. People-with this kind of hearing impaired- may require assistive devices when communicating with others. They may also use e-mail, TTY telephone (Tele-Typewriter) service or Bell Canada Relay Service (Kim *et al.*, 2012).

Although, there are many researches in the field of tourism and hospitality on people with disabilities; only few empirical studies have focused on the actual hotel experience of those guests segment (McKercher *et al.* 2003; Gröschl 2007; Lane 2007; Darcy and Peggb 2011). Moreover, Grady and Ohlin (2009) highlighted the importance of speaking directly with people with disabilities in order to understand their needs and expectations from the hotel experience (Chen, 2004; Ozturk *et al.* 2008).

Therefore this research aims to identify the importance to improve using of technology assistive communication devices while designing guests' rooms and hotels' outlets to facilitate and improve accommodating people with hearing disabilities.

Literature review

Recently, the economic contribution of PwD to tourism and hospitality business has been documented in Europe, the US, Canada and Australia (Buhalis *et al.*, 2005; Darcy and Dwyer 2008; Harris Interactive Market Research 2005; Neumann and Reuber 2004; Darcy and Peggb 2011).

Accommodating people with disabilities continues to be a critical constraint because of their requirements for accessible accommodation as a prerequisite for an overnight trip (Avis *et al.* 2005; Darcy 2010; Pegg and Stumbo, 2010). PwD who cannot find suitable accommodation that meets their access needs, by necessity, will change their destination choices, their place of accommodation or will not travel (Darcy and Peggb, 2011).

The American Disabilities Act (ADA) (1990) and the Disability Discrimination Act (DDA) (1995) symbolize and serve as a model to protect people with disabilities rights. Some countries such as Scotland and Northern Ireland relied on the DDA and the ADA (SAiF, 2009) in establishing their own codes of

practice. The impact of the ADA and the DDA is also evident in hotel chains and associations (e.g. Hotel Association of India, 2009). Many of the hotels established specific codes of practice that relate primarily to hotel rooms' and public areas' design (British Standards, 2008; Poria *et al.*, 2010). They also focus on the physical aspects of the environment and the mobility considerations of people with disabilities.

Earlier to this in 2003, ADA asked hotels and motels to provide effective means of communications for persons who are deaf or hard of hearing to ensure that they have an equal opportunity to enjoy the goods, services, accommodations, and amenities offered (Poria *et al.*, 2010).

Market size

There are over 650 million PwD living in the world and a growing number of people aged 65 or over possess higher levels of disability as they age (Genoe and Singleton, 2009). The size of this market segment reached 19% of the general tourism population all over the world (Bull *et al.*, 2003; Huh and Singh 2007; Kaufman-Scarborough 1998; Chen 2004). Travel Industry Association of America (TIA) (2012) revealed that more than 21 million adults with disabilities traveled at least once in between years 2009-2011, and more than 50% of them stayed in hotels during their trips. However, 60% of guests with disabilities had problems at the hotels where they stayed because of; (1) physical barriers (2) communication barriers and (3) customer service problems.

The number of people with disabilities is set to increase due to the ageing of the population. WHO (2007) stated by 2020 there will be 1.2bn people over 60.

Accommodation requirements of PWD

The demand of special accommodation was recognized from previous literature, being a significant constraint to the tourism experiences of PwD. In particular, these constraints included: a lack of accessible accommodation; provision of accessible accommodation that did not comply with the access standards; a lack of importance attributed to the role of accommodation in terms of overall trip satisfaction; problems locating accessible accommodation even

when it did exist; and the inadequate level, detail and accuracy of information (Darcy, 2010).

Most studies on hotel for tourists with disabilities center on the accommodation room's physical environment. But they virtually PwD are ignored in other hotel areas as well as elements such as interaction with the hotel staff. Thus, the impression provided is that people with disabilities are forced to stay in their rooms and forego use of other hotel facilities (Poria *et al.*, 2010).

Linked to safety issues of PwD is the disability to identify the type of disability and access needs directed to the hotel staff. As Fewell (2008) noted, that a very few hotel staff were aware and informed about the importance to ask about whether a guest with disability required assistance in the event of a fire. Even if the staff were vigilant while checking with people with visible disabilities, self-identification of people with invisible disabilities, or those travelling with partners or attendants, and who therefore did not have direct contact with hotel staff is far more problematic. The example was given by one interviewee of a deaf person staying independently but who did not indicate to the staff that they have a person with disability. If a fire alarm was to be activated and staffs were not aware of these individual with disabilities, the staff will be unable to know that this person would not respond to the alarm or will not be able to knock on the door (Darcy and Pegg, 2011).

They also added that, there were major gaps between the expectation of customers and the policy of many hotel managers for disaster evacuations (Drabek, 2000). For people with hearing impairments, they are unable to hear audible alarms and require the installation of visual alarm systems within their rooms. Within the Australian context, the Deafness Forum developed a relationship with an accommodation association to agree on a minimum set of inclusions for the group. Those hotels, who comply, are listed on a website that collaboratively markets to this sector of the disability community (Deafness Forum & HMAA, 2005).

Yet, while the safety of every guest is the most significant aspect for all hotels, this consideration seemed to dominate the mindset of managers with respect to PwD. This theme may also have a

connection to staff training where a greater familiarity with disability related issues may alleviate some of these concerns and provide a more robust understanding on which to operationalize emergency egress plans (Darcy and Pegg, 2011).

Hearing Impaired Alert Devices

Technology is used to push slower moving businesses by providing better service, improved decision making and increasing revenue. Hotel operators are now realizing that customer satisfaction is the best way to ensure guests satisfaction and for recommendation of their hotels to others. Hoteliers and accommodation providers have to think from the point of view of disabled guest. So the hotel staff members have to undertake Deaf Awareness Training and Basic Sign Language class. They formulate solutions to help to make deaf and hearing people enjoy their experiences at the said hotel equally like others (Egger, 2013).

Hearing loss impacts a large number of our society, ranging from the youth to the elderly. Hearing Impaired Alert Devices allow individuals that are deaf or hard of hearing to live self-sufficiently in the privacy of their own home. The Americans with Disabilities Act (ADA) requires all hotels and motels to make their facilities equally accessible to those with physical disabilities and hearing impaired guests. ADA regulations and new (2010) ADA Standards for Accessible Design had been revised. The 2010 standards include additional design and construction requirements for disability access and some revisions to the "current" or "old" 1991 standards. The revised regulations are in effect from March 15, 2011, while the "new" 2010 standards go into effect on March 15, 2012.

New and renovated hotels must be built to comply with very explicit requirements detailed in a document titled the ADA Accessibility Guidelines for Buildings and Facilities. The standards differ slightly for new construction and for alterations. But the only way that directly affects persons who are deaf or hard of hearing is in the provision of interior public text telephones. Hotels and motels are required to provide rooms equipped with visual notification devices, telephone amplifiers and TDD's (Telecommunication Devices for the Deaf).

Table 1: Minimum Accessible Guest Rooms of Required Hearing Impaired from the Americans with Disabilities Act

Number of Guest Rooms	Minimum Accessible Guest Rooms # of Required Hearing Impaired	
	Previous	Current
1 – 25	1	2
26 – 50	2	4
51 – 75	3	7
76 – 100	4	9
101 – 150	5	12
151 – 200	6	14
201 – 300	7	17
301 – 400	8	20
401 – 500	9	22
501 – 1,000	2% of TOTAL	5% of total
1,000+	20 plus 1 for each 100 over 1,000	50 plus 3 for each 100 over 1,000

**Requirements taken from the Americans with Disabilities Act, Code of Federal Regulations 28 CFR, Part 36 Revised July 1, 1994, App. A Part 9.1.3. Revised September 15, 2010, (www.ADA.gov. 2010 Standard for Accessible Design).*

Recreational and travel communication needs to include one-to-one or small group communication in a hotel. Telephone communication at hotels and awareness of warning signals in these facilities are equally important. Portability and mobility of systems, as well as the ability to use personal devices with large area systems, become important concerns. Recreational and travel communication needs are important concerns for elderly people. Large numbers of older adults have the financial ability and interest to travel and participate in active leisure activities (Kaplan, 1996).

Types of hearing impaired alert and communication devices

According to ADA standards for accessible design, (2010) and NIDCD Fact Sheet 2011) there are many types of communication and alert devices such as;

The Deaf Messaging Service (DMS)

The Deaf Messaging Service (DMS), like paging. DMS works by allowing employers and hoteliers to comply with deaf and hearing impaired guests and allowing them to move around buildings without the worry of missing an emergency situation.

When a deaf or person with impaired hearing enters a building where DMS is installed, they will see clear signage/ signboard asking them to text a location code to the DMS number. Once a connection text has been sent, the person will be connected to DMS for that

location. When the fire alarm sounds, the DMS controller, which is hardwired into the fire alarm panel, will trigger a process that within seconds sends a text message to all the people connected to that location.

Flashing Ring Amplifiers

When there is a knock at the door or when the doorbell rings, then there is a flashing lights, amplified bell signals and vibration. It works with or without an existing doorbell system to let people know that someone is at the door. Bright, long-lasting LED signal flashes when someone knocks on the door

Visual and Tactile Alerting Devices

Deaf individuals in a hotel need a notification system so that they can be alerted to sounds such as a ringing telephone, a fire alarm, a doorbell or an intercom. Hotels must provide adequate visual and/or tactile alerting devices for deaf individuals, so that a deaf patron will be awakened and alerted to an emergency fire or smoke alarm, an incoming telephone call or a door knock. This equipment can be permanently installed in guest rooms, or temporarily installed in a guest room using portable equipment. In addition to the requirements of the ADA, local fire codes may require hotels to have visible flashing smoke alarms with adequate strobe and candela power to alert a deaf person to an emergency.

Telephones Compatible with Hearing Aids

Some telephones do not emit a signal that is compatible with certain hearing aids. Hotels and motels must offer telephone receivers that are compatible with hearing aids, so that travelers can be assured that they can use the telephone in hotel facilities.

TTY (Teletypewriter) for outgoing telephone calls

A TTY (also known as a Telecommunication Device for the Deaf, TDD) is a simple keyboard device which can be attached to a telephone or plugged into a telephone line. A deaf person using a TTY can have a typed conversation over the telephone. If only one caller has a TTY, the conversation can take place over a relay service. The relay service operator reads the typed part of the conversation to the hearing caller and types.

Permanently installed assistive hearing devices, flashing fire/smoke alarms, doorbell lights, and other notification systems, electrical outlets for TTY used near the telephone, and pay TTYs are all important means of eliminating architectural barriers to communication. Providing such services for deaf or hard of hearing guests would usually be "readily achievable." In addition, some state laws already required hotels to have visual smoke/fire alarm systems for their deaf or hard of hearing guests.

Baby Cry Signaler: Enables individuals to be alerted to baby movement and sounds. It has an adjustable sensitivity dial to pick up even the softest sound and instantly transmit a signal.

Carbon Monoxide Detector: Detects carbon monoxide before it reaches dangerous levels. There are two kinds of detectors: hardwired and plug-in.

Smoke Alarm Signaler: Alerts people who are deaf or hard of hearing so that the smoke alarm has been activated. Some alarms have built in strobe lights, bright incandescent light, strobe lights and vibrators (e.g., bed shakers or pagers).

Telephone Signaler: One type of signaler plugs directly into the telephone line and electrical outlet. Another type can be attached to the side of the telephone to pick up the sound of the bell.

Wake-up Alarm Signaler: Signalers vary from portable alarm clocks with built-in strobe lights to alarm clocks with a built-in outlet where a lamp or vibrating alert can be plugged in.

Weather Alert: Gives notice of upcoming storms or dangerous weather conditions. The Weather Alert Radio can be used alone or in conjunction with optional alerting accessories. Designed for Deaf and hard-of-hearing users who want up-to-the-minute data. It can be used by itself for those needing to be contacted by a loud siren only, or with a bed shaker, a strobe light, or both.

Vibes Bed Shaker Alert Device: The Vibes Bed Shaker Alert Device connects to any clock or signaling/alerting device with a 12V DC output jack. The Vibes Bed Shaker Alert Device has a 3.5 mm plug. Place it under a pillow or mattress to take advantage of its vibration function.

Televisions are provided in guest rooms, closed caption decoders must be provided upon request. New televisions at least 13 inches or larger have such built in devices.

Tips for Communicating with Deaf and Hard-of-Hearing People

Most deaf people don't view their deafness as a disability or as a problem that should be fixed. For many of them, it's a natural part of a cultural experience that they share with friends, both deaf and hard of hearing guests. Deaf people communicate in different ways, depending on several factors like: age at which deafness began; type of deafness; language skills; amount of residual hearing; speech reading skills; speech abilities; personality; family environment; educational background; and personal preference. Some deaf people use speech or sign language only or a combination of sign language, finger spelling, and speech or writing or body language and facial expression (Marvin 2006).

In 2013 National Deaf Education Network and Clearinghouse summarized some important tips to deal with guests with hearing impaired as the following;

- Get the deaf person's attention before speaking.
- Key the deaf person in to the topic of discussion.
- Speak slowly and clearly.
- Look directly at the deaf person when speaking.
- Maintain eye contact with the deaf person.
- Avoid standing in front of a light source. The glare and shadows created on the face make it almost impossible for the deaf person to speech read.
- Use pantomime, body language, and facial expression to help supplement the communication.
- Be courteous to the deaf person during conversation. Do not ignore the deaf person and carry on a conversation with someone else while the deaf person waits.
- Always use a notepad and pencil in case of an emergency.

Research question

With the previous background, the study sought to examine the following research questions:

1. What are the perceptions of accommodation managers to serve the needs of hearing impaired guests?
2. What are their policies and practices towards training employees to deal with this market segment?

Research design

An inductive, qualitative research design was undertaken utilizing semi-structured interviews, focusing on an examination of any management information systems relating to disability. Semi-structured interviews combine the flexibility of the unstructured interviews with the comparability of the structured interviews (Preece 1994; Flick 1998; Finn *et al.*, 2000). Moreover, Woods (1998) mentioned that semi-structured interviews are conducted with a fairly open framework which allows focused, conversation for two-way communication. Furthermore, Fontana and Frey (2005) stated that “the interview is considered as one of the most common and powerful ways in which “both quality and quantity researchers tend to rely on the interviewee as the basic method of data gathering”. The individual of this study was accommodation providers with rooms that comply with the needs of hearing impaired guests in the area of Hurghada.

Also, to get more focus on the needs of this important market segment a questionnaire was used. Veal (1997) reported that the questionnaire is commonly used in tourism and leisure research because its basic mechanics is easily understood. Moreover, Bryman and Bell (2007) illustrated that questionnaire is “a formal approach to measure the characteristics, attitudes, motivations, opinions and past, current and possible future behaviors”. There are two important aspects for designing a questionnaire as indicated by Siniscalco and Auriat (2005), i.e. the structure of the question and the decisions on the types of response formats for each question. In terms of questionnaire structure, Bryman and Bell (2007) stated that questions can be classified into two main structures which are: [1] close-ended questions and [2] open-ended questions. Both types of questions were used in this study in order to get more information and to help also to achieve the aim and objective of the research.

Sample of the study:

A reliable accessible accommodation information source for the city of Hurghada was used to make preliminary hotel selections (The Egyptian Hotel Guide, 2013/2014). Eleven semi structured interviewees were conducted with managers working in five star hotels providing accessible accommodation for disabled guests. The following are positions of the managers who were interviewed: (2) Front Office Managers; (1) General Manager; (2) Reservation Managers; (2) Sales and Marketing Managers; (2) Director of Sales; (1) Director of Business Development; and (1) Public Relations Manager. Each interview lasted for 15 minute to 30 minute.

The sample involved five star hotels in the area of Hurghada that were operated by chains of Management Company. The following are name of hotels involved in this the study:

- Möevenpick Resort & Spa El Gouna
- Steigenberger Al Dau Beach
- Hilton Hurghada Plaza
- Hilton Hurghada Resort
- Marriott Resort Hurghada

The population, rationales and questions addressed were the same for the in-depth interviewees. Some of the interviewees asked the researcher to send the questions prior to conducting the interview.

The questionnaire was designed and distributed to a random sample of hearing impaired hotel customers via Internet. About 50 samples of the survey were sent to 50 guests who visited Hurghada recently. The importance of presenting hearing impaired devices and related services at the hotels were discussed. An e-mail invitation was sent to them with a link to the electronic guest survey. The researcher received 45 valid responses of the guests who had been invited to participate (n=45). The results obtained from the valid forms were statistically analyzed whenever needed by using SPSS version 16. Data and information found in the study were analyzed and discussed in accordance with the stated objectives. Mean and standard deviation were used to reduce the participants' opinions and preferences regarding their most required services in hotels accommodating them.

RESULTS

This part of the study documents the perceptions of managers from the accommodation sector towards the provision of services for PwD. It also, demonstrates the needs and requirements of participants with hearing disabilities in respect to hotel accommodation.

Findings from the semi-structured interviews

The sample represented hotels built from 1994 to 2007, most of them renovated their rooms and outlets recently. The main themes that had been discussed were;

- Number of rooms they already have in these hotels complies with PwD needs according to the ADA standards.
- Number of rooms they already have in these hotels complies with hearing impaired guests' needs.
- Types of hearing impaired devices in these respective hotels.
- If the hotel use hearing impaired devices at the front desk counter or in any of it's outlets.
- Allowing hearing impaired guests to use service animals often (Hearing Ear Dogs)
- If the staff were trained and qualified to deal with that market segment with the proper etiquette.
- Ways of reaching the target market segment.

With regards to the numbers of rooms in accordance with the (ADA, 2010) standards the study found that most hotels do not have the proper number of accessible rooms. Although all hotels were concerned to offer disabled guests with the suitable design provision, their accessible rooms are not equipped with any suitable communication/alert devices for hearing impaired guests. This revealed a shortage of the awareness of hotels about the requirement of the disabled market which was estimated to be between 10 to 19% of the general tourism population and this is suggested to be one main challenge for hospitality operators (Kaufman-Scarborough, 1998; Bull et al., 2003; Huh and Singh, 2007).

Managers are conducting regular training on the hospitality and service etiquette but not in specific on how to deal with this type of market segment.

Equipping hotels as an individual guest most of receptionists, except those who work in Mövenpic El-Gona, were not aware with the details of their product. Also, when making a research in Middle East about hotels offering such services in association to deafness, results showed only the hotels in Israel had these facilities. Many previous studies stressed on the importance of training staff on proper way to deal with PwD in the appropriate manner.

Preparing the hotel staff members to deal with disabled guests is considered the starting point for providing services for PwD. But if the staff themselves were ill prepared to provide appropriate customer service then a customer's needs cannot be adequately addressed. It was observed that, unless managers discuss disability issues with new staff or formally undergone an orientation program that includes disability awareness then these issues could lead to diminished staff turnover, which is a noted industry-wide in the present times. Training issues have been discussed in the literature (Darcy, 2010; National Deaf Education Network and Clearinghouse, 2013). Yet, it was clear from the study of Marvin (2006) and Darcy (2010) that the majority of managers interviewed had not previously planned any disability awareness training.

The predominant finding from the interviews was that there was a desire by hoteliers to provide a high quality experience for PwD. They recognized that providing high quality customer service for PwD required an understanding of their individual needs. When managers were interviewed about the design, fix and furniture of those rooms, the researcher found that, there is no uni-design for accessible guest rooms and there are no regulations for equipping such rooms. None of the hotels provided their guests with communication devices on the reception counter or in any of their outlet. This means that hotels should be reviewed under the supervision of the Egyptian Ministry according to (The Egyptian New Norms 2006; ADA standards for accessible design 2010 and NIDCD Fact Sheet, 2011).

While there was generally a greater level of awareness of relevant disability legislation from operational managers, this could not be said regarding the reception, sales and marketing staff. This explain the

weakness of the Egyptian share of the PwD as a market segment despite a series of studies on the economic contribution of disability to tourism (Harris Interactive Market Research, 2005; Dwyer and Darcy, 2008; Darcy, 2010). The most common response was that if there were an expressed demand by PwD then they would make arrangements to accommodate these facilities within their hotel. None of the hotels had actively tried to attract PwD as a part of their marketing segment.

Findings from the guests' questionnaire

A questionnaire analysis offers the following findings according to participants. Statistical results illustrated in the following table.

Table 2: Results of participants preferences

	Mean	St.	Ranking
Preferences of hearing impaired guests			
a- Hearing dogs	2.70	0.49	4
b- Having an interpreter accompanying	2.69	0.50	5
c- Having an in room TTY	2.89	0.32	1
d- New cell phones and tablets	2.79	0.41	3
e- Any other affordable hearing aids	2.81	0.26	2
Participants' evaluation to hotels			
a- Rooms equipped with assistive hearing aids	2.91	0.28	1
b- Outlets equipped with affordable hearing aids	2.83	0.38	2
c- Entertainments for the hearing impaired	2.47	0.83	4
d- A lobby area with affordable hearing devices	2.83	0.38	2
e- A number of staff that understand sign language	1.81	0.97	5
Participants' acceptance to a hotel only for hearing impaired			
a- Yes			
b- No			
c- Yes, but			
d- No, but	2.67	0.71	
e- Another answer			
Participants requirements to a hearing impaired devices on the front desk counter			
a- Yes	2.93	0.25	
b- No			

Source: Researcher

It was noticed that participants agreed to having an in room TTY and any other affordable hearing aids. They also agreed, though with less perception, in having new cell phones and tablets and hearing dogs. While, many did not agree with the fact that having an interpreter accompanying this would be advantageous. This is matched with (ADA standards for accessible design, 2010 and NIDCD Fact Sheet 2011) and the opinion of Darcy and Peggb, 2011, who

stated that PwD who cannot find suitable accommodation that meets their access, needs, by necessity, will change their destination choices, their place of accommodation or will not travel.

Results revealed that participants were very supportive to the idea of having rooms equipped with assistive hearing aids and outlets equipped with hearing aids plus having a lobby area with affordable hearing devices. This is supported by opinions of Harris Interactive Market Research, 2005; Dwyer and Darcy, 2008; Darcy, 2010, who stressed on the growing PwD market and their less sensitivity to prices.

Participants revealed that they don't prefer to have hotel that accommodate only hearing impaired and deafness guests, and they prefer to be accommodated in hotels offered numbers of rooms for them and the rest number of rooms for other guests who aren't disabled, to facilitate their vacation with their families and friends. They also, highlighted the importance of having hearing impaired devices on the front desk counter. This was in agreement with the opinion of Avis *et al.*, 2005; Darcy 2010; Pegg and Stumbo, 2010; Darcy and Peggb, 2011, who explained that accommodating people with disabilities continues to be a critical constraint because of their requirements for accessible accommodation as a prerequisite for an overnight trip. PwD who cannot find suitable accommodation that meets their access needs, by necessity, will change their destination choices, their place of accommodation or will not travel.

The findings identified the importance of being aware of PwD (particularly mobility, hearing and vision) with communication of proper evacuation procedures from their rooms in cases of emergency. All aspects of safety and emergency egress are a matter considered as being a critical consideration for the organizations (Aviset *et al.*, 2005).

CONCLUSION

This paper has presented an investigation into the perceptions of managers toward service provision for PwD in specific hearing impaired guests. Not surprisingly, the results indicate that people with hearing impaired face difficulties during their stay and while interacting with their physical environment. Yet, there are series of constraints and omissions in service

provision for PwD.

Assistive devices constitute an important part of serving hearing impaired guests. Listening systems can facilitate the understanding of speech therefore enjoying a good hospitality experience. Telephone and television at the reception can be improved by either auditory or visual assistive technology. Thus alerting devices according to the needs of the PwD can provide increased independence and safety of the guest.

RECOMMENDATIONS

1. To assist hearing impaired persons, flashing lights should be installed in their bathrooms and bedrooms to indicate an emergency or to notify hearing impaired guests.
2. It is the responsibility of governments to ensure barrier-free tourism for people with disabilities. The assumption that travel is a social right must be converged with the approach taken in the current study.
3. Hotels should provide captioning facilities on all their TV sets.
4. Governments should prescribed law to implement the provision of visual alarms for emergency egress in all public outlets.
5. All hotels should provide one TTY at their reception desk and one portable TTY to be taken to the room of a hearing impaired guest.
6. Encourage universal design concepts when new tourist facilities are planned. This encouragement is necessary because some tourist operators are unfamiliar with the legislative requirements. The design of some of the newer facilities lack input from disability access consultants. Accessible tourism has many components like accessible accommodation, local attractions, shops and restaurants. All these would benefit economically by embracing the concept of visit ability.
7. Employees on sales and marketing, reservation and front desk representatives should be familiar with the layout, design and facilities within rooms as they may be required to recall these details from time-to-time upon request.
8. Hotels are required to run a regular training based

on arrangements for assisting hearing impaired guests, especially while evacuating the building and facilities in the unlikely event of an emergency.

9. An awareness program should be conducted for hotel employee, about the available equipment for special need guests.
10. The staff should have sufficient knowledge of local attractions that are accessible to disabled customers including transportation, shopping areas, car parking, shop mobility, attractions, accommodation, cafés, bars and restaurants and health clubs.
11. Paying more attention to the detailed devices needed to serve hearing impaired guests in the entire hotel outlet.

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Appendix (A) Guest Questionnaire

1- As a hearing impaired person, rank according to the best you would prefer?

- a) Hearing dogs
- b) Having an interpreter accompanying
- c) Having an in room TTY
- d) New cell phones and tablets
- e) Any other affordable hearing aids

2- How would you evaluate any hotel property? (Rank the most important for you, gradually)

- a) Rooms equipped with assistive hearing aids
- b) Outlets equipped with affordable hearing aids
- c) Entertainments for the hearing impaired
- d) A lobby area with affordable hearing devices
- e) A number of staff that understand sign language

3- Would you prefer a property just for hearing impaired persons?

- a) Yes
- b) No
- c) Yes, but
- d) No, but
- e) Another answer

4- What are the main types of hearing impaired devices you may require during your hotel accommodation?

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5- Do you prefer using of hearing impaired devices on the front desk counter?

- c- Yes
- d- No

6- what are the main problems that may face you during your accommodation?

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