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Gender-Based Analysis of Zones of Tolerance for Transit Service Quality Considering Intelligent Transportation System

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Abstract

Quality service of public transport is an important issue in transit systems as users' needs and expectations have great relevance in transit modelling and implementation. This explanatory study examines young men and women's expectations and perceptions regarding the transit quality of service by using the concepts of Zone of Tolerance (ZoT) and adequate and desired levels of service. Due to the critical role of Intelligent Transportation Systems (ITS) in public transport service enhancement, specific dimension, which reflects users' perceptions and expectations over ITS, are also considered. ZoTs for men and women are obtained separately and the results show interesting differences, particularly women's minimum acceptable and desired levels are higher than men and they have relatively bigger ZoTs.

Key Words: Public transport, Service Quality, SERVQUAL model, Gender-based analysis, Adequate, Desired and Perceived level of service

INTRODUCTION

Transit systems are mainly designed based on user demand and characteristics. This fact simply clarifies the importance of social and humanistic sciences in transit modelling. The quality of public transport service to user plays a relevant role in defining the share of public transport in comparison with other transport modes. Transit customers who have a pleasant experience while using transit system will likely continue to use them (1). In this context, the role of technological developments and Intelligent Transport System (ITS) in enhancing the quality of service and removing the barriers of using public transport should not be neglected.

Several approaches and methods have been introduced to understand service quality across different service sectors. Most of them, discussed in the next section, are based on the use of SERVQUAL (SERVice ity) model firstly developed by Parasuraman, et al. (1988) to measure and analyse the quality of service in organizations (2). The original version identified ten elements of service quality, which later on collapsed into five dimensions: tangibles, reliability, responsiveness, assurance and empathy. The interesting aspect of SERVQUAL is its double-question structure, which makes possible to measure expectations and perceptions separately. The quality of service is not an absolute value, but it is the comparative assessment expressed by the customer that compares his/her own expectations with the perception of what has been provided to him/her. The greater the perception is as regards the expectations, the greater the perceived quality is and vice versa.

This model was further redefined by expanding expectations to two levels: Desired and Adequate. "Desired level" of service represents a blend of what customers believe 'can be' and 'should be' provided, while "adequate service" is the minimum service level customers are willing to accept. Zone of Tolerance (ZoT) is a region that separates the desired service level and the adequate service level (2, 3). In other words, for every single dimension the distance between perceived services, adequate and desired levels are measured. The dimensions for which perceived services are below the adequate level should be analysed and improved to reach the desired levels.

In the last decades, more and more attention has been given to other user's characteristics, which could influence trip choices, included gender. Gender is an important factor for modelling user trip choices and should be explicitly integrated into transport research, practice and policy. A better understanding and definition of gender equity - understanding and providing what men and women need - in transportation are needed to determine what gender equity means and how equity can be accomplished (4). Differences between men and women in travel behaviour, expectations and perceptions, which have been discussed widely in the literature, should be considered in analysing the service quality of public transport in order to find the variations in perceptions, needs and priorities and also setting better policies for the use of transit for both men and women.

The purpose of this paper is to examine public transport service quality using SERVQUAL model and ZoT approach. Few more dimensions have been added to the original model in order to adapt it to the research context. They include a gender-based approach to highlight the differences between men and women's perceptions and desires and a specific dimension reflecting users' perceptions and expectations on ITS in order to examine its role in public transport service enhancement.

An application has been made to assess the service quality of public transport on a gender based approach in the city of Reggio Calabria, in Southern Italy. The results show that women's minimum acceptable and desired levels are higher than men's and they also have relatively

bigger zone of tolerances. Men's expectations from transit service in few dimensions are met by their adequate service levels. However, in just one item the adequate service level for women is accessible. The highest and lowest gaps between transit users' perceptions and adequate service levels are identified for men and women as well as necessity actions that need to be taken for each dimension. The study also shows the given service level of ITS to users and clarifies the status of utilising ITS in public transport in the city of Reggio Calabria.

The remaining of this paper is organized as follows. Section 2 proposes the literature review, with specific emphasis on the use of SERVQUAL to analyse the quality of service from the user's point of view. Section 3 discusses the adopted methodology, the chosen dimensions and the concept of ZoT. Section 4 presents the application to the test case, and discusses the results obtained for each dimensions. Finally, section 5 draws the main findings and conclusions, included suggestions for further studies.

LITERATURE REVIEW

Quality of given service to user has been widely discussed in literature from different perspectives (5). In early studies speed, reliability, comfort, convenience, safety, special service and innovation have been studied as the main criteria to assess the quality of transit (6). In another study, the quality of transit service was studied considering following measures: passenger waiting time, lost mileage, time of arrival, time spends and time of arrival in destination (7). For analysing the quality of bus services another research was undertaken and accessibility, reliability, comfort, convenient and safety were considered as the most important elements (8).

Pollitt and Smith (2002) analysed the railway network quality of service using performance indicators: Train performance (delay/person), train overcrossing, asset condition (break rail/train) and safety (accident risk) (9). Hanna and Drea (1998, 2000) undertook two different research regarding the quality of public transport and examined comfort, cost, timing (ability to travel when I want), location (where I want to go), transit productivity (ability to work while traveling) and also cost, convenient, parking availability, comfort, seat comfort, ride, seating area cleanliness and courtesy on board (10, 11). In a similar study by Trippad and Drea announcement, seat comfort, ride, cleanliness of seating area, courtesy of staff (on board), rest room and coffee condition were taken into account for evaluating the public transport service (12). The quality of service desired by public transport users also studied from different view. This study shows that waiting time, comfort, cleanliness are the most important variable that users most valued and driver kindness, bus occupancy and journey time are given less weight (13).

As shown above, in terms of transit service quality examination, common methods are mainly industry-based, mechanistic, technical focus and objective measures. However, as Parasuraman et al. have indicated ZoT analysis and SERVQUAL models are much more humanistic or customer-related and essential dimensions for examining quality of service have been identified (2, 3, 14-17).

In few studies the concept of SERVQUAL model and zone of tolerance have been applied to examine public transport service quality. Cavana and Corbett added three new dimensions to the original five original SERVQUAL model for evaluating passenger rail service quality in New Zealand. Apart from Reliability, Responsiveness, Assurance, Empathy, Tangible they added Comfort, Convenience and Connection (speed) indicators to assess the quality of service more extensively (18). Hu (2010) assessed the given service quality by bus in Taipei using four

dimensions and zone of tolerances were examined on: Interaction with passenger, Tangible service equipment, Convenience of service and Operating management support (19).

Understanding the critical role gender plays in transport and using transit is essential and since late 1970, transport study toward gender issues has been started (20). The initial research were in gender mobility needs in two different areas: constraints on mobility (21) and commute distances and duration (22). Since then interests in gender differences in transport have been increased, furthermore men and women travel behaviour has been investigated from different points of views such as trip length, time, chain and so on(23). Few studies have concerned the quality of public transport service from gender inequalities point of view. A gender audit for public transport has been done by Hamilton and Jenkins and so many important factors have been highlighted there (24). Rojo et al studied men and women perceptions of quality in interurban bus service. That research shows that safety, seat comfort and punctuality are appreciated the most by women. On the other hand, men value more on journey time, noise and cleanliness. They also looked at the priorities to be acted on (25).

Although ZoT concept has been applied in few studies to examine the quality of transit service, no gender-based research has been undertaken to show the differences between men and women' perceptions and desires levels. Moreover, the quality of service given by ITS to users has not been explicitly taken into account from users' views. In this study, in addition to three added dimensions to SERVQUAL model (18), ITS dimension is added to examine passengers' expectations and desires from ITS. Furthermore, zone of tolerances of all nine dimensions are studied in a gender-based approach to highlight the differences in a gender-based approach.

METHODOLOGY

In this study, in addition to the original five dimensions of SERVQUAL model (Reliability, Responsiveness, Assurance, Empathy, Tangible) four more dimensions (Comfort, Convenience, Connection as well as ITS) are also considered to adapt it to the research context. Transit users' perception, desire and adequate levels of service are gathered through a short survey. In a gender-based approach and considering each dimension separately for men and women, zone of tolerances are obtained and the relationship between the users' perception and ZoTs is identified. To examine statistically the existence of the ZoT and differences between users' adequate and desired services with user perception, the following hypothesis (Figure 1) are tested (19, 26) :

H_1: Users' desired service levels are significantly higher than their adequate service levels (Existence of zone of tolerance)

H_2: Users' perceived service levels are significantly different from their adequate service levels

H_3: Users' perceived service levels are significantly different from their desired service levels

Comparing the ZoTs and perceptions for each dimension for both men and women helps to see which aspects of quality of transit is acceptable and where should be the main focus to address the equity.

APPLICATION TO A TEST CASE

To capture all the required information for zone of tolerance models the questionnaire was set up and a sample of users were interviewed. For each dimension, based on the guidelines and

existing the literature (2, 3, 14-19) and also considering the local transit and people attributes, appropriate questions were asked. Interviewees first ranked the importance of 9 dimensions and then for each dimension and related questions they pointed out the relative importance, their perception, adequate and desired level of service (scores were 1 to 9 for each dimension).

This explanatory study focuses more on new generation (age between 18 to 26) as they are more familiar with new technologies and are relatively more up to dated. Thus a small sample was taken from the University of Reggio Calabria (Italy) specifically students who use public transport mainly bus or train. As Reggio Calabria is a small region in south of Italy, most of students use bus as the dominant mode of public transport. In this sample 60 percent of men use bus, 21 percent commute by train and 9 percent take both. These figures are 58, 17 and 25 respectively for women. A pilot questionnaire was initially tested and then revised to capture the required information. Finally over 36 questions which covered all nine dimensions, all the required data were collected randomly from 21 men and 24 women.

The data are analysed to interpret men and women's understandings and perceptions towards public transport, their zone of tolerances and to see whether their perceptions are in the zones or not. In addition, different aspects of the current transit service that satisfies users and those that are below the expectations for men and women are discussed.

Items' weight in each dimension is considered to get the categories' mean values and standard deviations. Hypotheses are tested using obtained values (mean and standard deviations) for each dimension and their statistical significance are determined using t-test for comparing means (Table 1).

As Table 1 shows, for each dimension for men and women the zone of tolerance exists, in the other word the difference between adequate and desired level of service is statistically significant (H_1). Distinction between perceived and desired services is also clear (H_3), yet in

few dimensions the difference between adequate and perceived service for either men or women is not significant (H_2), which means there is in some items the minimum expectations for quality of services are met.

Further to statistical analysis, for each dimension differences between adequate, desired and perceived level of services between men and women are obtained (Table 2). For most of the dimensions as average women's perception and understanding are higher than men's specifically desired level of service which differences are statistically significant.

In the next step for each dimension for men and women, zone of tolerances are drawn by rectangular which the lower side is the adequate service level and higher one is desired level and a dot as a perceived service level shows the position of perceived level of service and its distance to minimum acceptable and desired level of service. By comparing the ZoTs (rectangular) for men and women as well as position of perceptions for each dimension, valuable information is obtained.

Assurance

In assurance dimension (the knowledge and courtesy of employees and their ability to convey trust and confidence (2)), which users expressed their perception towards *staff courtesy*, *personal safety at station/stops*, *personal safety on train/bus* and *staff knowledge to answer the users' question*s. Figure 2 shows the zone of tolerance for both men and women and also their perception of current situation.

Men and women perception of the quality of transit service in assurance dimension is almost the same (3.04 and 3.20 respectively). Desired and minimum accepted levels for women are higher than men, and it can be seen from Figure 2 that zone of tolerance for women is bigger. It simply implies that safety and assurance is seen with higher importance by women than me.

Table 1 illustrates that for assurance dimension, perceived service by women is less than the adequate service which is statistically important (H_3), yet that difference for men is not statistically significant. In another words, although Figure 2 shows a small distinction between men's perception and accepted minimum level, there is not statically meaningful difference between them (H_2). It can be implied that the current transit system is acceptable for men from assurance point of view. However, women's expectations are not satisfied. As can be seen from Table 2 for assurance dimension, women's perceptions are higher than men and desired level of service is significantly above men's. In another words, as adequate level of service for both men and women are not statistically different, women's ZoT is bigger than women.

Empathy

Transit service from empathy (the provision of caring, individualized attention to customers (2)) point of view is examined in this dimension considering the items: *willingness to help*, *Caring about the passengers' issues when they get on/off* and *Understanding passengers' need when queries are made*.

Figure 2 illustrates the zone of tolerance and perceived level of service for men and women. As can be seen above and also Table 1 and 2, women's perceptions towards the adequate and desired level of service are higher than men. Since desired level of service for women is higher than men (statistically significant) and adequate levels for both groups are not different, women's ZoT is bigger. The perceived service levels are close and both are not different from the adequate service level as the difference between adequate and perceived service level are not statistically significant (H_2). It can be interpreted that current transit meets somehow the required minimum levels in this dimension for both groups.

Reliability

The next dimension is reliability as defined the ability to perform the promised service dependably and accurately (2). Figure 3 shows that the transit service is considered unreliable by women though men's understanding of this dimension of the quality of public transportation system is almost at the minimum acceptable level as H_2 is just statistically significant for women (Table 1).

Adequate level of service for both men and women are almost equal (4.37 and 4.28 respectively which is not statistically significant – Table 2). Men's ZoT is smaller than women's (Table 2) that shows the adequate and desired service levels for men are quite close and plausible to improve reliability aspect of the current system to a desirable one. *Handling service problems*, *notification for changes in routes, timetables for buses/trains* and etc. were asked in reliability dimension.

Responsiveness

The responsiveness aspect (the willingness to help customers and to provide prompt service (2)) of transit system service like *Getting prompt service* and *availability of staff in handling the request* is assessed in this dimension. Figure 3 shows the ZoTs for the mentioned dimension. Women's ZoT is bigger than men as the difference between women and men's desired level are statistically significant (Table 2) and adequate levels for both groups are not

statistically different. Perceived service for all is below the minimum acceptable level which shows actions are required to be taken by the decision makers to improve the service.

Tangible

Tangibility (the appearance of physical facilities, equipment, personnel and communication materials (2)) of transit service is examined in this item. Data collected for this dimension through having the users' responses to *Neat, professional staff appearance, Clarity of given information in timetables, Cleanliness of Bus/Train/Stations* and *Overall appearance of vehicles/stops/stations.*

Figure 4 illustrates the results. Users' perception towards this issue is below the adequate levels for both men and women which were illustrated in Table 1 as well. Women ZoT is bigger than men's (Table 2) and also both adequate and desired levels of ZoT are less than women's which implies the difficulty of reaching to desire level for women and needs more considerations are needed for the mentioned items to attract more women to public transport.

Comfort

Comfort levels are measured using the items: *Availability of seat in bus/train, Availability of seat on stop/station, Comfortable temperature/air conditioning on board, Smoothness of ride on bus/train* and *Noise in the bus/train.* Figure 4 illustrates the ZoTs for comfort dimension. Although the adequate levels are the same for both groups, women's desired level is higher but that is not statistically significant (Table 2) which their ZoTs are almost the same size. Perceived quality of service for this dimension for both men and women are below the adequate level and the current situation does not satiety the users. In other words there is no difference between men and women and they do not consider the current transit as a comfortable service.

Connection

Accessibility of public transport is measured in connection dimension considering different issues like *Ease to access to home station, Ease to access to the nearest station at passenger working place/school, Frequency of trains/buses that meet users' needs* and *Buses/trains running at suitable times so user can catch connecting transport services.* Figure 5 shows the ZoTs for this dimension. Women perception of the system is not in their zone of tolerance and significantly below the adequate level. Although men's ZoT shows that their understanding is below the minimum level, the difference between adequate and perceived mean levels is not statistically significant (Table 1). Thus, men's expectation of accessibility and connection is met with current condition. Worth noting, the same as previous dimensions, women's desired level is much higher (Table 2) than men which could be the implications of value of time for men (20).

Convenience

Quality of transit system in Reggio Calabria from convenience point of view is examined considering various issues like *Ease to access to travel information, Ease of buying tickets and Convenient opening hours at ticket centres (Offices/shops)* and so on.

Figure 5 also illustrates the ZoT and perceived service level. Adequate service level for both men and women are almost the same (4.14 and 4.20 respectively) and statistically there is no meaningful difference between their desired levels which means ZoTs are almost the same size for both men and women. Women seem not to be satisfied with this aspect quality of transit since their perception is lower than the minimum acceptable level though men's understanding is not statistically different with adequate level and transit service is convenient for them (Table 1).

ITS

Technological advances and Intelligent Transportation System (ITS) has great influence on the given service to transit users. As mentioned before and due an important role that ITS plays in quality of transit services, in this study men and women's expectations and perceptions towards the wide application of ITS is examined. Therefore, another dimension is added to ZoT model and the presence of ITS in quality of transit service is examined.

In order to assess ITS dimension, interviewees in the target region were asked to express their expectations and perceptions over the following issues:

- *Getting information on the visual panels about the next stop, changes, arrivals, closing to timetable on board*
- *Getting information on visual panels on the stops/stations for all available services for next hours*
- *Getting information for planning journey from the origin to destination on mobile-phone/website*
- *Getting information on arrivals from different operators, at same stop/station, on same the visual panel*
- *Accessing to real time data of travel on mobile-phone/website*
- *Getting electronic tickets and using for different modes (bus/train)*
- *Buying tickets online or buying online and collecting at stops/stations*

Figure 6 demonstrates and argues that users ZoTs and perception towards application of ITS in quality of transit:
Both men and women perceived services are not in the ZoT and below the minimum expectations. Women desired level is not statistically different with men (Table 2) and their ZoTs are almost the same.. It can be seen that the adequate and desired service level of *ITS* for men are less than women that points out women are expecting more to see the usage of technology in public transport.

Results

To disclose better the differences in ZoTs and perceived services, in addition to the above two by two comparisons per dimension for men and women, Figures 7 and 8 illustrate all the ZoTs in two separate charts. Considering Table 1 and Table 2, it can be understood that women's minimum acceptable and desired levels are higher than men's (not significantly meaningful). Women's ZoTs are bigger than men's for 6 dimensions (Assurance, Empathy, Reliability, Responsiveness, Tangible and Connection) that means the higher difference between adequate and perceived level of service across those dimensions.

CONCLUSION

In this explanatory study the quality of given public transport in Reggio Calabria was examined using the concept of zone of tolerance. To adopt SERVQUAL model to this research context, four more dimensions were added to the five original dimensions. Examined dimensions are Reliability, Responsiveness, Assurance, Empathy, Tangible, Comfort, Convenience, Connection and ITS. For each dimension, adequate and desired levels were obtained and zone of tolerances were drawn for both men and women and users' perception was compared for each ZoT.

The results shows that zone of tolerances do exist and they are different for both men and women as their desirable and adequate levels of service vary over all the dimensions. Men's

expectations from transit service are lower than women and it is easier to improve the transit system to men's desirable levels rather than women (Figure 7-8). In another word woman's expectations and minimum acceptable service level from public transport is higher than men and one of the reasons for women modal shift from public transport could be interpreted regarding to this fact. Women usually have less access to car for commuting and those who use their own car would prefer to stay on that mode when their adequate levels of service from transit are not met.

In dimensions *Assurance, Empathy, Reliability, Connection* and *Convenience* for men and in *Empathy* for women the differences between the perceived and adequate levels of service are not statistically significant. Thus, it can be seen that the quality of transit services at those dimension meet the minimum expectations and users' need are addressed. *ITS* and *Assurance* have got the lowest meaningful gap between the adequate and perceived levels for men and women respectively. In another words, services in these mentioned dimensions could be reached to adequate level easier than the others. The highest gap between the perception and adequate service levels for both genders refers to *Responsiveness*. This fact reveals the necessity of taking action in that area to make the perceived level closer to ZoT. Among all 9 dimensions, the lowest perceived level is for *ITS* for all the users which clarifies the situation of utilising *ITS* in the city of Reggio Calabria. In dimensions *Assurance, Empathy, Reliability, Responsiveness, Tangible* and *Connection* women's ZoTs are bigger than men and for the rest are almost the same sizes.

Generally speaking and considering all dimensions for both men and women, the perceived level of service are below the minimum acceptable level for both genders for every dimension, and yet people still ride transit, which highlights the difference between stated preferences and revealed preferences.

In next steps and for further research, as this work is an explanatory study, the bigger sample could be gathered to study over the whole population of transit users and it could also be useful for policy makers to understand the perceptions of whole population towards quality service of public transport and consider their needs. The focus of this study was on identifying the existence of ZoTs for both men and women, differences and their perception over different dimensions of quality of public transport service. To address discrepancies between the expectations of them it is necessary to identify the priorities for men and women and see which dimensions are more important for each group to be considered first and undertake the required improvements. Further research and finding effective means to meet the priorities could be helpful to encourage men and women to use public transport.

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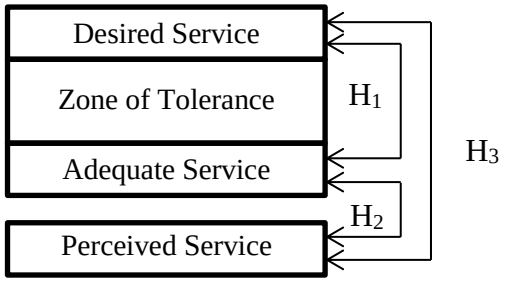

FIGURE 3 Hypotheses (taken from [18])

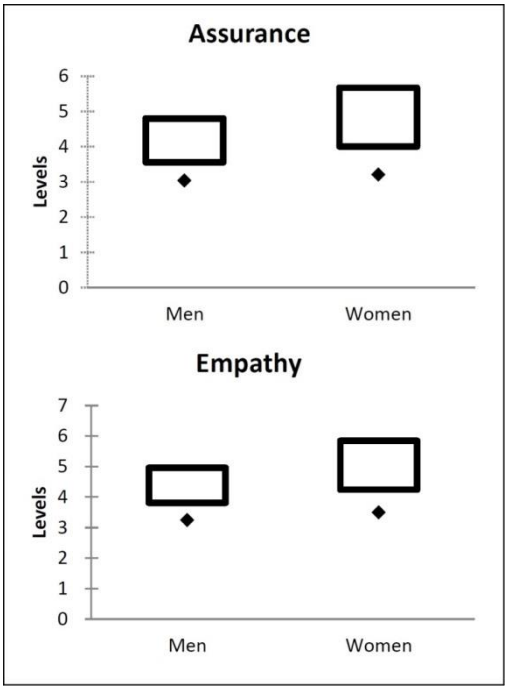

FIGURE 4 Assurance and Empathy dimensions

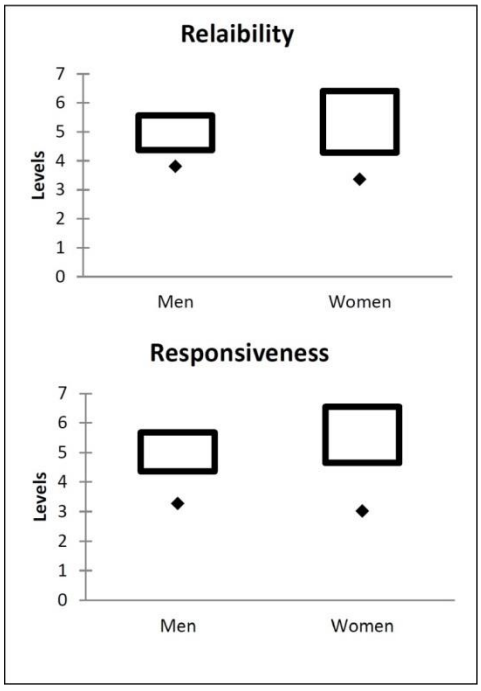

FIGURE 3 Reliability and Responsiveness dimensions

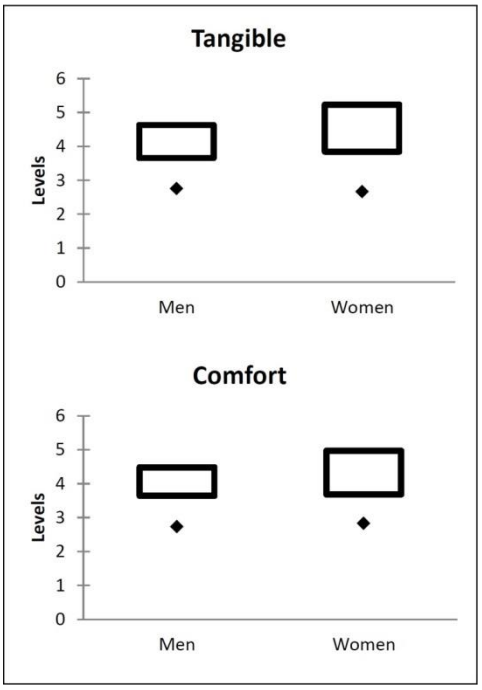

FIGURE 4 Tangible and Comfort dimensions

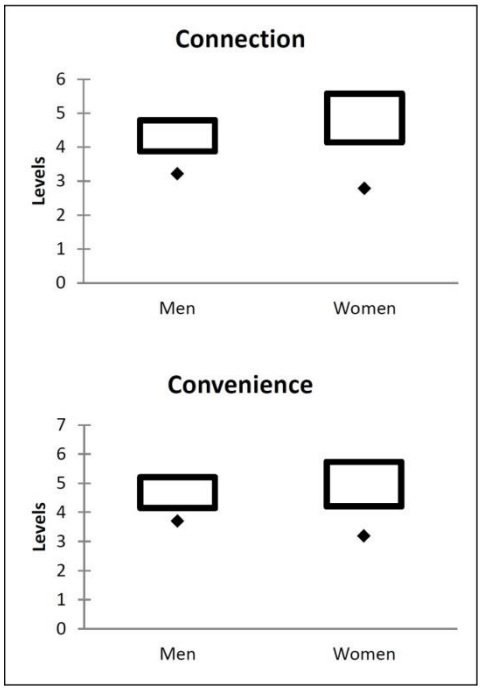

FIGURE 5 Connection and Convenience dimensions

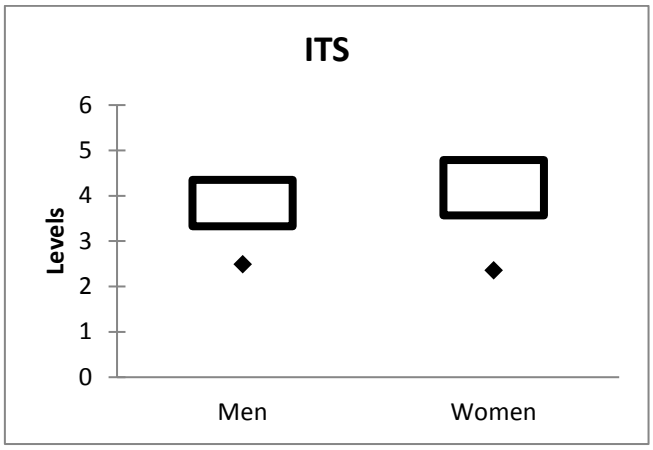

FIGURE 6 ITS dimension

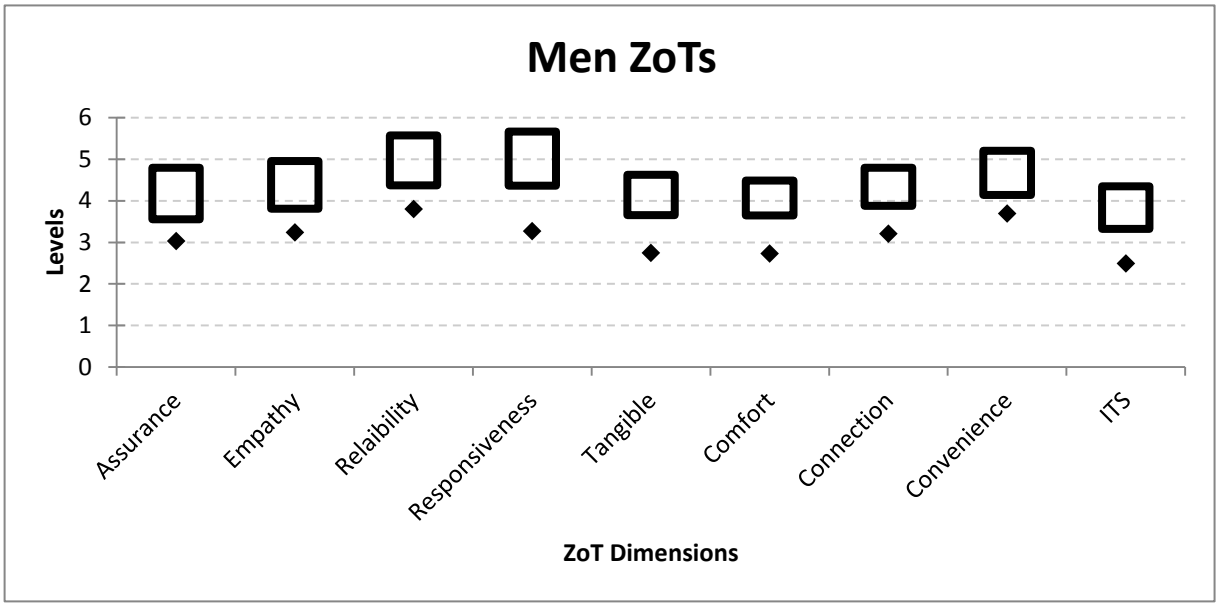

FIGURE 7 Men Zone of Tolerances

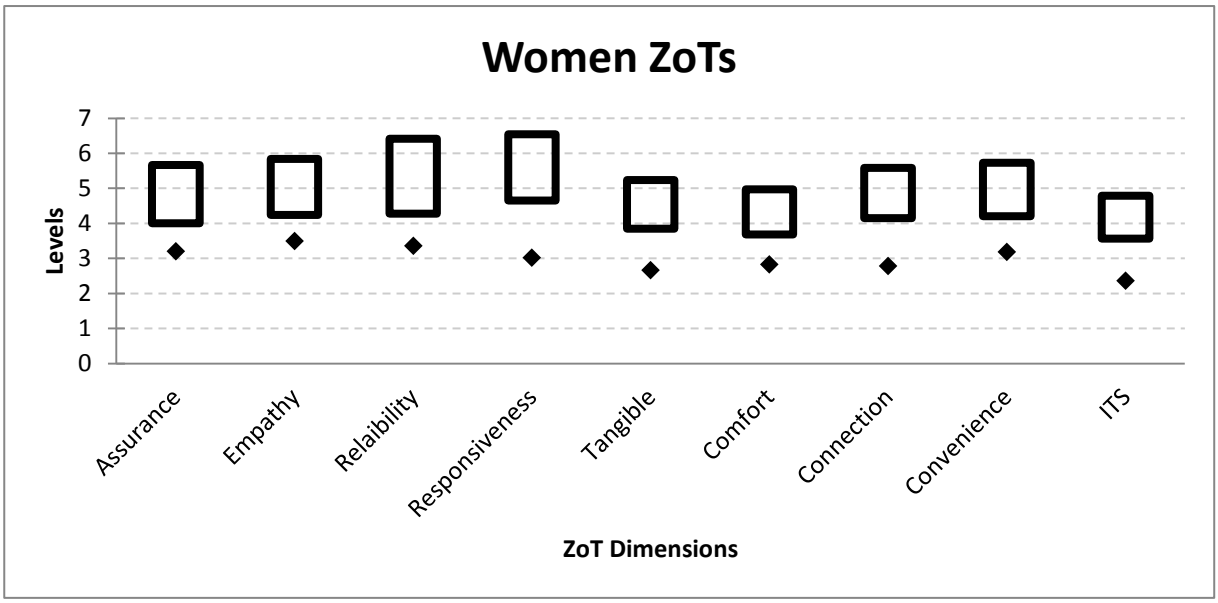

FIGURE 8 Women Zone of Tolerances

TABLE 1 Statistical analysis of service levels for men and women and Hypotheses testing

Dimensions		Adequate Service (1)		Desired Service (2)		Perceived Service (3)		H_1 (2) - (1)		H_2 (3) - (1)		H_3 (2) – (3)	
		Mean	Std	Mean	Std	Mean	Std	Mean	t	Mean	t	Mean	t
Assurance													
	Men	3.56	1.14	4.80	1.02	3.04	1.06	1.24	3.44*	-0.52	-1.41	1.76	5.07*
	Women	4.00	1.17	5.67	1.03	3.20	0.99	1.66	5.12*	-0.80	-2.51*	2.47	8.27*
Empathy													
	Men	3.81	0.90	4.96	1.13	3.24	1.11	1.15	3.36*	-0.57	-1.68	1.71	4.59*
	Women	4.24	1.48	5.84	1.63	3.49	1.28	1.60	3.48*	-0.75	-1.83	2.35	5.42*
Reliability													
	Men	4.37	1.22	5.57	0.35	3.81	1.46	1.19	2.62*	-0.57	-1.27	1.76	3.56*
	Women	4.28	1.33	6.41	1.14	3.36	1.87	2.13	5.84*	-0.92	-1.93*	3.05	6.68*
Responsiveness													
	Men	4.36	1.26	5.67	1.44	3.28	1.05	1.30	2.90*	-1.08	-2.80*	2.39	5.68*
	Women	4.65	1.51	6.54	1.18	3.02	1.57	1.89	4.74*	-1.63	-3.59*	3.52	8.60*
Tangible													
	Men	3.66	1.13	4.63	1.18	2.75	0.90	0.97	2.52*	-0.90	-2.64*	1.87	5.34*
	Women	3.85	1.37	5.23	1.40	2.67	1.17	1.39	3.39*	-1.18	-3.14*	2.57	6.75*
Comfort													
	Men	3.64	1.22	4.48	1.20	2.73	1.32	0.84	2.02*	-0.91	-2.1*	1.75	4.05*
	Women	3.68	1.17	4.97	1.34	2.83	0.92	1.28	3.47*	-0.85	-2.74*	2.14	6.31*
Connection													
	Men	3.88	1.33	4.80	1.41	3.21	1.28	0.92	2.00*	-0.66	-1.52	1.58	3.51*
	Women	4.15	1.55	5.58	1.73	2.78	1.38	1.43	2.96*	-1.37	-3.17*	2.80	6.07*
Convenience													
	Men	4.14	1.08	5.20	1.39	3.70	1.11	1.06	2.56*	-0.44	-1.21	1.51	3.59*
	Women	4.20	1.44	5.73	1.60	3.19	1.22	1.52	3.40*	-1.02	-2.58*	2.54	6.05*
ITS													
	Men	3.33	0.99	4.35	1.25	2.49	1.20	1.02	2.72*	-0.83	-2.26*	1.85	4.52*
	Women	3.56	1.04	4.79	1.31	2.36	1.32	1.22	3.48*	-1.20	-3.42*	2.42	6.24*

* Indicates a significant value at $p < 0.05$

TABLE 2 Statistical analysis of service levels between men and women

Dimensions	Adequate service		Desired Service		Perceived Service		(1) - (2)		(3)-(4)		(5)-(6)	
	Men (1)	Women (2)	Men (3)	Women (4)	Men (5)	Women (6)	Mean	t	Mean	t	Mean	t
Assurance	3.56	4	4.8	5.67	3.04	3.2	-0.44	-1.23	-0.87	-2.69*	-0.16	-0.5
Empathy	3.81	4.24	4.96	5.84	3.24	3.49	-0.43	-1.15	-0.88	-2.04*	-0.25	-0.66
Reliability	4.37	4.28	5.57	6.41	3.81	3.36	0.09	0.23	-0.84	-2.04*	0.45	0.83
Responsiveness	4.36	4.65	5.67	6.54	3.28	3.02	-0.29	-0.68	-0.87	-2.15*	0.26	0.63
Tangible	3.66	3.85	4.63	5.23	2.75	2.67	-0.19	-0.48	-0.6	-1.7*	0.08	0.26
Comfort	3.64	3.68	4.48	4.97	2.73	2.83	-0.04	-0.1	-0.49	-1.2	-0.1	-0.28
Connection	3.88	4.15	4.8	5.58	3.21	2.78	-0.27	-0.59	-0.78	-1.69*	0.43	1.03
Convenience	4.14	4.2	5.2	5.73	3.7	3.19	-0.06	-0.15	-0.53	-1.12	0.51	1.37
ITS	3.33	3.56	4.35	4.79	2.49	2.36	-0.23	-0.75	-0.44	-1.09	0.13	0.35

* indicates a significant value at $p < 0.1$