The role of involvement in regards to public transit riders´ perceptions of the service

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José Luis Machado-León, Rocío de Oña and Juan de Oña (2016) *The role of involvement in regards to public transit riders´ perceptions of the service*. **Transport Policy, 48, 34-44.**

Direct access to the published version: https://doi.org/10.1016/j.tranpol.2016.02.014

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ABSTRACT

Research on involvement of public transit customers, which can be defined as the level of interest or importance of public transit to a passenger, is scarce and no study has attempted to comprehensively analyze this concept in the public transit sector. Based on behavioral and marketing literature, this paper tests three possible roles of involvement in regards to passengers´ perceptions of a Light-Rail Transit (LRT) service in Seville (Spain): the mediator, moderator and antecedent roles. The structural equation modeling approach was used to test the conditions of mediation and moderation in social psychology and to evaluate the theoretical relationships of involvement as an antecedent. A nested model strategy allowed us to compare competing models and a multiple group analysis was conducted to test for moderation. Our results indicate that involvement of public transit users could positively affect their evaluations of the service quality, and enhance their intentions to reuse the service and recommend it to others. Furthermore, involvement could also moderate the direct effect of service quality perceptions of highly involved users on their behavioral intentions. Consequently, higher levels of involvement could lead perceptions of service quality to affect positive behavioral intentions mainly through customer's satisfaction. Furthermore, the level of product hierarchy at which passengers make their decisions to use a transportation mode may affect how they make their evaluations and decisions in regards to that mode. These results lead to important and practical considerations for transportation managers who aim to enhance passengers´ intentions to reuse the service and recommend it to others. The insight gained with this paper in regards to the effect of involvement on passengers´ perceptions may allow the design of effective marketing strategies that aim to grow transit ridership by increasing the importance of public transit for passengers.

Keywords: involvement, service quality, customer satisfaction, behavioral intentions, structural equation modeling, light-rail transit

1. Introduction

In the coming years, population expansion and urban growth across the world will result in a progressive saturation of the existing transportation infrastructure. According to data from the United Nations, it is estimated that by the middle of the 21st century, the urban population will have doubled in size from approximately 3.9 billion people at the present moment to 6.3 billion in 2050 (United Nations Population Division, 2014). Additionally, according to Monzón et al., (2013), car and motorcycle are the main transport modes for metropolitan mobility in almost all the metropolitan regions in Spain, varying between 71% of the modal share in Seville (2007) to a 45% in Madrid (2004) and Barcelona (2011). Channeling the increasing demand for transportation in urban areas towards Public Transport (PT) is essential to prevent that problems such as traffic congestion and pollution continue to worsen. In this respect, public transit systems need to become more market oriented and competitive because they tend to be viewed as service products (Lai & Chen, 2011). Furthermore, marketing campaigns have been found to be cost-effective means that successfully increase transit ridership (Currie & Wallis, 2008).

Customer loyalty is seen as a prime determinant of a firm´s long-term financial performance and is considered a major source of competitive advantage (Lam et al., 2004) and it is defined as "a deeply held commitment to repurchase or re-patronize a preferred product or service in the future" (Oliver, 1999). Favorable behavioral intentions are considered to lead to customer loyalty and involve three dimensions: word-of-mouth, purchase intentions and price insensitivity (Lai & Chen, 2011). The service quality-customer satisfaction-behavioral intention is the theoretical framework that allows managers to monitor passengers´ perceptions about the service and therefore, provide users with public transit that meets their expectations.

In this framework, service quality is traditionally considered to be the vehicle to customer satisfaction (Chen, 2008; Chou & Kim, 2009). Service quality is believed to precede customer satisfaction because it is defined as a cognitive judgment, while customer satisfaction is considered an affective judgment (liking/pleasure), purely experiential (Oliver, 2010). In fact, this paradigm also suggests that satisfaction is the link between service quality and behavioral intentions (Chiou & Chen, 2012; Dabholkar et al., 2000; de Oña & de Oña, 2014; Jen et al., 2011). However, there are reported evidences in the literature that service quality may also have a direct effect on behavioral intentions in the case of high-speed rail (Chou et al., 2014), bus and heavy rail (Minser & Webb, 2010) and in the case of a light-rail transit (LRT) (de Oña et al., 2015; Lai & Chen, 2011).

Research on service quality, customer satisfaction and behavioral intention in public transit has been conducted by using different methodological approaches (de Oña & de Oña, 2014) and numerous studies identify the effect of other dimensions in this framework, such as perceived value, public image, experience of service disruptions and switching costs (Jen et al., 2011; Zhao et al., 2014). On the other hand, research on the role of involvement of public transport users in regards to their behavioral intentions is scarce, despite the fact that this concept has been a focus in marketing and behavioral research (Olsen, 2007). According to Olsen (2007), involvement is related to an individual´s subjective sense of the concern, care, importance, personal relevance, and significance attached to an attitude. That is, involvement is an unobservable state of motivation. This state of motivation exits in product consumers as well as in service consumers. As public transport services are also viewed as a service industry and thus possess the same characteristics, research can be done naturally with the conception of service management and marketing (Wei and Kao, 2010). Likewise, Mittal (1995) and

Zaichkowsky (1985) referred to involvement as the perceived importance of a specific product or service based on customer requirements, values and interests. In the public transport sector, Lai and Chen (2011) developed a scale to measure involvement, which was defined as the level of interest or importance of public transit to a passenger.

Chen and Tsai (2008) stated that the level of involvement that a consumer has with respect to the object of interest works as an important determinant of consumer evaluations and behaviors. Flynn and Goldsmith (1993) suggested that highly involved customers are inclined to display better loyal buying behavior. In fact, related research established that the level of involvement may moderate the relationship between quality and behavioral loyalty (Gordon et al., 1998; Grönroos, 1995; Kinard and Capella, 2006). Concerning public transport service, involvement has been found to be positively affected by service quality, customer satisfaction and perceived value, and to have a direct and positive effect on behavioral intention in the context of a LRT service (Lai & Chen, 2011). Likewise, Wei and Kao (2010) demonstrated that public transport involvement was a critical factor for users' behavioral intentions on a new mass rapid transit system in Taiwan. They stated that transport authorities should not only constantly enhance the transit service quality but also keep high involvement travelers as their primary consumer group. In the case of the airline sector, there is reported evidence that high levels of involvement moderated the effect of financial bonding on customer´s perceived relationship of investment, whereas low levels of involvement moderated the effect of structural bonding and social bonding on this customers´ perceived relationships of investment (Wang, 2014). Additionally, similar concepts were analyzed by other authors, such as Chen and Chao (2011) who introduced a construct named "subjective norm", for investigating private vehicle users' intentions towards switching to public transit. They found that subjective norm positively affected

private users' intentions towards mode switching. Likewise, Borhan et al. (2014) defined a construct named "attitude" for analyzing the behavioral intention of taking the public transport. Results indicated that attitude towards the public transport had a positive effect on the behavioral intention.

However, as far as the authors of this paper know, a comprehensive methodical approach such as the one applied in social psychological research (Baron & Kenny, 1986; Olsen, 2007) has not been applied to identify the role of involvement in the service quality - customer satisfaction - behavioral intention framework of public transit.

Therefore, this paper aims to identify the role of involvement in the case of public transport users of the metro of Seville, Spain, (a partially underground LRT) by following a statistical approach that allows us to consider three possible effects of this concept on service quality, customer satisfaction and behavioral intention. By using the structural equation modeling approach we analyzed the possible roles of involvement of public transport users as a moderator, mediator and as antecedent in the service quality - customer satisfaction - behavioral intention paradigm.

The organization of the paper is as follows. Section 2 consists on a description of the methodology used, that is, structural equation modeling and the concepts of each possible role of involvement. In Section 3, we introduce the data collection process, characteristics of the sample of LRT users and our measurement model. Section 4, describes the results of the analysis of convergent and discriminant validity of the measurement model and structural equation models´ results. In Section 5, we discuss our models´ results and compare them with those reported by other authors. Last, Section 6 summarizes the main conclusions of the paper.

2. Methodology

2.1. Structural Equation Modeling

Structural Equation Modeling (SEM) allows researchers to explain the relationships among multiple variables by examining the structure of interrelationships expressed in a series of equations. In a different manner from other multivariate techniques, SEM examines more than one relationship at a time; therefore, it is a technique to test a set of hypothesis that considers all possible information (Hair et al., 2010).

SEM consist of two components, a measurement model that assesses unobserved latent variables as linear functions of observed variables, and a structural model that shows the direction and strengths of the relationships of the latent variables. Additionally, latent variables are classified as endogenous (dependent) or exogenous (independent) variables.

The structural model can be defined with the following basic equation (Bollen, 1989):

$$\eta = B\eta + \Gamma\xi + \zeta \tag{1}$$

in which η is a $m \times 1$ vector of the latent variables, ξ is a $n \times 1$ vector of the latent exogenous variables, B is an $m \times m$ matrix of the coefficients associated with the latent endogenous variables, Γ is an $m \times n$ matrix of the coefficients associated with the latent exogenous variables and ζ is an $m \times 1$ vector of error terms associated with the endogenous variables.

The basic equations of the measurement model can be expressed as:

$$x = \Lambda_x\xi + \delta \tag{2}$$

$$y = \Lambda_y\eta + \varepsilon \tag{3}$$

in which x and δ are column q-vectors related to the observed exogenous variables and errors, respectively; Λ_x is a $q \times n$ structural coefficient matrix for the effects of the latent exogenous variables on the observed ones, y and ε are column p-vectors related to the observed endogenous variables and errors respectively, and Λ_y is a $p \times m$ structural coefficient matrix for the effects of the latent endogenous variables on the observed ones.

The Maximum likelihood method was used to estimate the model´s parameters, which are estimated in a way that minimize the differences between the predicted variance-covariance matrix and the observed one, while respecting the constraints of the model (Golob, 2003).

Moreover, SEM is confirmatory rather than exploratory because it allows researchers to construct the model by defining unidirectional effects between parameters (Golob, 2003). Therefore, we used the structural modeling approach to look into the possible role of involvement of LRT users in the service quality, customer satisfaction and behavioral intention paradigm. Following the experience of Olsen (2007), we used a nested model approach to analyze whether involvement mediates the effect of service quality and customer satisfaction on behavioral intention (Figure 1a) or acts as an antecedent of service quality and behavioral intention (Figure 1b). The analysis of the mediator role involved the calibration of three structural equation models, and an additional SEM was calibrated to look into the antecedent role of involvement. Additionally, we conducted a multiple groups analysis (Hair et al., 2010) to test whether involvement moderates the relationship between service quality and customer satisfaction, customer satisfaction and behavioral intention, and service quality and behavioral intention (Figure 1c). This multiple groups analysis allowed us to find different structural relationships between PT users with low and high levels of

involvement. Figure 1 summarizes the models estimated to test the role of involvement by using the SEM approach.

- Figure 1 -

2.2. Mediator, Moderator and Antecedent Roles - Hypothesis

Involvement has been suggested to be a motivational mediator between satisfaction and loyalty (Olsen, 2007). According to Baron and Kenny (1986), a mediator accounts for the relation between the predictor and the criterion. In other words, various transformation processes internal to the organism mediate the effects of stimuli on behavior. A variable could acts as a mediator when it meets three criteria in a casual chain: i) the independent variable has a direct and statistically significant effect on the mediator variable; ii) the mediator variable has a direct an statistically significant effect on the dependent variable and; iii) when the two previous relationships are controlled, a previously significant relation between the independent and dependent variables is no longer significant. In regards to the latter condition, a single dominant mediator would cause the relationship between the independent and dependent variables to be zero. On the other hand, if this residual relationship were not zero, this would suggest the operation of multiple mediating factors (Baron & Kenny, 1986). In other words, a partial mediator model considers the possibility that there are multiple mediating factors in addition to the studied mediator variable (involvement), and consequently, the direct relationship between the dependent variables (customer satisfaction and service quality) and the independent variable (behavioral intention) are not neglected as in the full mediator model. Based on Olsen (2007)´s experience, a Full Mediator Model (SEM_FMM), a Partial Mediator Model (SEM_PMM) and a Direct Effects Model (SEM_DEM) were calibrated to test the possible mediator role of involvement (Figure

1a).

A moderator is a qualitative or quantitative variable that affects the direction and/or strength of the relation between an independent variable and a dependent variable (Baron & Kenny, 1986). A test of moderation can be conducted by multiple groups analysis in SEM (SEM_MOD), which allows us to look into differences in structural relationships between stratifications of the sample based on differing levels of the moderator variable (Hair et al., 2010). There is reported evidence in the existing literature that involvement may moderate the effect of predictor variables of behavioral intentions of PT users in the airline sector (Wang, 2014). Additionally, Lai and Chen (2011) found evidence that involvement was positively affected by customer evaluations of service in a LRT service context. However, they recognized that involvement could act as a moderator of customers´ evaluations such as perceived value, service quality and satisfaction, although they did not consider this possibility in their analysis.

Furthermore, involvement has been considered as an important antecedent of commitment, which is frequently used as a part of loyalty, both conceptually and empirically (Olsen, 2007). In the public transport sector, there is evidence that a positive and statistically significant relationship exists between involvement and behavioral intentions, and other customer perceptions such as satisfaction (Lai & Chen, 2011; Olsen, 2007). SEM_ANTE allowed us to look into the possibility that involvement acts as an antecedent of service quality and behavioral intention.

A total of 5 structural equation models were calibrated in this analysis to comprehensively look into the effect of involvement on customer's perceptions. The measurement model consists of four constructs - involvement, service quality, customer satisfaction, and behavioral intention. The authors of this paper previously developed a

SEM instrument to test the theory underpinning the relationships between the constructs service quality, customer satisfaction and behavioral intention in this LRT service (de Oña et al., 2015). In this previous work, we developed a 7-step analytical procedure to design and conduct an ad-hoc customer satisfaction survey of LRT users of the metro of Seville. For the sake of clarity and brevity, we only include in this paper how the latent constructs service quality, customer satisfaction, behavioral intention and involvement were measured in the present analysis and we would like to refer the reader to (de Oña et al., 2015) for a thorough explanation of how reliable and valid scales were developed to measure these constructs.

3. Data Collection

This study was carried out in the Metro of Seville (Spain), a partially underground LRT. This LRT came into operation in 2009 and currently consists of a sole line, *Route 1*, with a length of 18 kilometers and 21 stations that connect four of the main municipalities in the metropolitan area of Seville. Seville municipality registers a population of about 700,000 inhabitants, but taking the other 3 boroughs into account, this number increases to 850,000 people. In 2013, the LRT carried more than 13.7 million passengers.

The survey instrument consisted of four different parts: Part A, which aims to know users' attitudes towards the service; Part B, comprised users' perceptions about the level of quality of different attributes of the service; Part C, regarding users' travel habits; and Part D, which collects users' socioeconomic information. Parts A and B gathered data based on respondents´ overall ridership and in Part C respondents were asked for information in regards to the trip that they were taking when they were invited to participate in the study.

The data collection process combined new technologies (internet-based surveys) with traditional methodologies (a face-to-face distribution process). 19,863 cards were administered to users at LRT stations by four trained interviewers. The card delivery period took place during two weeks (May-June 2014), on weekdays, Saturdays and Sundays. The cards included a brief description of the survey objectives, a link to the survey website, and information on a prize raffle in order to capture users' attention. Users had three weeks for completing the online survey, which was accessible on computers, smartphone, tablets, etc. Filling out the questionnaire took around ten minutes. As a result, 3,365 responses were registered (response rate value of 17.09%), from which 3,211 were valid for subsequent analysis.

Questions related to users' customer satisfaction, behavioral intention and involvement towards the LRT service were measured on Part A, with a 11-numeric scale defined as 0-totally disagree and 10-totally agree, except for an overall satisfaction question, which was rated on a 5-point Likert scale (1-lowest level of satisfaction, 5-highest level of satisfaction). After applying the analytical procedure to verify the reliability and validity of the scales (de Oña et al., 2015), customer satisfaction consisted of four items that recorded users' level of satisfaction or agreement in regards to "Overall satisfaction with the service of the LRT", "The service of the LRT is good", "I feel comfortable travelling by LRT" and "The service of the LRT meets my expectations". Behavioral intention of users described their level of agreement with the statements "I will travel by LRT again under the same conditions (money, time and comfort)", and "Surely, I will use the LRT service again" and "I usually recommend the LRT service to others". Last, involvement was measured by collecting LRT users´ level of agreement with the statements: "I feel that taking public transit is consistent with my lifestyle", "I feel that by taking public transit I help to protect the environment", "I like

others to know the fact that I take public transit" and "I like people who take public transit".

Service quality was measured on Part B through 36 attributes describing the service. The perceived level of quality of each attribute was asked with an 11-numeric scale (0-lowest quality and 10-highest quality). These attributes were grouped by using eight dimensions of service quality empirically derived with principal component analysis from perceptions of LRT users (de Oña et al., 2015). The dimensions were: Tangible service equipment, Accessibility, Availability of the Service, Customer Service, Individual Space, Information, Security and Environmental Pollution. Additionally, service quality included an item that recorded users' scores on "Overall service quality of the service".

Statistical information (mean, standard deviation and mode) about customer satisfaction, behavioral intention, involvement items and service quality dimensions can be found in Table 1. Users are satisfied with the LRT service because they state that travelling by LRT attracts them, they feel comfortable travelling by LRT, and the LRT meets their expectations. Moreover, their overall satisfaction with the service is quite high (mean value equal to 4.0 on a 5-point Likert scale).

-Table 1-

Responses on users' behavioral intention suggested that LRT will be surely used again, also under the same conditions. It can be affirmed that users were convinced to use again the LRT as almost 60% of users expressed the highest level of agreement (10) with the statement "Surely, I will use the LRT service again", and this question also showed the lowest value of standard deviation of the three items describing behavioral intention.

Involvement items showed high standard deviation values and a mode mainly concentrated on the rate 5, with the exception of the feeling of taking public transit to help to protect the environment that showed a mode value of 10. Items` mean values suggest that users were generally aware that the use of public transit contributes to the protection of the environment, that they liked people who use transit services, and that they felt that taking public transit was consistent with their lifestyle.

Regarding service quality dimensions, users perceived a high level of service quality in terms of Tangible service equipment and Accessibility (mean value equal to 8.1 and 7.9, respectively). On the contrary, Individual space and Environmental Pollution obtained the lowest perceived values. Nevertheless, it can be said that the LRT service is perceived to have high quality (mode value equal to 8 for *SQ1. Overall Service Quality*).

Concerning Part C and D, Table 2 displays the sample characteristics. The sample was made up of more of females (53.3%). Most of the passengers were 18-25 years old (41.6%), followed by people in the age range of 26 to 40 years (28.8%) and of 41 to 65 years (25.5%). The major portion of participants had graduated from high school or had completed professional education or a bachelor' degree at university (41.9% and 48.5% respectively). Respondents in the sample were mainly students (41.5%) and employees (43.7%). Almost one fifth of the sample (17.8%) did not declared their income, while people who declared their monthly income were approximately evenly distributed among the four levels of incomes. Almost three quarters (74.3%) of passengers in the sample travelled by LRT mainly for one of the following two reasons, to go to work (35.5%) or to get to school (38.8%). Half (52.1%) of the sample travelled by LRT every day. Most frequently, people stated that one of the main reasons why they were traveling on the LRT was because of the speed (66.5%),

followed by the comfort (50.0%) and the lack of parking available (32.2%). 13.5% of respondents stated that the LRT was the only mode of transportation they had to make that trip, thus they were captive of this transport means. Walking was the most preferred mode of transportation to go from the origin of their trip to the LRT station and from the LRT station to the destination of their trip (62.6% and 86.3% respectively).

-Table 2-

4. Results

4.1. Convergent and discriminant validity

In order to assess the validity of the measurement model we conducted a confirmatory factor analysis (CFA) and we looked into the convergent validity and discriminant validity of the constructs in the model (Hair et al., 2010). In this CFA, the measurement model consisted of four exogenous variables: service quality, customer satisfaction, behavioral intention and involvement. These latent variables were respectively related to several observed items as it was described above. CFA results (Table 3) provide enough evidence that convergent validity of the four constructs exists. First, all factor loadings were significant and with a value higher than 0.5. Only the item Environmental Pollution showed a standardized factor loading under the recommended value (0.49) and consequently it was drop of the measurement model. Second, construct reliability (CR) of service quality, customer satisfaction, behavioral intention and involvement showed values higher than the recommended threshold of 0.7. Third and last, the four constructs showed an average variance extracted (AVE) higher than the recommended 0.5 value. The only exception was involvement, which showed a value in the limit of this threshold (0.49). This value was considered acceptable because all factor loadings related to this construct were significant and had a value greater than 0.5.

Additionally, AVE for any two constructs was compared with the squared intercorrelation among these constructs in order to assess discriminant validity. Only the squared intercorrelation between service quality and customer satisfaction (0.72) was higher than AVE for both constructs (0.55 and 0.53 respectively). Therefore, we conducted a chi-squared difference test to further analyze the discriminant validity of service quality and customer satisfaction. Two SEM models were calibrated, one considered service quality and customer satisfaction to be the same latent construct and the second allowed the relationship between these two constructs to be freely estimated. The latter model showed a better goodness-of-fit and the chi-squared difference test was significant at a 0.01% level, which indicates that discriminant validity may exist between these two constructs. Once we found enough evidence that the measurement model was valid, we looked into the role of involvement towards public transit in regards to service quality, customer satisfaction and behavioral intention by following a nested model strategy and a multiple groups analysis.

- Table 3–

4.2. Models' results

The possibility that involvement acts as a mediator between service quality and behavioral intention, and between customer satisfaction and behavioral intention was considered by calibrating SEM_FMM, SEM_PMM and SEM_DEM. The three models showed an acceptable level of fit based on goodness-of-fit statistics and their results are summarized in Table 4.SEM_PMM showed a statistically significant better fit than SEM_DEM and SEM_FMM based on chi-squared difference test, which was significant at a 4% and at a 0.1% significance level respectively. Furthermore,

SEM_PMM and SEM_DEM showed a superior fit than SEM_FMM based on the remaining goodness-of-fit indices. Therefore, the partial mediator model was considered to be the model that best fitted the data.

- Table 4 -

By looking into the significance of the structural relationships we can draw meaningful conclusions. The relationship between involvement and behavioral intention (0.412) was significant at a 0.1% level in SEM_FMM. The direct relationships between service quality and behavioral intention (0.259) and between service quality and involvement (0.428) were also significant at a 0.1% level in SEM_DEM. Moreover, these latter relationships remained significant at a 0.1% level and with slightly the same value after controlling for the effect of involvement on behavioral intention, which had a value of 0.043($p<0.035$) in SEM_PMM. These results indicate that involvement could act as a partial mediator between service quality and behavioral intention, however, this evidence is not strongly supported because the inclusion of involvement as a mediator did not notably reduce the direct effect of service quality on behavioral intention (Baron & Kenny, 1986). On the other hand, customer satisfaction does not show a direct and significant effect on involvement in any of SEM_FMM,SEM_PMM and SEM_DEM, whereas the relationship between customer satisfaction and behavioral intention was significant at a 0.1% significance level and with an approximate value of 0.49 in both SEM_PMM and SEM_DEM. These latter results may show that involvement does not mediate the effect of customer satisfaction on behavioral intention.

Furthermore, we calibrated SEM_ANTE in order to analyze the possibility that involvement acts as an antecedent of service quality and behavioral intention.

SEM_ANTE results are summarized in Table 5 and show that this model fitted well the data based on goodness-of-fit statistics. SEM_PMM showed a slightly better Chi-squared value, although this difference was not statistically significant (diff_Chi2=0.2; diff_Df=1), and on the other hand, SEM_ANTE showed a slightly better PGFI (0.690). A comparison between equivalent structural relationships of both models showed that they remained practically the same after considering involvement as an antecedent of service quality and behavioral intention instead of a mediator of the effect of service quality and customer satisfaction on behavioral intention. Furthermore, the explanatory power of involvement in regards to behavioral intention was slightly more significant when considering involvement as an antecedent of behavioral intention in SEM_ANTE (at a 3% level) than as a mediator of service quality and behavioral intention in SEM_PMM (at a 3.5% level). Additionally, we tested the possible role of involvement as an antecedent of customer satisfaction by calibrating a structural equation model that considered this relationship. However, this latter model showed a statistically significant worse fit than SEM_ANTE at a 0.1% level (diff_Chi2=529.51, diff_Df=1) and its results are not included for the sake of clarity.

- Table 5 -

Finally, involvement could also moderate the relationship between service quality and customer satisfaction, customer satisfaction and behavioral intention, and service quality and behavioral intention instead of being directly related to these constructs. Therefore, we conducted a multiple groups analysis to look into differences between transit users with high- involvement and low- involvement. Multiple groups analysis is a SEM framework for testing any number or type of differences between

similar models estimated for different groups of respondents (Hair et al., 2010). The authors of this paper would like to refer the reader to Hair et al. (2010) for a thorough explanation of this analysis. In order to identify users with high and low involvement, we calculated users´ involvement score as the average of the four items that defined involvement in the measurement model, and we grouped users via a quartile split, following Wang (2014)´s experience. That is, Low- involvement group of users had an involvement average score of 5.5 (Q1) or lower (sub sample of 861 respondents) and High- involvement group of users showed an involvement average score higher than 8.24 (Q3) (sub sample of 802 respondents). This multiple groups analysis was conducted by calibrating SEM_MOD and its results are summarized in Table 7.

In order to look into structural relationship differences between both groups of public transport users without concern that these differences are due to differing measurement properties across groups, we first need to assess minimum required levels of invariance of the measurement model. For our purpose, we need to ensure that full Configural Invariance and at least Partial Metric Invariance exist (Hair et al., 2010), which were assessed by conducting a multiple group confirmatory analysis (MCFA).In this MCFA we calibrated two models: the "Configural Invariance Model" and the "Partial Metric Invariance Model" and both models showed acceptable goodness-of-fit statistics (see Table 6). To look into Configural Invariance, we additionally conducted two separate CFAs with each sample. These models showed an acceptable fit of the data, although CFI and RMSEA indices were in the acceptable limit of 0.9 and 0.1, respectively (see Table 6). Furthermore, the "Configural Invariance Model" allowed us to check that both groups of users showed the same structure of constructs based on MCFA results, which showed acceptable goodness-of-fit (RMSEA=0.069; CFI=0.891). Then, we partially constrained the measurement model(a minimum of two factor

loadings per construct) to be equal across groups in the "Partial Metric Invariance Model". We checked that these constraints did not cause a statistically significant worse fit by conducting a chi-squared difference test that compared the "Configural Invariance" and the "Partial Metric Invariance" models. This test allowed us to find evidence that the Partial Metric Invariance model did not show a statistically significant worse fit than the unrestricted model at a 5% significance level or lower (diff_Chi2=15.2, diff_Df=8). Furthermore, CFI and RMSEA of both models remained the same, with only a trivial RMSEA decrease of the Partial Metric Invariance model (0.068). The difference in eight degrees of freedom between both models is due to the constraints that fixed the factor loadings of eight items to be equal across groups. These items were: BI2. I usually recommend the LRT service to others; BI3. Surely. I will use the LRT service again; CS2. The service of LRT is good; CS4. The service of LRT meets my expectations; SQ3. Accessibility; SQ5. Customer Service; SQ6. Security and; SQ7. Information.

SEM_MOD showed an acceptable model fit with goodness-of-fit indices under the recommended threshold such as RMSEA=0.068<0.08. However, GFI (0.872) had a value in the limit of its recommended threshold (>0.9) (Table 7). In comparison with the other calibrated models, SEM_MOD showed a better fit of the data based on the RMSEA index, although SEM_PMM, SEM_DEM and SEM_ANTE showed a slightly better fit than SEM_MOD in terms of the remaining fit indices. By looking into structural relationships of SEM_MOD, we found that differences between public transport users with High- involvement and Low- involvement exist. The direct effect of service quality on behavioral intention is statistically significant for public transport users with Low- involvement (0.206, p<0.006), whereas the equivalent relationship is not significantly different from 0 in the case of PT users with High- involvement (0.052,

p<0.543).These findings may indicate that involvement moderates the effect of service quality on behavioral intention as LRT users have higher level of involvement.

- Table 6-

- Table 7-

5. Discussion

By using a nested model strategy and multiple groups analysis, we analyzed three possible roles of involvement in the theoretical framework that considers the relationships between service quality, customer satisfaction, behavioral intention. We empirically looked into the possible theory that dominates the effect of involvement by calibrating five structural equation models.

SEM_FMM, SEM_PMM and SEM_DEM tested the possible mediator role of involvement between customer satisfaction and behavioral intention, and between service quality and behavioral intention. These models showed that involvement might not mediate the effect of customer satisfaction on behavioral intention because we could not find evidence that customer satisfaction was directly and significantly related to involvement in any of the three models. Additionally, customer satisfaction showed a direct and significant effect on behavioral intention both in the Partial Mediator Model (SEM_PMM) and the Direct Effects Model (SEM_DEM). Moreover, involvement could act as a partial mediator between service quality and behavioral intention. However, this evidence was not strongly supported by our results because the inclusion of involvement in SEM_PMM did not notably reduce either the significance or the value of the relationship between service quality and behavioral intention, compared to the equivalent relationship in SEM_DEM. These results are not in the line of Olsen (2007), who found evidence that in the case of customer´s choices of type of food for

dinner, involvement with seafood may act as a complete mediator between satisfaction with seafood and intentions to have seafood for dinner. One possible reason is that customers may make their evaluations and choices about products in a different manner at different levels of product hierarchy (Olsen, 2007). In brand research, customers are believed to understand products grouped into different levels of specificity and organized in a hierarchical fashion (Keller, 2012). For instance, in the beverage market customers´ may first decide between flavored and nonflavored beverages (water), then whether they want an alcoholic or non-alcoholic drink and so on, until they choose a particular brand within a product category (Keller, 2012). Assuming that customers make their decisions moving from categories to subcategories to brands, customers´ choices at a category level could mainly depend on needs, goals and abstract attributes, whereas these choices could be based on concrete attributes at a subcategory and brand level (Olsen, 2007). In our case, service quality, customer satisfaction and behavioral intention were specified at a product subcategory level (LRT service) while involvement was measured at a broader product category (Public Transportation). According to our results, public transit users´ evaluations of the LRT service quality and their customer satisfaction with the LRT service may have an effect on their willingness to re-use the service, although this effect is not mediated by their involvement with public transportation. On the other hand, when passengers are making evaluations and decisions at other level of product hierarchy such as whether or not travel by public transit, involvement with public transit could have a different role in regards to customer satisfaction with public transit and positive behavioral intentions towards public transit.

Furthermore, SEM_ANTE was calibrated to test the structural relationships of involvement as an antecedent of service quality and behavioral intention. The goodness-

of-fit indices showed that this model fitted the data in a slightly better way than SEM_PMM and SEM_DEM, although the differences between these indices were trivial. Moreover, the antecedent role of involvement helped to slightly improve the significance of the direct relationship between involvement and behavioral intention. In behavioral modeling research, involvement has been considered to positively affect commitment, which can be seen as a dimension of customer loyalty (Olsen, 2007). Furthermore, increased involvement has been found to correlate with increased customer satisfaction in the airline sector (Wang, 2014) and to positively affect behavioral intention of LRT users (Lai & Chen, 2011). Our results show that increased involvement of LRT users may improve their perceptions of service quality and enhance their intentions to reuse the service and recommend it to others.

Last, we looked into the possibility that involvement moderates the relationships service quality - behavioral intention, service quality - customer satisfaction and customer satisfaction - behavioral intention by calibrating SEM_MOD. We first ensure that Configural Invariance and Partial Measurement Invariance exist in order to be able to draw meaningful conclusions from differences in structural relationships between both groups. SEM_MOD showed similar fit that SEM_ANTE and its results provided us with evidence that involvement could moderate the relationship between service quality and behavioral intention. That is, service quality has a direct and significant effect on behavioral intention for public transport users with Low levels of involvement, whereas this relationship is not significant for public transport users with high level of involvement. This finding is highly interesting because it can be argued that high levels of involvement strengthen the experience of emotions in general, and more specifically positive emotions (Bloemer & de Ruyter, 1999). In the case of LRT users of the Metro of Seville, high involvement levels could lead riders´ perceptions of service quality to

indirectly and positively affect their behavioral intentions through the affective component of customer satisfaction (Bloemer & de Ruyter, 1999).

6. Conclusion

In order to provide transportation practitioners and policy makers with a comprehensive framework that allows them to monitor and evaluate service quality perceptions of PT users, we developed a SEM instrument to test the service quality - customer satisfaction - behavioral intention paradigm in the case of a LRT service. In addition to service quality, customer satisfaction and behavioral intention, which are constructs traditionally considered in this paradigm, we wanted to comprehensively analyze how involvement may affect behavioral intention of public transit users. Since the role of involvement is not clearly understood, we followed a statistical process to look into the possible roles of involvement as a mediator, moderator and antecedent in this theoretical framework. This statistical process was based on Baron and Kenny (1986)´s conditions of moderation and mediation, a nested model strategy and a multiple groups analysis.

Involvement of LRT users of the Metro of Seville was found to have a positive direct effect on their intentions to reuse the service and recommend the service to others. Furthermore, increased involvement was related to better evaluations of service quality. On the other hand, our results also showed that involvement could moderate the direct effect of service quality perceptions on behavioral intentions. That is, higher levels of involvement could lead perceptions of service quality to affect positive behavioral intentions mainly through customer's satisfaction.

Given the two possibilities that involvement acts as an antecedent of service quality and behavioral intention or as a moderator of the direct effect between service quality and behavioral intention, these results lead to important and practical

considerations for transportation managers. Since PT services are an area of market in which consumers could spend considerable time in contact with the service provider and the environment, positive emotions and high involvement may play a significant role in customer perceptions (Bloemer & de Ruyter, 1999). Therefore, transport authorities are able to decide the best strategy to retain and attract more users towards the LRT service: enhance service quality characteristics, or plan a marketing strategy to increase the level of involvement with PT.

According to our results, riders' behavior may vary between groups of passengers with different levels of involvement, and therefore, segmentations of riders based on their level of involvement could be considered to better inform the decision-making process and improve effectiveness of marketing strategies. Higher level of involvement could make users to perceived better service quality, and be more likely to reuse the service and recommend it to others. Consequently, transit operators could retain customers and gain prospects by designing marketing strategies tailored to low involvement users that aim to make transit more relevant to them. Furthermore, the core value of public transportation, as in most services, is produced in the buyer-seller interaction (Wei and Kao, 2010). In this line, our results indicate that high involvement could enhance the relevance of affective/experiential attitudes in riders' loyalty with the service. Transit operators should therefore carefully look into the interactions between passengers and organization members and service environment as they may be highly relevant to customer satisfaction, especially for highly involved passengers. For instance, enhancing the hospitality and familiarity aspects of these interactions may be a strategy to profit customer satisfaction and high level of involvement of transit riders.

Furthermore, we believe that product hierarchy level may affect how passengers make their evaluations and decisions in regards to a mode of transportation. Researchers

who aim to look into behavioral intentions of public transit users towards a specific transit service should also consider involvement measured at the same product level that service quality attributes and customer satisfaction with the service. Additionally, this could also be important to design marketing campaigns that promote public transportation as a product category (e.g., public transportation against private transportation) in order to enhance customer loyalty with public transit services. Therefore, behavioral intentions of public transit users at a broader product category level (i.e., public transport rather than the LRT service) needs further research, that is, how involvement with public transportation affects perceptions of quality of public transport, customer satisfaction with public transport and intentions to re-use public transport.

Finally, Wei and Kao (2010) stated that ‘‘relevance’’ is the core of involvement conception, although other factors should be taken into account. Therefore, the authors consider that the definition and measurement of the involvement construct may be relevant in future research.

7. Acknowledgements

The authors would like to thank the FEDER of European Union for financial support via project “Mejora de la calidad del TP para fomenter la movilidad sostenible: Metro de Sevilla” of the “Programa Operativo FEDER de Andalucía 2007-2013”. Support from Spanish Ministry of Economy and Competitiveness (Research Project TRA2015-66235-R) is also gratefully acknowledged. We thank the experts who participated in the questionnaire development and the team of trained interviewers that collected the data.

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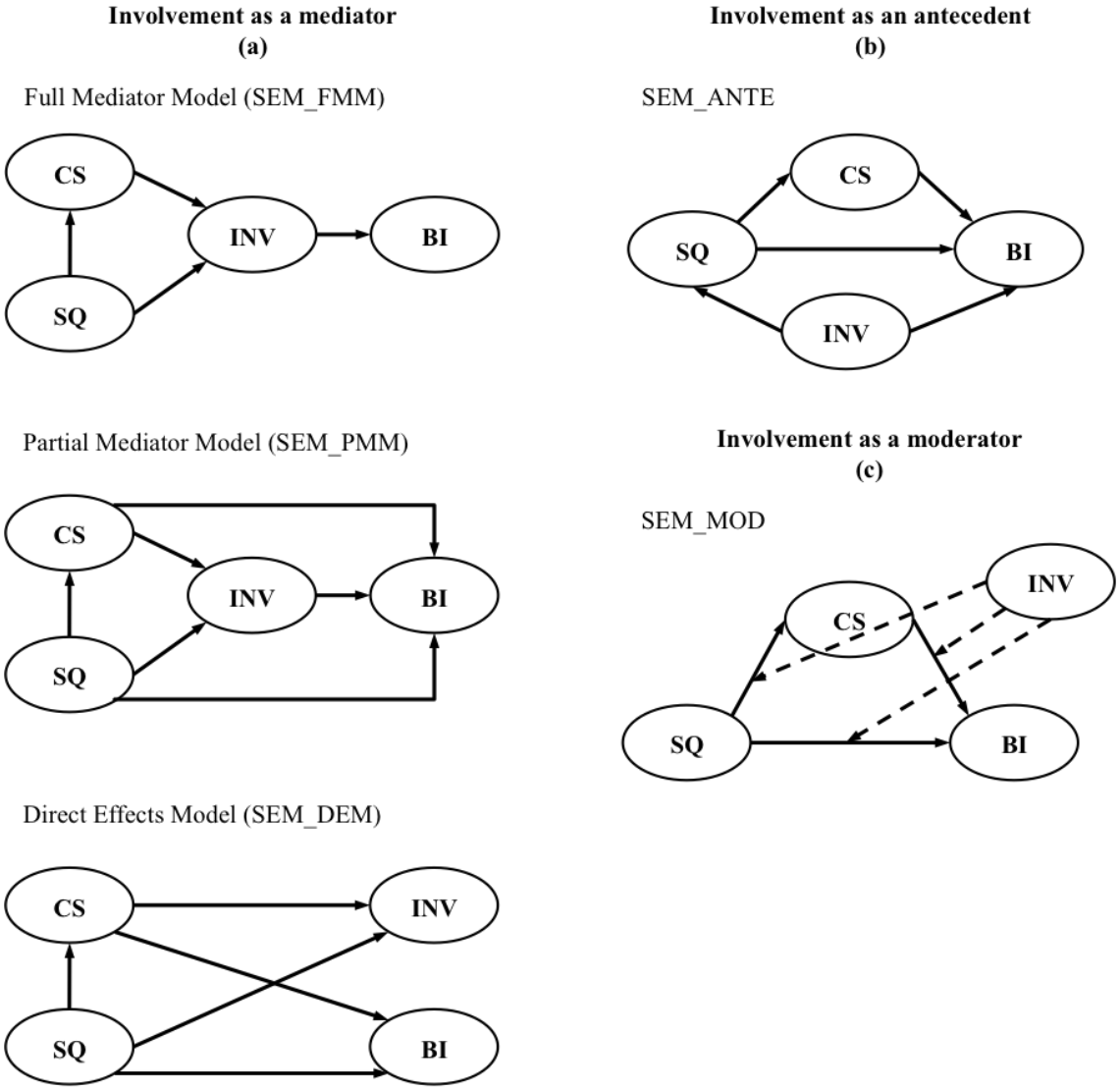
Figure 1. Possible roles of involvement and calibrated structural equation models



Note: BI: behavioral intention, CS: customer satisfaction, SQ: service quality, INV: involvement,

Table 1. Statistics about Behavioral Intention, Customer Satisfaction, Service Quality and Involvement

	Mean	St.dev	Mode (%)
BI			
BI1. I will travel by LRT again under the same conditions (money, time and comfort)	8.0	2.0	10 (31.0)
BI2. I usually recommend the LRT service to others	7.6	2.3	10 (24.7)
BI3. Surely. I will use the LRT service again	9.0	1.6	10 (57.8)
CS			
CS1. Overall Satisfaction with the service of the LRT	4.0	0.8	4 (54.7)
CS2. The service of LRT is good	7.6	2.1	10 (21.1)
CS3. I feel comfortable traveling by LRT	8.1	1.7	10 (24.7)
CS4. The service of LRT meets my expectations	7.4	2.2	8 (21.4)
SQ			
SQ1. Overall Service Quality	7.6	1.5	8 (32.0)
SQ2. Tangible service equipment	8.1	1.4	n.a.
SQ3. Accessibility	7.9	1.5	n.a.
SQ4. Availability of the service	7.3	1.5	n.a.
SQ5. Customer service	7.6	1.8	n.a.
SQ6. Security	7.3	1.8	n.a.
SQ7. Information	7.5	1.6	n.a.
SQ8. Individual Space	6.3	2.2	n.a.
SQ9. Environmental Pollution	6.4	2.1	n.a.
INV			
INV1. I feel that taking public transit is consistent with my lifestyle	6.7	2.5	5 (21.3)
INV2. I feel that by taking public transit I help to protect the environment	7.8	2.3	10 (31.2)
INV3. I like others to know the fact that I take public transit	5.7	2.7	5 (38.6)
INV4. I like people who take public transit	6.8	2.4	5 (31.2)

Note: BI: behavioral intention, CS: customer satisfaction, SQ: service quality, INV: involvement, n.a.: not available. SQ2-SQ9 mode are not available due to they are dimensions of SQ empirically derived with principal component analysis from perceptions of LRT users about 36 items (de Oña et al., 2015)

Table 2. Sample Characteristics

Characteristics	Statistics
1.Gender	Male (46.6%), female (53.3%), no answer (0.1%)
2.Age	< 18 (2.8%), 18-25 (41.6%), 26-40 (28.8%), 41-65 (25.5%), >65 years old (1.0%), no answer (0.2%)
3.Qualification	No studies (0.7%), degree of secondary school (8.3%), degree of high school or professional education (41.9%), Bachelor´s degree at university or higher (48.5%), no answer (0.7%)
4. Employment status	Self-employed (7.4%), employee (36.3%), unemployed (8.6%), student (41.5%), housewife (1.7%), other (1.9%), retired (2.6%), no answer (0.2%)
5.Income level	<= 1,200 (28.7%), 1,201-1,800 (21.1%), 1,801-2,400 (16.5%), > = 2.401 (16.0%), no answer (17.8%)
6.Trip purpose	Work (35.5%), studies (38.8%), leisure (15.3%), others (10.3%)
7.Frequency of journey	Daily (52.1%), 3-4 times a week (17.9%), 1-2 times a week (13.6%), sporadically (16.4%)
8. Reason for taking the LRT (multiple response)	Price (10.2%), comfort (50.0%), speed (66.5%), frequency (28.9%), environmental reasons (16.6%), do not have driving license (14.5%), do not have vehicle (23.1%), it is my unique alternative (13.5%), lack of parking (32.2%), traffic congestion (24.8%), you cannot use your vehicle for any reason (6.0%), other (6.7%)
9. Mode of transport from origin to LRT station	Walking (62.6%), bicycle (3.4%), urban bus (5.9%), interurban bus (3.8%), car (22.2%), motorcycle (0.4%), other (1.8%)
10. Mode of transport from LRT station to destination	Walking (86.3%), bicycle (2.2%), urban bus (4.8%), interurban bus (1.2%), car (4.1%), motorcycle (0.3%), other (1.1%)
11.Type of ticket	One-way ticket (5.5%), return ticket (3.0%), 1 day pass (0.1%), bonometro (24.1%), bonoplus 45 (7.4%), transportation agency's card (58.7%), other (1.2%)

Table 3. Confirmatory Factor Analysis Results

			SFL	S.E.
BI (AVE: 57%; CR: 0,80)				
BI1. I will travel by LRT again under the same conditions (money, time and comfort)	<---	BI	0.804	-
BI2. I usually recommend the LRT service to others	<---	BI	0.687	0.026
BI3. Surely. I will use the LRT service again	<---	BI	0.763	0.018
CS (AVE: 53%; CR: 0,82)				
CS1. Overall Satisfaction with the service of the LRT	<---	CS	0.776	-
CS2. The service of LRT is good	<---	CS	0.759	0.049
CS3. I feel comfortable traveling by LRT	<---	CS	0.673	0.051
CS4. The service of LRT meets my expectations	<---	CS	0.711	0.064
SQ (AVE: 55%; CR: 0,91)				
SQ1. Overall Service Quality	<---	SQ	0.781	-
SQ2. Tangible service equipment	<---	SQ	0.779	0.019
SQ3. Accessibility	<---	SQ	0.776	0.021
SQ4. Availability of the service	<---	SQ	0.764	0.021
SQ5. Customer service	<---	SQ	0.720	0.025
SQ6. Security	<---	SQ	0.717	0.026
SQ7. Information	<---	SQ	0.737	0.023
SQ8. Individual Space	<---	SQ	0.634	0.032
INV (AVE: 49%; CR: 0,79)				
INV1. I feel that taking public transit is consistent with my lifestyle	<---	INV	0.723	-
INV2. I feel that by taking public transit I help to protect the environment	<---	INV	0.646	0.025
INV3. I like others to know the fact that I take public transit	<---	INV	0.664	0.03
INV4. I like people who take public transit	<---	INV	0.769	0.027
			Fit indices	
			Chi2	3079.9
			Df	146
			RMR	0.168
			GFI	0.892
			AGFI	0.859
			PGFI	0.685
			NFI	0.902
			TLI	0.89
			CFI	0.906
			RMSEA	0.079
			AIC	3167.9

Note: BI: behavioral intention, CS: customer satisfaction, SQ: service quality, INV: involvement, CR: construct reliability, AVE: Average variance extracted. SFL: Standardized Factor loadings. . S.E.: Standard Error. All Factor loadings are significant (p<0.001). Items (not dimensions obtained with PCA) are in cursive.

Table 4. Involvement as a mediator. Full Mediator Model (SEM_FMM), Partial Mediator Model (SEM_PMM) and Direct Effects Model (SEM_DEM).

	SEM_FMM			SEM_PMM			SEM_DEM		
Relationship	**SFL**	**S.E.**	**P**	**SFL**	**S.E.**	**P**	**SFL**	**S.E.**	**P**
BI <--- CS	-	-	-	0.490	0.115	***	0.486	0.115	***
INV <--- CS	0.067	0.140	0.153	0.021	0.145	0.667	0.033	0.143	0.494
BI <--- INV	0.412	0.021	***	0.043	0.018	0.035	-	-	-
BI <--- SQ	-	-	-	0.236	0.058	***	0.259	0.056	***
CS <--- SQ	0.845	0.011	***	0.846	0.011	***	0.846	0.011	***
INV <--- SQ	0.450	0.072	***	0.437	0.074	***	0.428	0.074	***
BI1. I will travel by LRT again under the same conditions (money, time and comfort) <--- BI	0.818			0.804			0.806		
BI2. I usually recommend the LRT service to others <--- BI	0.650	0.027	***	0.687	0.026	***	0.685	0.026	***
BI3. Surely. I will use the LRT service again <--- BI	0.784	0.020	***	0.763	0.018	***	0.764	0.018	***
CS1. Overall Satisfaction with the service of the LRT <--- CS	0.774	-	-	0.776	-	-	0.776	-	-
CS2. The service of LRT is good <--- CS	0.760	0.049	***	0.759	0.049	***	0.759	0.049	***
CS3. I feel comfortable traveling by LRT <--- CS	0.675	0.051	***	0.673	0.051	***	0.673	0.051	***
CS4. The service of LRT meets my expectations <--- CS	0.710	0.064	***	0.711	0.064	***	0.711	0.064	***
INV1. I feel that taking public transit is consistent with my lifestyle <--- INV	0.718	-	-	0.723	-	-	0.722	-	-
INV2. I feel that by taking public transit I help to protect the environment <--- INV	0.650	0.026	***	0.646	0.025	***	0.646	0.025	***
INV3. I like others to know the fact that I take public transit <--- INV	0.655	0.030	***	0.664	0.030	***	0.664	0.030	***
INV4. I like people who take public transit <--- INV	0.751	0.027	***	0.769	0.027	***	0.770	0.028	***
SQ1. Overall Service Quality <--- SQ	0.778	-	-	0.781	-	-	0.781	-	-
SQ2. Tangible service equipment <--- SQ	0.781	0.019	***	0.779	0.019	***	0.779	0.019	***
SQ3. Accessibility <--- SQ	0.776	0.021	***	0.776	0.021	***	0.776	0.021	***
SQ4. Availability of the service <--- SQ	0.763	0.021	***	0.764	0.021	***	0.764	0.021	***
SQ5. Customer service <--- SQ	0.721	0.026	***	0.720	0.025	***	0.720	0.025	***
SQ6. Security <--- SQ	0.719	0.026	***	0.717	0.026	***	0.717	0.026	***
SQ7. Information <--- SQ	0.738	0.023	***	0.737	0.023	***	0.737	0.023	***
SQ8. Individual Space <--- SQ	0.637	0.033	***	0.634	0.032	***	0.634	0.032	***
	Fit Indices			**Fit Indices**			**Fit Indices**		
	Chi2	4227.6		Chi2	3079.9		Chi2	3084.3	
	Df	148		Df	146		Df	147	
	RMR	0.430		RMR	0.168		RMR	0.173	
	GFI	0.866		GFI	0.892		GFI	0.892	
	AGFI	0.828		AGFI	0.859		AGFI	0.861	
	PGFI	0.675		PGFI	0.685		PGFI	0.690	
	NFI	0.866		NFI	0.902		NFI	0.902	
	TLI	0.849		TLI	0.890		TLI	0.891	
	CFI	0.870		CFI	0.906		CFI	0.906	
	RMSEA	0.093		RMSEA	0.079		RMSEA	0.079	
	AIC	4311.6		AIC	3167.9		AIC	3170.3	

Note: BI: behavioral intention, CS: customer satisfaction, SQ: service quality, INV: involvement, SFL: Standardized Factor loadings, S.E.: Standard Error, P: P-value

Table 5. Involvement as an antecedent of SQ and BI. SEM_ANTE.

Relationship			SFL	S.E.	P
BI	**<---**	**INV**	0.044	0.018	0.030
SQ	**<---**	**INV**	0.455	0.014	***
BI	**<---**	**CS**	0.490	0.115	***
BI	**<---**	**SQ**	0.235	0.058	***
CS	**<---**	**SQ**	0.847	0.011	***
INV1. I feel that taking public transit is consistent with my lifestyle	**<---**	**INV**	0.723		
INV2. I feel that by taking public transit I help to protect the environment	**<---**	**INV**	0.646	0.025	***
INV3. I like others to know the fact that I take public transit	**<---**	**INV**	0.664	0.030	***
INV4. I like people who take public transit	**<---**	**INV**	0.769	0.028	***
BI1. I will travel by LRT again under the same conditions (money, time and comfort)	**<---**	**BI**	0.804		
BI2. I usually recommend the LRT service to others	**<---**	**BI**	0.687	0.026	***
BI3. Surely. I will use the LRT service again	**<---**	**BI**	0.763	0.018	***
CS1. Overall Satisfaction with the service of the LRT	**<---**	**CS**	0.776		
CS2. The service of LRT is good	**<---**	**CS**	0.760	0.049	***
CS3. I feel comfortable traveling by LRT	**<---**	**CS**	0.673	0.051	***
CS4. The service of LRT meets my expectations	**<---**	**CS**	0.711	0.064	***
SQ1. Overall Service Quality	**<---**	**SQ**	0.782		
SQ2. Tangible service equipment	**<---**	**SQ**	0.779	0.019	***
SQ3. Accessibility	**<---**	**SQ**	0.776	0.021	***
SQ4. Availability of the service	**<---**	**SQ**	0.764	0.021	***
SQ5. Customer service	**<---**	**SQ**	0.720	0.025	***
SQ6. Security	**<---**	**SQ**	0.717	0.026	***
SQ7. Information	**<---**	**SQ**	0.737	0.023	***
SQ8. Individual Space	**<---**	**SQ**	0.634	0.032	***

Fit Indices	
Chi2	3080.1
Df	147
RMR	0.168
GFI	0.892
AGFI	0.860
PGFI	0.690
NFI	0.902
TLI	0.891
CFI	0.906
RMSEA	0.079
AIC	3166.1

Note: BI: behavioral intention, CS: customer satisfaction, SQ: service quality, INV: involvement, SFL: Standardized Factor loadings, S.E.: Standard Error, P: P-value

Table 6. Configural and Partial Metric invariance. Multiple groups confirmatory factor analysis results.

	Model Fit Measures				Model Differences		
Model Tested	**Chi2**	**Df**	**RMSEA**	**CFI**	**diff_Chi2**	**diff_Df**	**P**
Separated groups							
INV_LOW	866.8	87	0.102	0.886			
INV_HIGH	697.185	87	0.094	0.897			
Configural Invariance	1564.0	174	0.069	0.891	15.2	8	0.056
Partial Metric Invariance	1579.1	182	0.068	0.891			

Note: Chi2: chi-squared value. Df: degrees of freedom. diff_Chi2: chi-squared of Partial Metric Invariance Model - chi-squared of Configural Invariance Model. diff_Df: degrees of freedom of Partial Metric Invariance Model - degrees of freedom of Configural Invariance Model. P: p-value of the chi-squared difference test.

Table 7. Involvement as a moderator. SEM_MOD

			SEM_MOD					
			LOW_INV			HIGH_INV		
Relationships			**SFL**	**S.E.**	**P**	**SFL**	**S.E.**	**P**
BI	**<---**	**CS**	0.827	0.018	***	0.834	0.021	***
BI	**<---**	**SQ**	0.206	0.103	0.006	0.052	0.122	0.543
CS	**<---**	**SQ**	0.492	0.212	***	0.637	0.233	***
BI1. I will travel by LRT again under the same conditions (money, time and comfort)	**<---**	**BI**	0.671	0.094	***	0.588	0.093	***
BI2. I usually recommend the LRT service to others	**<---**	**BI**	0.698	0.087	***	0.693	0.087	***
BI3. Surely. I will use the LRT service again	**<---**	**BI**	0.814			0.815		
CS3. I feel comfortable traveling by LRT	**<---**	**CS**	0.811	0.038	***	0.727	0.029	***
CS4. The service of LRT meets my expectations	**<---**	**CS**	0.782			0.772		
CS2. The service of LRT is good	**<---**	**CS**	0.792			0.792		
CS1. Overall Satisfaction with the service of the LRT	**<---**	**CS**	0.775	0.034	***	0.760	0.032	***
SQ3. Accessibility	**<---**	**SQ**	0.729	0.029	***	0.747	0.029	***
SQ4. Availability of the service	**<---**	**SQ**	0.750	0.030	***	0.724	0.030	***
SQ5. Customer service	**<---**	**SQ**	0.695	0.036	***	0.678	0.036	***
SQ8. Individual Space	**<---**	**SQ**	0.722	0.032	***	0.715	0.032	***
SQ7. Information	**<---**	**SQ**	0.705	0.035	***	0.693	0.035	***
SQ6. Security	**<---**	**SQ**	0.632	0.055	***	0.632	0.068	***
SQ2. Tangible service equipment	**<---**	**SQ**	0.753	0.067	***	0.712	0.067	***
SQ1. Overall Service Quality	**<---**	**SQ**	0.620	0.035	***	0.667	0.035	***

Fit Indices	
Sample Size	861 (LOW_INV); 802 (HIGH_INV)
Chi2	1579.1
Df	182
RMR	0.188
GFI	0.872
AGFI	0.831
PGFI	0.661
NFI	0.878
TLI	0.874
CFI	0.891
RMSEA	0.068
AIC	1695.1

Note: BI: behavioral intention, CS: customer satisfaction, SQ: service quality, SFL: Standardized Factor loadings, S.E.: Standard Error, P: P-value