

**INTER-CITY BUS SERVICE QUALITY AND THE
PSYCHOLOGICAL WELL-BEING OF TRAVELERS:
A CASE OF LONG-DISTANCE ROUTE IN PAKISTAN**

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ABSTRACT

Long-distance travel is perceived as a burden by the travelers. In recent years, people preferred to travel by mode of luxury buses for inter-city travel. Luxury bus companies have launch facilities in terms of service quality for their travelers. Therefore, the current study examined the role of service quality, provided by liberalized transport companies, and its sub-components on the psychological well-being of long-distance travelers. For this study, a sample of 400 long-distance/inter-city travelers from Multan to Karachi (938 Kilometers) was approached. The age of participants ranged from 20 to 60 years ($M = 40.53$, $SD = 9.15$). The data was collected with the help of self-report measures based on service quality questionnaires and psychological well-being scale of travelers at bus terminals. The findings demonstrated that service quality was significantly related to psychological well-being. Regression analysis revealed that service quality affects travelers' psychological well-being during their travel except for personal security sub-component. The study provides valuable bases for future research in the context of long-distance travelers' mode choice in case of long-distance route travel.

Disciplinary: Psychology (Social Psychology, Customer Service Psychology), Social Engineering.

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1. INTRODUCTION

The inter-city bus transport system plays a vital role in the mobility of travelers with parallel to other modes of traveling because it aims to meet the citizens' needs with ease of mobility. Due to the economic recession in recent years, many countries have imposed various demands on

policymakers to justify and rationalize public expenditure. Therefore, it is a need of time for decision-makers to identify the bus services that significantly influence the perception of users as well as the mode of choice (Eboli & Mazzulla, 2007). In recent years, the transport system has become a key element in improving mobility services in medium and large cities, and it helps to reduce travel time (Pena, C., Moreno, E., 2014). Economic deregulation has increased competition between operators and providing better service quality to their travelers (Hensher, D et al., 2010). While commuting is considered as a burden and people choose to commute if they consider compensation. Office of National Statistics, (2014), explores that relationship between traveling and subjective wellbeing affects life satisfaction. Furthermore, it also affects the daily life of commuters in terms of their daily life activities, anxiety, and level of happiness (ONS, 2014).

In developing countries such as Pakistan, has witnessed increased in the 1990s that low-income families always rely on the mode of public transport for their travel and commute. People use public transit as a means of commuting to access education, employment, and other services (Haider & Badami, 2007). Most of the transport facilities in the region are liberalized, and private transport companies are providing intercity as well as urban commute facilities. In the context of improving traffic-related safety issues, recent research has focused on developing countries (Aftonso et al., 1998). On the other hand, research has also focused on the type and vehicle size for better adjusted in the physical environment in the developing world (Vijayakumar, 1986). In the context of Pakistan, various organizations have invested in improving the intercity passenger transport infrastructure (Haider & Badami, 2007).

2. LITERATURE REVIEW

Keeping the underdeveloped regions of Pakistan, the study intends to examine service quality provided by liberalized transport companies and its role in psychological well-being. The present study was intended to extend the role of the transport sector, particularly long-distance/intercity bus travel impact on psychological well-being in underdeveloped regions of Pakistan. In recent years, Pakistan has surmounted by the issue of terrorism, unstable political government, and less developed road infrastructure (Azy, 2010). The study is planned to conduct in two cities of Pakistan, i.e., Multan and Karachi. The distance from Multan to Karachi 938 Kilometers

2.1 SERVICE QUALITY

Service quality may be defined as the range of attributes influenced by transport operators. These attributes may include vehicle time and access, service reliability, provision of information, marketing and promotion, and journey time (Paulley, N. et al., 2006).

Service quality has been perceived as a critical factor in the transport industry for both users and bus operators (EN 13816, 2002). Passenger comfort is an essential attribute that is used to measure the service quality of transport services and a critical factor for the community's choice of traffic mode (Dell' Olio et al., 2011). Regarding service quality passengers perceive less journey time as compared to actual journey time if the bus offers a comfortable riding environment (Litman, 2008). Research has shown that passengers, as well as bus drivers, may suffer physical and psychological disorders (Alperovitch-Najenson et al., 2010).

Furthermore, specific bus service attributes can measure as passengers' point of view in terms of service quality (Eboli & Mazzula, 2011). Regarding punctuality, scheduling of bus plan and Bus stop availability plays a crucial role in improving the popularity of public transportation and increase the performance of transits. However, due to dynamic traffic conditions, still, it is hard to forecast the accuracy and punctuality of time (Yin et al., 2017). Another service quality attribute was board information services. Past research shows that a law was established for transport operators to facilitate free information on routes, information about fares, and scheduling (Tavares, et al., 2015).

2.2 PSYCHOLOGICAL WELL-BEING

Ryff (2008) has elaborated on psychological well-being as environmental mastery, purpose in life, personal growth, and self-acceptance (Burns & Machin, 2010). In recent years, work on subjective well-being has gained attention in the context of transport and mobility studies (De Vos et al., 2013). However, very few studies have explored the role of transport, and psychological well-being as it involves pursuing meaningful goals strives to achieve life challenges, and personal development (Ryff & Singer, 2008).

Travelling has always considered an essential aspect of people's lives that demands time, mental, and physical burden. Commuting is considered an essential component of working people, and it affects the psychological health and well-being of commuters in working life (Robert, Hodgson & Dolan, 2009). Therefore, it may be assumed that service quality may play a significant role in affecting other variables such as stress, anxiety and a person's health-related issues.

Traveling to work might affect well-being characterized by health satisfaction and happiness and low physical and mental health (Novaco, 2009). The article examines the role of service quality in psychological well-being among long-distance travelers. Although this study also focuses on demographics including age, gender, economic activity, family income. The primary focus of the study was to examine the role of service quality (affordability of price, Security, comfort, Bus stop availability, environmental protection, and boarding information) in travelers from Multan to Karachi and how service quality affects the psychological well-being of travelers. During travel, undergoing feelings is the only tip of the iceberg when traveling and well-being are linked (De Vos et al., 2013). Literature regarding the quality of service has been carried out in the past. Service Quality topic has been extensively investigated in Europe in terms of customer satisfaction and various factors from attributed, i.e., safety, staff, and comfort (Felleson & Friman, 2008). Other factors related to service quality have been punctuality, security, travel time, and time, which contribute to an increase in satisfaction level among passengers in transport (Budiono, 2009). In addition, The commute is associated with a lower level of health-related quality of life, and it is well documented that this association increase the level of stress (Ruger et al., 2017) Commuting not only takes time but also generates costs, causes stress and affect the work and family relationship.

Previous literature shows studies on service quality in the context of the urban transport system have extensively focused on productivity, efficiency, demand, pricing and air pollution of public

transport services (Pucher et al., 2007). Based on the review of service quality by the private bus operators and psychological well-being literature and relevance of the applicability of these studies to investigate the role of service quality on psychological well-being to avoid sources of bias, research developed a conceptual model.

The previous research has been done on urban transportation or public buses in the context of large cities as research in transportation has focused on local transportation, especially in Europe. Ladki et al., (2014), various aspects of local transport in Lebanon to check the visitors' satisfaction level on price value, safety and efficiency, cleanliness, ease of use, challenging to reach and reachable attractions. Research on service quality and satisfaction in transportation shows service quality affects satisfaction level (Parahoo et al., 2014). However, less research work is done in the context of service quality and subjective well-being on long route/intercity bus passengers. Therefore, first, the study intends to investigate the role of safety, efficiency, and quality in terms of service quality and its role in the psychological well-being of travelers who travel long-distance/intercity in underdeveloped regions. Second, this study examines the influence of service quality on the psychological well-being of extended route bus travelers as previous research has explored subjective well-being in terms of hedonisms or satisfaction. Therefore, it was hypothesized that service quality and its sub-factors will positively affect psychological well-being.

3. METHOD

3.1 STUDY AREA

The present study focused on the two main cities comprising two provinces of Pakistan. Firstly, the data was collected from Multan bus terminals as Multan, the most populous and historical city in the underdeveloped region of south Punjab in Punjab province of Pakistan. Secondly, the Karachi bus terminals were selected; as Karachi has been referred to as the main business hub of Pakistan. The study relies on collected primary data of 400 passengers who traveled from Multan to Karachi (A business city in Pakistan), through a questionnaire made after going through literature and consultation of passengers and various bus companies. As the Multan region is striving to develop its infrastructure, people travel to Karachi for their business, job, or labor as Karachi is perceived as a financial capital of Pakistan. Passengers can provide first-hand information about the actual level of long-distance/InterCity bus transport services and the level of service quality they receive from Bus companies. At each bus Terminal. Three private bus companies were selected randomly at their bus Terminal that was running a business class business for their passengers.

The core focuses of the current experience of long-distance/Intercity travelers about the service quality of business class buses provided by the companies and how the psychological well-being is maintained. To ensure that a range of participants contacted by using both formal and informal approaches and the contacts were made in both areas Multan and Karachi city bus stops.

3.2 SAMPLE & PROCEDURES

Respondents were selected based on their age and travel in Business class bus. Self-rated measures were used to collect data. Respondents were asked to rate their overall service quality satisfaction provided by the business class buses. A five-point Likert scale was strongly satisfied=5, satisfied=4, neutral=3, dissatisfied=2, and strongly dissatisfied=1. All respondents were selected

using two bus stops Multan terminal and Karachi Terminal. Out of 400 Respondents, 250 were from Multan Bus Terminal who have traveled from Karachi as inter-city travelers and 150 were approached at Karachi terminal. The sample constitutes 61% male and 39% female. The age of the respondents ranged was 20-60 years, with a mean age of 38.5. We get the consent of the travelers and were briefed about the research before the questionnaire was handover to each participant.

3.3 INSTRUMENTS

The bus service quality questionnaire was developed by the research using eight factors, 1. Safety on board: 2. Affordability, 3. Punctuality, 4. Bus Stop availability, 5. Board information services, 6. Comfort, 7. Personal security, and 8. Environmental protection. The scale consisted of 31 items with a response rate of strongly satisfied 5, satisfied 4, neutral 3, dissatisfied 2, and strongly dissatisfied 1. Reliability coefficients for this study were reports .95. Another construct psychological well-being refers to one's positive sense of subjective well-being, i.e., a person, who thinks positively about his/her self and reports positively, is thought to have positive psychological well-being. We used an anxiety stress scale (Andrew & Robinson, 1991) to measure the construct. The scale means physical tension general fatigue as possible outcomes in terms of feeling and physical symptoms leading to stress. It was measured by the translated version of adapted and validated by Khan (2008) comprising ten items on a 5-point rating scale ranging from strongly agree 5, agree 4, neutral 3, disagree 2, and strongly disagree 1. All items are summed, and the score ranges from 10 to 50, a low score indicates a low level of well-being and high score reflect high psychological well-being. Eight items were reverse scored. The reliability of psychological well-being for the present sample has been reported .83.

4. RESULTS

Descriptive analysis, reliability coefficients, and regression analysis for the variables used in the study are presented in Table 1. The reliability of Service quality and mental well-being scales exceeding 0.70 is acceptable, see the last column of Table 1.

Table 1 Means, SD, alpha reliabilities and correlation matrix for all variables (N = 400).

Variables	1	2	3	4	5	6	7	8	9	10	M	SD	α
1.Over all service quality	-	.83**	.82**	.69**	.79**	.82**	.74**	.78**	.80**	.25**	105.46	22.86	.95
2. Safety on Board	-	--	.77**	.54**	.62**	.63**	.48**	.51**	.60**	.26**	16.01	4.53	.69
3.Affordability	-	--	--	.60**	.65*	.56**	.46**	.52**	.56**	.28**	16.81	4.14	.79
4.Punctuality	-	--	--	--	.61**	.49**	.40**	.42**	.40**	.15*	12.98	3.07	.80
5.Bus Stop availability	-	--	--	--	--	.65**	.50**	.52**	.56**	.20**	9.64	2.61	.83
6.Board info services	-	--	--	--	--	--	.63**	.62**	.64**	.22**	12.08	3.23	.71
7.Comfort	-	--	--	--	--	--	--	.59**	.61**	.12*	11.02	3.53	.82
8.personal security	-	--	--	--	--	--	--	--	.68**	.17**	14.98	4.02	.73
9.Environmental protection	-	--	--	--	--	--	--	--	--	.18**	11.3	3.71	.68
10.Psychological well-being	-	--	--	--	--	--	--	--	--	--	37.15	5.32	.83

* $p < .05$. ** $p < .001$.

Table 1 depicts the descriptive, alpha coefficients, and correlation matrix for all the variables used in the present study. Alpha coefficients are found to be satisfactory for all variables.

To investigate the contribution of service quality (i.e., safety on board, affordability, punctuality, bus stop availability, board information service, comfort, personal security, and environmental protection) and psychological well-being, a regression analysis was carried out. Table 2 demonstrate that 15% of the variance ($R^2 = .15$) in psychological well-being might be explained by the overall model $\{F(8, 391) = 7.93, p < .001\}$. Amongst the predictors, safety on board, affordability, punctuality, bus stop availability, board information service, and comfort were found to be the significant negative predictor of service quality. In service quality, comfort attributes were considered as an important factor for travelers using public transport (Le-Klähn et al., 2014).

Table 2 Multiple Regression Analysis for Predicting Psychological Well-being from Constructs of Service Quality (N= 400)

Variables	Psychological Well-being		
	β	R^2	F
Safety onboard	.19*		
Affordability	.20*		
Punctuality	.15*		
Bus Stop availability	.22**	.15	7.93***
Board information services	.13*		
Comfort	.17*		
Personal security	.02		
Environmental protection	.06		

* $p < .05$. ** $p < .01$.

5. CONCLUSION

This study gives a better understanding of the role of inter-city private bus service quality on travelers' psychological well-being. The empirical evidence elucidated the significant effect of service quality on psychological well-being and suggests that service quality has significantly influenced the psychological well-being of travelers and their choice of travel mode. The analysis showed that among these, fare prices, waiting time could quantify in models (Koppelman & Wen, 1998), yet other factors about service quality were affordability, punctuality, bus stop availability, and board information services, also influence psychological well-being. Satisfaction reflects the role of service quality (Cronin et al., 2000). Furthermore, data did not support personal security and environmental protection as significant predictors as Thompson and Schofield (2007) studies that ease of use was more important than efficiency and safety. For instance, the finding suggests that passengers were more satisfied with the inter-city bus transport regarding ease of use than safety.

This study investigates service quality factors on psychological well-being. As a predictor of psychological well-being, service quality has significantly predicted well-being about Bus stop availability and Board information services. Service quality in Europe in terms of customer satisfaction and various factors has been attributed to safety, staff, and comfort (Felleson & Friman, 2008). From the last ten years, Pakistan has fought a war against terrorism, and the country was in a state of war. Therefore, one plausible reason might be that the people in Pakistan are used to travel in trains, buses, and other transport vehicles without having serious concerns about security and a safe environment. The government and transport companies have never addressed these issues. It is therefore supposed that travelers have become desensitized to these issues. Moreover, passenger sometimes compromises on personal security and environmental protection at the cost of affordable

fare and availability of transport. They further, usually, prefer safety on board and comfort during traveling and do not bother with environmental protection.

Results reveal that service quality factors influence psychological well-being were comfort and affordability in terms of prices. Findings also revealed that the exterior, as well as the interior cleanliness of buses regarding service quality, has a high impact on travelers. This study suggests a significant implication for delivering service quality to intercity bus travelers and for shaping travel behaviors that can lead to more efficient and systematic commuting between different city transport systems. Based on the findings, it is suggested that the operator should launch better initiatives to enhance security and personal well-being.

6. AVAILABILITY OF DATA AND MATERIAL

Data can be made available by contacting the corresponding authors

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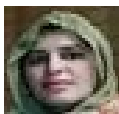
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