

## Are Service Quality and Travel Satisfaction two Different Variables?

Hao Dong<sup>1</sup>, Haslinda Hashim<sup>1</sup>, Nitty Hirawaty Kamarulzaman<sup>2</sup>

<sup>1</sup>School of Business and Economics, Universiti Putra Malaysia, Serdang 43400, Selangor, Malaysia, <sup>2</sup>Faculty of Agriculture, Universiti Putra Malaysia, Serdang 43400, Selangor, Malaysia

Corresponding Author Email: gs61147@student.upm.edu.my

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v14-i4/21245>

DOI:10.6007/IJARBSS/v14-i4/21245

**Published Date:** 24 April 2024

### Abstract

Many governments actively encourage citizens to switch travel mode from private cars to public transport to alleviate urban traffic problems. Improving the service quality and travel satisfaction of public transport is widely recognized as a practical approach to reach this target. However, scholars have debated whether service quality and travel satisfaction are separate constructs. Some scholars consider them to be two different concepts, while others consider them to be the same concept. This literature needs to be reviewed and synthesized. Successfully differentiating between service quality and travel satisfaction will effectively inform marketing strategies. Therefore, this study employs a literature review approach to the review of current literature. The results indicate that (1) there is indeed measurement ambiguity between service quality and travel satisfaction in transport behavior research. (2) The measurement of travel satisfaction needs to be based on subjective well-being, which belongs to affective factors, while the assessment of service quality relies on cognitive dimensions. Finally, the results are discussed and summarized, and provide suggestions for future research. This paper can provide research references for travel mode choice behavior and provide research value for the application of service quality and travel satisfaction.

**Keywords:** Service Quality, Travel Satisfaction, Subjective Well-Being, Travel Mode Choice

### Introduction

People prefer the more comfortable and convenient option of traveling by car as living standards continue to rise. It has increased the number of private cars, while public transport is often underused. More seriously, many cities face serious traffic problems—for example, air pollution and congestion. Switching travel modes is considered to be one of the effective ways to alleviate traffic problems in cities, i.e., encouraging commuters to leave their private cars and use public transport more (Sajjad et al., 2020; Wang & Gao, 2022). In this context, service quality and travel satisfaction are considered to be essential factors influencing travel mode choice and switching, with higher service quality leading to higher travel satisfaction

among commuters, which in turn influences their travel mode switching intentions (Mahmood et al., 2018; Nautwima & Asa, 2022).

However, some studies point out that service quality and travel satisfaction are essentially the same concept and interchangeable, especially in the transport sector (Sukhov et al., 2021; Van Lierop & El-Geneidy, 2016). It is debated among many scholars (Bansal & Taylor, 2014; De Oña, 2020). Furthermore, according to the current state of travel demand, travelers choose their travel mode not only considering being able to reach their destination alone but also with the need for psycho-emotional satisfaction (Singleton, 2013). Subjective well-being, which can be a multidimensional measure of affect and life satisfaction, including the travel domain, has been the focus of research in the transport field in recent years (Moody & Zhao, 2019; Singleton, 2019b). It has been suggested that the effect of service quality and travel satisfaction on travel mode switching intention is realized through subjective well-being (Wang & Gao, 2022). At present, these findings are not logically summarized and organized, and we cannot clearly understand the relationship and impact of these variables. In order to provide theoretical references for related studies, it is necessary to review the existing literature.

This paper uses the literature review approach, and this study attempts to review and synthesize existing research. It finds strong similarities in measuring service quality and travel satisfaction, which also confounds the results. Measuring travel satisfaction from the subjective well-being perspective can help overcome the shortcomings and provide more valid measures. This literature review provides a clear understanding of the debates and problems in existing research on service quality and travel satisfaction. This conclusion provides a valuable reference for subsequent studies and a theoretical basis for developing and implementing transport policies.

### **Literature Review**

In the existing literature, service quality and travel satisfaction concepts have been widely debated. Some scholars argue that they are two closely related but distinct concepts (Bansal & Taylor, 2014; De Oña, 2020; Oliver, 2014), while others suggest that service quality and travel satisfaction represent the same construct (Allen et al., 2019). From a theoretical perspective of the concepts, both service quality and travel satisfaction have similar theoretical foundations (Miller, 1776; Oliver, 1981), and there are also claims that both concepts derive from the theory of disconfirmation (Parasuraman et al., 1988). The definitions of the two concepts may also reflect the similarities. Travel satisfaction is the gap between the passenger's experience of the travel mode and his or her expectations. Travel satisfaction is shown if the experience is better than the expectations. On the contrary, it is dissatisfaction (Morfoulaki et al., 2007). Service quality is also defined as the gap between service perception and expectation (Parasuraman et al., 1985; Sebhatu, 2010). All these definitions illustrate that service quality and travel satisfaction are theoretically closely related and have solid conceptual similarities.

Despite conceptual similarities, there are differences in the measurement dimensions of service quality and travel satisfaction. The measurement dimensions of service quality are specific and more from cognitive assessment, whereas satisfaction is an affective measure (Bansal & Taylor, 2014). In other words, the basis for measuring the dimensions is different,

although service quality and travel satisfaction are similar. Oliver (2010) argues that service quality is a judgment based on service attributes, whereas satisfaction is a judgment of non-quality factors based on experience. Service quality is a cognitive judgment, whereas travel satisfaction is a purely empirical affective judgment.

Service quality is associated with specific transport service attributes in the transport behavior research literature. For example, the SERVQUAL measurement model is often used to measure the service quality of transport (Parasuraman et al., 1988), and these measurement dimensions are tailored to fixed objective attributes of the transport service. On the other hand, travel satisfaction measures are biased towards subjective, affective judgments. Standard measures of travel satisfaction include enjoyment (Irtema et al., 2018), pleasantness (Fu & Juan, 2017), and attractiveness (De Ona et al., 2016; Machado-León et al., 2016). In summary, although service quality and travel satisfaction have similar concepts and definitions, there is a difference in the measurement dimensions. Service quality measurement is based on objective attributes, while the measurement of travel satisfaction focuses more on subjective and affective judgments during the travel process. Therefore, service quality and travel satisfaction have different measurement purposes and can be considered two different constructs.

However, service quality and travel satisfaction measurement have been further researched and analyzed in depth in the literature. De Oña and De Oña (2015) state that in most public transport researches, service quality is based on a customer satisfaction survey, which records the assessment of some specific attributes of the transport service and the overall assessment of passengers. However, this approach makes it difficult to distinguish between service quality assessment and travel satisfaction. This is because the assessment of specific service quality attributes is also presented as a satisfaction rating. For example, respondents are asked to rate their satisfaction with tangibles, reliability, responsiveness, assurance, and empathy in the SERVQUAL measurement model. In addition, the wording used to measure service quality may include terms such as satisfaction, perception, expectation, and importance. These terms may convey roughly the same meaning when measuring service quality and travel satisfaction. This situation can then confuse respondents about measuring service quality and travel satisfaction and lead to inaccuracies in the study results.

Furthermore, travel mode choice positively impacts travel satisfaction (e.g., De Vos et al., 2016; Morris et al., 2018), with travel satisfaction indicating the degree of affection for the travel mode. It is worth noting that passengers' travel mode satisfaction judgments are determined by their travel service experience, that is, by the specific manifestations of transport service. Therefore, it is concluded that the essence of travel mode satisfaction judgment is also the judgment of travel mode service quality (Aydin, 2017). Therefore, the simultaneous measurement of service quality and travel satisfaction may not only lead to interference between the measurements but may also lead to duplication of measurements.

To summarize, service quality and travel satisfaction are considered two equivalent concepts in transport behavior research (De Oña et al., 2018; Sukhov et al., 2021). Moreover, the two concepts are often used interchangeably in studies of public transport behavior (Elkhani et al., 2014; Van Lierop & El-Geneidy, 2016). Although De Oña (2020) has previously discussed the difference between service quality and travel satisfaction in detail, his most recent study (De

Oña, 2021) also acknowledges that service quality and travel satisfaction are interchangeable and verifies that the interchangeability of the concepts does not lead to any difference in the results of the study.

To avoid confusion between service quality and travel satisfaction, researchers have proposed to measure travel satisfaction based on subjective well-being (Ettema et al., 2011). Subjective well-being consists of two dimensions, affective dimension, and life satisfaction, and is a comprehensive assessment of the multidimensional aspects of people's recent life (Diener et al., 1999). The affective dimension can be divided into positive and negative, expressing passengers' emotional perception of travel mode services. Life satisfaction is similar to service quality and belongs to the assessment of cognitive dimensions. The difference is that service quality applies only to the transport domain, whereas life satisfaction also includes other domains of life, such as work (De Oña, 2020). Service quality has an impact on life satisfaction (De Vos, 2019), while life satisfaction also has an impact on the evaluation of the service quality of the transport mode (Schwanen & Wang, 2014). Thus, it seems that the inclusion of subjective well-being considerations not only measures the original service quality but also covers other domains of life. After all, perceived and switching travel modes are also influenced by other domains of life (Chatterjee et al., 2020; De Vos & Witlox, 2017).

Several studies have shown that subjective well-being can influence travelers' behavioral intention to choose a travel mode (Bernardo & Estrellado, 2017; Kim et al., 2020; Mogilner et al., 2018; Rahman et al., 2020; Su et al., 2016). Increased subjective well-being significantly encourages travelers to choose green travel modes (Li et al., 2020). More importantly, Di and Liu (2016) showed that adding subjective well-being to a travel behavior model effectively improves the predictive power of behavioral intentions. This approach may be compensation for the shortcomings of traditional methods in travel behavior research (Smith, 2017). To summarize, based on the findings of the current literature, subjective well-being can be used to measure travel satisfaction, which not only compensates for the shortcomings of the original research methods but also makes the results of behavioral research on travel modes more valuable.

The Satisfaction with Travel Scale (STS) is a measure of travel satisfaction based on subjective well-being that includes affective and cognitive measures, with a total of nine indicators (Ettema et al., 2011). The STS has been widely used in studies of different travel modes and behavior, as shown in Table 1. However, we found that the scale has yet to be studied in the context of mode switching. There is a research gap that needs to be filled.

Table 1

*Studies analyzing the satisfaction with travel scale.*

| Citation                 | Travel mode                           | Travel purpose   | Study area                                                | Factors                                                                                       | STS                  | Indexed             |
|--------------------------|---------------------------------------|------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------|---------------------|
| Ettema et al. (2011)     | Bus, car                              | Commute          | 155 university students from Sweden                       | Mood, Subjective well-being                                                                   | 9 items (PD, PA, CE) | SSCI: Q2<br>IF: 4.1 |
| Friman et al. (2013)     | Car, public transport, slow modes     | Commute          | 791 residents from Stockholm, Gothenburg, & Malmö, Sweden | 3 (PD, PA, CE), Travel satisfaction                                                           | 9 items (PD, PA, CE) | SSCI: Q2<br>IF: 6.4 |
| De Vos et al. (2015)     | Car, transit, bike, walk              | Leisure trip     | 1,411 residents from Ghent, Belgium                       | 2 (Affective, Cognitive)                                                                      | 9 items (PD, PA, CE) | SSCI: Q2<br>IF: 4.1 |
| Ye and Titheridge (2017) | Car, transit, active modes, others    | Commute          | 1,215 residents from Xi'an, China                         | Socio-demographics, built environment, trip-specific characteristics, travel mode, attitudes, | 7 items (PD, PA, CE) | SSCI: Q2<br>IF: 7.6 |
| Smith (2017)             | Car, transit, carpool, bike, walk     | Commute          | 828 commuters from Oregon, US                             | Socio-demographics, travel mode, trip attributes, work and home satisfaction, attitudes,      | 7 items (PD, PA, CE) | SSCI: Q3<br>IF: 3.6 |
| Glasgow et al. (2018)    | Car, public transit, cycling, walking | Most recent trip | 738 college students from Southeastern, United States     | General satisfaction, mood,                                                                   | 9 items (PD, PA, CE) | SSCI: Q2<br>IF: 4.1 |

|                       |                             |                      |                                       |                                                                                                                                                                                                                                                    |                      |                  |
|-----------------------|-----------------------------|----------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| Singleton (2019a)     | Car, transit, non motorized | Commute              | 654 commuters from Oregon, US         | Socio-demographics, travel mode, travel time perceptions, Service attributes (reliability, information, courtesy, comfort, safety)                                                                                                                 | 9 items (PD, PA, CE) | SSCI: Q2 IF: 4.1 |
| Sukhov et al. (2021). | Public transport            | All-purpose          | 353 inhabitants from Karlstad, Sweden | Socio-demographics, trip-specific characteristics, some neighborhood attributes, Socio-demographics, general travel attributes, trip specific characteristics, travel-based activities, travel time perception, driving enjoyment, polychronicity, | 3 items (PD, PA, CE) | SSCI: Q2 IF: 7.6 |
| Chen et al. (2022)    | Dockless bike-sharing       | All-purpose          | 489 residents of Beijing, China       |                                                                                                                                                                                                                                                    | 9 items (PD, PA, CE) | SSCI: Q2 IF: 7.6 |
| Acharya et al. (2023) | Car                         | long-distance travel | 696 visitors to US national parks     |                                                                                                                                                                                                                                                    | 9 items (PD, PA, CE) | SSCI: Q2 IF: 4.1 |

(PD: Positive deactivation–negative activation; PA: Positive activation–negative deactivation; CE: Cognitive evaluation; STS: Satisfaction with travel scale)

**Source:** Compiled from Literature

## Discussion

Service quality and travel satisfaction are essential factors influencing travel mode choice (De Ona et al., 2016). The existing literature also discusses these two concepts in general terms. There is a broad debate about whether they are the same construct. The existing literature does not summarize these discussions and debates. No specific results have been drawn. This literature review shows that service quality and travel satisfaction have strong similarities in the definition of the concepts, both referring to the gap between experience and expectations. However, a clear difference exists regarding how this is measured. While service quality is dominated by measuring perceptions of fixed service attributes, travel satisfaction focuses on measuring affective dimensions (Bansal & Taylor, 2014). From this point of view, service quality and travel satisfaction are two different concepts.

However, while most service quality assessments are based on objective service attributes, the measurements are judged against the satisfaction criterion, which confuses the content

and results of service quality and travel satisfaction measurements (De Oña & De Oña, 2015). At the same time, in many transport behavior studies, service quality and travel satisfaction are used interchangeably, and no clear distinction is made between the two variables. Consequently, service quality and travel satisfaction are considered two identical variables that are interchangeable (De Oña et al., 2018; Sukhov et al., 2021). This approach fails to obtain valid measurements and may be an unattainable goal of the original study.

Literature shows that a travel satisfaction scale based on subjective well-being can be an excellent solution to the problem of confusing the content of measurement between service quality and travel satisfaction (Ettema et al., 2011). The concept of subjective well-being includes the affective dimension and life satisfaction, which means that not only the original travel satisfaction can be measured with the affective dimension. Life satisfaction can also be measured in other domains of life, including transport. STS has been widely used in transport behavior research, as this approach not only distinguishes between affective and cognitive dimensions but has also been shown to be effective in improving the predictive power of behavioral models (Di & Liu, 2016).

### **Conclusions**

In this paper, by reviewing and summarizing the existing literature, an attempt has been made to understand the relationship between service quality and travel satisfaction. It is found that service quality and travel satisfaction have strong similarities. They have been used interchangeably in many transport studies. However, as a result, respondents need help distinguishing and answering questions about service quality and travel satisfaction accurately, which can lead to confusion about what is being measured and inaccurate measurement results. Travel satisfaction based on subjective well-being can be distinguished from measuring service quality based on satisfying the travel satisfaction measurement. More importantly, subjective well-being is also related to other domains of life. It allows for a more comprehensive understanding of travel mode choice behavior. This literature review reviews and organizes the discussion between service quality and travel satisfaction clarifies the links and differences between the two and provides theoretical ideas for evaluating travel modes. Future research can further test the application of the subjective well-being and travel satisfaction scale to travel mode choice.

### **Reference**

- Acharya, S., Mekker, M., & Singleton, P. A. (2023). Validating the satisfaction with travel scale and measuring long-distance recreational travel satisfaction. *Transportation Research Part F: Traffic Psychology and Behaviour*, 95, 1-17.
- Allen, J., Eboli, L., Forciniti, C., Mazzulla, G., & de Dios Ortúzar, J. (2019). The role of critical incidents and involvement in transit satisfaction and loyalty. *Transport Policy*, 75, 57-69.
- Aydin, C. (2017). *The idea of the Muslim world: A global intellectual history*. Harvard University Press.
- Bansal, H. S., & Taylor, S. (2014). Investigating the relationship between service quality, satisfaction and switching intentions. Proceedings of the 1997 Academy of Marketing Science (AMS) Annual Conference,
- Bernardo, A. B., & Estrellado, A. F. (2017). Subjective well-being of Filipino women who experienced intimate partner violence: A person-centered analysis. *International Journal for the Advancement of Counselling*, 39, 360-376.

- Chatterjee, K., Chng, S., Clark, B., Davis, A., De Vos, J., Ettema, D., Handy, S., Martin, A., & Reardon, L. (2020). Commuting and wellbeing: a critical overview of the literature with implications for policy and future research. *Transport Reviews*, 40(1), 5-34.
- Chen, Z., van Lierop, D., & Ettema, D. (2022). Travel satisfaction with dockless bike-sharing: Trip stages, attitudes and the built environment. *Transportation Research Part D: Transport and Environment*, 106, 103280.
- De Oña, J. (2020). The role of involvement with public transport in the relationship between service quality, satisfaction and behavioral intentions. *Transportation Research Part A: Policy and Practice*, 142, 296-318.
- De Oña, J. (2021). Understanding the mediator role of satisfaction in public transport: A cross-country analysis. *Transport Policy*, 100, 129-149.
- De Oña, J., & De Oña, R. (2015). Quality of service in public transport based on customer satisfaction surveys: A review and assessment of methodological approaches. *Transportation Science*, 49(3), 605-622.
- De Ona, J., de Oña, R., Eboli, L., Forciniti, C., & Mazzulla, G. (2016). Transit passengers' behavioural intentions: the influence of service quality and customer satisfaction. *Transportmetrica A: Transport Science*, 12(5), 385-412.
- De Oña, R., Estevez, E., Garach, L., Calvo, F., & De Oña, J. (2018). Transit quality evaluation: processes conducted by managers and operators. *Transportation research procedia*, 33, 28-34.
- De Vos, J. (2019). Analysing the effect of trip satisfaction on satisfaction with the leisure activity at the destination of the trip, in relationship with life satisfaction. *Transportation*, 46, 623-645.
- De Vos, J., Mokhtarian, P. L., Schwanen, T., Van Acker, V., & Witlox, F. (2016). Travel mode choice and travel satisfaction: bridging the gap between decision utility and experienced utility. *Transportation*, 43, 771-796.
- De Vos, J., Schwanen, T., Van Acker, V., & Witlox, F. (2015). How satisfying is the Scale for Travel Satisfaction? *Transportation Research Part F: Traffic Psychology and Behaviour*, 29, 121-130.
- De Vos, J., & Witlox, F. (2017). Travel satisfaction revisited. On the pivotal role of travel satisfaction in conceptualising a travel behaviour process. *Transportation Research Part A: Policy and Practice*, 106, 364-373.
- Di, X., & Liu, H. X. (2016). Boundedly rational route choice behavior: A review of models and methodologies. *Transportation Research Part B: Methodological*, 85, 142-179.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological bulletin*, 125(2), 276.
- Elkhani, N., Soltani, S., & Jamshidi, M. H. M. (2014). Examining a hybrid model for e-satisfaction and e-loyalty to e-ticketing on airline websites. *Journal of Air Transport Management*, 37, 36-44.
- Ettema, D., Gärling, T., Eriksson, L., Friman, M., Olsson, L. E., & Fujii, S. (2011). Satisfaction with travel and subjective well-being: Development and test of a measurement tool. *Transportation Research Part F: Traffic Psychology and Behaviour*, 14(3), 167-175.
- Friman, M., Fujii, S., Ettema, D., Gärling, T., & Olsson, L. E. (2013). Psychometric analysis of the satisfaction with travel scale. *Transportation Research Part A: Policy and Practice*, 48, 132-145.

- Fu, X., & Juan, Z. (2017). Understanding public transit use behavior: integration of the theory of planned behavior and the customer satisfaction theory. *Transportation*, 44(5), 1021-1042.
- Glasgow, T. E., Geller, E. S., Le, H. T., & Hankey, S. (2018). Travel mood scale: Development and validation of a survey to measure mood during transportation. *Transportation Research Part F: Traffic Psychology and Behaviour*, 59, 318-329.
- Irtema, H. I. M., Ismail, A., Borhan, M. N., Das, A. M., & Alshetwi, A. B. (2018). Case study of the behavioural intentions of public transportation passengers in Kuala Lumpur. *Case studies on transport policy*, 6(4), 462-474.
- Kim, M. J., Lee, C.-K., & Preis, M. W. (2020). The impact of innovation and gratification on authentic experience, subjective well-being, and behavioral intention in tourism virtual reality: The moderating role of technology readiness. *Telematics and Informatics*, 49, 101349.
- Li, Q., Li, Y., Li, K., Chen, L., Zheng, Q., & Chen, K. (2020). Study on the influence of subjective well-being on travel mode selection. *Physics Letters A*, 384(34), 126867.
- Machado-León, J. L., de Oña, R., & de Oña, J. (2016). The role of involvement in regards to public transit riders' perceptions of the service. *Transport Policy*, 48, 34-44.
- Mahmood, A., Rana, M. L. T., & Kanwal, S. (2018). Relationship between Service Quality, Customer Loyalty and Customer Satisfaction. *Lahore Journal of Business*, 6(2).
- Miller, J. A. (1976). Exploring some alternative measures of consumer satisfaction. *Marketing*, 1976, 661-664.
- Mogilner, C., Whillans, A., & Norton, M. I. (2018). Time, money, and subjective well-being. *Handbook of well-being*.
- Moody, J., & Zhao, J. (2019). Car pride and its bidirectional relations with car ownership: Case studies in New York City and Houston. *Transportation Research Part A: Policy and Practice*, 124, 334-353.
- Morfoulaki, M., Tyrinopoulos, Y., & Aifadopoulou, G. (2007). Estimation of satisfied customers in public transport systems: a new methodological approach. *Journal of the Transportation Research Forum*,
- Morris, E. A., Mondschein, A., & Blumenberg, E. (2018). Is bigger better? Metropolitan area population, access, activity participation, and subjective well-being [Article]. *Journal of Transport and Land Use*, 11(1), 153-179. <https://doi.org/10.5198/jtlu.2018.934>
- Nautwima, J. P., & Asa, A. R. (2022). The impact of quality service on customer satisfaction in the banking sector amidst Covid-19 pandemic: A literature review for the state of current knowledge. *International Journal of Management Science and Business Administration*, 8(3), 31-38.
- Oliver, R. (2010). Satisfaction: A Behavioral Perspective on the Consumer . Armonk, New York: ME Sharpe. In: Inc.
- Oliver, R. L. (1981). Measurement and evaluation of satisfaction processes in retail settings. *Journal of Retailing*.
- Oliver, R. L. (2014). *Satisfaction: A behavioral perspective on the consumer: A behavioral perspective on the consumer*. Routledge.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. 1988, 64(1), 12-40.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of marketing*, 49(4), 41-50.

- Rahman, S. A., Didarul Alam, M. M., & Taghizadeh, S. K. (2020). Do mobile financial services ensure the subjective well-being of micro-entrepreneurs? An investigation applying UTAUT2 model. *Information Technology for Development*, 26(2), 421-444.
- Sajjad, A., Asmi, F., Chu, J., & Anwar, M. A. (2020). Environmental concerns and switching toward electric vehicles: geographic and institutional perspectives. *Environmental Science and Pollution Research*, 27, 39774-39785.
- Schwanen, T., & Wang, D. (2014). Well-being, context, and everyday activities in space and time. *Annals of the Association of American Geographers*, 104(4), 833-851.
- Sebhatu, S. P. (2010). *Corporate social responsibility for sustainable service dominant logic* [Karlstads universitet].
- Singleton, P. A. (2013). *A theory of travel decision-making with applications for modeling active travel demand* [Portland State University].
- Singleton, P. A. (2019a). Validating the Satisfaction with Travel Scale as a measure of hedonic subjective well-being for commuting in a US city. *Transportation Research Part F: Traffic Psychology and Behaviour*, 60, 399-414.
- Singleton, P. A. (2019b). Walking (and cycling) to well-being: Modal and other determinants of subjective well-being during the commute. *Travel Behaviour and Society*, 16, 249-261.
- Smith, O. (2017). Commute well-being differences by mode: Evidence from Portland, Oregon, USA. *Journal of Transport & Health*, 4, 246-254.
- Su, L., Swanson, S. R., & Chen, X. (2016). The effects of perceived service quality on repurchase intentions and subjective well-being of Chinese tourists: The mediating role of relationship quality. *Tourism Management*, 52, 82-95.
- Sukhov, A., Lättman, K., Olsson, L. E., Friman, M., & Fujii, S. (2021). Assessing travel satisfaction in public transport: A configurational approach. *Transportation Research Part D: Transport and Environment*, 93, 102732.
- Van Lierop, D., & El-Geneidy, A. (2016). Enjoying loyalty: The relationship between service quality, customer satisfaction, and behavioral intentions in public transit. *Research in Transportation Economics*, 59, 50-59.
- Wang, Y., & Gao, Y. (2022). Travel satisfaction and travel well-being: Which is more related to travel choice behaviour in the post COVID-19 pandemic? Evidence from public transport travellers in Xi'an, China. *Transportation Research Part A: Policy and Practice*, 166, 218-233.
- Ye, R., & Titheridge, H. (2017). Satisfaction with the commute: The role of travel mode choice, built environment and attitudes. *Transportation Research Part D: Transport and Environment*, 52, 535-547.