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Comparative study of travel behavior between Thai and Japanese informal transport users: A case study of Silor services in the Sukhumvit areaChutaporn Amrapala¹⁾ and Kasem Choocharukul*²⁾¹⁾Environment Development and Sustainability Program, Graduate School, Chulalongkorn University, Bangkok 10330, Thailand²⁾Center of Excellence in Infrastructure Management, Department of Civil Engineering, Faculty of Engineering, Chulalongkorn University, Bangkok 10330, Thailand

Received 16 May 2019

Revised 11 July 2019

Accepted 16 July 2019

Abstract

Silors are an informal public transport service found in various districts of Bangkok. They function as a primary transport mode and, on some routes, as feeder services, providing access to formal modes of transportation, such as bus and mass transit lines. This research aims to investigate users' travel behavior and identify service delivery gaps through Importance Performance Analysis to propose policy suggestions that maximize user satisfaction and service performance. The study focuses on silor services in the Sukhumvit area as it is unique in its high proportion of international users, especially the Japanese. A total of 39 Thai and 47 Japanese silor users were interviewed using a questionnaire survey. Socioeconomic variables, trip profiles, and perceptions of silor service quality aspects were comparatively analyzed. The results reveal that reliability of service is an aspect to be maintained whereas the in-vehicle environment, road safety and customer services would make the operations more satisfying. Considerable variations in Thai and Japanese evaluations of this transport service quality aspects were found, and therefore, policy recommendations to bridge the service delivery gaps are discussed.

Keywords: Silor, Travel behavior, Importance performance analysis, Service quality

1. Introduction

Development in urban areas causes a variety of challenges, including the increasing demand for urban mobility. These challenges are associated with the efficiency of the transport service, which can be identified through users' perceptions. As people of various nationalities and different cultures live within the same geographic boundaries in today's world, national culture concepts should be applied to precisely describe particular groups of people [1].

Currently, various forms of formal and informal public transportation modes are seen in Bangkok. Among them is the silor (SR), which can be translated from Thai as four-wheeler. The vehicles are mostly small converted Daihatsu or Suzuki pickup trucks equipped with 6 passenger seats in the back. SR service routes operate both on the west and east sides of Bangkok with various service characteristics in terms of routes and fare structures. Such a transportation mode is classified as informal because not all vehicles and drivers are properly registered in accordance with public transport service regulations. The operational issues concerning vehicle capacity, fare structure and station area are poorly controlled.

In the Sukhumvit Soi 39 area, SR services operate without fixed routes and stops. Cash fares are negotiated.

Service hours are flexible from 6 am to 8 pm. They function as the main transport mode and feeder services for people to get access to the more formal modes, such as buses and mass transit lines. Figure 1 shows SR vehicle and parking areas. This study focuses on Thai and Japanese users of SR services in the Sukhumvit area as it uniquely has a high proportion of international users, especially Japanese. It is important to understand how national cultures influence travel behavior and perceptions of service quality of transport service, especially the informal ones.

This research aims to investigate travel behavior and determine service delivery gaps of Thai and Japanese SR users to propose policy recommendations that will maximize user satisfaction and service performance. Therefore, travel behavior and perceptions of multidimensional service aspects based on their expectations and satisfaction are compared between Thai and Japanese users. Service delivery gaps are then determined. The findings will provide better understanding of traveler behavior and perceptions from different cultural points of view. This also allows policy makers to identify strengths and weaknesses for appropriate management to deliver the better service quality to users and enhance a more sustainable way of travelling.

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doi: 10.14456/easr.2019.39



Figure 1 A SR vehicle (a) and SR parking area at the entrance of Sukhumvit Soi 39 (b)

2. Literature reviews

Previous research on user travel behavior and service quality attitudes associated with informal transport services has been done. For instance, in India, Sarkar and Mallikarjuna [2] investigated resident perceptions of car, bus, three wheeler, two wheeler, bicycle, cycle rickshaw and walking modes. Service quality evaluations were also applied in the case of informal transport in Indonesia [3] and in Bangladesh [4]. In the context of informal transport in Thailand, Choocharukul and Siroongvikrai [5] conducted an attitude survey on passengers using service attributes, including wait time, travel time reliability, travel speed, travel cost, seat comfort, stopping location, and safety to evaluate the importance of and satisfaction with each of these factors. Additionally, a study on informal transport modes and mass transit connectivity [6] utilized four main factors, which are mass transit access, comfort and convenience, safety and security, and information of service, to determine the effect of satisfaction on attitudes among user segments.

Importance Performance Analysis (IPA) is a useful analytical tool in determining differences that exist between expected and real states, as well as areas where improvements are possible [7]. Previous research applied IPA to investigate main priorities in the expectations of public transport users and identify service elements to be further improved. The public transport service indicators that needed improvement are accessibility, integration, capacity, smoothness and speed of operations, convenience, safety, ease, timeliness, orderly operations and efficiency [8]. The most important elements from user and non-user points of view are tangible elements which involve vehicle cleanliness and ventilation [7]. Their results are practical guidelines for the improvement of transport service quality.

However, informal transport service perception research to date has been primarily domestic in its focus. This raises

questions as to what service quality aspects can be emphasized in markets with international customers. Differences were found in the behavioral intentions [9] and the perceptions of domestic and foreign tourists in a transport service context [10]. Zondo and Ezeuduji [11] compared perceptions of service experience and indicated that significant differences existed between domestic and international tourists. Bajada and Titheridge [12] studied the attitudes of tourists towards bus service in Malta, identified service factors to be improved, and suggested that policy makers design bus operations that are attractive to both citizens and tourists. Cultural factors are the most significant determinants of tourist behavior [1]. Various cultural groups attach different levels of importance to tangible and intangible elements of service. National culture is a multidimensional construct that conditions how consumers interact with the level of service quality expected, and consequently, affects the evaluation of travel services [13].

3. Materials and methods

3.1 Study area

Bangkok, the capital city of Thailand, is chosen as the study area. This research selects SR services at Sukhumvit Soi 39 as a case study due to its uniqueness in the high proportion of international users, especially the Japanese. This area is known to be a Japanese community with restaurants, supermarkets and associations distributed in the neighborhoods. The route service span covers two districts including Wathana and Klongtoei. A Bangkok district map with the SR service areas is shown in Figure 2.

3.2 Data collection

Thai and Japanese SR user data were collected through a questionnaire survey conducted in the Sukhumvit Soi 39 area. Questionnaires were primarily designed in Thai and later were translated into the Japanese language. The survey team approached SR users randomly at a SR parking station, the drop-off area at Emporium department store, Srinakharinwirot University (SWU), as well as restaurants and shops in the Soi 39 network. From our survey, the average trip fare is 51.65 ± 19.33 Baht/trip with the minimum and maximum fares 10 and 120 Baht/trip, respectively. The average individual fare is 30.66 ± 22.32 Baht/person/trip with the minimum and maximum 5 and 120 Baht/person/trip. On average, wait time is 3.54 ± 5.11 minutes with minimum 0 minute and maximum of 30 minutes. Trips averaged 2.12 ± 0.98 kilometers. It was found that 80% of users need to transfer to other transport modes. The BTS Phrom Phong station, SWU, and the Emporium department store appeared to be top three origins and destinations.

A pilot survey was conducted and questionnaire was redesigned in accordance with user feedback, including sections relating to socioeconomic variables, trip profiles, and perceptions on importance and satisfaction with SR service quality. Users were asked for opinions about the level of importance and level of satisfaction with service quality aspects. A Likert scale ranging from 1 to 5 was utilized to measure user perceptions of 18 attitudinal statements, which are presented in Table 1. For satisfaction evaluation, the rating scale of strongly disagree (1) to strongly agree (5) was used. For the importance evaluation, the rating scale of unimportant (1) to very important (5) was applied in the questionnaire.



Figure 2 Map of Bangkok districts with the SR Sukhumvit route service area

Table 1 Satisfaction and Importance Statements

No.	Satisfaction statement	Importance statement
1	SR has frequent service	Service frequency
2	I am satisfied that SR routes cover places I want to go	Coverage area
3	SR operates in the time period I need to travel	Length of operation time
4	Travelling by SR is fast and I can save my time	Travel time
5	I do not have to wait for SR for long time	Waiting time at stop
6	SR has a suitable fare	Suitable fare structure
7	I always get a seat when riding SR and the seat is comfortable	Seat availability and seat comfort
8	Shelter and benches at stops are available	Availability of shelter and benches at stops
9	SR gives sufficient stop time to board and alight and it is easy to enter the vehicle	Given sufficient stop time to board and alight and ease to enter the vehicle
10	It is convenient to connect with and transfer to other modes	Convenience of connections and transfers
11	Riding SR is safe from road accidents and secure from criminal incidents	Safety from road accidents and secure from criminal incidents
12	SR is clean, free from dust or garbage, seats are in good condition, easy to move, protected from exposure to the elements	In-vehicle environment
13	Passengers riding SR are polite	Passenger politeness
14	SR drivers are polite and honest	Driver behavior
15	Fare structures are provided	Availability of information regarding route direction and information regarding service
16	SR causes air and noise pollution	Level of air emissions and noise pollution
17	SR causes traffic congestion	Level of congestion impact caused by the mode
18	SR causes road accidents	Level of road accident caused by the mode

3.3 Data analysis

Descriptive statistics was used to describe the current state of SR users through their socioeconomic and trip profiles. IPA was further applied to identify SR performance regarding expectations of SR users. IPA is an integral part of this research that includes analysis of customer views on main attributes of services [14]. The purpose of IPA is to

highlight areas where improvements would have the greatest impact on increasing satisfaction with the entire system [15]. A two-dimensional graphic is displayed with average values of each attribute, related to importance score and performance score. Then, two lines are placed parallel to the importance axis and performance axis, defining average values of all attributes. The diagrammatic methodology of the study is illustrated in Figure 3.

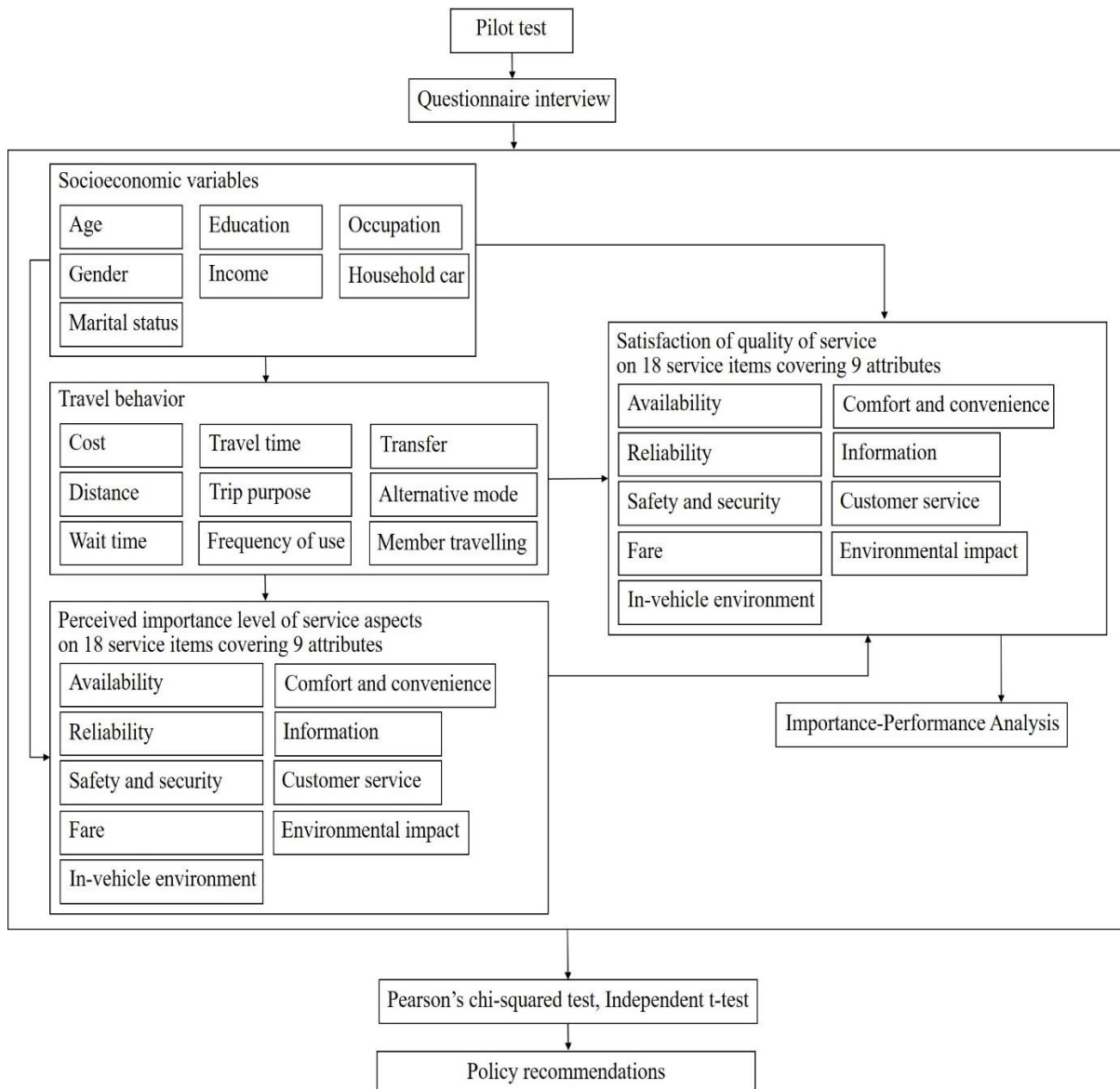


Figure 3 Diagrammatic methodology of the study

4. Results

4.1 Socioeconomic variables and trip profiles

The dataset from questionnaire interviews conducted during August-September 2018 is analyzed based on a total of 86 valid participants, including 39 Thai and 47 Japanese SR users. A summary of user characteristics and trip profiles is shown in Table 2. Thai and Japanese SR users are similar in that majority are female university graduates. They are regular users, making trips with no transfer and primarily for shopping-based trips. Approximately 70% have alternative modes of transport. Motorcycles and for-hire taxis are the two primary options. No significant differences were found in terms of travel distance, trip cost, wait time, and travel time.

Chi-square tests reveal no significant difference in age group distributions among Thai and Japanese users, while significant differences are found in the distribution of their occupations and income groups. Japanese users mainly work

in the private sector (32.6%) and 50% are unemployed. Monthly incomes of Japanese users place 51.2% in the lowest category, which includes those not earning any income, and 42.9% are in the highest category. Additionally, Chi-square statistics indicate significant differences in that Thai users are more likely to own cars and they have higher proportion of work-based trips, whereas Japanese users are more likely travelling in groups and they have higher proportion of home-based trips.

Figure 4 depicts SR services in the Sukhumvit Soi 39 area where an SR parking station is located at the entrance of the soi. The main point for alighting is at Phrom Phong BTS station. The three main origins-destinations include SR station/BTS Phrom Phong, SWU and Emporium. From 77 responses, 20, 17, and 3 respondents indicated that their origins are SR station/BTS Phrom Phong, SWU, and Emporium, respectively. For destinations, 14, 13 and 10 respondents indicate SR station/BTS Phrom Phong, SWU, and Emporium, respectively, as illustrated in Figure 5.

Table 2 Descriptive statistics of dataset applied in analysis

Variable	Thai users (n= 39)		Japanese users (n= 47)		Total (n= 86)		Chi-square	P value
	Percent		Percent		Percent			
<u>Socioeconomic status</u>								
Female	65.8		66.0		65.9		0.000	0.987
Married	53.8		86.4		71.1		10.636	0.001
University level	71.8		87.0		80.0		3.032	0.082
Age							7.646	0.177
14-24	12.8		6.5		9.4			
25-34	35.9		28.3		31.8			
35-44	25.6		47.8		37.6			
45-54	12.8		15.2		14.1			
55-64	10.3		2.2		5.9			
65+	2.6		0.0		1.2			
Occupation							17.170	0.028
Student	7.7		6.5		7.1			
Government sector	2.6		0.0		1.2			
Private sector	43.6		32.6		37.5			
Vendor	17.9		6.5		11.8			
Employer	5.1		2.2		3.5			
Retired	2.6		2.2		2.4			
Business owner	2.6		0.0		1.2			
Unemployed	12.8		50.0		32.9			
Other	5.1		0.0		2.4			
Income (Baht/month)							39.502	0.000
9,999 or less	9.2		51.2		30.9			
10,000-19,999	27.3		0.0		13.2			
20,000-29,999	24.2		2.9		13.2			
30,000-39,999	24.2		0.0		11.9			
40,000-49,999	3.0		2.9		2.9			
50,000 or above	12.2		42.9		27.9			
Have household car	55.3		30.4		41.7		5.278	0.022
<u>SR trip</u>								
Regular user	51.3		63.0		57.6		1.196	0.274
(More than once per week)								
Trip purpose								
Home based ¹	53.8		85.1		70.9		10.101	0.001
Work based ²	48.7		6.4		25.6		20.066	0.000
Shopping based ³	51.3		66.0		59.3		4.424	0.109
Need transfer	20.5		19.1		19.8		0.025	0.874
Have alternative mode	68.4		70.2		69.8		0.032	0.859
Alternative modes							4.974	0.547
Bus	3.8		6.1		5.0			
MC taxi	29.6		39.3		35.0			
Tuktuk	7.4		12.1		10.0			
Private car	3.7		6.1		5.0			
Private MC	0.0		3.0		1.7			
Taxi	33.3		27..3		30.0			
Walk	22.2		6.1		13.3			
Members travelling together							9.976	0.002
Single traveler	62.9		26.8		43.4			
Travel with companions	37.1		73.2		56.6			
	Mean	SD	Mean	SD	Mean	SD		
SR travel distance (km/trip)	2.05	1.15	2.19	0.81	2.12	0.98		0.540
SR cost (Baht/trip)	51.58	22.96	51.70	16.06	51.65	19.33		0.978
SR cost (Baht/trip/person)	34.56	22.81	27.32	21.59	30.66	22.32		0.155
SR wait time (min)	4.03	6.71	3.15	3.34	3.54	5.11		0.472
SR travel time (min)	14.44	8.00	13.67	6.69	14.01	7.26		0.635
Overall satisfaction	3.41	0.69	3.92	0.81	3.70	0.80		0.017
(1=Very dissatisfied to 5= Very satisfied)								

Note: ¹Either origin or destination is home ²Either origin or destination is work ³ Either origin or destination is shopping

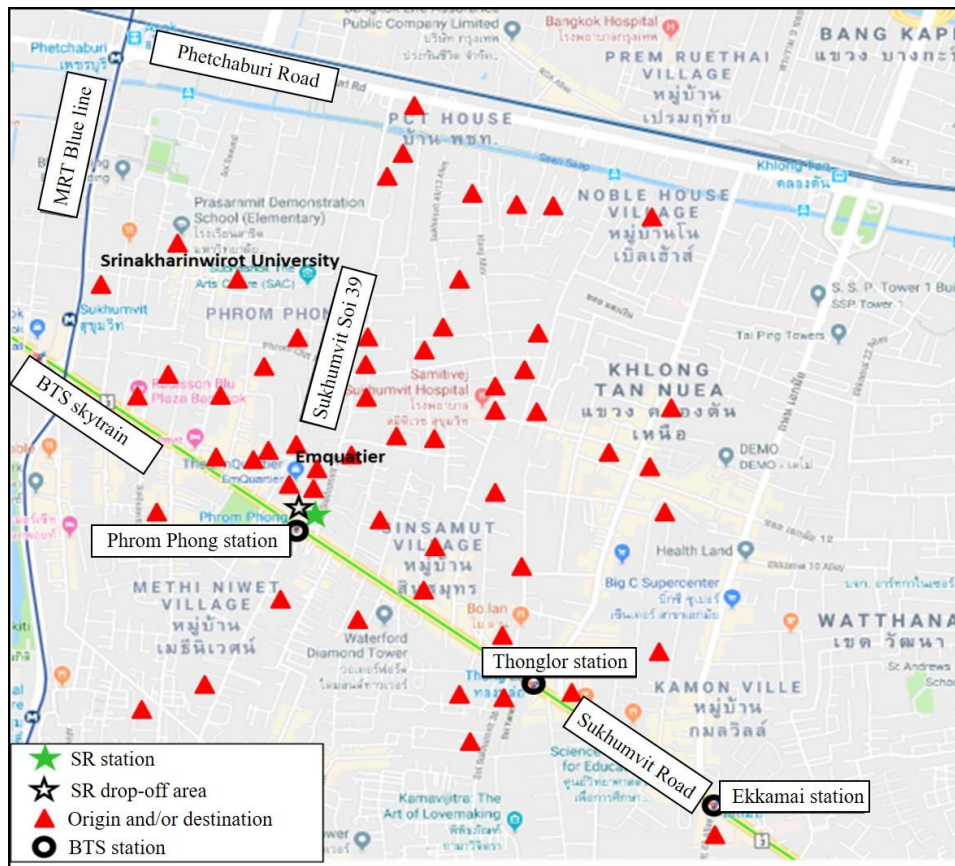


Figure 4 SR services in the Sukhumvit Soi 39 area and users’ trip origins-destinations

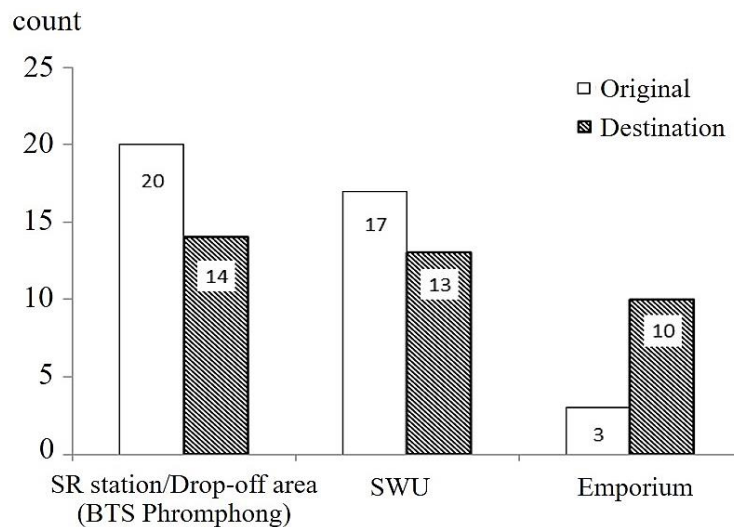


Figure 5 Primary trip origins and destinations

4.2 Perceptions on SR services

Descriptive statistics of Thai and Japanese user perceptions are shown in Table 3, including satisfaction ratings and importance ratings of SR service quality. The statistical tests reveal significantly higher scores for Japanese SR users on evaluating satisfaction toward fares, importance of travel time, level of congestion impact and road accidents caused by the mode.

The mean importance and satisfaction ratings from Thai and Japanese perspectives of SR aspects are comparatively

analyzed and detailed in Figure 6. Both groups are similar in rating the ‘Reliability’-type aspects as important for high satisfaction, whilst travel time stands out as the most important aspect for the Japanese. For ‘Road accidents’, the Japanese value at high importance, ranking lower than ‘Reliability’ but higher than the ‘In-vehicle environment’, ‘Comfort and Convenience’, whereas, for Thai users, ‘Road accidents’ appears to be of the second lowest importance, lower than ‘In-vehicle environment’, ‘Comfort and Convenience’.

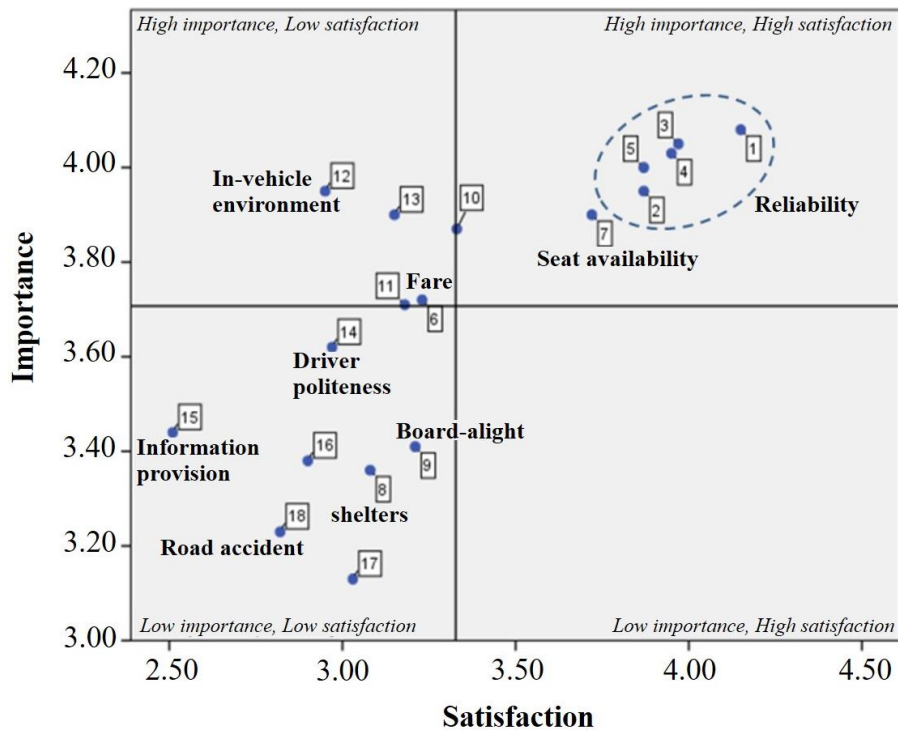
‘Driver politeness’ is at an average importance level and both user groups tend to be less satisfied with this aspect. Thai

Table 3 Descriptive statistics of Thai and Japanese SR user perceptions

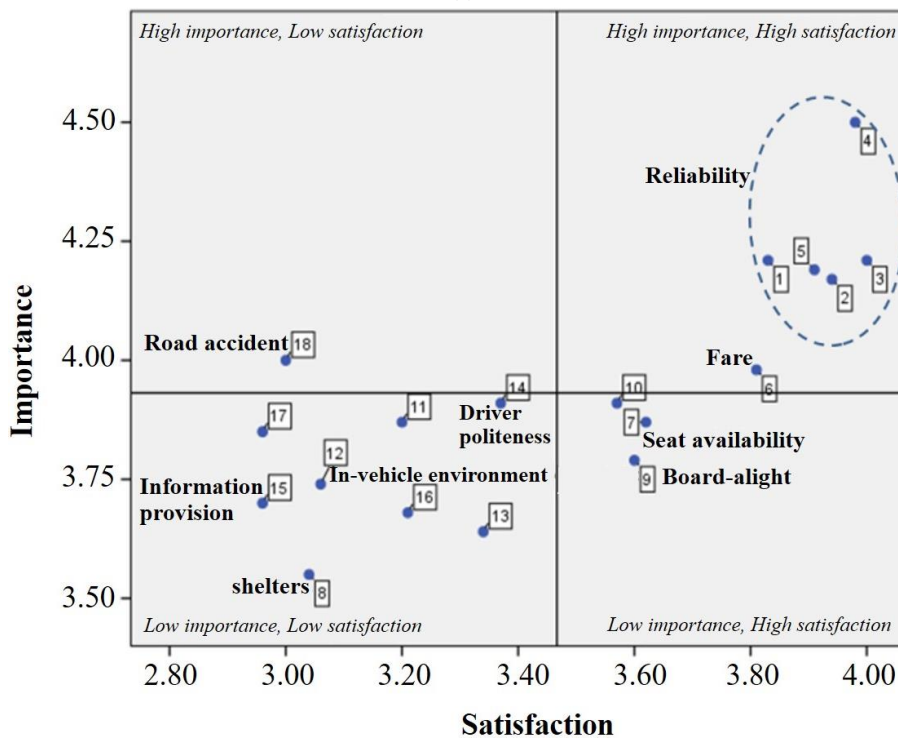
No.	Variable	Thai users		Japanese users		Total		P value ¹
		Mean	SD	Mean	SD	Mean	SD	
Satisfaction ratings								
1	SR has frequent service	4.15	0.93	3.83	1.03	3.98	0.99	0.133
2	I am satisfied that SR routes cover places I want to go	3.87	0.98	3.94	0.84	3.91	0.90	0.744
3	SR operates in the time period I need to travel	3.97	0.81	4.00	0.98	3.99	0.90	0.895
4	Travelling by SR is fast and I can save my time	3.95	0.83	3.98	1.05	3.97	0.95	0.885
5	I do not have to wait for SR for a long time	3.87	1.00	3.91	1.02	3.90	1.01	0.845
6	SR has suitable fare	3.23	1.25	3.81	1.04	3.55	1.16	0.021*
7	I always get a seat when riding SR and the seat is comfortable	3.72	1.05	3.62	1.23	3.66	1.14	0.686
8	Shelter and benches at stops are available	3.08	1.13	3.04	1.12	3.06	1.12	0.888
9	SR gives sufficient stop time to board and alight and it is easy to enter the vehicle	3.21	1.15	3.60	0.90	3.42	1.03	0.081
10	It is convenient to connect with and transfer to other modes	3.33	1.11	3.57	0.90	3.47	1.00	0.269
11	Riding SR is safe from road accidents and secured from criminal incidents	3.18	1.05	3.20	0.96	3.19	0.99	0.941
12	SR is clean, free from dust or garbage, seats are in good condition, easy to move, protected from exposure to the elements	2.95	1.19	3.06	1.15	3.01	1.63	0.650
13	Passengers riding SR are polite	3.15	1.06	3.34	1.09	3.26	1.08	0.427
14	SR drivers are polite and honest	2.97	1.09	3.37	0.95	3.19	1.03	0.078
15	Fare structure are provided	2.51	1.34	2.96	1.26	2.75	1.31	0.120
16	SR causes air and noise pollution	2.90	1.07	3.21	1.08	3.07	1.08	0.180
17	SR causes traffic congestion	3.03	1.37	2.96	1.28	2.99	1.32	0.812
18	SR causes road accidents	2.82	1.27	3.00	1.25	2.92	1.26	0.513
Importance ratings								
1	Service frequency	4.08	0.87	4.21	0.98	4.15	0.93	0.502
2	Coverage area	3.95	0.94	4.17	0.82	4.07	0.88	0.247
3	Length of operation time	4.05	0.86	4.21	0.91	4.14	0.88	0.402
4	Travel time	4.03	0.96	4.50	0.84	4.28	0.92	0.017*
5	Waiting time at stop	4.00	0.86	4.19	0.95	4.10	0.91	0.333
6	Suitable fare structure	3.72	0.83	3.98	1.07	3.86	0.97	0.218
7	Seat availability and seat comfort	3.90	0.88	3.87	1.10	3.88	1.00	0.908
8	Availability of shelter and benches at stops	3.36	1.11	3.55	1.14	3.47	1.12	0.428
9	Given sufficient stop time to board and alight and ease to enter the vehicle	3.41	1.02	3.79	1.14	3.62	1.10	0.113
10	Convenience of connections and transfers	3.87	1.00	3.91	1.18	3.90	1.10	0.857
11	Safety from road accidents and secure from criminal incidents	3.71	1.11	3.87	1.08	3.80	1.09	0.499
12	In-vehicle environment	3.95	1.07	3.74	1.07	3.84	1.07	0.383
13	Passenger politeness	3.90	0.75	3.64	0.97	3.76	0.88	0.166
14	Driver behavior	3.62	0.94	3.91	0.88	3.78	0.91	0.131
15	Availability of information regarding route direction and information regarding service	3.44	0.91	3.70	1.12	3.58	1.03	0.237
16	Level of air emission and noise pollution	3.38	1.07	3.68	1.07	3.55	1.07	0.203
17	Level of congestion impact caused by the mode	3.13	1.20	3.85	1.08	3.52	1.19	0.004**
18	Level of road accidents caused by the mode	3.23	1.27	4.00	1.10	3.65	1.23	0.003**

Note: Mean and standard deviation values are based on 1-5 Likert scale

¹p values are derived from statistical test for mean differences between the two routes, ** p <0.01, * p <0.05



(a)



(b)

Note: Service aspects: 1 = Frequent service 10 = Convenience of connection and transfer
 2 = Route coverage 11 = Safety and security
 3 = Operating time 12 = Cleanliness, seat condition, ease to move, protection from elements
 4 = Travel time 13 = Polite passengers
 5 = Wait time 14 = Polite and honest drivers
 6 = Fare 15 = Information provision
 7 = Seat availability and comfort 16 = Impact on air and noise pollution*
 8 = Shelter and bench at stops 17 = Impact on traffic congestion*
 9 = Sufficient time to board and alight 18 = Impact on road accidents*
 * Negative statements in the 'Satisfaction' evaluation

Figure 6 IPA of Thai (a) and Japanese (b) users' mean importance rating vs. mean satisfaction rating on 18 service attributes

and Japanese SR users are highly satisfied with 'Seat availability' but not the 'In-vehicle environment'. Both aspects are of higher importance for Thai and Japanese users. For both groups, 'Fare' is evaluated at an average importance level. Thai users are less satisfied with Fare, whereas the aspect has an above average satisfaction for the Japanese. Both evaluate 'Information provision' as the least satisfying aspect, however, it is not perceived as a significant issue. 'Shelters' and 'Board-alight' are other aspects with low importance.

5. Discussion

5.1 Travel behavior

Thai SR user socioeconomic profiles in our study are consistent with previous information from the Department of Transport and Transport Institute [16] which reported 65% are female and 67% have cars. These observations reveal the role of SR as a significant option for users with private vehicles. In a previous study, SR operations were investigated along fixed routes so the average trip cost (6 Baht/trip/person) is lower than average cost in our study (35 Baht/trip/person). The higher fare may influence the distribution of age groups and education of SR users. Our study notes 61% of users are 25-44 years old while 64% are 15-30 years old in the previous study. Also, our study shows that university level users are at higher proportion (72%) when compared to previous one (45%). It is possible that users of older age or of higher education have higher income and services with higher fares more affordable. The average travel time determined from our study (14.44 minutes) is in line with the previous one (13.76 minutes).

Japanese user profiles differ from Thais' in that the Japanese are expatriates who moved to Thailand to serve Japanese companies and receive the higher incomes. Some are partners of expatriates who have no jobs in Thailand. The reason for the higher income is that Japan is a developed country where per capita income is higher than that of the developing nations. The findings are similar to a comparison of foreign tourists and domestic tourists visiting Kodaikanal, India [10]. A lower proportion of Japanese users have the availability of a household car. This suggests that expatriates may not plan to own cars if they not staying for a long duration. Our findings are that Japanese users prefer to travel with their companions. This is consistent with the concept of belongingness in Japanese consumer behavior which reflects a comfort in togetherness that encourages group travel [17]. Moreover, Pizam and Sussmann [18] indicated that travelling with their own countrymen in a different culture reduces the intensity of cultural shock and fulfills their need to socialize with people of a similar culture. The group provides identity and a sense of security in an alien culture.

This research reveals that SR services in Sukhumvit Soi 39 are mainly shopping-based trips for both Thai and Japanese users. For the Japanese, shopping is very important [19]. Travel behavior of Japanese users that shop near home and shopping frequently might be due to the lack of space, especially in urban areas in Japan [20]. The study of Synodinos [20] also argued that the practical difficulties associated with transporting purchased goods in public transportation contribute to the attractiveness of shopping near home. Japanese users are more likely to make home-based trips than Thai users since residences of Japanese users are in their neighborhood, whereas Thai users come to this area for shopping and work. Work-based trips, therefore, are reported for a higher proportion for Thai users. Actually, SR services

benefit both user groups with their average short distance, short or no wait time and need no transfer.

5.2 Perceptions on SR service quality

In this study, the Japanese users show a higher overall satisfaction compared to Thai users. It is consistent with the findings of Tombs *et al.* [21] in that the Japanese culturally tend to mask their dissatisfaction with a service using positive facial expressions such as smiles. However, the comparative analysis in this study points out the shared values of both the Thai and Japanese SR. The have high expectations from SR services, in the areas involving 'Frequency', 'Route coverage', 'Operating time', 'Travel time' and 'Wait time'. Interestingly, these 'Reliability' aspects are, indeed, the major strengths of SR services. It is obvious that 'Shelters at stops' and 'Sufficient time to board-alight' are not necessary for either of the user groups. We can see that these are quality-added aspects which support the main service factors. Weiermair and Fuchs [22] confirmed that punctuality of travel is a globally shared value and a standard of transport services that is important to all tourists. In respect to cross-cultural comparison of bus service reliability [23], users from several different countries considered that being on-time was very important.

Our findings show that, from a Japanese perspective, 'Travel time' is the most significant aspect standing out in the Reliability group. Also, 'Road accidents' and 'Driver politeness' rank higher in importance than for Thai users who, in contrast, pay much more attention to the 'In-vehicle environment' and 'Comfort and Convenience'. Previous studies are in line with our findings. Many Japanese have little free time and this points to the importance of time-saving products and services [20]. They are time conscious and punctual [1]. Promptness is a service aspect that Japanese people consider the most important [24-25]. Along with that, security is always a concern for the Japanese [26] as revealed in the high importance of 'Road accidents' in our study. Service providers in Japan think of customers as kings [25, 27]. Thus, customers are always treated with extreme courtesy, patience and respect [20, 26, 27]. Moreover, their culture puts emphasis on politeness to one another. They are used to these service philosophies and they expect the same treatment when travelling abroad [25].

From our observations, the 'Fare' aspect is less satisfying to the Thai than Japanese users. This may be because that SR fares are more expensive than other means of public transport services, such as buses and motorcycle taxis. As a consequence for Thai users, the fares account for higher percentage of their income than for the Japanese. Japanese people have high uncertainty avoidance [28] and risk aversion characteristics. They are more likely to pay a higher price because of its assured level of quality and subsequent service. This does not imply that price is unimportant. Rather, there are other factors that are more important to them [20].

5.3 Policy implications

This study provides useful insights and guidelines for transportation planners to improve SR operations to make them more attractive to both domestic and international users, specifically in locations that depend on tourists. First, SR service providers should maintain and promote their strengths in the reliability aspects. Findings suggest that shelter, ease of boarding-alighting, and information provision aspects are, in fact, not very special. An increase in these attributes would result in very small perceived benefits. Additionally, the

development of strategies to increase SR users' satisfaction, especially for Thai users, should consider the in-vehicle environment aspects, involving on-board experience such as cleanliness, seat condition, ease of movement and protection from the elements.

Moreover, road accidents and driver politeness are the main priorities in improving SR performance, and therefore should be primarily acted on. The need for polite and courteous drivers would encompass good customer service [29]. Also, service providers should understand heterogeneity of preferences in each culture and be trained to deliver appropriate services in intercultural situations. For instance, providing foreign language skills to encourage efficient communication would be helpful tools to assist foreign customers in optimizing their experience with overall service quality. Additionally, emphasizing road safety in driving behavior would increase satisfaction, particularly, for the Japanese users.

6. Conclusions

SRs in the Sukhumvit area serve the mobility of Thai and Japanese users with the benefits of short travel time and no transfers needed. Shopping appears to be the most common need driving its utilization. Expectations and satisfaction of users are very important to note as they may lead to a shift to other options or bad reviews to potential users. In fact, SR reliability needs to be maintained whereas the in-vehicle environment, road safety and customer service improvements might lead to higher customer satisfaction. This study finds considerable variations in the Thai and Japanese evaluation of service quality aspects, providing evidence that national culture influences the way users perceive a service. Thus service providers need to understand cultural values and prioritize cultural needs to maximize satisfaction of users. It is important that the combined evidence suggests that for the future development, particularly in a service area with a multi-cultural environment, cultural values should be taken into account. Satisfaction with transport services would contribute to not only sustainable mobility, but also to tourism development in the city.

Limitations should be noted in this study. There exist various forms of SR services in Bangkok in terms of operational characteristics, seat capacity and fare structure. Sukhumvit Soi 39 is only one of these areas. Therefore, findings from the present study are considered empirical and might not be generalized for all SR users in all service routes in Bangkok due to heterogeneous backgrounds, travel behavior and perceptions of other user groups. Additionally, application of other analytical tools such as market segmentation and choice modeling would contribute novel dimensions to service quality aspects that are practical for development of SR services and the Bangkok transportation system as a whole.

7. Acknowledgements

We gratefully acknowledge the financial support from the 100th Anniversary Chulalongkorn University Fund for Doctoral Scholarships and the 90th Anniversary of the Chulalongkorn University Fund (Ratchadaphiseksomphot Endowment Fund). We also thank the survey team at the Transportation Division, Chulalongkorn University for assistance in data collection.

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