# Taxi Transportation Dependence and Tourist Satisfaction in Hong Kong

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ABSTRACT: This is the first tourist satisfaction study in Hong Kong to specifically investigate to transportation dependency and passenger-driver communication methods. A structured interview approach was used to collect quantitative data on frequency of use and overall satisfaction with taxi, mass transit rail, and bus services in Hong Kong among independent visitors. Data collected were analyzed using descriptive statistics to identify how dependent tourists are on the three modes of transportation. Although taxis only account for 8% of the over 12 million total daily passenger journeys in Hong Kong's transportation system, 62% of all tourists in Hong Kong used local taxi services at least once during their visit, indicating high transportation dependence on taxis among all visitors. Moreover, non-Mainland-Chinese tourists were significantly more dependent on taxi services, their satisfaction with taxi services was lower than their mainland Chinese counterparts, indicating a need to improve service quality for a demographic that is highly dependent on taxis.

**Keyword:** Tourist satisfaction, Transportation Mode Choice, Transportation dependence, Taxi, Hong Kong Public Transit

# I. INTRODUCTION

Hong Kong's transit system accommodates over 12 million passenger journeys each day on a highly developed network of trains, buses, taxis, trams, minibuses, and ferries (Transport Department, 2012). The backbone of Hong Kong's public transportation network is the MTR (Mass Transit Railway), which accounts for roughly 40% of total daily passenger journeys, but franchised buses (i.e., non-minibuses) are also heavily replied upon and account for 32% of all passenger journeys (Information Services Department, 2014). Even though taxis only account for 8% of total daily passenger journeys and have not been studied as extensively as the MTR or bus system has, taxis still provide over 1 million passenger rides per day, a sizable amount by any measure (Transport Department, HKSAR, 2014).

Although transportation dependency studies have traditionally focused only on local commuters who comprise the majority of a public transit system's ridership, local residents are not the only constituency who rely on a city's transportation system. Hong Kong, in particular, receives over 54 million visitors a year, a staggering number in relation to the local population of only 7 million. Although there are no official figures for what percent of total daily passenger journeys are comprised of tourists and visitors, we can assume there are, on average, 147,945 tourists entering Hong Kong each day (GovHK, 2014). If each visitor accounted for only 1 passenger journey per day, they would comprise only 1% of total daily ridership. However, tourists, especially those from Mainland China, appear to account for much more than 1% of daily passengers crowding Hong Kong's public transport system, at least according to unscientific observations of mainland Chinese tourists representing a "sizable chunk" of MTR passengers at various times throughout the day (Chugani, 2014). Local Hong Kong residents attributing the overcrowding of the city's transport system to an influx of mainland

tourists has become commonplace and even a political flash point (Cummins, 2014). Nonetheless, tourism remains one of the main pillars of Hong Kong's economy, accounting for (GovHK, 2014). Thus, there is a clear need for policymakers to better understand how tourists utilize Hong Kong's transport system in order to improve both transportation and tourism services. Surprisingly, few tourism studies have focused on transportation mode choice and tourist satisfaction in Hong Kong, and even fewer have addressed the role of taxis in tourist satisfaction and transportation needs.

Indeed, taxi services are one of the three transportation sub-sectors—along with the MTR and bus services—surveyed to compute the annual Hong Kong Tourist Satisfaction Index (Song, van der Veen, Li, & Chen, 2012) (Leung, Woo, & Ly, 2013). Thus, initiatives to improve taxi service quality for tourists should not be dismissed outright, especially since several recent studies have found tourists to be least satisfied with Hong Kong taxi service among all tourism sectors (Leung, Woo, & Ly, 2013) (Musinguzi & Leung, 2010).

Despite abundant literature on Hong Kong tourism in general, tourist transportation dependence and mode choice have not been the focus of any prior studies in the field (Chen, Zhang, & Qiu, 2013). Prior scholarship on taxis within transportation studies have focused on issues such as environmental impact and pollution (Lau & Chan, 2003), local commuter exposure to particulate matter in public transportation modes (Chan, Lau, Lee, & Chan, 2002), or the regulatory environment governing taxi utilization, passenger demand, and level of services (Yang, Lau, Wong, & Lo, 2000). Consequently, this study sets out to investigate the level of transportation dependence tourists in Hong Kong have on local taxi services and overall tourist satisfaction with these services.

# II. LITERATURE REVIEW

The importance of tourism to Hong Kong's economy is well established and often studied (Hong Kong Tourism Board, 2013). In addition, public transportation is a critical sector in Hong Kong's tourism industry as tourists are highly dependent on the public transit (Halsall, 1992) (Han, Hsu, & Lee, 2009) (Prayag, 2009) (Lam, 2008). As a subset of the public transportation sector, taxi services are not only an important mode of transit for local residents, but also a critical means of transport for tourists, especially those coming from a more distant culture (Yuen, 2006) (Transport Department, 2012) (Leung, Woo, & Ly, 2013) (Musinguzi & Leung, 2010). Nonetheless, taxi services have also received the lowest tourist satisfaction and service quality ratings in recent years (Leung, Woo, & Ly, 2013) (Musinguzi & Leung, 2010). Although taxi driver communication skills and the cleanliness of the taxicabs were the attributes of Hong Kong's taxi services that received the lowest scores (Leung, Woo, & Ly, 2013) (Musinguzi & Leung, 2010), no prior study has specifically investigated tourists' transportation dependence on taxis.

# Tourism and Hong Kong

Inbound tourists play an important role in promoting local economic development. For instance, total tourism expenditure associated with inbound arrivals in 2012 was HK\$253 billion, which was a 20.5% increase from 2011. In addition, the number of inbound tourists in Hong Kong has also increased rapidly in recent years. In 2012, Hong Kong received a record-high number of arrivals, over 48 million visitors from around the world, which was a 27% increase from 2010 and more than double the 21.8 million in 2004 (HKTB, 2013). However, major attractions in Hong Kong, such as landmarks, natural beauty, cultural heritage sites, and shopping centers, are widely dispersed (McKercher, 2005). Since the types of destinations serve different roles, tourists travel widely throughout the entire territory to fulfill their needs and desires.

# Transportation Dependence on Taxis in Hong Kong

Both local residents and tourists rely heavily on Hong Kong's highly developed public transportation infrastructure to get around. Although transportation dependency on taxis for local residents is only 8% (Land Transport Authority, 2012) (Information Services Department, 2014), 35% of tourists were found to rely on taxis while visiting Hong Kong in a 2006 study (Yuen, 2006). However, this information is not specifically collected in the annual TSQI, which only asks each respondent to assess the performance of two sectors (Song, 2014). Thus, there is currently insufficient data for tourist dependence on taxis as well as other modes of transit in Hong Kong. Nonetheless, if Yuen's 2006 study is any indication, tourists appear to be more dependent on taxi services than local residents.

H1: Taxi dependence is higher among inbound tourists in Hong Kong than local residents.

# Tourist Satisfaction with Transport Modes

Prior studies have also found tourists to be the least satisfied with Hong Kong taxi services compared to the MTR and franchised buses (Musinguzi & Leung, 2010) (Leung, Woo, & Ly, 2013). Although tourists from all source markets were generally satisfied with MTR and bus services in Hong Kong, they were relatively less satisfied with taxi service quality. In particular, several recent tourism studies have identified taxi drivers' communication skills as the poorest performing service attribute tracked in Hong Kong's annual Tourist Satisfaction Index (Leung, Woo, & Ly, 2013) (Musinguzi & Leung, 2010) (Song, Wong, & Chon, 2003). For instance, Musinguzi and Leung found that non-mainland Chinese (NM) tourists in particular gave Hong Kong taxi services the lowest average score of 3.699 because these tourists were unable to communicate effectively with taxi drivers and found the cleanliness of taxis to be unsatisfactory (2010). The findings of Leung et al. (2013)also identified taxi driver communication skills as an area of weakness among services used by tourists and corroborated the research of Jin et al. (2008), which suggested that the Hong Kong tourism industry should aim to improve employees' language and communication skills because poor communication skills negatively affect service satisfaction levels, which may render the tourism sector and related sectors less competitive and unsatisfactory to international visitors.

H2: Tourist satisfaction with Hong Kong taxi services is lower among non-Chinese speaking tourists.

# III. METHODOLOGY

This study adopted a structured-interview approach to collecting quantitative information on tourists' frequency of use and overall satisfaction with Hong Kong taxi, MTR, and bus services. The SERVQUAL-based questionnaire included 3 main sections and respondents were randomly selected and interviewed at locations with high tourist density, including the departure hall of Hong Kong International Airport, to ensure a representative sample population.

First, in order to develop a demographic profile of the respondents, Part 1 collected data on gender, age, marital status, length of stay, purpose of visit (i.e., whether or not Hong Kong was their main destination), familiarity (i.e., number of visits to Hong Kong), overseas travel experience (i.e., number of foreign countries/territories visited), travel party size, country of residence, and highest level of education attained. Second, in order to collect data on frequency of use, the first question in Part 2 asked respondents to provide how many times they used (a) taxis, (b) MTR, and (c) buses during their visit to Hong Kong. In order to measure their overall satisfaction levels, the second question in Part 2 asked respondents to rate how satisfied they were with the service quality of the (a) taxis, (b) MTR, and (c) buses in Hong Kong on a 5-point Likert scale (1 = "very dissatisfied" and 5 = "very satisfied"). The third question in Part 2 asked respondents to rate 15 items on a 5-point scale (1 = "not at all important" and 5 = "extremely important") in order to identify the most important transportation mode choice factors.

Modifying the list of taxi service quality attributes used in Leung et al.'s (2013) model, Part 3 measured the importance (1 = "not important at all" and 5 = "extremely important") and performance (1 = "Very dissatisfied" and 5 = "very satisfied") of 14 service attributes of taxi service quality using a 5-point Likert scale in order to benchmark data collected in this study with the annual TSI. These taxi service attributes included: (a) waiting time (for cab to arrive after booking); (b) taxi booking (i.e., easy to hire a cab); (c) taxi stand availability; (d) Taxi driver's route knowledge; (e) ride comfort; (f) Hygiene and maintenance of taxis; (g) information about fares and destinations (clear and accurate); (h) tidiness of taxi drivers; (i) language and communication skills of taxi drivers; (j) honesty of taxi drivers; (k) feeling safe on board; (l) professional attitude of drivers (polite and patient); (m) help with loading and unloading baggage; and (n) driver issued receipts. Finally, data was collected on whether taxi passengers (a) spoke English, (b) spoke Cantonese, (c) spoke Mandarin, (d) showed a written English address, or (e) showed a written Chinese address in order to communicate with the driver.

The data were analyzed using descriptive statistics to compare the satisfaction levels of tourists from mainland China (MC) and all other source markets (NM). Tourists who never took a Hong Kong taxi were included in the sample population in order to calculate the percentage of total tourists in Hong Kong who use taxis, MTR, and buses. In other words, transportation dependence was measured as a percentage of total inbound tourists who used a particular mode of transportation during their most recent stay in Hong Kong. To include both first-time visitors and repeat visitors with recent experience, only respondents who took a Hong Kong taxi at least once within the past year were asked to assess the importance and performance (i.e., tourist satisfaction) of specific taxi service quality attributes.

# IV. RESULT AND DISCUSSION

#### **Demographics**

The sample population was comprised of 118 visitors, including 40 visitors from mainland China (MC) and 78 from all other remaining source markets (NM). Although the total sample population was comprised of 46% men and 54% women, women comprised an even higher proportion of MC tourists (63% female) than NM tourists (50% female). In addition, shorter lengths of stay were significantly more common among MC tourists than NM tourists as 68% of MC tourists stayed for "1–2 days", compared to only 17% of NM tourists.

However, MC tourists were more likely to visit Hong Kong as their "main destination" (73%) compared to NM tourists (64%), and 70% of mainland Chinese tourists were also repeat visitors compared to only 46% of NM tourists from all other source markets. Non-mainland Chinese (NM) visitors to Hong Kong were also found to more experienced travellers as only 20% were travelling abroad for the first time, compared to 35% of mainland Chinese respondents who were travelling overseas for the first time.

Although MC tourists were more likely than NM tourists to travel in larger groups, there did not appear to be a significant difference in travel party size between these two demographics, perhaps because the target population focused on independent travellers and thus excluded all-inclusive tour groups. Similarly, even though a higher proportion of MC tourists also had 4-year university degrees (65%) compared to NM tourists (46%), which may have also been influenced by the study's focus on independent travellers.

Table I: Demographic Summary

	Table 1.	: Dem	ographic Summ	ıary				
		Tota	ıl	MC		NM	•	
		(n =	: 118)	(n =	40)	(n =	: 78)	
Gender	Male	54(4	16%)	15 (	38%)	39 (	50%)	
	Female	64(5	54%)	25 (	63%)	39 (50%)		
Age	16-25	41	(35%)	16	(40%)	25	(32%)	
	26-35	52	(44%)	21	(53%)	31	(40%)	
	36-45	13	(11%)	2	(5%)	11	(14%)	
	46-55	10	(8%)	1	(3%)	9	(12%)	
	56-65	2	(2%)	0	(0%)	2	(3%)	
	66 or above	0	(0%)	0	(0%)	0	(0%)	
Material status	Single	83	(70%)	26	(65%)	57	(73%)	
	Married	33	(28%)	14	(35%)	19	(24%)	
	Other	2	(2%)	0	(0%)	2	(3%)	
Length of stay	1-2 days	40	(34%)	27	(68%)	13	(17%)	
	3-4 days	41	(35%)	5	(13%)	36	(46%)	
	5-6 days	19	(16%)	3	(8%)	16	(21%)	
	7 days or more	18	(15%)	5	(13%)	13	(17%)	
Main destination	Yes	84	(71%)	29	(73%)	55	(71%)	
	No	34	(29%)	11	(28%)	23	(29%)	
No.of visit to HK	1 (first time)	54	(46%)	12	(30%)	42	(54%)	
	2-4 times	36	(31%)	14	(35%)	22	(28%)	
	5 times or more	28	(24%)	14	(35%)	14	(18%)	
No. of foreign	1 (first time abroad)	22	(19%)	14	(35%)	8	(20%)	
countries/	2-4 countries	28	(24%)	10	(25%)	18	(23%)	
territories visited	5-6 countries	20	(17%)	5	(13%)	15	(19%)	
	7-10 countries	12	(10%)	4	(10%)	8	(10%)	
	11 countries or more	36	(31%)	7	(18%)	29	(73%)	
Travel party size	1 (alone)	21	(18%)	6	(15%)	15	(19%)	
	2 people	65	(55%)	20	(50%)	45	(58%)	
	3 people	15	(13%)	5	(13%)	10	(13%)	
	4 people	8	(7%)	5	(13%)	3	(28%)	
	5 people	4	(4%)	2	(5%)	2	(3%)	
	6 People or more	5	(4%)	2	(5%)	3	(4%)	

# Tourist Transportation Dependence in Hong Kong

The results of this study found that 62% of all tourists take a taxi at least once during their stay, indicating a relatively high level of dependence on taxis in light of the fact that only 8% of total daily passenger journeys in Hong Kong are by taxi. Even though tourists still relied on the MTR (89%) more frequently, they appeared to use taxis at least as often as buses (63%). Moreover, 29% of total tourists took taxis "2 to 4 times", and an additional 8% took taxis "5 rides or more". However, non-mainland-Chinese (NM) tourists appeared to be more dependent on taxis than mainland Chinese (MC) tourists, since 12% of NM tourists took "5 rides or more" on taxis compared to only 3% of MC tourists.

Table II: Overall tourist transportation dependency in Hong Kong

		Total		MC		NM	
Mode	Frequency	(n=1)	118)	(n = 4)	<i>10</i> )	(n = 2)	78)
Taxi	Never Rode	45	(38%)	21	(53%)	24	(31%)
	1 Ride	29	(25%)	8	(20%)	21	(27%)
	2 - 4 Rides	34	(29%)	10	(25%)	24	(31%)
	5 Rides or more	10	(8%)	1	(3%)	9	(12%)
MTR	Never Rode	11	(9%)	7	(18%)	4	(5%)
	1 Ride	8	(7%)	5	(13%)	3	(4%)
	2 - 4 Rides	32	(27%)	10	(25%)	22	(28%)
	5 Rides or more	65	(55%)	18	(45%)	47	(60%)
Bus	Never Rode	44	(37%)	17	(43%)	27	(35%)
	1 Ride	24	(20%)	7	(18%)	17	(22%)

2 - 4 Rides	32	(27%)	10	(25%)	22	(28%)
5 Rides or more	18	(15%)	6	(15%)	12	(15%)

Among Mainland Chinese (MC) visitors, 67% of MC tourists who "never rode" a taxi had a length of stay of only "1–2 days" (Table III). Longer lengths of stay also did not appear to be correlated with increased taxi use, as 4 out of the 5 MC tourists who stayed "7 days or more" never rode a taxi, and the only visitor who stayed "7 days or more" and used a taxi only took it once (Table III). In terms of purpose of visit, 76% of MC tourists who "never rode" a taxi were visiting Hong Kong as their "main destination", although 88% of MC tourists who took "1 ride" and 60% of MC tourists who took "2–4 rides" were also visiting Hong Kong as their main destination (Table III). The only MC tourist to take "5 or more rides" happened to be a through-traveller (Table III).

However, overseas travel experience (i.e., "no. of foreign destinations visited") appeared to be correlated with increased taxi use among MC tourists (Table III). Among the sample population, 57% of MC tourists who "never rode" a taxi were travelling abroad for the first time (Table III). In fact, 87% of MC tourists who took "1 ride", and 90% of MC tourist who took "2–4 rides", had visited 2 or more foreign destinations in the past (Table III). The only MC tourist to take "5 or more rides" had visited "11 or more" foreign destinations in the past (Table III).

Familiarity with Hong Kong (i.e., "no. of visits to Hong Kong) also appeared to be correlated with increased taxi use among MC tourists (Table III). Although 43% of MC tourists who "never rode" a taxi were first-time visitors to Hong Kong, 75% of MC tourists who took "1 ride" were repeat visitors (Table III). In fact, 90% of MC tourists who took "2–4 rides" were repeat visitors, and the only MC tourist to take taxis "5 or more times" had visited Hong Kong "5 or more times" in the past (Table III). Travel party size did not appear to be strongly correlated with increased taxi use among MC tourists. Although 75% of MC tourists who took "1 ride" and 90% of MC tourists who took "2–4 rides" were travelling in a group of 2 or more people, 90% of MC tourists who "never rode" a taxi also travelled in a group of 2 or more people and the only MC tourist to take "5 or more rides" was travelling alone (Table III).

Table III: Overall tourist transportation dependency in Hong Kong

		Tota	l MC	Neve	r rode	1 Ria	1 Ride		ride	5 or more ride		
		40(1	00%)	21(5.	3%)	8 (20	<b>9%</b> )	10(2	5%)	1(3%	<u>(6)</u>	
	1-2 days	27	(68%)	14	(67%)	7	(63%)	7	(70%)	1	(100%)	
	3-4 days	5	(13%)	3	(14%)	2	(0%)	2	(20%)	0	(0%)	
Lough of stan	5-6 days	3	(8%)	0	(0%)	1	(25%)	1	(10%)	0	(0%)	
Length of stay	7 days or more	5	(13%)	4	(19%)	0	(13%)	0	(0%)	0	(0%)	
Main destination	Yes	29	(73%)	16	(76%)	7	(88%)	6	(60%)	0	(0%)	
aesimanon	No	11	(28%)	5	(24%)	1	(13%)	4	(40%)	1	(100%)	
	1 (first time)	12	(30%)	9	(43%)	2	(25%)	1	(10%)	0	(0%)	
No.of visit to HK	2-4 times	14	(35%)	7	(33%)	2	(25%)	5	(50%)	0	(0%)	
IIK	5 times or more	14	(35%)	5	(24%)	4	(50%)	4	(40%)	1	(100%)	
	1 (first time abroad)	14	(35%)	12	(57%)	1	(13%)	1	(10%)	0	(0%)	
	2-4 countries	10	(25%)	4	(19%)	1	(13%)	5	(50%)	0	(0%)	
No. of foreign countries/	5-6 countries	5	(13%)	1	(5%)	3	(38%)	1	(10%)	0	(0%)	
territories	7-10 countries	4	(10%)	2	(10%)	1	(13%)	1	(10%)	0	(0%)	
visited	11 countries or more	7	(18%)	2	(10%)	2	(25%)	2	(20%)	1	(100%)	
Travel party size	1 (alone)	6	(15%)	2	(10%)	2	(25%)	1	(10%)	1	(100%)	

2 people	20	(50%)	13	(62%)	3	(38%)	4	(40%)	0	(0%)
3 people	5	(13%)	1	(5%)	1	(13%)	3	(30%)	0	(0%)
4 people	5	(13%)	2	(10%)	2	(25%)	1	(10%)	0	(0%)
5 people	2	(5%)	2	(10%)	0	(0%)	0	(0%)	0	(0%)
6 People o	r more 2	(5%)	1	(5%)	0	(0%)	1	(10%)	0	(0%)

Among non-mainland Chinese (NM) visitors, only 25% of respondents who "never rode" a taxi had a length of stay of only "1-2 days", which is much lower than the 67% of NM tourists who "never rode" a taxi and stayed for only "1-2 days" (Table IV). Longer lengths of stay appeared to be more correlated with increased taxi use among NM visitors as 8 out of the 9 NM tourists who rode taxis "5 or more times" also stayed in Hong Kong for 5 days or more (Table IV). Although 54% of NM tourists who "never rode" a taxi were through-travelers (i.e., not visiting Hong Kong as their main destination), the overwhelming majority of NM tourists who used taxis were visiting Hong Kong as their main destination, including 76% of NM tourists who took "1 ride", 71% of NM tourists who took "2-4 rides", and 100% of NM tourists who took "5 or more rides" (Table IV). Similar to MC tourists, more overseas travel experience also seemed to be correlated with increased taxi use among NM tourists. Even though only 21% of NM tourists who "never rode" a taxi were travelling abroad for the first time, 90% of NM tourists who took "1 ride", 96% of NM tourists who took "2-4 rides", and 100% of NM tourists who took "5 or more rides" had prior overseas travel experience (Table IV). To a lesser extent than MC tourists, familiarity with Hong Kong also appeared to be correlated with increased taxi use among NM tourists. Although 67% of NM tourists who "never rode" a taxi were first-time visitors, 76% of those who took "I ride", 58% of those who took "2–4 rides", and 78% of those who took "5 or more rides" were repeat visitors to Hong Kong (Table IV). Compared to MC tourists, travel party size also appeared to be more correlated with frequency of taxi use among NM tourists. Even though 71% of NM tourists who "never rode" a taxi were travelling in a group of 2 or more people, 96% of NM tourists who took "2-4 rides" and 100% of NM tourists who took "5 or more rides" travelled in a group of 2 or more people (Table IV).

Table IV: Overall tourist transportation dependency in Hong Kong

		Total	! NM	Neve	Never rode   1 Ride			2-4 r	ide	5 or more ride			
		78(10	00%)	24(3)	1%)	21 (2	7%)	24(3)	1%)	9(129	%)		
	1-2 days	13	17%	6	25%	2	10%	4	17%	1	11%		
	3-4 days	36	46%	13	54%	17	81%	6	25%	0	0%		
Length of stay	5-6 days	16	21%	4	17%	1	5%	7	29%	4	44%		
Lengin of stay	7 days or more	13	17%	1	4%	1	5%	7	29%	4	44%		
Main destination	Yes	55	71%	13	54%	16	76%	17	71%	9	100%		
	No	23	29%	11	46%	5	24%	7	29%	0	0%		
	1 (first time)	42	54%	16	67%	5	24%	10	42%	2	22%		
No.of visit to HK	2-4 times	22	28%	6	25%	5	24%	9	38%	2	22%		
ПК	5 times or more	14	18%	2	8%	2	10%	5	21%	5	56%		
	1 (first time abroad)	8	10%	5	21%	2	10%	1	4%	0	0%		
	2-4 countries	18	23%	4	17%	11	52%	2	8%	1	11%		
No. of foreign countries/	5-6 countries	15	19%	4	17%	2	10%	7	29%	2	22%		
territories	7-10 countries	8	10%	1	4%	1	5%	6	25%	0	0%		
visited	11 countries or more	29	37%	10	42%	5	24%	8	33%	6	67%		
	1 (alone)	15	19%	7	29%	7	33%	1	4%	0	0%		
size	2 people	45	58%	12	50%	12	57%	13	54%	8	33%		

3 people	10	13%	3	13%	2	10%	5	21%	0	0%
4 people	3	28%	1	4%	0	0%	2	8%	0	0%
5 people	2	3%	1	4%	0	0%	1	4%	0	0%
6 People or more	3	4%	0	0%	0	0%	2	8%	1	4%

# Overall Tourist Satisfaction with Hong Kong Transport

Although overall tourist satisfaction with the three transportation modes (i.e., taxi, MTR, and bus) was not poor, mean overall tourist satisfaction was lower for taxi services (3.766) than for the MTR (4.294) or buses (4.039). As in other Hong Kong tourism studies (Leung, Woo, & Ly, 2013) (Musinguzi & Leung, 2010), NM visitors were less satisfied (3.660) with local Hong Kong taxi services than tourists from mainland China (4.043). Although NM tourist satisfaction with buses was also less than satisfactory (3.981), buses still performed better than taxis among NM tourists (3.660).

**Table V:** Tourist Satisfaction by Transport Mode

	Overall	MC	NM
Transport Mode	(n = 118)	(n = 40)	(n = 78)
Taxi	3.766	4.043	3.66
MTR	4.294	4.114	4.378
Bus	4.039	4.16	3.981

A closer look at the individual satisfaction attributes for taxi service quality reveals that tourists are most concerned with "taxi driver's route knowledge" (overall mean importance = 4.571), "honesty of taxi drivers" (overall mean importance = 4.584), and "feeling safe on board" (overall mean importance = 4.494). These three factors received the highest importance ratings among MC and NM tourists alike. The least important service attributes were "driver issued receipts" (MC = 3.542; NM = 3.235) and "help with loading and unloading baggage" for both mainland Chinese and non-mainland Chinese tourists.

Table VI: Mean importance and satisfaction rating for Hong Kong taxi service quality attribute

		Mean Im	portance		Mean Im	portance	
		Overall	MC	NM	Overall	MC	NM
Tax	i Service Quality Attribute	(n =	(n =	(n =	(n =	(n =	(n =
		118)	<i>40</i> )	<i>78</i> )	118)	<i>40</i> )	<i>78</i> )
	Waiting Time( For cab to arrive after	3.974	4.208	3.865	4.041	3.917	4.1
	booking)						
60	Taxi booking (i.e., easy to hire a cab)	3.972	4.042	3.936	3.889	3.913	3.878
ring	Taxi stand availability	3.935	4.042	3.887	3.84	4.043	3.75
Hiring	(Hiring subscore)	3.96	4.097	3.896	3.923	3.958	3.909
	Ride Comfort	3.947	3.87	3.981	3.908	4.083	3.827
	Hygiene and maintenance of taxis	4.156	4.083	4.189	3.844	4.167	3.698
le	Feeling safe on board	4.494	4.375	4.547	4.156	4.333	4.075
Vehicle	Information about fares and destinations	4.286	4.208	4.321	3.844	4.167	3.698
Ve	(Vehicle Subscore)	4.221	4.134	4.259	3.938	4.188	3.825
	Driver Taxi driver's route knowledge	4.571	4.542	4.585	4.26	4.333	4.226
	Tidiness of drivers	3.662	3.167	3.887	3.727	4	3.604
	Language and communication skills of	4.13	4.042	4.17	3.416	3.833	3.226
	taxi driver						
	Honesty of taxi driver	4.584	4.583	4.585	4.039	4.417	3.868
	Professional attitude of driver	4.169	4.167	4.17	3.908	4.208	3.769
	Help with loading and unloading	3.618	3.783	3.547	3.914	4.227	3.771
Driver	baggage						
Dr	Driver issued receipts	3.333	3.542	3.235	3.655	3.842	3.556
	(Driver subscore)	4.01	3.975	4.026	3.845	4.123	3.717

Interestingly, both mainland Chinese tourists (MC) and non-mainland-Chinese tourists (NM) appeared to be less satisfied with taxi service quality if they spoke Cantonese with the driver. In fact, the least satisfied respondents were NM tourists who spoke Cantonese (mean satisfaction = 3.231), who were even less satisfied

than their MC counterparts (mean satisfaction = 3.400). The most satisfied tourists were mainland Chinese (MC) who spoke English with their taxi driver (mean satisfaction = 5.000) and MC tourists who showed their driver a Chinese written address (mean satisfaction = 5.000), although these samples only included 3 respondents each so the findings may not be statistically significant. The most satisfied NM tourists were those who "wrote or showed [a] Chinese address" to the driver (mean satisfaction = 4.000). In fact, NM tourists who spoke English with their driver (3.684) were only slightly more satisfied than those who spoke Mandarin (3.667).

Table VII: Mean tourist satisfaction with Hong Kong Taxis by passenger-driver communication method

	Overal	l		MC			NM		
Passenger - Driver Communication Method	(n = 78)	) (1	00%)	(n=2)	<b>4</b> )	(31%)	(n=5)	4)	(69%)
Spoke English	3.78	41	53%	3.78	41	53%	3.78	41	53%
Spoke Cantonese	3.278	20	26%	3.278	20	26%	3.278	20	26%
Spoke Mandarin	4	26	33%	4	26	33%	4	26	33%
Wrote or showed English address (e.g., business card)	3.667	15	19%	3.667	15	19%	3.667	15	19%
Wrote or showed Chinese address (e.g., business card)	4.154	14	18%	4.154	14	18%	4.154	14	18%
Pointed to a map (paper or mobile app)	3.182	12	15%	3.182	12	15%	3.182	12	15%

Based on the results of this study, it seems that speaking Cantonese and pointing a map were correlated with lower satisfaction rates for both MC and NM tourists. This phenomenon might be attributed to the fact that tourists are only using these communication-methods when they cannot use English or Mandarin to communicate effectively with the driver.

# V. CONCLUSION

Even though taxi rides only account for 8% of the over 12 million daily passenger journeys on Hong Kong's transportation network, inbound tourists in Hong Kong are significantly more dependent on taxi services than the local population. Thus, efforts to improve Hong Kong taxi service quality should consider not only the concerns of local residents, but also visitors from mainland China and beyond. Without this approach, gaps in service quality are likely to remain and impact not only tourist satisfaction in Hong Kong, but also service quality for local passengers.

Based on the sample population surveyed in this study, 62% of all inbound tourists in Hong Kong used local taxi services at least once during their visit, suggesting. Although only 47% of mainland Chinese (MC) tourists took taxis compared to 69% of (NM) tourists from all other source markets, overall satisfaction with taxi services was lower among NM tourists (mean satisfaction = 3.660) than MC tourists (mean satisfaction = 4.043), indicating a need to improve services for a demographic that is highly dependent on taxis.

In general, these findings corroborate the findings of other recent Hong Kong tourism in confirming the hypothesis that NM tourists are less satisfied with local taxi services than MC tourists, identifying taxi drivers' language and communication skills as a main factor. However, this study also found that tourists who spoke Cantonese with their driver and pointed to a map (either paper or mobile app) were the least satisfied among both MC and NM tourists, whereas those who were able to communicate with their driver in either English or Mandarin, or could show a written Chinese address, were the most satisfied among both MC and NM tourists. Considering the importance of tourism to Hong Kong's economy, tensions between local residents and tourists

Considering the importance of tourism to Hong Kong's economy, tensions between local residents and tourists from mainland China, high taxi dependence among inbound tourists, and lower rates of satisfaction with local taxi services among non-Chinese speakers, there is a clear social need that remains unmet at the present.

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