Factors affecting purchasing behavior of taxi service's customers in Shanghai, China

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ใบรับรองสารนิพนธ์

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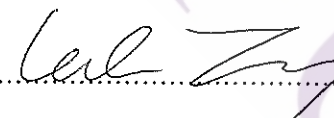
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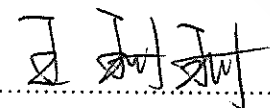|	
หัวข้อสารนิพนธ์	Factors affecting purchasing behavior of taxi service's customers in Shanghai, China
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ได้พิจารณาเห็นชอบโดยคณะกรรมการสอบสารนิพนธ์แล้ว

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ABSTRACT

Shanghai is China's largest economic center city and an internationally famous port city, attracting a large number of tourists and businessmen every year. As a symbol of the city's image, taxis play an important role in Shanghai. Therefore, researchers are interested in exploring the factors that affect the purchasing behavior of taxi customers in Shanghai. This study used a questionnaire to collect data from120 taxi services customers in 3 major areas of Shanghai. Data were analyzed by using descriptive statistics and hypotheses were tested by using t-test, Analysis of Variance (ANOVA) and multiple regression analysis.

This study found that majority of respondents are female, single, aged between 21-35 years old, high school education, working with average monthly income of 4001-6000RMB. Results of hypothesis testing showed that Shanghai taxi services' customers who have different demographic profile (such as gender, age, status, education level, occupation, monthly income) have different purchase behavior (service usage time, usage frequency of the taxi service per month, spending amount of taxi service per month，the reason for choosing the taxi service and payment method). Researchers also found that service marketing mix strategy (7P's) and safety concerns also affect the purchasing behavior of Shanghai taxi customers. The findings are significant at 0.05.

This research provides insight information about passenger behavior for taxi service industry and possible suggestions for improving taxi services in Shanghai. It also helps to extend literature in relevant areas and direction for future research in the same study context.

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Introduction

1.1 Background of the Study

Taxi is an important part of the city's transportation network, participating and witnessing the development of the city. But in recent years, Shanghai Taxi has been challenged by the rapid development of the subway and the network ride-hailing business. Business managers hope to reverse this situation.

Shanghai is an international city, and public transportation plays an important role in Shanghai. In 2019, Shanghai's permanent population was 24.28 million, the average daily number of trips was 57.1 million. With the continuous enrichment of public transportation services, citizens have more choices. Under this influence, traditional taxi services have been greatly affected.

"A service is an act of performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything." (Kotler and Keller,2009, p214)

Taxi service not only refers to the driver transporting passengers from the starting point to the end point specified by the customer, but also includes a clean car, a comfortable ride experience, friendly greetings, reasonable routes, and compliant price.

The history of Shanghai taxis can be traced back to September 10, 1908. From 1911 to 1913, the relevant departments of Shanghai Concession approved a total of 9 taxi companies to operate. At the time, there were 43 taxis in Shanghai, mainly for foreign businessmen and officials.

As of the end of 2016, there were 125 taxi companies in Shanghai, and another 2,966 self-employed households were also involved in taxi operations. Among all enterprises, Dazhong, Qiangsheng, Jinjiang, and Haibo are relatively large in scale and are called "Four Big Companies" or "Big Four". These companies account for 60% of the total number of taxi vehicles in Shanghai. (http://www.shanghai.gov.cn)

There are nearly 100,000 taxi drivers in Shanghai, with more natives in Chongming District. In Shanghai, one in three taxi drivers comes from Chongming. Some taxi drivers can master simple foreign languages in order to communicate with foreigners. Taxi in Shanghai was initially based on time-based charging. In 1911, some companies adopted a mileage-based charging model. After the 1950s, taxis in Shanghai were uniformly charged based on mileage and no longer charged on time.

Shanghai taxis are well-known for their high-quality service and strict discipline and were once regarded as Shanghai's "city card". However, since the closing of the 2010 Shanghai World Expo, the overall service quality of the taxi industry in Shanghai has been on a downward trend. In recent years, violations such as refusal to load, bypass, and overcharging have become prominent, which has become a profound problem. At the end of last year, the Enforcement Corps of the Shanghai Municipal Transportation Commission interviewed the first batch of 21 taxi companies in Shanghai. In view of the refusal of loading, detours and tolls in the vehicle, and fraud of the taximeter, the company was required to implement the law enforcement supervision requirements and strengthen the internal management. In 2019, in response to the problems in the taxi market, the Shanghai Traffic Law Enforcement Department combined with complaints and complaints data to organize special "pulling nails" operations and a series of centralized rectification operations in airports, railway stations, and key hotel areas. A total of 3822 cases in the taxi industry were investigated and dealt with, 98 taxi drivers were revoked their permits, and 88 taxi drivers were suspended for 15 days for rectification. This shows the government's determination to rectify the chaos in the taxi industry and hope that the image of Shanghai's taxi service can be restored

to its former glory. According to the 2015 announcement of the world's worst taxi drivers in the world's top 10 cities, the first is Kuala Lumpur, Malaysia, which often overcharges and detours. Although there are taxi meters, most of them refuse to charge according to the meter, and the vehicles are worn out. The second place is in Rome, Italy. It is usually not easy to get a car. If it is raining, you may need to pay 2 to 3 times the fare. The third place is in Bangkok, Thailand. Although many people think that Bangkok taxi drivers are mostly friendly, there are also many complaints about tuk-tuk drivers who deliberately bypass long distances and refuse to load for short distances or cooperate with merchants to knock off. Shanghai, China ranks ninth, the main reasons include language barriers, no way to find, paying high car fares or being deceived.

Since the 2010 Shanghai World Expo, the taxi industry has experienced a downturn. In recent years, Shanghai has vigorously developed subway transportation, which has led to a decrease in the number of taxis year after year, and the average daily passenger load has also dropped for many years. So, managers in the taxi industry must do something to reverse the situation.

In 2019, the average daily passenger traffic of Shanghai Rail Transit was 10.63 million, an increase of 4.7% year-on-year, of which single-day passenger flow record 13.29 million. The average daily passenger volume of buses was 5.712 million, a decrease of 0.8% year-on-year.

In 2019, the total operating scale of traditional taxis was 40,000, down 3.2% year-on-year, of which regional taxis were 44,000, down 9.1% year-on-year. The average daily passenger capacity of traditional taxis is 1.54 million passengers, down 11.8% year-on-year, of which regional taxis are 210,000 passengers, down 18.6% year-on-year.
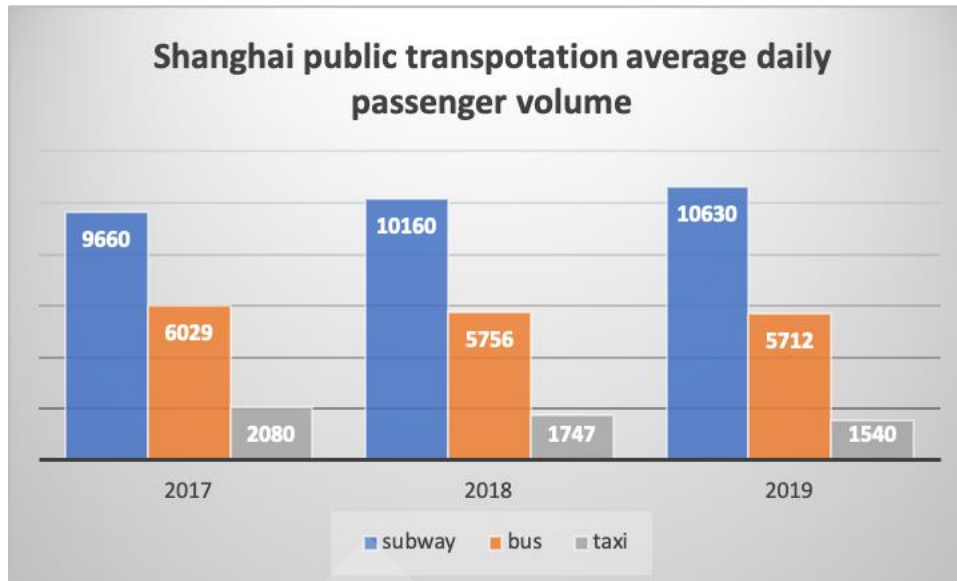
figure 1.1 shanghai public transportation average daily passenger volume

These years, with the development of taxi-hailing software, more and more private cars have become part of taxi services. The lower prices than traditional taxis allow private cars to occupy a large market share. Two of Shanghai 's largest taxi companies, Dazhong and Qiangsheng have developed their own apps. This helps customers to book a trip at home and save time waiting for a taxi on the road. At the same time, taxi platforms such as Didi Taxi also cooperate with taxi companies to encourage drivers to use the platform to take orders through cash subsidies. These measures did increase the driver's motivation, but it did not change the fact that the market share of taxis decreased, so this is not enough.

Shanghai is a city with a very low crime rate, but the issue of taxi safety still deserves our attention. In recent years, some "cloned taxi" drivers have committed hit-and-run behaviors, exchanged passenger transportation cards, and evaded punishment. There have also been vicious incidents in the industry that killed passengers and sexually harassed female passengers. This makes customers doubt the safety of taxis.

At the same time, according to the 2019 Shanghai Annual Report on Comprehensive Operation of Transportation, with the gradual recovery of epidemic control and economic and social activities, transportation demand will show an increasing trend. Affected by the new coronavirus epidemic, follow-up citizen travel behavior

characteristics may show some changes. Off-peak travel, remote work, flexible work systems, dating models, and joint distribution will increase the social recognition, and the willingness of individuals to travel in the short term may also increase, but public dense transportation is still the mainstay of development.

Therefore, it is especially important for the taxi industry to master the critical development period after the new coronavirus.

This paper studies the factors that influence the purchase behavior of taxi services' customers in Shanghai.

This is the aim of the study or significant of the study: give insight information about passenger behavior for taxi service industry and provide beneficial suggestions for improving taxi services in Shanghai.

1.2 Research question

With the rapid development of cities, the urban transportation network is becoming more and more perfect, and the competitive pressure on the taxi industry in Shanghai has increased significantly. This paper studies the factors that influence the purchase behavior of taxi services' customers in Shanghai. The research question is proposed as follow: What are the factors affecting the purchasing behavior of taxi service's customers in Shanghai, China?

1.3 Objectives of the study

The objectives of this study are listed as follows:

1. To determine the difference between demographic profile and purchasing behavior of taxi service's customers in Shanghai, China.
2. To determine the effect of service marketing mix strategy (7Ps) on the purchasing behavior of taxi service's customers in Shanghai, China.
3. To determine the effect of safety concerns on the purchasing behavior of taxi service's customers in Shanghai, China.

1.4 Conceptual framework

Based on the objectives of the study, the study variables and the proposed relationship
are depicted in the figure 2 below:
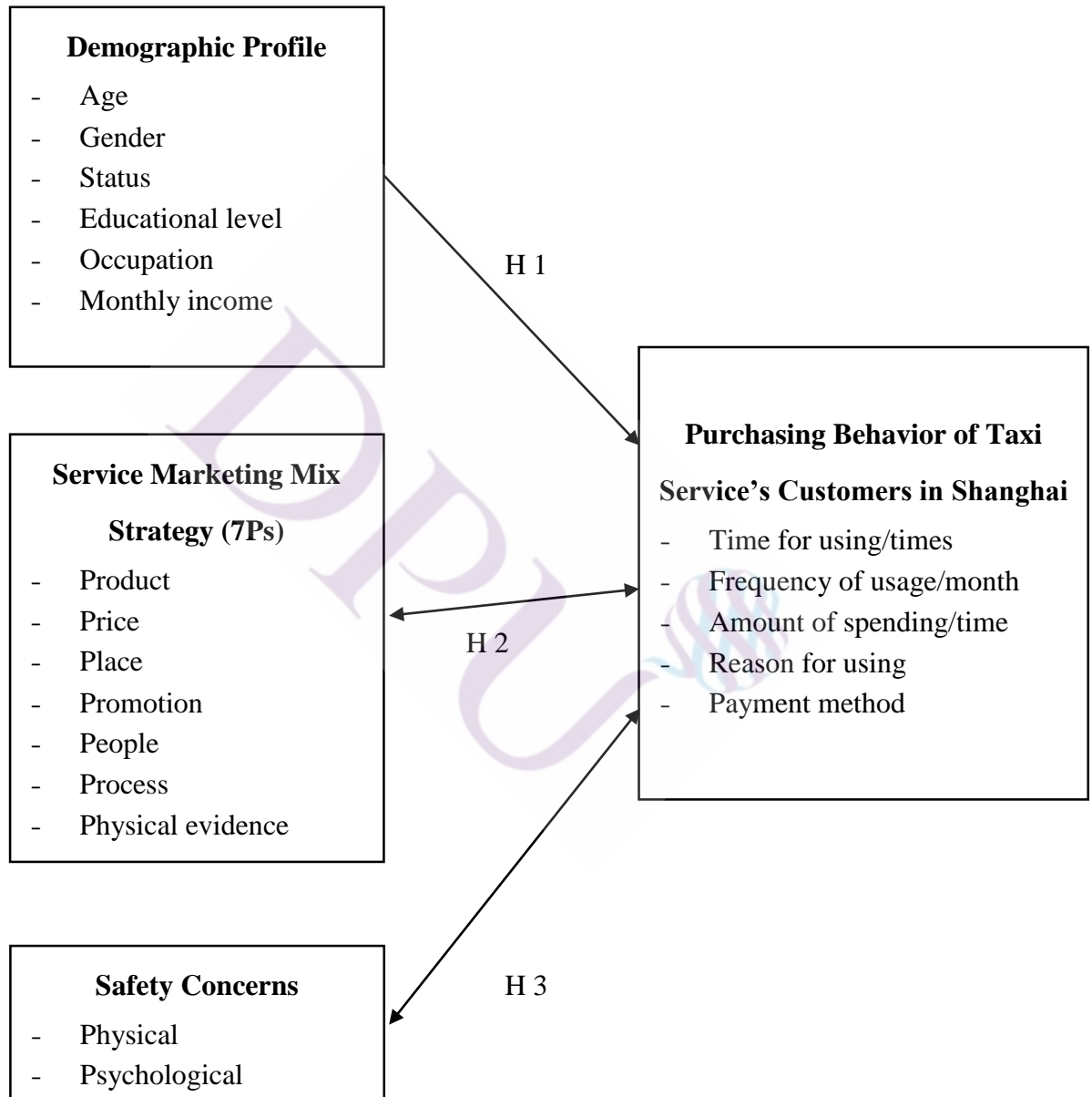
Figure 1.2: Conceptual Framework of the Study

1.5 Hypothesis of the Study

According to the conceptual framework of this study, the study hypothesis is listed below:

H1: Customers with different demographic profile will have different purchasing behavior towards taxi service in Shanghai.

H 2: There is an effect of service marketing mix (7P''s) on the purchasing behavior of taxi service's customers in Shanghai.

H 3: There is an effect of safety concerns on the purchasing behavior of taxi service's customers in Shanghai.

1.6 Scope and the limitations of the study

The researcher is going to study the effects of demographic factors, frequency of purchasing behavior, service marketing mix 7Ps and safety on purchasing behavior of taxi service's customers in Shanghai by using the following set of research extent:

1.6.1.1 Population and sample

Population: Customers of Shanghai taxi service.

Sample: Customers of Shanghai taxi service in 3 parts of taxi service customers; Shanghai's inner ring, Shanghai's middle ring and Shanghai's outer ring.

Sample size

Because the population size is unknown, the researchers used the Taro Yamane table to calculate the appropriate sample size with a 95% confidence level and a sampling error of 0.05%.The table suggested appropriate 385 samples, however with a limited study period and as previous studies e.g. Udomsuk and Tiangsoongnern (2018), this study use data from 120 respondents.

1.6.1.2 Sampling method

The process of the sampling method is as follows:

Simple Random Sampling – Choose samples from the three parts of Shanghai (inner ring, middle ring and outer ring).

Convenient sampling-The questionnaire is randomly distributed- in Shanghai's inner, middle and outer rings. The number of people participating in the sample survey in the three parts is as follows:

Parts	Number of people
Inner ring	40
Middle ring	40
Outer ring.	40
Total	120

1.6.2.1 Independent Variable:

Demographic profiles consist of

- o Gender
- o Age
- o Status
- o Occupation
- o Income/month

Service marketing mix (7Ps)

- o Product
- o Price

- o Place

- o Promotion mix

- o People

- o Process

- o Physical evidence

Safety Concerns

- o Physical

- o Psychological

1.6.2.2 Dependent variables:

According to the time for using the taxi service, the frequency of customers using the service each month, and the monthly cost of the customer using the service to test the purchasing behavior and usage reasons of Shanghai taxi service customers.

1.7 Definition of terms

1.7.1 Taxi service----A type of vehicle for hire with a driver, used by a single passenger or small group of passengers, often for a non-shared ride. A taxicab conveys passengers between locations of their choice. The services areas include 3 parts inner ring, middle ring and outer ring in Shanghai.

1.7.2 Demographic profile----Characteristics of taxi service customers in particular gender, age, status, educational level, occupation, monthly income.

1.7.3 Service marketing mix strategy (7Ps) ---- is the combination of seven elements of marketing that aim to work together to achieve the objectives of a marketing strategy. These 7 elements are: product; price; place; promotion; people; process and physical. (Kotler and Keller, 2009)

1.7.4 Purchasing behavior----defined as the purchase behavior of a taxi service based on certain elements of the 6W 1H concept (Kotler and Keller, 2009): service usage time, usage frequency of the taxi service per month, spending amount of taxi service per month, the reason for choosing the taxi service and payment method.

1.7.5 Safety concerns---- Ensure the safety of customers' lives and property while the vehicle is running, including perfect insurance, driving recorder, vehicle positioning, etc.

1.8 Significances of the study:

1. The result will give insight information about passenger behavior for taxi service industry and provide beneficial suggestions for improving taxi services in Shanghai.
2. The results will help to extend literature in relevant areas and direction for future research in the same study context.

Chapter 2

Literature Review

This chapter addressed relevant constructs that were examined in the study which consisted of:

2.1 Demographic profiles

2.2 Service Concepts

2.3 Consumer Purchasing Behavior

2.4 Service Marketing Mix Strategy (7P"s)

2.5 Taxi safety and Customer Concerns

2.6 Related Research

2.1 Demographic profiles

There are several definitions of demographic profiles in the literature.

2.1.1 Definition of demographic profile

Demographics and product attributes were identified as the variables most frequently used to segment the market as far back as 1976, with demographic categories used to match segments with media profiles, mainly because most media described their audiences by demographics (Assael and Roscoe, 1976).

Demographics is a business tool that can identify several characteristics when companies try to define market segments. Common characteristics of personal data include age, gender, income, family size and education level. Other more specific items in demographics may look for information about consumers' buying habits. These

questions try to determine how often consumers buy a certain product. The data collected from the configuration file allows companies to adjust future marketing or product activities for specific groups of people.

A large, stratified, random sample was deemed desirable to maximize the accuracy of the research and to allow generalizability of the results to the population (Sudman, 1976; Zikmund, 1991).

Past surveys on the demographics of taxi consumers found that young people and singles between the ages of 16 and 30 have a greater tendency to use taxis because many of them do not have a car. Married people rarely take taxis because most of them own at least one car. At the same time, it is found that users who use taxi services generally have low income. (Shaaban,2016)

R.C.P. Wong (2020) found that females are more sensitive to service quality, drivers' attitudes. The respondents aged 65 or above prefer a better service quality and a higher comfort level. Students and others (e.g., retirees and housewives) were less likely to select the premium taxi option.

2.2 Service Concepts

There are several definitions of service in the literature.

2.2.1 Definition of Service

Hill (1977) defined service as a change in the condition of a person, or of a good belonging to some economic unit, which is brought about as the result of the activity of some other economic unit, with the prior agreement of the former person or economic unit.

An elementary service is the result or the output of the servuction system, in other words, the result of an interaction between physical support, personnel and customer."(Eiglier and Langeard, 1975).

According to Kotler (1987), a service is any act or performance that one party can offer to another that is essentially intangible and does not result in ownership of anything. Its production may or may not be tied to a physical product.

White (2002) defined taxi transport as "all modes of transportation available to the public, irrespective of ownership".

Tran and Kleiner (2005) simply defined it as the means of providing special or general transportation services to the public not taking into consideration-chartered transport services but rather scheduled transport services.

Definitions of Authors seem to match the base of this study; therefore, this study defines service as, "an intangible product or activity that gives benefits and satisfies the needs of customer".

2.2.2 Service Quality

Service quality has been established as one of the many factors that influence customer satisfaction (Hohanson, 1995).

The difference between service quality and satisfaction is perceived service quality is a global judgment, or attitude, relating to the superiority of the service. Whereas satisfaction is related to the specific transaction (Parasuraman, Valarie, Zeithaml and Berry, 1988).

Service quality is recognized as one of the important areas on which public organizations including transportation services are focusing in present times (Ancarani and Capaldo, 2001).

The service quality model was developed by a group of American writers A. Parasuraman, Valarie A. Zeithaml and Len Berry in a system research project conducted from 1983 to 1988. The model determines the main dimensions (or components) of service quality; proposes a scale to measure service quality (SERVQUAL), and proposes possible causes of service quality problems:

- Reliability: the ability to perform the promised service dependably and accurately
- Assurance: the knowledge and courtesy of employees and their ability to convey trust and confidence
- Tangibles: the appearance of physical facilities, equipment, personnel and communication materials
- Empathy: the provision of caring, individualized attention to customers
- Responsiveness: the willingness to help customers and to provide prompt service

These five dimensions are considered to represent a series of dimensions of service quality in industries and environments.

2.3 Consumer Purchasing Behavior

Different consumers are different in age, gender, income, education level and marital status. Their needs and preferences for goods and services are also different. How these diverse consumers connect with each other and how they influence their choices among various products, services and companies. Here, we studied the attractiveness of various factors that influence consumer behavior.

2.3.1 Definition of Consumer Behavior

Schiffman and Kanuk (2002) defined consumer behavior "as the behavior that consumers display in searching for, purchasing, using, evaluating and disposing of products, services and ideas which they expect will satisfy their needs".

Engle, Blackwell and Kollat (1978) have defined consumer behavior as "The act of individuals directly involved in obtaining and using economic goods and services, including the decision process, that precede and determined these acts".

Consumers' behavior is influenced by individuals, social cultural factors (culture, subculture, religion, social class and family life cycle), personal factors (culture, subculture, religion, social class and family life cycle), personal factors (age , Gender, marital status, education, occupation, income and psychological factors include motivation, perception, learning, personality, attitude, and lifestyle. These factors have a great influence on individual decisions about products and services.

2.3.2 An Analysis of Consumer Behavior

Kotler (2006) suggested that marketers should examine consumer purchasing behavior using the 6W"s and 1H question.

Question (6W's 1H)	The answer to know (7Os)	Marketing strategy
1. Who is in the target market?	Occupants of target group including 1. Demographic 2. Geographic 3. Psychology 4. Behavior	Marketing Mix or Service Marketing Mix (7P's) for satisfying the target group
2. What does the consumer buy?	Objects to consumer buy; What product component & competitive differentiation	Product strategies including 1. Core product 2. Tangible product

		such as quality, style, packaging and brand 3. Expected product 4. Augmented product 5. Competitive differentiation product
3. Why does the consumer buy?	Purchasing <u>objective</u> of consumer, for physical & psychology need that study in physical factor, social, culture and personality	1.Product strategies 2. Price strategies 3. Distribution channel strategies 4 Promotion strategies *Good marketing contents, RTB to convince why they should buy*
4. Who participates in the buying? (Whom)	Influence <u>organization</u> including people to 1. Initiator 2. Influencer 3. Decider 4. Buyer 5. User	1.Advertising and promotion strategies to influence Organization 2.Influencer marketing -product reviewer -Net Idol -Blogger -YouTuber -Testimonials (actual users)
5. When does the consumer buy?	<u>Occasions</u> such as during seasonal of festival time	Promotion strategies related to usage occasions content
6. Where does the consumer buy?	<u>Outlets</u> such as dependent store, convenience store and discount store	1. Omni Distribution channel (traditional & digital)
7. How does to consumer buy?	<u>Operation</u> including 1. Problem recognition 2. Information search 3. Evaluation of alternative	Promotion strategies including advertising, personal selling, public relating and direct marketing

	4. Purchase decision e.g. frequency, amount, payment method 5. Post purchase evaluation	

Table 2.1: An Analysis of Consumer Behavior Table

Source: Kotler and Keller (2009)

2.4 Service Marketing Mix Strategy

The term "marketing mix" is the basic model of a business, historically revolving around product, price, place and promotion (also known as "4ps"). In service marketing, an expanded marketing mix is used, usually including 7 Ps, consisting of the first 4 Ps expanded by process, people, and physical evidence.

2.4.1 Definition of Service Marketing Mix Strategy (7ps)

The marketing mix has been defined as the "set of marketing tools that the firm uses to pursue its marketing objectives in the target market"(kolter,2000).

Marketing mix is collection of controllable tools of marketing which firms are collocated until they response to target market. Marketing mix encompasses whole of works which firms can fulfill to promote demand for their products (Dargi, 2005).

The original marketing mix (4 Ps) originally proposed by McCarthy (1964) provides a framework for marketing decisions. Since then, McCarthy's marketing portfolio has become one of the most durable and widely accepted frameworks in marketing. In 1981, Booms and Bitner (1981) proposed the 7Ps model, which included the original

4 Ps as well as process, personnel and physical evidence, because it is more suitable for service marketing.

2.4.2 Tools of Marketing Mix

Category	Definition/Explanation/Concept	Typical Marketing Decisions
Product	A product refers to an item that satisfies the consumer's needs or wants. Products may be tangible (goods) or intangible (services, ideas or experiences).	• Product design – features, quality • Product assortment – product range, product mix, product lines • Branding • Packaging and labeling • Services (complementary service, after-sales service, service level) • Guarantees and warranties • Returns • Managing products through the lifecycle
Price	Price refers to the amount a customer pays for a product. Price may also refer to the sacrifice consumers are prepared to make to acquire a product (e.g. time or effort).	• Price strategy • Price tactics • Price-setting • Allowances – e.g. rebates for distributors

	Price is the only variable that has implications for revenue. Price also includes considerations of customer perceived value.	• Discounts – for customers • Payment terms – credit, payment methods
Place	Refers to providing customer access Considers providing convenience for consumer.	• Strategies such as intensive distribution, selective distribution, exclusive distribution • Franchising; • Market coverage • Channel member selection and channel member relationships • Assortment • Location decisions • Inventory • Transport, warehousing and logistics
Promotion	Promotion refers to marketing communications May comprise elements such as: advertising, PR, direct marketing and sales promotion.	• Promotional mix - appropriate balance of advertising, PR, direct marketing and sales promotion • Message strategy - what is to be communicated • Channel/ media strategy - how to reach the target audience • Message Frequency - how often to communicate

People	Human factors who participate in service delivery. Service personnel who represent the company's values to customers. Interactions between customers. Interactions between employees and customers.	• Staff recruitment and training • Uniforms • Scripting • Queuing systems, managing waits • Handling complaints, service failures • Managing social interactions
Process	The procedures, mechanisms and flow of activities by which service is delivered.	• Process design • Blueprinting (i.e. flowcharting) service processes • Standardization vs customization decisions • Diagnosing fail-points, critical incidents and system failures • Monitoring and tracking service performance • Analysis of resource requirements and allocation • Creation and measurement of key performance indicators (KPIs) • Alignment with Best Practices • Preparation of operations manuals
Physical evidence	The environment in which service occurs. The space where customers and service personnel interact.	• Facilities (e.g. furniture, equipment, access) • Spatial layout (e.g. functionality, efficiency)

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	Tangible commodities (e.g. equipment, furniture) that facilitate service performance. Artifacts that remind customers of a service performance.	• Signage (e.g. directional signage, symbols, other signage) • Interior design (e.g. furniture, color schemes) • Ambient conditions (e.g. noise, air, temperature) • Design of livery (e.g. stationery, brochures, menus, etc.) • Artifacts: (e.g. souvenirs, mementos, etc.)

Table 2.2: An Analysis of Marketing Mix 7Ps Table
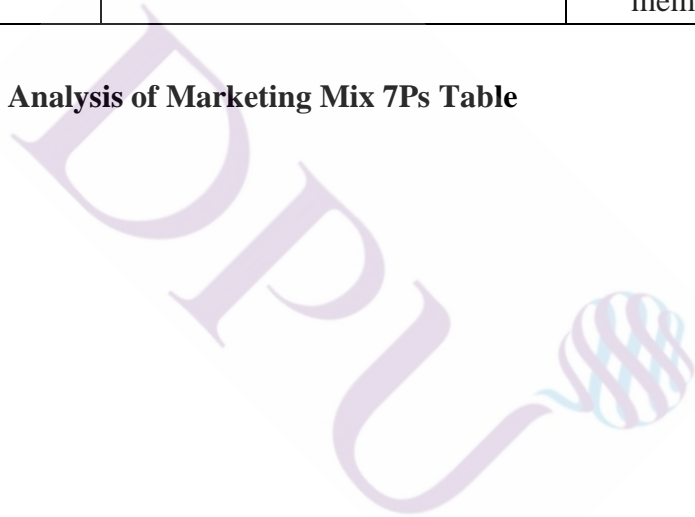
Figure 2.1 depicted the components of the Service Marketing Mix 7P˙˙s

Figure 2.1: Model of Extended Marketing Mix or Marketing Mix for service (7P's)

Source: Depicted from Booms and Bitner (2007); Brown (1991)

According to Rafiq & Ahmed (1995), the most influential alternative framework is 7Ps. They believe that it is not only necessary to modify the traditional 4Ps services, but also to expand them to include participants, physical evidence and processes.

When talking about online marketing, Constantinides (2002) pointed out that in the case of virtual marketing, adopting traditional methods based on the 4Ps paradigm is also a poor choice. It pointed out the two frameworks in the online environment. Main limitations: There are no strategic elements in Ps and models.

Muala & Qurneh (2012) stated that because they were dissatisfied with the 4Ps framework, Rafiq and Ahmad (1995) claimed to be advocates of the 7Ps framework. The survey results show that consumer marketing pays more attention to the traditional 4Ps, while other combination variables are less. In addition, there are similar views in service marketing, but there are also strong claims that 7Ps should be used as a general framework due to the simplicity of the 4Ps combination.

2.5 Taxi safety and customer concerns

2.5.1 Definition of taxi safety

Travel safety have become one of the considerable factors that influence on public transportation users. The fears of physical offence, crime risk, harassment and other unhuman behavior have become factors influence the confident of users on taxi service (Sham,2019).

Drivers proposed that safe driving behaviors included paying attention and being aware of the road surrounds, for example, "be psychic, see four cars ahead"; using turn indicators; and not taking personal problems onto the road. Drivers said that factors that increased the likelihood of crashes were fatigue because of long shifts, pressure from passengers, pedestrians wandering across the road, driving too fast, tailgating, or generally being in a rush, and poor training or screening of drivers at intake. (Stewart ,2006)

By comparing the number of accidents, the mean speed, speed dispersion and the max vehicle speed, the corresponding relation between these indicators and driver safety consciousness level was studied, and it was found that the max vehicle speed was an effective and objective measurable indicator of driver safety consciousness. (Weihua Zhao,2014)

Furthermore, in the Staysafe 36 (1997), taxis were approximately 16 times more likely to be involved in a tow away crash and were approximately 4.5 times more likely to be involved in a fatality than other vehicles on register. Taxi drivers were somewhere between 1 and 2 times more likely to be involved in a fatality than other drivers. Based on such data it would appear that taxis are overrepresented in road crashes.

2.5.2 Taxi safety concerns in physical

In Shanghai, over 45,000 taxis equipped with Global Positioning System (GPS) are using the city network during the day. This taxi GPS data (hereinafter referred to as "floating car data" (FCD)) updates the taxi's traveling position and location every 10 seconds. FCD has been used to extract the average speed or travel time in the road network. (WANG Xuesong,2012) The installation of GPS greatly increases the safety of taxi users.

Rowland (2007) pointed out the culture of the organization, especially the initial directions provided by the management team related to driving behavior. For example (the collected data usually shows that the current organization provides relatively clear fleet safety rules, the adequacy of fleet safety procedures and strong management commitments), which may directly affect the driving results displayed by employees.

2.5.3 Taxi safety concerns in psychological

Commuters usually felt safe in using the mini cab taxi services because the cars were mostly fitted with functioning seat belt and the drivers drove cautiously, had excellent knowledge of route, communicated and handled payment transactions well. Further on drivers" behavior, commuters felt the drivers showed appropriate driving behavior, were generally well behaved and normally had their vehicles in clean and good condition. (Emmanuel Nondzor Horsu ,2015)

A study from psychological scientists (Özlem Şimşekoğlua,2008) of Izmir University of Economics and (Timo Lajunen,2008) of Middle East Technical University in Turkey closely analyzed some of the many factors that people use when deciding when and where they're willing to buckle up. Şimşekoğlua and Lajunen surveyed 277 Turkish students on when, why, and how often they wore a seat belt. In line with previous research, they found that people's beliefs about the effectiveness of seat belts had no relationship with how often they reported actually wearing one.

2.6 Related Research

2.6.1 Problems in Shanghai taxis

After the closing of the 2010 Shanghai World Expo, the overall service quality of the taxi industry in Shanghai has a downward trend. In recent years, violations such as refusals, detours, and excessive charges have been prominent. At the same time, there are problems such as impolite attitudes of drivers and uncivilized driving, which has attracted a large number of problems. Passenger complaints and service disputes. For this reason, relevant departments in Shanghai have issued relevant management

measures to rectify these problems. If a taxi driver violates discipline, and the passenger's complaint confirms the violation, the Shanghai Municipal Transportation Commission will record the facts of the complaint and the situation in the company's integrity file and deduct the "reputation assessment" points in accordance with relevant regulations. At the same time, it urges the company to count the facts of the driver's violation of discipline. Enter the driver's integrity file. Some companies also stipulate that drivers who have been complained a certain number of times within a certain period of time will be severely warned, suspended until expelled. At the same time, incentives will be deducted, and they will also need to receive industry-standard induction retraining after processing. According to the new version of the "Shanghai Municipal Transportation Commission's Adjudication Benchmarks Regarding Administrative Penalties for Illegal Passenger Traffic of Taxi and Vehicles" implemented on November 1, 2018, taxi drivers who refuse to carry or detour overcharges will be enforced twice in their careers If the department verifies that it is true, the operation qualification certificate will be revoked.

In addition, Shanghai's "cloned taxis" have also been the focus of the crackdown in recent years. Some "cloned taxis" drivers have committed hit-and-run behaviors, exchanged passenger transportation cards, and evaded punishment. In response to the attacks on "cloned taxis" and their drivers, relevant departments in Shanghai have taken measures to destroy vehicles and counterfeit and sell fake dens, and even use all taxis on the roads to turn on red "ESC" lights to confirm whether the car is a "cloned taxi" And detain the driver who caused the accident.

In January 2016, there was also a vicious incident of a Shanghai native who was killed by a taxi driver, which aroused people's attention.

Based on the aforementioned, this study aims to test whether there are influences of demographic profiles of customers, service marketing mix strategy used by service provider and taxi safety on the purchasing behavior of taxi service's customers in Shanghai. Therefore, this study proposed three hypotheses as follows:

H1: Customers with different demographic profile will have different purchasing behavior towards taxi service in Shanghai.

H 2: There is an effect of service marketing mix (7P''s) on the purchasing behavior of taxi service's customers in Shanghai.

H 3: There is an effect of service safety on the purchasing behavior of taxi service's customers in Shanghai.

CHAPTER 3

Research Methodology

This study addresses the purchasing behavior of taxi service's customers using the following constructs:

1.Demographic: gender, age, status, educational level, occupation, monthly income.

2.Service marketing mix strategy (7P's) that influence the consumer behavior: product; price; place; promotion; people; process and physical evidence.

3.Purchasing behavior: the frequency of customers using the service each month, and the average time the customer uses the service.

4.Safety: including perfect insurance, driving recorder, vehicle positioning, etc.

The survey research design using a self-administrative questionnaire (Malhotra 2007). Several steps of research methodology were presented as follows:

3.1 Population and Sample

3.2 Measurement items

3.3 Data collection method

3.4 Data analysis

3.1 Identifying population and sample

Population: Customers of taxi service in Shanghai

Sample: Customers of taxi service in 3 major areas; Shanghai's inner, middle and outer rings

Sample size

Due to the number of populations is unknown, the researcher uses Taro Yamane table to calculate by the approximately sample size for this study (cited in Poldongnok 2009). The sample size is calculated based on 95% confidence level and 5% sampling error based on the following formula:

$$n = Z^2 [P(1-P)] / e^2$$

n = Sample size

Z = Reliability of 95% is 1.96

e = Not reliability is 0.05

P = Percentage (0.05)

Calculation:

$$n = Z^2 [P(1-P)] / e^2$$

$$= (1.96)^2 [(0.50)(1-0.05)] / (0.05)^2$$

$$= 384$$

The recommended sample size is 384 respondents.

A total of about 400 questionnaires were distributed for this data collection, of which 120 valid responses were received. Because the population size is unknown, the researchers used the Taro Yamane table to calculate the appropriate sample size with a 95% confidence level and a sampling error of 0.05%.The table suggested appropriate 385 samples, however with a limited study period and as previous studies e.g. Udomsuk and Tiangsoongnern (2018), this study use data from 120 respondents.

Sampling Method

The research adopted convenience sampling method by giving out questionnaire to customers who were using taxi services in 3 areas of Shanghai (inner, middle and outer rings). Convenience sampling was used for this study because the respondents are selected to be in the right place at the right time and least time consuming compared to other sampling techniques (Malhotra 2007).

3.2 Measurement Items

This study developed and adapted items from previous studies to measure the constructs following study:
- 6 items to measure demographic profile of taxi service's customers. (e.g. gender, age, status, education level, occupation, income)
- 5 items to measure the purchasing behavior of taxi service's customer. (e.g. service usage time, usage frequency of the taxi service per month, spending amount of taxi service per month, the reason for choosing the taxi service and payment method.)
- 25 items to measure the service marketing mix (7P's) (e.g. product, price, place, promotion mix, people, process, physical evidence) and 7 items to measure the taxi safety.

Likert Scale was used to quantify level of agreement on items related 7P"s and WOM. The scale descriptions are as follows:

"5" = Strongly agree with the statement

"4" = Agree with the statement

"3" = Feel neutral with the statement

"2" = Disagree with the statement

"1" = Strongly disagree with the statement

According to Sirirat (2005), each item is assigned a numerical score, ranging from 1 to 5 as follows:

- Calculate the cutting/interval score = (5-1)/5 = 0.80

- Thus, descriptions of the revised score are as follows:

Range of Score	Level of agreement
1.00 - 1.80 =	strongly disagree with the statement
1.81 - 2.60 =	disagree with the statement
2.61 - 3.40 =	feel neutral with the statement
3.41 - 4.20 =	agree with the statement
4.21 - 5.00 =	strongly agree with the statement

3.2.1 Measurement Validation

There are 2 steps of validity tests for survey research questionnaires which are;

1.1 Content Validity

Content validity was assured by developing the study constructs based on relevant literature and suggestions of academician.

1.2 Reliability Validity

Researcher conducted a pilot test with 41 respondents. The data had coefficient alpha, or Cronbach's Alpha around 0.6 which indicated a moderate - fair internal consistency of the study constructs (Malhotra 2007).

3.3 Data Collection

This study collected 2 types of data which are:

1.   Primary Data – using the questionnaire to collect the data from taxi service's customers in Shanghai. (Three shopping malls in Shanghai)

2.   Secondary Data – Use literature research to collect data on taxi services, service quality, marketing mix, and taxi safety from textbooks, articles and related research to develop a conceptual framework for research.

3.4 Data analysis

Data was analyzed using the following statistics:

1. Descriptive Statistic – Frequency, percentage, mean and standard deviation.
2. Inferential Statistics:

2.1 ANOVA test and t-test were used to test the difference between demographic profile and purchasing behavior of taxi service's customers (Malhotra 2007).

2.2 Multiple regression analysis used to test the effect of service marketing mix strategy (7p"s) and taxi safety on the purchasing behavior of taxi service's customers (Malhotra 2007).

The confidence level of 95% or < 0.05 was adopted to test the hypotheses of the study.

CHAPTER 4

Findings

This study collected data from taxi service's customers in Shanghai. Questionnaires were distributed to 120 respondents who using the taxi services which located in 3 areas: Shanghai's inner, middle and outer rings. A 100% of response rate was achieved. Data has performed normal distribution

The results were presented as follows:

4.1 Descriptive results of demographic data, service marketing mix, safety concerns and purchasing behavior of taxi service's customer.

4.2 Hypothesis test

Data were screened to assume that normal distribution could be assumed. 20 sets of questionnaires were found to be outliners and then were deleted from the analysis. The remaining 100 sets of questionnaires tended to perform normal distribution within the $-1 \leq$ skewness $\leq +1$ and $-2 \leq$ kurtosis $\leq +2$ (Tabachnick and Fidell 2001).

4.1 Descriptive Results

4.1.1 Demographic Data

Table 4.1: Descriptive Results of Gender

	Items		Percent
1	Gender	Male	43.3
		Female	56.7
		Total	100

Gender -- the proportion of respondents were female (56.7%), male (43.3%)

Table 4.2: Descriptive Results of Age

		Items	percent
2	Age	Under 20 years old	20.8
		21-35 years old	32.5
		36-50 years old	26.7
		Above 50 years old	20
		Total	100

Age -- the majorities of respondents were 21-35 years old (32.5%) followed by 36-50 years old (26.7%) under 20 years old (20.8%) above 50 years old (20%).

Table 4.3: Descriptive Results of Status

	Items		percent
3	Marital status	Single	54.2
		Married	45.8
		Total	100

Status -- the majorities of respondents were single (54.2%) followed by married (45.8%).

Table 4.4: Descriptive Results of Education level

	Items		percent
4	Education level	Secondary school	6.7
		High school	29.2
		College school	20
		Bachelor's degree	27.5
		Master's degree	13.3
		Doctoral degree	3.3
		Total	100

Education level-- the majorities of respondents were high school (29.2%) followed by bachelor's degree (27.5%) college school (20%) master's degree (13.3%) secondary school (6.7%) doctoral degree (3.3%)

Table 4.5: Descriptive Results of Occupation

	Items		percent
5	Occupation	Working	40
		Retired	13.3
		Homemaker	10
		Student	36.7
		Total	100

Occupation -- the majorities of respondents were working (40%) followed by student (36.7%) retired (13.3%) homemaker (10%).

Table 4.6: Descriptive Results of Income

	Items		percent
6	Income	Lower than 4,000	33.3
		4,001-6,000	36.7
		6,001-10,000	19.2
		More than 10,000	10.8
		Total	100

Income -- the majorities of respondents had income 4,001-6,000 yuan per month (36.7%) followed less than 4,000 yuan per month (33.3%) 6,001-10,000 yuan per month (19.2%) and more than 10,000 yuan per month (10.8%).

4.1.2 Service Marketing Mix Strategy (7P's)

The following tables showed the results of Shanghai taxi service customers that are agreement on service marketing mix (7Ps).

1) Product

Table 4.7 reports that the majority of the respondents agreed that I tend to choose well-known taxi company (Mean = 3.70), I consider about the taxi service quality (Mean = 3.60), I tend to book taxi online (Mean = 3.30), I tend to choose taxi company that use new car models (Mean = 3.10). Overall product has an effect on purchasing behavior of Shanghai taxi service customers (Mean = 3.425).

Table 4.7: Descriptive Results of Product

Items	Mean	Std. Deviation	Level of Agreement
I tend to choose well-known taxi company	3.70	.826	Agree

	Mean	Std. Deviation	Level of Agreement
I consider about the taxi service quality	3.60	.803	Agree
I tend to book taxi online	3.30	1.192	Feel neutral
I tend to choose taxi company that use new car models	3.10	.749	Feel neutral
Total	3.425	.8925	Agree

2) Price

Table 4.8 reports that the majority of the respondents agreed that I often select the taxi that offers the cheapest price (Mean = 3.83), I am fine to pay higher price for the better ride experience (Mean = 3.30) and I am fine to pay higher price for the higher quality taxi service (Mean = 3.30). Overall price has an effect on purchasing behavior of Shanghai taxi service customers (Mean = 3.48).

Table 4.8: Descriptive Results of Price

Items	Mean	Std. Deviation	Level of Agreement
I often select the taxi that offers the cheapest price	3.83	.585	Agree
I am fine to pay higher price for the better ride experience	3.30	.866	Feel neutral
I am fine to pay higher price for the higher quality taxi service	3.30	.784	Feel neutral
Total	3.48	.745	Agree

3) Place

Table 4.9 reports that the majority of the respondents agreed that I often take the taxi in the areas that lack of public transportation (Mean = 3.80), I often take the taxi that is available around the place I stay (Mean = 3.47) and I often take the taxi that is available around my workplace (Mean = 2.97). Overall place has an effect on purchasing behavior of Shanghai taxi service customers (Mean = 3.41).

Table 4.9: Descriptive Results of Place

Items	Mean	Std. Deviation	Level of Agreement
I often take the taxi that is available around the place I stay	3.47	.721	Agree
I often take the taxi in the areas that lack of public transportation.	3.80	.836	Agree
I often take the taxi that is available around my workplace.	2.97	.952	Feel neutral
Total	3.41	.84	Agree

4) Promotion

Table 4.10 reports that the majority of the respondents agreed that I tend to take the taxi that offer promotions (Mean = 3.93), I tend to book the taxi that charges no booking fee (Mean = 3.50) , I tend to see the taxi information from online advertising via social media (Mean = 3.47), I tend to see taxi information from out-of-home advertisement (Mean = 3.20) and I tend to see the taxi information from online advertising at official websites (Mean = 3.17). Overall promotion has an effect on purchasing behavior of Shanghai taxi service customers (Mean = 3.89).

Table 4.10: Descriptive Results of Promotion

Items	Mean	Std. Deviation	Level of Agreement
I tend to take the taxi that offer promotions.	3.93	.730	Agree
I tend to book the taxi that charges no booking fee.	3.50	.767	Agree
I tend to see taxi information from out-of-home advertisement	3.20	.656	Feel neutral
I tend to see the taxi information from online advertising at official websites.	3.17	.781	Feel neutral
I tend to see the taxi information from online advertising via social media	3.47	.898	Agree
Total	3.454	.766	Agree

5) People

Table 4.11 reports that the majority of the respondents agreed that I tend to choose the taxi company has professional drivers (Mean = 3.93), I tend to choose the taxi company has strict service rules (Mean = 3.87) and I tend to choose the taxi company has well-known owner (Mean = 3.50). Overall people have an effect on purchasing behavior of Shanghai taxi service customers (Mean = 3.77).

Table 4.11: Descriptive Results of People

Items	Mean	Std. Deviation	Level of Agreement
I tend to choose the taxi company has professional drivers.	3.93	.683	Agree

	Mean	Std. Deviation	Level of Agreement
I tend to choose the taxi company has strict service rules.	3.87	.766	Agree
I tend to choose the taxi company has well-known owner	3.50	.622	Agree
Total	3.77	.69	Agree

6) Process

Table 4.12 reports that the majority of the respondents agreed that I tend to choose the taxi company has online booking service (Mean = 3.67), I tend to choose the taxi company has a convenience of payment (Mean = 3.60) and I tend to choose the taxi company has enough taxis on the road (Mean = 3.30). Overall process has an effect on purchasing behavior of Shanghai taxi service customers (Mean = 3.52).

Table 4.12: Descriptive Results of Process

Items	Mean	Std. Deviation	Level of Agreement
I tend to choose the taxi company has online booking service	3.67	.748	Agree
I tend to choose the taxi company has a convenience of payment	3.60	.666	Agree
I tend to choose the taxi company has enough taxis on the road	3.30	.826	Feel neutral
Total	3.52	.747	Agree

7) Physical evidence

Table 4.13 reports that the majority of the respondents agreed that I tend to choose the tidy taxi (Mean = 4.07), I tend to choose the taxi is offered by well-known franchise brand (Mean = 3.67) , I tend to choose the taxi equipped with GPS (Mean = 3.50) and I tend to choose the taxi that offers free WI-FI (Mean = 3.13). Overall physical evidence has an effect on purchasing behavior of Shanghai taxi service customers (Mean = 3.59).

Table 4.13: Descriptive Results of Physical evidence

Items	Mean	Std. Deviation	Level of Agreement
I tend to choose the tidy taxi	4.07	.514	Agree
I tend to choose the taxi that offers free WI-FI	3.13	.995	Feel neutral
I tend to choose the taxi equipped with GPS	3.50	.622	Agree
I tend to choose the taxi is offered by well-known franchise brand	3.67	.702	Agree
Total	3.59	.708	Agree

4.1.3 Customer safety concerns

4.1.3.1 Safety concerns (physical)

Table 4.14 reports that the majority of the respondents agreed that I will pay special attention to taxi driver's licenses (Mean = 4.03), I will care whether the taxi has a location tracking system (Mean = 3.47) and I will let the driver take the route recommended by the navigation (Mean = 3.23). Overall safety concerns in physical has an effect on purchasing behavior of Shanghai taxi service customers (Mean = 3.59).

Table 4.14: Descriptive Results of Safety concerns in physical

Items	Mean	Std. Deviation	Level of Agreement
I will pay special attention to taxi driver's licenses	4.03	.798	Agree
I will care whether the taxi has a location tracking system	3.47	.961	Agree
I will let the driver take the route recommended by the navigation	3.23	.923	Feel neutral
Total	3.58	.894	Agree

4.1.3.2 Safety concerns (psychological)

Table 4.15 reports that the majority of the respondents agreed that I will pay attention to license plate number when I take a taxi (Mean = 3.43), I will deliberately choose to sit behind the taxi driver (Mean = 3.30), I will avoid talking to the driver when taking a taxi (Mean = 3.10) and I will call my friends or relatives when I take a taxi (Mean = 2.93). Overall safety concerns in psychological has an effect on purchasing behavior of Shanghai taxi service customers (Mean = 3.19).

Table 4.15: Descriptive Results of Safety concerns in psychological

Items	Mean	Std. Deviation	Level of Agreement
I will pay attention to license plate number when I take a taxi	3.43	.923	Agree
I will avoid talking to the driver when taking a taxi	3.10	.793	Feel neutral
I will call my friends or relatives when I take a taxi	2.93	.775	Feel neutral
I will deliberately choose to sit behind the taxi driver	3.30	.740	Feel neutral
Total	3.19	.808	Feel neutral

4.1.4 Purchase Behavior

The purchasing behavior of respondents can be described as follows:

Table 4.16: Service usage time

Items	Percent
6:00am-12:00am	23.3
12:00am-18:00pm	33.3
18:00pm-24:00pm	30.8
0:00am-6:00am	12.5
Total	100

From the table 4.16, the majority of respondents tended to use the service at 12:00am-18:00pm (33.3%) and 0:00am-6:00am seemed to be the least popular time to use the taxi service (12.5%).

Table 4.17: Usage frequency of the taxi service per month

Items	Percent
0-5 times	27.5
6-10 times	25.8
11-15 times	29.2
More than 15 times	17.5
Total	100

From the table 4.17, the majority of respondents tended to use the service at 11-15 times per month (29.2%) follow by 0-5 times (27.5%) 6-10 times (25.8%) more than 15 times (17.5%).

Table 4.18: Spending amount of taxi service per month

Spending amount (CNY)	Percent
0-200	27.5
201-500	37.5
501-800	18.3
More than 800	16.7
Total	100

From the table 4.18, the majority of respondents tended to spend 201-500 yuan on taxi service per month (37.5%) follow by 0-200 yuan (27.5%) 501-800 yuan (18.3%) more than 800 yuan (16.7%).

Table 4.19: The reason for choosing the taxi service

Items	Percent
Comfortable environment	15
Good service	25.8
Save time	27.5
Without location restrictions	27.5
Other	4.2
Total	100

From the table 4.19, the majority of respondents tended to choose the taxi service because save time and without location restrictions (27.5%) follow by good service (25.8%) comfortable environment (15%) other (4.2%)

Table 4.20: Payment method

Items	Percent
Cash	23.3
Credit card	21.7
Alipay	33.3
WeChat	21.7
Total	100

From the table 4.20, the majority of respondents tended to choose Alipay to pay the taxi bill (33.3%) follow by using cash (23.3%) WeChat and Credit card (21.7%).

4.2 Result of Hypothesis Test

ANOVA test and t-test were used to test hypothesis 1

H1: Customers with different demographic profile will have different purchasing behavior towards taxi service in Shanghai.

Demographic profile was described by the gender, age, status, education level, occupation and income.

Purchasing behavior was measured by the frequency of usage per month and price of spending per month.

This study found a partly support of H1 as follows:

Demographic Profile (gender) and Purchasing Behavior (t-test)

Result from Table 4.21 revealed that equal variances are assumed for means differences between female and male group (Sig.=0.278, p>0.05). Therefore, female and male have different level of the frequency of usage per month. (Sig. 0.039, p < 0.05). Table 4.22 showed that male (Mean=2.6) tends to use taxi more frequent than female (Mean=2.19).

Table 4.21 also revealed that equal variances are not assumed for means differences between female and male group (Sig.=0.005, p<0.05). Therefore, female and male have different level of spending amount per month. (Sig.0.031, p<0.05). Table 4.22 also showed that male (Mean=2.48) tends to spend money in taxi service per month higher than female (Mean=2.06).

Table 4.21: Difference between gender and purchasing behavior

Items		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
The frequency of usage per month	Equal variances assumed	1.189	0.278	2.086	118	0.039*
	Equal variances not assumed			2.061	104.463	0.042
The price of spending per month	Equal variances assumed	8.105	0.005	2.246	118	0.027
	Equal variances not assumed			2.188	97.553	0.031*

*Level of significant α = 0.05

Table 4.22: Difference between gender and purchasing behavior

	Gender	N	Mean	Std. Deviation	Std. Error Mean
The frequency of usage per month	Male	52	2.6	1.107	0.154
	Female	68	2.19	1.011	0.123
The price of spending per month	Male	52	2.48	1.129	0.157
	Female	68	2.06	0.929	0.113

Demographic Profile (age) and Purchasing Behavior (ANOVA test)

Result from testing 4.23 revealed that different age has different level of the frequency of usage per month. (Sig.= 0.015, $p < 0.05$), it also revealed that different age not found has different level of the price of spending per month. (Sig. =0.225, $p> 0.05$)

Table 4.23: Difference between age and purchasing behavior

		df	Mean Square	F	Sig.
The frequency of usage per month	Between Groups	3	3.883	3.626	0.015*
	Within Groups	116	1.071		
The price of spending per month	Between Groups	3	1.567	1.474	0.225
	Within Groups	116	1.063		

*Level of significant $\alpha = 0.05$

Table 4.24 showed that equal variances are not assumed across different age (sig.=0.029, $p<0.05$), so the value of Tamhane test shall be used. Table 4.25 showed

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that the frequency of usage per month of under 20 years old is less than 21-35 years old. (Mean = 2-2.33) the frequency of usage per month of under 20 years old is less than 36-50 years old. (Mean = 2-2.84) and the frequency of usage per month of under 20 years old is less than above 50 years old. (Mean = 2-2.17).

Table 4.24: Difference between age and purchasing behavior

The frequency of usage per month		Levene Statistic	df1	df2	Sig.
	Based on Mean	3.124	3	116	0.029

Table 4.25: Difference between age and purchasing behavior

Tamhane		Age	Mean Difference	Std. Error	Sig.
The frequency of usage per month	Under 20 years old	21-35 years old	-0.33	0.29	0.82
		36-50 years old	-.844*	0.31	0.05
		Above 50 years old	-0.17	0.34	1.00
	21-35 years old	Under 20 years old	0.33	0.29	0.82
		36-50 years old	-0.51	0.22	0.13
		Above 50 years old	0.17	0.27	0.99
	36-50 years old	Under 20 years old	.844*	0.31	0.05
		21-35 years old	0.51	0.22	0.13
		Above 50 years old	0.68	0.29	0.13
	Above 50 years old	Under 20 years old	0.17	0.34	1.00
		21-35 years old	-0.17	0.27	0.99
		36-50 years old	-0.68	0.29	0.13

Demographic Profile (status) and Purchasing Behavior(t-test)

Result from Table 4.26 revealed that equal variances are assumed for means differences between single and married group (Sig.= 0.668, p > 0.05). Therefore, single and married have different level of the frequency of usage per month. (Sig. =0.01, p< 0.05), Table 4.27 showed that married (Mean=2.64) tends to use taxi times per month higher than single (Mean=2.14).

Table 4.26 also revealed that single and married not found have different level of the price of spending per month. (Sig= 0.058, p > 0.05)

Table 4.26: Difference between status and purchasing behavior

Items		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
The frequency of usage per month	Equal variances assumed	0.185	0.668	-2.604	118	0.01*
	Equal variances not assumed			-2.612	115.852	0.01
The price of spending per month	Equal variances assumed	0.117	0.733	-1.913	118	0.058
	Equal variances not assumed			-1.921	116.457	0.057

*Level of significant α = 0.05

Table 4.27: Difference between status and purchasing behavior

	Gender	N	Mean	Std. Deviation	Std. Error Mean
The frequency of usage per month	Single	65	2.14	1.059	0.131
	Married	55	2.64	1.025	0.138

Demographic Profile (education level) and Purchasing Behavior (ANOVA test)

Result from testing 4.28 revealed that different education level has different level of the frequency of usage per month. (Sig.= 0.002, p < 0.05), it also revealed that different education level has different level of the price of spending per month. (Sig. =0.009, p<0.05)

Table 4.28: Difference between education level and purchasing behavior

		df	Mean Square	F	Sig.
The frequency of usage per month	Between Groups	5	4.122	4.077	0.002*
	Within Groups	114	1.011		
The price of spending per month	Between Groups	5	3.184	3.239	0.009*
	Within Groups	114	0.983		

*Level of significant α = 0.05

Table 4.29 showed that equal variances are assumed across educational levels (sig.0.984, p>0.05), so the value of LSD test shall be used. Table 4.30 showed that the frequency of usage per month of Secondary school is less than college school. (Mean = 1.75-2.67) the frequency of usage per month of Secondary school is less than bachelor's degree. (Mean = 1.75-2.61) the frequency of usage per month of

Secondary school is less than master's degree. (Mean = 1.75-2.5) the frequency of usage per month of Secondary school is less than doctoral degree. (Mean = 1.75-3.5)

Table 4.29 also showed that equal variances are not assumed across educational levels (sig.0.033, $p<0.05$), so the value of Tamhane test shall be used. Table 4.31 showed that the price of spending per month of High school is less than college school. (Mean = 1.8-2.54).

Table 4.29: Difference between education level and purchasing behavior

		Levene Statistic	df1	df2	Sig.
The frequency of usage per month	Based on Mean	0.136	5	114	0.984
The price of spending per month	Based on Mean	2.532	5	114	0.033

Table 4.30: Difference between education level and purchasing behavior

LSD		Education level	Mean Difference	Std. Error	Sig.
The frequency of usage per month	Secondary school	High school	-0.14	0.39	0.73
		College school	-.917*	0.41	0.03
		Bachelor's degree	-.856*	0.40	0.03
		Master's degree	-0.75	0.44	0.09
		Doctoral degree	-1.750*	0.62	0.01
	High school	Secondary school	0.14	0.39	0.73
		College school	-.781*	0.27	0.00
		Bachelor's degree	-.720*	0.24	0.00
		Master's degree	-.614*	0.30	0.05
		Doctoral degree	-1.614*	0.53	0.00

			Mean Difference	Std. Error	Sig.
	College school	Secondary school	.917*	0.41	0.03
		High school	.781*	0.27	0.00
		Bachelor's degree	0.06	0.27	0.82
		Master's degree	0.17	0.33	0.61
		Doctoral degree	-0.83	0.54	0.13
	Bachelor's degree	Secondary school	.856*	0.40	0.03
		High school	.720*	0.24	0.00
		College school	-0.06	0.27	0.82
		Master's degree	0.11	0.31	0.73
		Doctoral degree	-0.89	0.53	0.10
	Master's degree	Secondary school	0.75	0.44	0.09
		High school	.614*	0.30	0.05
		College school	-0.17	0.33	0.61
		Bachelor's degree	-0.11	0.31	0.73
		Doctoral degree	-1.00	0.56	0.08
	Doctoral degree	Secondary school	1.750*	0.62	0.01
		High school	1.614*	0.53	0.00
		College school	0.83	0.54	0.13
		Bachelor's degree	0.89	0.53	0.10
		Master's degree	1.00	0.56	0.08

Table 4.31: Difference between education level and purchasing behavior

Tamhane		Education level	Mean Difference	Std. Error	Sig.
The price of spending	Secondary school	High school	0.33	0.57	1.00
		College school	-0.42	0.57	1.00
		Bachelor's degree	-0.24	0.57	1.00
		Master's degree	-0.13	0.60	1.00

per month		Doctoral degree	-1.38	0.74	0.78
	High school	Secondary school	-0.33	0.57	1.00
		College school	-.742[*]	0.23	0.03
		Bachelor's degree	-0.56	0.24	0.27
		Master's degree	-0.45	0.30	0.91
		Doctoral degree	-1.70	0.53	0.42
	College school	Secondary school	0.42	0.57	1.00
		High school	.742[*]	0.23	0.03
		Bachelor's degree	0.18	0.23	1.00
		Master's degree	0.29	0.30	1.00
		Doctoral degree	-0.96	0.53	0.91
	Bachelor's degree	Secondary school	0.24	0.57	1.00
		High school	0.56	0.24	0.27
		College school	-0.18	0.23	1.00
		Master's degree	0.11	0.30	1.00
		Doctoral degree	-1.14	0.53	0.80
	Master's degree	Secondary school	0.13	0.60	1.00
		High school	0.45	0.30	0.91
		College school	-0.29	0.30	1.00
		Bachelor's degree	-0.11	0.30	1.00
		Doctoral degree	-1.25	0.56	0.71
	Doctoral degree	Secondary school	1.38	0.74	0.78
		High school	1.70	0.53	0.42
		College school	0.96	0.53	0.91
		Bachelor's degree	1.14	0.53	0.80
		Master's degree	1.25	0.56	0.71

Demographic Profile (occupation) and Purchasing Behavior (ANOVA test)

Result from testing 4.32 revealed that different occupation has different level of the frequency of usage per month. (Sig.=0.000, p < 0.05), it also revealed that different occupation has different level of the price of spending per month. (Sig. =0.000, p<0.05)

Table 4.32: Difference between occupation and purchasing behavior

		df	Mean Square	F	Sig.
The frequency of usage per month	Between Groups	3	7.908	8.179	0.000*
	Within Groups	116	0.967		
The price of spending per month	Between Groups	3	7.048	7.651	0.000*
	Within Groups	116	0.921		

*Level of significant α = 0.05

Table 4.33 showed that equal variances are assumed across different occupation (sig.=0.893, p>0.05), so the value of LSD test shall be used. Table 4.34 showed that the frequency of usage per month of working is more than retired. (Mean = 2.88-1.75) the frequency of usage per month of working is more than student. (Mean = 2.88-2.02)

Table 4.33 also showed that equal variances are assumed across different occupation (sig.=0.765, p>0.05), so the value of LSD test shall be used. Table 4.35 showed that the price of spending per month of working is more than retired. (Mean = 2.75-1.88) the price of spending per month of working is more than homemaker. (Mean = 2.75-2.08) the price of spending per month of working is more than student. (Mean = 2.75-1.86)

Table 4.33: Difference between occupation and purchasing behavior

		Levene Statistic	df1	df2	Sig.
The frequency of usage per month	Based on Mean	0.204	3	116	0.893
The price of spending per month	Based on Mean	0.384	3	116	0.765

Table 4.34: Difference between occupation and purchasing behavior

LSD		Occupation	Mean Difference	Std. Error	Sig.
The frequency of usage per month	Working	Retired	1.125*	0.28	0.00
		Homemaker	0.46	0.32	0.15
		Student	.852*	0.21	0.00
	Retired	Working	-1.125*	0.28	0.00
		Homemaker	-0.67	0.38	0.08
		Student	-0.27	0.29	0.34
	Homemaker	Working	-0.46	0.32	0.15
		Retired	0.67	0.38	0.08
		Student	0.39	0.32	0.22
	Student	Working	-.852*	0.21	0.00
		Retired	0.27	0.29	0.34
		Homemaker	-0.39	0.32	0.22

Table 4.35: Difference between occupation and purchasing behavior

LSD		Occupation	Mean Difference	Std. Error	Sig.
The price of	Working	Retired	.875*	0.28	0.00
		Homemaker	.667*	0.31	0.03

spending per month		Student	.886*	0.20	0.00
	Retired	Working	-.875*	0.28	0.00
		Homemaker	-0.21	0.37	0.57
		Student	0.01	0.28	0.97
	Homemaker	Working	-.667*	0.31	0.03
		Retired	0.21	0.37	0.57
		Student	0.22	0.31	0.48
	Student	Working	-.886*	0.20	0.00
		Retired	-0.01	0.28	0.97
		Homemaker	-0.22	0.31	0.48

Demographic Profile (income) and Purchasing Behavior (ANOVA test)

Result from testing 4.36 revealed that different income has different level of the frequency of usage per month. (Sig. =0.00, p< 0.05), it also revealed that different income has different level of the price of spending per month. (Sig.= 0.02, p<0.05)

Table 4.36: Difference between income and purchasing behavior

		df	Mean Square	F	Sig.
The frequency of usage per month	Between Groups	3	6.424	6.392	0.000*
	Within Groups	116	1.005		
The price of spending per month	Between Groups	3	3.45	3.401	0.020*
	Within Groups	116	1.014		

*Level of significant α = 0.05

Table 4.37 showed that equal variances are assumed across different income (sig.=0.43, p>0.05), so the value of LSD test shall be used. Table 4.38 showed that the

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frequency of usage per month of lower than 4,000 is less than 4,001-6,000. (Mean = 1.9-2.39) the frequency of usage per month of lower than 4,000 is less than 6,001-10,000. (Mean = 1.9-2.7) the frequency of usage per month of lower than 4,000 is less than more than 10,000. (Mean = 1.9-3.15)

Table 4.37 also showed that equal variances are assumed across different income (sig.=0.338, p>0.05), so the value of LSD test shall be used. Table 4.39showed that the price of spending per month of lower than 4,000 is less than more than 10,000. (Mean = 1.93-2.92) the price of spending per month of between 4,001-6,000 is less than more than 10,000. (Mean = 2.27-2.92).

Table 4.37: Difference between income and purchasing behavior

		Levene Statistic	df1	df2	Sig.
The frequency of usage per month	Based on Mean	0.928	3	116	0.43
The price of spending per month	Based on Mean	1.135	3	116	0.338

Table 4.38: Difference between income and purchasing behavior

LSD		Income	Mean Difference	Std. Error	Sig.
The frequency of usage per month	Lower than 4,000	4,001-6,000	-.486*	0.22	0.03
		6,001-10,000	-.796*	0.26	0.00
		More than 10,000	-1.254*	0.32	0.00
	4,001-6,000	Lower than 4,000	.486*	0.22	0.03

	Income	Mean Difference	Std. Error	Sig.
	6,001-10,000	-0.31	0.26	0.23
	More than 10,000	-.767*	0.32	0.02
6,001-10,000	Lower than 4,000	.796*	0.26	0.00
	4,001-6,000	0.31	0.26	0.23
	More than 10,000	-0.46	0.35	0.19
More than 10,000	Lower than 4,000	1.254*	0.32	0.00
	4,001-6,000	.767*	0.32	0.02
	6,001-10,000	0.46	0.35	0.19

Table 4.39: Difference between income and purchasing behavior

LSD		Income	Mean Difference	Std. Error	Sig.
The price of spending per month	Lower than 4,000	4,001-6,000	-0.35	0.22	0.12
		6,001-10,000	-0.42	0.26	0.11
		More than 10,000	-.998*	0.32	0.00
	4,001-6,000	Lower than 4,000	0.35	0.22	0.12
		6,001-10,000	-0.08	0.26	0.77
		More than 10,000	-.650*	0.32	0.04
	6,001-10,000	Lower than 4,000	0.42	0.26	0.11
		4,001-6,000	0.08	0.26	0.77
		More than 10,000	-0.58	0.35	0.10
	More than 10,000	Lower than 4,000	.998*	0.32	0.00
		4,001-6,000	.650*	0.32	0.04
		6,001-10,000	0.58	0.35	0.10

Hypothesis 2

Multiple regression analysis was used to test Hypothesis 2

H2: There is an effect of service marketing mix 7P's on purchasing behavior of taxi service's customers in Shanghai.

Service marketing mix (7P''s) was described by product, price, place, promotion, people, process and physical evidence.

Purchasing behavior was measured by the frequency of usage per month, price of spending per month.

Partly support of H2 was found in this study as follows:

Service marketing mix 7P's and the frequency of usage per month

1. Result from testing 4.40 revealed that the frequency of usage per month will be affected by product strategy. (Sig. =.002 < α 0.05) It was also found that the set of the product strategy can explain 10.6% of variance in the frequency of usage per month. (Adjusted R square= .106, p <.05).

2. Result from testing 4.40 revealed that the frequency of usage per month will be affected by price strategy. (Sig. =.000 < α 0.05) It was also found that the set of the price strategy can explain 18.3% of variance in the frequency of usage per month. (Adjusted R square= .183, p <.05).

3. Result from testing 4.40 revealed that the frequency of usage per month will be affected by place strategy. (Sig. =.001 < α 0.05) It was also found that the set of the place strategy can explain 10.9% of variance in the frequency of usage per month. (Adjusted R square= .109, p <.05).

4. Result from testing 4.40 revealed that the frequency of usage per month will be affected by promotion strategy. (Sig. =.000 < α 0.05) It was also found that the set

of the promotion strategy can explain 21.5% of variance in the frequency of usage per month. (Adjusted R square= .215, p <.05).

5. Result from testing 4.40 revealed that the frequency of usage per month will be affected by physical strategy. (Sig. =.000 < α 0.05) It was also found that the set of the physical strategy can explain 15.8% of variance in the frequency of usage per month. (Adjusted R square= .158, p <.05).

Table 4.40: Effect of 7P'S on the frequency of usage per month

	Adjusted R Square	Sig
Product	0.106	0.002*
Price	0.183	0.000*
Place	0.109	0.001*
Promotion	0.215	0.000*
People	0.078	0.060
Process	0.003	0.341
Physical	0.158	0.000*

*Level of significant α = 0.05

The coefficients values 4.41 showed that taxi service quality has positive effect on the frequency of usage per month (Beta = .333, p<.05). The coefficients values 4.41 also showed that book taxi online has positive effect on the frequency of usage per month (Beta = .215, p<.05).

In summary, the set of choose well-known taxi company (p>0.05), the taxi service quality (p<0.05) book taxi online (p<0.05) and choose taxi company that use new car models (p>0.05) can explain 10.6% of variance in the frequency of usage per month (Adjusted R square= .106, p <.05).

Table 4.41: Effect of product strategy on the frequency of usage per month

Product	Beta	t	Sig.
(Constant)		-0.927	0.356
I tend to choose well-known taxi company	0.135	1.346	0.181
I consider about the taxi service quality	0.333	3.479	0.001*
I tend to book taxi online	0.215	2.196	0.03*
I tend to choose taxi company that use new car models	0.078	0.869	0.386

The coefficients values 4.42 showed that select the taxi that offers the cheapest price has positive effect on the frequency of usage per month (Beta = .303, p<.05).

In summary, the set of select the taxi that offers the cheapest price (p<0.05), pay higher price for the better ride experience (p>0.05) pay higher price for the higher quality taxi service (p>0.05) can explain 18.3% of variance in the frequency of usage per month .(Adjusted R square= .183, p <.05).

Table 4.42: Effect of price strategy on the frequency of usage per month

Price	Beta	t	Sig.
(Constant)		3.019	0.003
I often select the taxi that offers the cheapest price	0.303	-2.795	0.006*
I am fine to pay higher price for the better ride experience	0.032	0.334	0.739

I am fine to pay higher price for the higher quality taxi service	0.176	1.596	0.113

The coefficients values 4.43 showed that take the taxi that is available around my workplace has positive effect on the frequency of usage per month (Beta = .376, $p < .05$). In summary, the set of take the taxi that is available around my workplace ($p < 0.05$), take the taxi that is available around the place I stay ($p > 0.05$) take the taxi in the areas that lack of public transportation ($p > 0.05$) can explain 10.9% of variance in the frequency of usage per month .(Adjusted R square= .109, $p < .05$).

Table 4.43: Effect of place strategy on the frequency of usage per month

Place	Beta	t	Sig.
(Constant)		0.401	0.689
I often take the taxi that is available around the place I stay	0.115	1.258	0.211
I often take the taxi in the areas that lack of public transportation.	0.046	0.531	0.596
I often take the taxi that is available around my workplace.	0.376	4.103	0.000*

The coefficients values 4.44 showed that take the taxi that offer promotions has positive effect on the frequency of usage per month (Beta = .41, $p < .05$).

In summary, the set of take the taxi that offer promotions ($p < 0.05$), book the taxi that charges no booking fee ($p > 0.05$) see taxi information from out-of-home advertisement ($p > 0.05$) see the taxi information from online advertising at official websites ($p > 0.05$)

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see the taxi information from online advertising via social media (p>0.05) can explain 21.5% of variance in the frequency of usage per month .(Adjusted R square= .215, p <.05).

Table 4.44: Effect of promotion strategy on the frequency of usage per month

Promotion	Beta	t	Sig.
(Constant)		5.451	0.000
I tend to take the taxi that offer promotions.	0.41	3.779	0.000*
I tend to book the taxi that charges no booking fee.	-0.08	-0.733	0.465
I tend to see taxi information from out-of-home advertisement	0.034	0.367	0.714
I tend to see the taxi information from online advertising at official websites.	0.111	1.203	0.231
I tend to see the taxi information from online advertising via social media e.g. Weibo	0.036	0.445	0.657

The coefficients values 4.45 showed that choose the tidy taxi has positive effect on the frequency of usage per month (Beta = .302, p<.05). The coefficients values 4.45 also showed that choose the taxi that offers free WI-FI has negative effect on the frequency of usage per month (Beta = -.212, p<.05).

In summary, the set of choose the taxi equipped with GPS (p>0.05), choose the tidy taxi (p<0.05) choose the taxi that offers free WI-FI (p<0.05) and choose the taxi is

offered by well-known franchise brand (p>0.05) can explain 15.8% of variance in the frequency of usage per month .(Adjusted R square= .158, p <.05).

Table 4.45: Effect of physical strategy on the frequency of usage per month

Physical	Beta	t	Sig.
(Constant)		-0.216	0.829
I tend to choose the tidy taxi	0.302	3.497	0.001*
I tend to choose the taxi that offers free WI-FI	-0.212	-2.449	0.016*
I tend to choose the taxi equipped with GPS	0.03	0.35	0.727
I tend to choose the taxi is offered by well-known franchise brand	0.104	1.203	0.231

Service marketing mix 7P's and the price of spending per month

1. Result from testing 4.46 revealed that the price of spending per month will be affected by product strategy. (Sig. =.033 < α 0.05) It was also found that the set of the product strategy can explain 8.6% of variance in the price of spending per month. (Adjusted R square= .055, p <.05).

2. Result from testing 4.46 revealed that the price of spending per month will be affected by price strategy. (Sig. =.001 < α 0.05) It was also found that the set of the price strategy can explain 11.1% of variance in the price of spending per month. (Adjusted R square= .111, p <.05).

3. Result from testing 4.46 revealed that the price of spending per month will be affected by place strategy. (Sig. =.002 < α 0.05) It was also found that the set of

the place strategy can explain 10.0% of variance in the price of spending per month. (Adjusted R square= .100, p <.05).

4. Result from testing 4.46 revealed that the price of spending per month will be affected by promotion strategy. (Sig. =.001 < α 0.05) It was also found that the set of the promotion strategy can explain 12.0% of variance in the price of spending per month. (Adjusted R square= .120, p <.05).

5. Result from testing 4.46 revealed that the price of spending per month will be affected by people strategy. (Sig. =.002 < α 0.05) It was also found that the set of the people strategy can explain 10.1% of variance in the price of spending per month. (Adjusted R square= .101, p <.05).

6. Result from testing 4.46 revealed that the price of spending per month will be affected by physical strategy. (Sig. =.001 < α 0.05) It was also found that the set of the physical strategy can explain 12.1% of variance in the price of spending per month. (Adjusted R square= .121, p <.05).

Table 4.46: Effect of 7P'S on the price of spending per month

	Adjusted R Square	Sig
Product	0.055	0.033*
Price	0.111	0.001*
Place	0.100	0.002*
Promotion	0.120	0.001*
People	0.101	0.002*
Process	0.016	0.179
Physical	0.121	0.001*

*Level of significant α = 0.05

The coefficients values 4.47 showed that taxi service quality has positive effect on the price of spending per month (Beta = .237, p<.05).

In summary, the set of choose well-known taxi company (p>0.05), the taxi service quality (p<0.05) book taxi online (p>0.05) choose taxi company that use new car models (p>0.05) can explain 5.5% of variance in the price of spending per month. (Adjusted R square= .055, p <.05).

Table 4.47: Effect of product strategy on the price of spending per month

Product	Beta	t	Sig.
(Constant)		-0.344	0.731
I tend to choose well-known taxi company	0.136	1.318	0.19
I consider about the taxi service quality	0.237	2.409	0.018*
I tend to book taxi online	0.105	1.044	0.299
I tend to choose taxi company that use new car models	0.122	1.321	0.189

The coefficients values 4.48 showed that select the taxi that offers the cheapest price has positive effect on the price of spending per month (Beta = .326, p<.05).

In summary, the set of select the taxi that offers the cheapest price (p<0.05), pay higher price for the better ride experience (p>0.05) pay higher price for the higher quality taxi service (p>0.05) can explain 11.1% of variance in the price of spending per month.(Adjusted R square= .111, p <.05).

Table 4.48: Effect of price strategy on the price of spending per month

Price	Beta	t	Sig.
(Constant)		3.503	0.001
I often select the taxi that offers the cheapest price	0.326	2.881	0.005*
I am fine to pay higher price for the better ride experience	0.005	0.048	0.961
I am fine to pay higher price for the higher quality taxi service	0.056	0.49	0.625

The coefficients values 4.49 showed that take the taxi that is available around my workplace has positive effect on the price of spending per month (Beta = .369, p<.05). In summary, the set of take the taxi that is available around my workplace (p<0.05), take the taxi that is available around the place I stay (p>0.05) take the taxi in the areas that lack of public transportation (p>0.05) can explain 10.0% of variance in the price of spending per month .(Adjusted R square= .100, p <.05).

Table 4.49: Effect of place strategy on the price of spending per month

Place	Beta	t	Sig.
(Constant)		0.822	0.413
I often take the taxi that is available around the place I stay	0.09	0.975	0.332

I often take the taxi in the areas that lack of public transportation.	0.000	0.001	0.999
I often take the taxi that is available around my workplace.	0.369	4.006	0.000*

The coefficients values 4.50 showed that take the taxi that offer promotions has positive effect on the price of spending per month (Beta = .255, p<.05).

In summary, the set of take the taxi that offer promotions (p<0.05), book the taxi that charges no booking fee (p>0.05) see taxi information from out-of-home advertisement (p>0.05) see the taxi information from online advertising at official websites (p>0.05) see the taxi information from online advertising via social media (p>0.05) can explain 12.0% of variance in the price of spending per month.(Adjusted R square= .120, p <.05).

Table 4.50: Effect of promotion strategy on the price of spending per month

Promotion	Beta	t	Sig.
(Constant)		5.35	0.000
I tend to take the taxi that offer promotions.	0.255	2.225	0.028*
I tend to book the taxi that charges no booking fee.	-0.17	-1.465	0.146
I tend to see taxi information from out-of-home advertisement	0.072	0.738	0.462

I tend to see the taxi information from online advertising at official websites.	-0.039	-0.397	0.692
I tend to see the taxi information from online advertising via social media e.g. Weibo	-0.019	-0.225	0.822

The coefficients values 4.51 showed that choose the taxi company has well-known owner has positive effect on the price of spending per month (Beta = .209, p<.05).

In summary, the set of choose the taxi company has well-known owner (p<0.05), choose the taxi company has professional drivers (p>0.05) choose the taxi company has strict service rules (p>0.05) can explain 10.1% of variance in the price of spending per month .(Adjusted R square= .101, p <.05).

Table 4.51: Effect of people strategy on the price of spending per month

People	Beta	t	Sig.
(Constant)		-0.714	0.477
I tend to choose the taxi company has professional drivers.	0.131	1.352	0.179
I tend to choose the taxi company has strict service rules.	0.139	1.474	0.143
I tend to choose the taxi company has well-known owner	0.209	2.271	0.025*

The coefficients values 4.52 showed that choose the tidy taxi has positive effect on the price of spending per month (Beta = .313, p<.05).

In summary, the set of choose the taxi equipped with GPS (p>0.05), choose the tidy taxi (p<0.05) choose the taxi that offers free WI-FI (p>0.05) and choose the taxi is offered by well-known franchise brand (p>0.05) can explain 12.1% of variance in the price of spending per month .(Adjusted R square= .121, p <.05).

Table 4.52: Effect of physical strategy on the price of spending per month

Physical	Beta	t	Sig.
(Constant)		-1.614	0.109
I tend to choose the tidy taxi	0.313	3.545	0.001*
I tend to choose the taxi that offers free WI-FI	-0.013	-0.149	0.882
I tend to choose the taxi equipped with GPS	0.125	1.418	0.159
I tend to choose the taxi is offered by well-known franchise brand	0.129	1.461	0.147

Hypothesis 3

Multiple regression hypothesis was used to test hypothesis 3

H3: There is an effect of safety on purchasing behavior of taxi service's customers in Shanghai.

Purchasing behavior was measured by the frequency of usage per month, price of spending per month.

Partly support of H3 was found in this study as follows:

Safety and Purchasing Behavior

Result from testing 4.53 revealed that the frequency of usage per month will be affected by psychological. (Sig. $=.024 < \alpha$ 0.05) It was also found that the set of the psychological strategy can explain 6.0% of variance in the frequency of usage per month. (Adjusted R square= .060, p <.05).

Table 4.53: Effect of safety on the frequency of usage per month

	Adjusted R Square	Sig
Physical	0.003	0.955
Psychological	0.060	0.024*

*Level of significant α = 0.05

The coefficients values 4.54 showed that choose to sit behind the taxi driver has positive effect on the frequency of usage per month (Beta = .197, p<.05).

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In summary, the set of pay attention to license plate number when I take a taxi (p>0.05) deliberately choose to sit behind the taxi driver (p<0.05) avoid talking to the driver when taking a taxi (p>0.05) call my friends or relatives when I take a taxi (p>0.05) can explain 6.0% of variance in the frequency of usage per month. (Adjusted R square= .060, p <.05).

Table 4.54: Effect of psychological on the frequency of usage per month

Psychological	Beta	t	Sig.
(Constant)		7.525	0.000
I will pay attention to license plate number when I take a taxi	-0.013	-0.134	0.893
I will avoid talking to the driver when taking a taxi	-0.033	-0.264	0.792
I will call my friends or relatives when I take a taxi	-0.145	-1.209	0.229
I will deliberately choose to sit behind the taxi driver	0.193	1.957	0.043*

Result from testing 4.55 revealed that the price of spending per month are not found affected by physical and psychological. (Sig. >0.05)

Table 4.55: Effect of safety on the price of spending per month

	Adjusted R Square	Sig
Physical	0.002	0.968
Psychological	0.04	0.316

Note: Level of significance α = 0.05

In conclusion, this study found a partly support of following hypotheses:

H1*: Customers with different demographic profile will have different purchasing behavior towards taxi service in Shanghai.

H 2*: There is an effect of service marketing mix (7P''s) on the purchasing behavior of taxi service's customers in Shanghai.

H 3*: There is an effect of safety concerns on the purchasing behavior of taxi service's customers in Shanghai.

Remark: partly significant at 0.05

Chapter 5

Conclusion and Recommendations

This study aims to determine the difference between demographic profile and purchasing behavior of taxi service's customers in Shanghai, China. Secondary, to determine the effect of service marketing mix (7Ps) on purchasing behavior of taxi service's customers in Shanghai, China. Finally, to determine the effect of safety concerns on purchasing behavior of taxi service's customers in Shanghai, China.

In conclusion, the respondents are the customers of taxi service in Shanghai. Most of them are female, single, aged between 21-35 years old, high school education. They are mostly working with average monthly income of 4001-6000RMB.

Most of respondents agreed that tending to choose well-known taxi company, considering about the taxi service quality, selecting the taxi that offers the cheapest price, taking the taxi that is available around the place I stay, taking the taxi in the areas that lack of public transportation, tending to take the taxi that offer promotions, tending to book the taxi that charges no booking fee, tending to see the taxi information from online advertising, tending to choose the taxi company has professional drivers, tending to choose the taxi company has strict service rules, tending to choose the taxi company has well-known owner, tending to choose the taxi company has online booking service, tending to choose the taxi company has a convenience of payment, tending to choose the tidy taxi, tend to choose the taxi equipped with GPS and tending to choose the taxi is offered by well-known franchise brand.

Then most of respondents agreed that they will pay special attention to taxi driver's licenses, they will care whether the taxi has a location tracking system and they will pay attention to license plate number.

Most of the taxi service's customers in Shanghai will use taxi service during 12:00am-18:00pm. The usage frequency of the respondents were 11-15 times per month with the spending budget of 201-500RMB. The majority of respondents tended to choose the taxi service because save time and without location restrictions. Most of them tend to spend the money by using Alipay.

This leads to development of conceptual framework of the study (see Figure 1.1) and the following hypothesis:

H1: Customers with different demographic profile will have different purchasing behavior towards taxi service in Shanghai.

H 2: There is an effect of service marketing mix (7P"s) on the purchasing behavior of taxi service's customers in Shanghai.

H 3: There is an effect of safety concerns on the purchasing behavior of taxi service's customers in Shanghai.

Note: *Partial support at significant level of 0.05

5.1 Discussion

This research study aimed to determine the difference between demographic profile and purchasing behavior of taxi service's customers in Shanghai and to determine the effect of service marketing mix (7Ps) and the safety concerns on purchasing behavior of taxi service's customers in Shanghai. Some of research findings can be discussed as follows:

With regard to hypothesis 1, the study found that young people age between 21-35 are more inclined to use taxis, and the income of taxi customers are generally not high. This is the same as the results of Khaled Shaaban (2016), but the study found that married people in Shanghai are more likely to use taxi services than single, which is different from the results of the test and may be related to the different consumption habits of consumers in different places.

At the same time, consumers with different gender, age, status, education level, occupation, and monthly income are found have different purchasing behaviors in service usage time, usage frequency of the taxi service per month, spending amount of taxi service per month, the reason for choosing the taxi service and payment methods. These findings are basically consistent with the conclusions drawn by Natapong Techarattanased (2015) on the buying behavior of Bangkok taxi consumers. He found that consumers with different gender, education level and monthly income have different service usage behaviors in the usage frequency of the taxi service per month.

With regard to hypothesis 2, the study found that product, price, place, promotion and physical affect the frequency of usage per month for taxi consumers. Secondly, product, price, place, promotion, people and physical affect the price of spending per month. Among them, consumers pay special attention to the level of service quality, the convenience of taking taxis, the level of prices, special preferential activities, the hygiene of taxis and the popularity of taxi companies. These factors together affect the purchasing behavior of taxi consumers.

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With regard to hypothesis 3, the study found that safety concerns affect the frequency of usage per month, it is basically the same as the results of Emmanuel Nondzor Horsu (2015). Consumers basically do not worry about the safety of taxis, which exposes the weak safety awareness of Shanghai taxi consumers. Consumers should remain vigilant to protect the safety of their lives and property. At the same time, taxi managers should cherish the trust from consumers, and strictly manage and restrict the behavior of drivers, so that consumers can be more assured of taxi safety.

5.2 Implication of the study

1. From the study, the respondents are the customers of taxi service in Shanghai. Most of them are female, single, aged between 21-35 years old, high school education. They are mostly working with average monthly income of 4001-6000RMB. Therefore, how to attract higher-income and higher-educated consumers has become the direction for decision makers in the future. Whether it can provide models suitable for high-end users or provide new forms of services.

2. Users are more interested in taxis and companies that do not have booking fees and provide more discounts. Therefore, how corporate decision makers can use discounts to get more customers in the future has become the direction of corporate consideration.

3. Service quality has always been the focus of consumers, and corporate decision-makers should improve corporate management and restrain taxi drivers' behavior. Communicating with consumers more actively, exchanging user experience, and understanding the true thoughts of users will help to improve the quality of service.

4. Although most consumers are not worried about the safety of taxis, business managers cannot ignore this problem. Only companies that put service safety first can reap the hearts of more consumers. With the advancement and development

of technology, more advanced equipment will be used in taxis, and it is believed that taxi services will become more and more secure in the future.

In short, this result may benefit Shanghai's taxi companies, taxi drivers and taxi consumers. They can be used as guidelines to improve its marketing strategy to better capture the rapid changes in the Shanghai taxi market

5.3 Future study

The limitations of this study still leave the room for future studies in this area as follow;

1. The future study may replicate this study and extend sampling frame to other cities in different county. The larger sample size may help to increase the explanation power of the finding.
2. Another avenue for future study is to conduct a comparative study, comparing the factor affecting purchasing behavior of customers in different public transportation service, such as bus, subway.
3. Other recommendation for future study is branding affecting purchasing behavior of customer select the taxi services in Shanghai.

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APPENDIX A

Questionnaire

Factors affecting the purchasing behavior of taxi service customers in Shanghai, PRC

This questionnaire is a partial fulfillment of the degree of Master of Business Administration concentration in Integrated Marketing Communications, College of Innovative Business and Accountancy – International Program, Dhurakij Pundit University. The data collect through these questions will be used to identify the Factors affecting the purchasing behavior of taxi service customers in Shanghai the information obtained will be kept confidential and used for academic study only.

Remark: This questionnaire has 4 parts:

Part 1 Demographic profile

Part 2 Service marketing mix (7ps)

Part 3 Taxi safety concerns

Part 4 Purchasing behavior of taxi customers

Thank you very much for your kind assistance
GUJIAHUI
Email: 625151030009@dpu.ac.th

Instruction: Please mark [X] in the answer that most applicable to you.

Part 1: Demographic Profile

1. Gender
   [   ] 1. Male   [   ] 2. Female

2. Age

[ ] 1.under20years old   [ ]2. 20-35 years old

[ ] 3. 36-50years old   [ ] 4.above50years old

3. What is your marital status?

[ ] 1. Single   [ ] 2. Married

4. Your Education Level

[ ] 1. Secondary School   [ ] 2. High School

[ ]3.College degree.   [ ] 4. Bachelor degree

[ ] 5. Master degree   [ ] 6. Doctoral degree

5. What is your occupation?

[ ] 1. Working   [ ] 2. Retired

[ ] 3. Homemaker   [ ] 4.Student

[ ] 4.others

6. Your average income per month

[ ] 1. Lower than 4,000 CNY   [ ] 2. 4,001-6,000 CNY

[ ] 3. 6,001-10,000 CNY   [ ] 4. More than 10,000 CNY

Part 2 Service marketing mix (7ps)

Instruction: Please mark ⊠ on the number that mostly describes your level of agreement to

the below statements using the scale:

5 = Strongly agree with the statement

4 = Agree with the statement

3 = Feel neutral with the statement

2 = Disagree with the statement

1 = Strongly disagree with the statement

Possible Factors in term of Service Marketing Mix (7Ps)	Level of Agreement				
	5	4	3	2	1
Product					
1. I tend to choose a well-known taxi company.	5	4	3	2	1

	5	4	3	2	1
2. I consider about the taxi service quality.	5	4	3	2	1
3. I tend to book taxi online	5	4	3	2	1
4.I tend to choose taxi company that use new car models.	5	4	3	2	1
Price					
1. I often select the taxi that offers the cheapest price.	5	4	3	2	1
2. I am fine to pay higher price for the better ride experience.	5	4	3	2	1
3. .I am fine to pay higher price for the higher quality taxi service.	5	4	3	2	1
Place					
1. I often take the taxi that is available around the place I stay.	5	4	3	2	1
2. I often take the taxi in the areas that lack of public transportation.	5	4	3	2	1
3. I often take the taxi that is available around my workplace.	5	4	3	2	1
Promotion					
1. I tend to take the taxi that offer promotions.	5	4	3	2	1
2.I tend to book the taxi that charges no booking fee.	5	4	3	2	1
3.I tend to see taxi information from out-of-home advertisement e.g. billboard	5	4	3	2	1
4.I tend to see the taxi information from online advertising at official websites.	5	4	3	2	1
5.I tend to see the taxi information from online advertising via social media e.g. Weibo	5	4	3	2	1
People					
1.I tend to choose the taxi company has professional drivers.	5	4	3	2	1
2.I tend to choose the taxi company has strict service rules.	5	4	3	2	1
3.I tend to choose the taxi company has well-known owner	5	4	3	2	1
Process					

	5	4	3	2	1
1. I tend to choose the taxi company that has online booking service	5	4	3	2	1
2. I tend to choose the taxi company that has a convenience of payment e.g. WeChat pay	5	4	3	2	1
3. I tend to choose the taxi company that has enough taxis on the road.	5	4	3	2	1

Physical evidence

	5	4	3	2	1
1. I tend to choose the tidy taxi e.g. cleanliness, hygiene	5	4	3	2	1
2. I tend to choose the taxi that offers free Wi-Fi.	5	4	3	2	1
3. I tend to choose the taxi equipped with GPS.	5	4	3	2	1
4. I tend to choose the taxi is offered by well-known franchise brand e.g. DAZHONG QIANGSHENG	5	4	3	2	1

Part 3 Taxi safety concerns

Instruction: Please mark ☒ on the number that mostly describes your level of agreement to

the below statements using the scale:

    5 = Strongly agree with the statement

    4 = Agree with the statement

    3 = Feel neutral with the statement

    2 = Disagree with the statement

    1 = Strongly disagree with the statement

Safety concerns

Physical

	5	4	3	2	1
1. I will pay special attention to taxi driver's licenses.	5	4	3	2	1
2. I will care whether the taxi has a location tracking system.	5	4	3	2	1
3. I will let the driver take the route recommended by the navigation	5	4	3	2	1

Psychological

1. I will pay attention to the license plate number when I take a taxi.	5	4	3	2	1
2. I will avoid talking to the driver when taking a taxi.	5	4	3	2	1
3. I will call my friends or relatives when I take a taxi.	5	4	3	2	1
4. I will deliberately choose to sit behind the taxi driver.	5	4	3	2	1

Part 4 Purchasing behavior of taxi service customer's in Shanghai

1. What time do you mostly use taxi service?
   [   ] 1. 6:00Am~12:00Am   [   ] 2. After12:00Am~18:00Pm
   [   ] 3. After18:00Pm~24:00Pm   [   ] 4. After0:00Am~6:00Am

2. How many times do you use the taxi service per month?

   [   ] 1.0-5 times   [   ]2. 6-10 times

   [   ] 3. 11-15 times   [   ] 4.more than 15 times

3. How much do you spend on taxi service per month?

   [   ] 1. 0-200 yuan   [   ] 2. 201-500 yuan

   [   ] 3. 501-800yuan   [   ] 4. More than 800 yuan

4. Why do choose taxi service?

   [   ] 1. Comfortable environment   [   ] 2. Good service

   [   ] 3. Save time.   [   ] 4. Without location restrictions

   [   ] 5. Other

5. How do you mostly pay in taxi service?

   [   ] 1. Cash   [   ] 2. Credit card

   [   ] 3. Alipay   [   ] 4. WeChat

_____

Thank you very much for your time!