

Factors influencing customer satisfaction and brand loyalty of top 5 express delivery service in China

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Abstract

The purpose of the study was to investigate the effect of service quality and brand image on customer satisfaction, and the effect of customer satisfaction on brand loyalty of Top 5 express delivery service in China. Taobao merchant in China were respondents. There were 400 qualified questionnaires were used in this analysis. The personal data is analyzed with descriptive statistic analysis and crosstabs analysis. The data is analyzed with mean and standard deviation analysis. The multiple regressions analysis are used to examine the postulated hypothesis. The finding indicated both service quality and brand image had direct positive effect on customer satisfaction, and customer satisfaction had direct positive effect on brand loyalty of Top 5 express delivery service in China. If they plan to improve service quality or brand image, it would be more beneficial to enhance customer satisfaction and brand loyalty. Therefore, this research could be useful information for express delivery service companies managers in an environment of keen competition.

Keywords: Express delivery service, Service quality, Brand image, Customer satisfaction, Brand loyalty



Introduction

Express industry is a new industry born in United States in late 1960s. It provided documents' and goods' delivery service through the network, mostly in the form of practical delivery, with its nature tend to material flow, close to transportation and modern logistics. Express industry is the product of market economy development and highly developed modern productive forces. With technological progress and social division of labour deepening, express industry has developed into an independent industry. The purpose of express industry is to meet the personalized needs on the basis of market competition. Express industry provides additional personalized services and implements differentiating and competitive pricing policies (Zhao Jing, 2012).

In 2014, China surpassed the United States to become the world's largest express delivery country for the first time in terms of workload. Since 2015, the industry has continued to maintain a rapid growth trend. From January to May in 2015, Chinese express delivery enterprises completed deliveries of 6.81 billion mails and parcels, jumping by 42.7% year on year. Revenue from these deliveries footed up to RMB96.95 billion, up 31.9% year on year. Wherein, revenue generated by intra-city business reached RMB13.63 billion, climbing by 51.1% year on year; the inter-

city business revenue hit RMB53.29 billion, presenting a year-on-year rise of 30.2%; the revenue from the business with foreign countries, Hong Kong, Macao and Taiwan increased by 17.5% year on year to RMB14.04 billion (reportlinker).

In addition, although the volume of business is the number one in the world, an embarrassing fact can not be ignored: The sum of annual revenues from various Chinese express delivery companies still cannot compare to one of the UPS, FedEx or other foreign express delivery giants. Domestic express delivery business in terms of fixed asset size, degree of information technology, human resource level are also relatively backward (chinabgao). In 2013, major express delivery companies have maintained good momentum. Among the 20 main express delivery brands countrywide, business volume of the top ten companies are EMS, SF, STO, YTO, ZTO, YUNDA, TTK, BEST, ZJS, GTO. Their total business volume compared to the total of express business volume amounted to 87%. In year 2015 China's express delivery service satisfaction rankings, the top 5 express deliveries are ranked as follow: SF, ZTO, YTO, STO and EMS. (56lem.com). These 5 express delivery companies are China's top representative of express delivery service companies. However, the research has focused on factors influencing customer satisfaction and brand loyalty of Top 5 express delivery service in China.



Objectives of the study

1. To study the effect of service quality on customer satisfaction of Top 5 Express delivery Service in China.
2. To study the effect of brand image on customer satisfaction of Top 5 Express delivery Service in China.
3. To study the effect of customer satisfaction on the brand loyalty of Top 5 Express delivery Service in China.

Literature review

Service quality

Lehtinen believes that service quality is a subjective concept. When consumers evaluate a service at the start before they accept it, they will develop an expectation on the service. If the service is able to achieve this expectation, a feeling of satisfaction will be generated. Otherwise, it will generate discontent. When consumers develop their standards in service, they actually compare service with a practical situation, compare the two, and evaluate the standard of service quality. He also differentiates services into two aspects, namely the process and outcome, and assess the different effects of these two aspects on consumer perception. His research also have had a profound impact on the later scholars who have adopted his views. It is also due to the results of his

research and this point of view, that common product quality product sales differentiated the quality of service in the field of marketing services. (Lehtinen, 1982).

Brady and Cronin (2001) developed a multi-level, multi-dimensional service quality model. In this model, the dimensions of service quality comprised of process quality, physical environment quality and outcome quality composition. Among them, the process quality of service quality, namely service staff's attitude, behavior and professionalism of service delivery process, had the greatest impact on customer to measure service quality.

Service Remedy is the best way to save the service failure and it is built on the basis of service failures. In an event of service failures by express delivery companies such as delivery errors, damage, loss. etc, service remedy should take effective measures to alleviate the negative effects that may occur. Service remedy refers to in the course of providing services to customers by service employees. A prosthetic and save behaviour occurs when customers complaint in an event of service failures. Appropriate and timely remedies, sincere service, proactive service remedy behaviour can be adopted to reduce customer dissatisfaction, effectively resolve conflicts and avoid service crisis. These measures will lead to customer satisfaction and loyalty, establish a strong



corporate image and thus enhance the prestige of these companies. (Chao Wang, Lijie Yang and Yisheng Liu, 2012)

In this study, according to the process of service occurred and combined with the related research literature review by international scholars of the service quality and logistics service quality, the service quality of express enterprises are divided into three dimensions: service process quality, service outcome quality and service remedy quality.

Brand image

Research on definition of brand image begun in the 1950s. In 1955, Gardner and Levy proposed the concept of brand image in their classic article. In the article, they think the brand image is an important concept in marketing, which have a significant impact on consumers' purchasing decisions (Gardner and Levy, 1955). But this definition of brand image has not yet been agreed in the academic field (Dobni & Zinkhan, 1990). Brand image is the consumer's feelings or impressions to the brand's general characteristics (Jain & Etgar, 1976). Brand image is the people's perception of the brand (Bullmore, 1984). The concept of the image can be applied to the product as it not just describes the features or quality of the product, but also the overall impression of actual product in other people's minds (Dichter, 1985). Brand

image is not just a perception phenomenon that is generated through the company's communications activities. It is the brand understanding that consumer refined from all the activities that the company participate in which they associated with. The image is the perception generated by marketer's administration to the brand, in theory any product will be able to position as functional, symbolic or empirical image (Park, 1986). Brand image is the consumer's rational or sensuous perception for a particular product (Dobni & Zinkhan, 1990). Brand image is the brand perception produced by the memory of the consumer about brand's association. It is one of the constituent elements of brand equity, reflecting the value of the product in the minds of consumers (Keller, 1993). Brand image is a set of attributes and association when the consumers think of the brand name (Biel, 1993). Brand is the consumer's perception of the overall brand, which is an important part of consumer's information processing (Blawatt, 1995).

Park divided the properties of brand and image into three types: functional, symbolic and emotional. These two concepts are combined and it can be considered that in his opinion the brand image has three dimensions, namely, functional attributes, symbolic attributes and emotional attributes among which, the functional attributes related to the specific needs of customers, focused on



emphasizing the use value that provided by the product or the services, symbolically attributes refers to meet the customers' demand on their self-improvement, the role of status, group memberships, self-identity, and other aspects of demand. Experience attributes refers to meeting the consumers' demand of approaching or exceeding expectations, such as diversity, irritation, etc. (Park, 1986)

In this study, service brand image considered consist of functional, emotional and symbolic factors.

Customer satisfaction

As an early researcher on customers' satisfaction in traditional areas, Oliver (1980) proposed the theory of "expectation inconformity", which is the customers' feel of satisfaction when the services actual performances are beyond their expectations. On the other hand, when the services actual performances fall under their expectations, customers will feel dissatisfied. During the last decade, satisfaction has been considered as one of the most important theoretical as well as practical issues for most marketers and customer researchers (Jamal, 2004). Kotler and Keller (2006) proposed that, "satisfaction is a personal feeling of satisfaction or dissatisfaction resulting from comparing service performances in relation to his or her expectation."

Brand loyalty

In 1923, the concept of brand loyalty was first proposed by Copeland. In later studies, different definitions were given by different scholars. For example, Jacoby (1978) defines brand loyalty as a tendentious (not random) behavioral response (purchase). This definition undertakes the form of consumers always choosing one or a few brands among numerous of them after a long time.

Baldinger and Rubinson (1996) points out that the brand loyalty should include two dimensions, namely attitude loyalty and behavior loyalty. The single view of attitude has no sufficient understanding of brand loyalty. Behavior loyalty and attitude loyalty should be combined, namely the complex loyalty theory. Later, scholars added time and process factors on the basis of composite loyalty. Combined with the related research literature review of brand loyalty, in this study, divide the brand loyalty in into two dimensions: attitude loyalty and behaviour loyalty.

Conceptual framework

The conceptual framework in this study was modified from the conceptual framework of Brady and Cronin (2001), Chao Wang, Lijie Yang and Yisheng Liu (2012), Park (1986), Wang, Zhang Zhen, Tian Maoli (2007), Baldinger and Rubinson (1996). The independent

variables were service quality and brand image. The dependent variables were customer satisfaction and brand loyalty. All independent variable was drawn into

the conceptual framework of this study together with the dependent variable, so the conceptual framework of this study was presented in the following model:

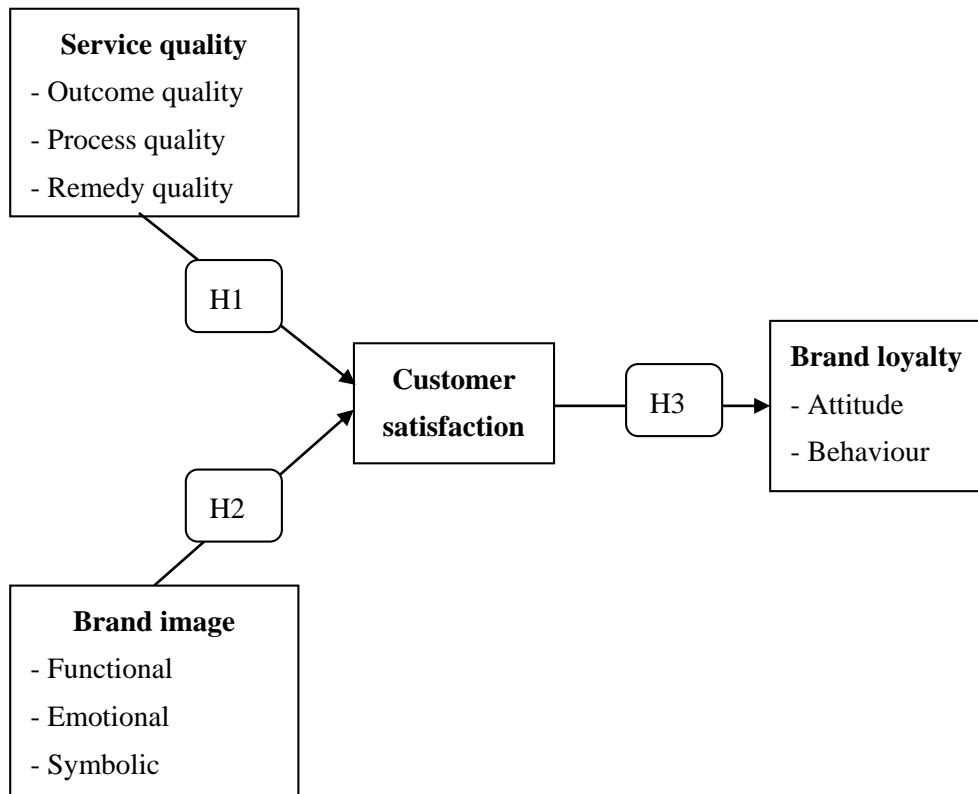


Figure 1 Conceptual frameworks

Hypothesis

This study seeks to find the answers for the following research questions;

Q1: How is the service quality effect on customer satisfaction of Top 5 Express delivery Service in China?

Q2: How is the brand image effect on customer satisfaction of Top 5 Express delivery Service in China?

Q3: How is the customer satisfaction effect on the brand loyalty of Top 5 Express delivery Service in China?

The answer the mentioned questions, the



following hypothesis are set;

Hypothesis 1: Service quality has positive affect on customer satisfaction.

Hypothesis 2: Brand image has positive affect on customer satisfaction.

Hypothesis 3: Customer satisfaction has positive affect on brand loyalty.

Methodology

$$n = \frac{N}{1 + N (e)^2}$$

When e = deviation of random sampling

N = number of population unit

N = size of sampling population

Set sampling deviation to 0.05 therefore

$$n = 6000000 / [1 + 6000000 (0.05)^2]$$
$$= 399.973$$

$$N = 399.973 \text{ rounded up to } 400$$

Consequently, the sample size comes to 400 respondents

Research instrument

In this study, the research instrument to collect data is the questionnaire. It composes of two parts:

Part 1: This part gains the information of the respondent. There are 8 questions,

Sampling design

The population examines factors influencing customer satisfaction and brand loyalty of private express service in China. The total number of Taobao merchants in China are about 6000000 (digi.163.com), and the number of samples are calculated based on the from the number of population using the formula of Yamane (1973).

including the gender, age, education level, income/per month, online store ages (year), sales quantity/per month (piece), name of the express delivery company and type of products.

Part 2: Constructs and questions included in the questionnaire. The second part is



related to the service quality, brand image, customer satisfaction and brand loyalty. There were 38 questions in this part.

Data collection

Data for this research is collected through questionnaires from May 2015. 400 questionnaires are collected by random sampling from Taobao merchants. The 100 questionnaires are collected by interviewing the store owners on Taobao or not. The 100 questionnaires are collected from the shop owner who was doing business on Taobao in general shops in Nanning, China. The 300 questionnaires survey methodology is to communicate with Taobao merchants through Aliwangwang software, by requesting them to visit specific web pages to investigate or sending the questionnaire via e-mail to investigate. Aliwangwang is a free online business communication software, which allows buyers and sellers to communicate through text and voice communication online. The questionnaire will then be translated into Chinese language.

Data analysis

Five point Likert scale is one of the most reliable measurement scales and it is very popular. This scale is applied to the present study. Interval with five point scale is calculated using the following formula,

$$(5-1)/5=0.80$$

Based on the above calculation, the scores fall between the ranges of:

4.21-5.00 is considered as strongly agree

3.41-4.20 is considered as agree

2.61-3.40 is considered as neutral

1.81-2.60 is considered as disagree

1.00-1.80 is considered as strongly disagree

In the data analysis part of this study, In part 1, the personal data is collected and analyzed with descriptive statistic analysis and crosstabs analysis. In part 2, the reliability test is conducted to evaluate the items of each variable. The data is analyzed with mean and standard deviation analysis. The multiple regressions analysis are used to examine the postulated hypothesis.

Pre- test of research instrument

The pretest will present if the survey instruments are easy to understand for the respondents by evaluating the reliability of the instrument.

The reliability test is a process to indicate the correlation items in each set variables. Cronbach's alpha coefficient is the most common tool for internal consistency and reliability coefficient. Hence, Cronbach's alpha coefficient was used to measure the reliability test in this study. The cut-off



level of Cronbach’s alpha should be at least 0.7 or higher 0.7 to obtain an adequate scale, and many researchers require a higher cut-off level of 0.8 to be considered as a “good scale” (Cronbach, 1951).

Therefore, the researcher was chosen 30 samples to do the pretest before testing all the 400 samples. The results of the coefficients calculated by using Cronbach’s alpha score are shown as follows:

Table 1 Reliability test using Cronbach’s alpha

| Variable | Pre-test | Actual |
|------------------------------|-----------------|---------------|
| Service quality | | |
| Outcome Service | 0.799 | 0.737 |
| Process Service | 0.716 | 0.746 |
| Remedy Service | 0.892 | 0.832 |
| Brand image | | |
| Functional | 0.808 | 0.722 |
| Emotional | 0.884 | 0.750 |
| Symbolic | 0.870 | 0.820 |
| Customer satisfaction | 0.737 | 0.780 |
| Brand loyalty | | |
| Behavioural | 0.782 | 0.810 |
| Attitudinal | 0.715 | 0.786 |

The reliability score is used for every variable in the questionnaire. If the value equal or more than 0.7 score, it means the

question has reliability or respect. Hence, all the pre-test values and actual values of all variables are more than 0.7.

Results

Table 2 Level of agreement

| Description | Mean | S.D | Level of agreement |
|------------------------------|--------|--------|--------------------|
| Service quality | 3.8577 | .46606 | Agree |
| Outcome quality | 3.8475 | .60759 | Agree |
| Process quality | 3.8688 | .57241 | Agree |
| Remedy quality | 3.8590 | .69781 | Agree |
| Brand image | 3.7428 | .50052 | Agree |
| Functional | 3.8195 | .54485 | Agree |
| Emotional | 3.7170 | .56294 | Agree |
| Symbolic | 3.6920 | .70922 | Agree |
| Customer satisfaction | 4.0425 | .64512 | Agree |
| Brand loyalty | 3.8646 | .61160 | Agree |
| Behavioural loyalty | 3.9733 | .71376 | Agree |
| Attitude loyalty | 3.7558 | .68569 | Agree |

From the table 2, Outcome quality had a mean of 3.8475 and standard deviation of 0.60759, which was considered as agreeable level. Process quality had a mean of 3.8688 and standard deviation of 0.57241, which was considered as agreeable level. Remedy quality had a mean of 3.8590 and standard deviation of 0.69781, which was considered as agreeable level. For the brand image, functional had a mean of 3.8195 and standard deviation of 0.54485, which was considered as agreeable level. Emotional

had a mean of 3.7170 and standard deviation of 0.56294, which was considered as agreeable level. Symbolic had a mean of 3.6920 and standard deviation of 0.70922, which was considered as agreeable level. The customer satisfaction had a mean of 4.0425 and standard deviation of 0.64512, which was considered as agreeable level. For the brand loyalty, behavioural loyalty had a mean of 3.9733 and standard deviation of 0.71376, which was considered as agreeable level. Attitude loyalty had a



mean of 3.7558 and standard deviation of 0.68569, which was considered as agreeable level.

Analysis of the influence between service quality factors and customer satisfaction by multiple regressions.

H1: Service quality has positive affect to customer satisfaction.

Table 3 Model summary of the service quality

| Model | R | R square | Adjusted square | R Std. Error of the estimate | F | Sig. |
|-------|-------|----------|-----------------|------------------------------|--------|-------|
| 1 | .531a | .282 | .277 | .54868 | 51.865 | .000a |

Predictors: (Constant), Service quality (Outcome quality, Process quality, Remedy quality)
 Dependent Variable: Customer satisfaction
 Significant level = 0.05

According to the Table 3, the relationship between service quality and customer satisfaction, considered with R Square, is 0.282. It means that the service quality factors can explain 28.2% of change of the dependent variable (customer satisfaction). Considering that Adjusted R Square value is 0.277, hence service quality factors and customer satisfaction has a strong

relationship about 27.7%. In addition, we also considered that the Sig. value is .000^a which is lower than the level of significance or the alpha level ($\alpha=0.05$) for the hypothesis test. Hence, hypothesis 1 is supported, which proves that service quality has positive affect to customer satisfaction.

Table 3.1 ANOVA of the service quality

| Model | | Sum of squares | df | Mean square | F | Sig. |
|-------|------------|----------------|-----|-------------|-------|------|
| 1 | Regression | 54.793 | 34 | 1.612 | 5.287 | .000 |
| | Residual | 111.262 | 365 | .305 | | |
| | Total | 166.055 | 399 | | | |

- a. Predictors: (Constant),Service quality (Outcome quality, Process quality, Remedy quality)
 - b. Dependent Variable: Customer satisfaction
- Significant level = 0.05



From the table 3.1 showed that the F values of ANOVA analysis is equal to 5.287 and the significant level was 0.000 which was less than the significant level of 0.05. it

means that there was significant relationship between service quality and customer satisfaction.

Table 3.2 Result of hypothesis the influence between service quality factors and customer satisfaction

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-----------------------|-----------------------------|-------------|---------------------------|--------------|-------------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 1.410 | .233 | | 6.062 | .000 |
| Outcome quality | .135 | .048 | .127 | 2.785 | .006 |
| Process quality | .195 | .056 | .173 | 3.498 | .001 |
| Remedy quality | .352 | .044 | .381 | 8.078 | .000 |

Dependent Variable: Customer satisfaction
Significant level = 0.05

From the Table 3.2, The Sig. value of Outcome quality Process quality, and Remedy quality is lower than the level of significant or the alpha level ($\alpha=0.05$) for the hypothesis test. In addition, considering the value of Coefficients Beta, Remedy quality factor has the most strongly relationship with customer satisfaction at about 38.1%. The second strongest relationship is Process factor about 17.3% and the third factor is Outcome quality, which is 12.7%. All of three factors (Outcome quality, Process quality, and Remedy quality) will affect customer satisfaction.

The reasonable multiple regression equation for Customer satisfaction is

$$\text{Customer Satisfaction} = 1.410 + 0.135 (\text{Outcome quality}) + 0.195 (\text{Process quality}) + 0.352 (\text{Remedy quality})$$

Analysis of the influence between brand image factors and customer satisfaction by multiple regressions.

H2: brand image has positive affect to customer satisfaction.



Table 4 Model summary of the brand image

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | F | Sig. |
|-------|-------|----------|-------------------|----------------------------|--------|-------|
| 1 | .524a | .274 | .269 | .55166 | 49.880 | .000a |

Predictors: (Constant), Brand image (Functional, Emotional, Symbolic)

Dependent Variable: Customer satisfaction

Significant level = 0.05

Regarding to the regression analysis from the Table 4, the relationship between brand image and customer satisfaction, considered with R Square, is 0.274. It means that the brand image factors can explain 27.4% of change for the dependent variable (customer satisfaction), and this is considered with Adjusted R Square value of 0.269. Hence, brand image factors and

customer satisfaction has a strong relationship about 26.9%. In addition, the Sig. value is .000^a which is lower than the level of significance or the alpha level ($\alpha=0.05$) for the hypothesis test. Hence, hypothesis 2 is supported, which proves that brand image has positive affect to customer satisfaction.

Table 4.1 ANOVA of the brand image

| Model | Sum of squares | df | Mean square | F | Sig. |
|--------------|----------------|-----|-------------|-------|------|
| 1 Regression | 61.918 | 38 | 1.629 | 5.649 | .000 |
| Residual | 104.137 | 361 | .288 | | |
| Total | 166.055 | 399 | | | |

a. Predictors: (Constant), Brand image (Functional, Emotional, Symbolic)

b. Dependent variable: Customer satisfaction

Significant level = 0.05

Table 4.1 showed that the F values of ANOVA analysis is equalled to 5.649 and the significant level was 0.000 which was less than the significant level at 0.05. It

mean that there was significant relationship between brand image and customer satisfaction.

Table 4.2 Result of hypothesis on the influence between brand image factors and customer satisfaction

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|--------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 1.522 | .216 | | 7.061 | .000 |
| Functional | .213 | .064 | .180 | 3.330 | .001 |
| Emotional | .237 | .070 | .207 | 3.406 | .001 |
| Symbolic | .223 | .048 | .246 | 4.688 | .000 |

Dependent Variable: Customer satisfaction

Significant level = 0.05

For the Table 4.2, The Sig. values for factors Functional, Emotional and Symbolic is lower than the level of significant for the hypothesis test and this is considered with the value of Coefficients Beta. The Symbolic factor has the strongest relationship with customer satisfaction at about 24.6%. The second strongest relationship is Emotional factor at about 20.7%, followed by the third factor Functional at 18.0%. Thus, all of three factors (Functional, Emotional, Symbolic) have influences on customer satisfaction.

The reasonable multiple regression equation for Customer satisfaction is

$$\text{Customer Satisfaction} = 1.522 + 0.213(\text{functional}) + 0.237(\text{emotional}) + 0.223(\text{symbolic})$$

Analysis of the influence between customer satisfaction factors and brand loyalty by multiple regressions.

H3: The customer satisfaction has positive affect to brand loyalty

Table 5 Model summary of the brand loyalty

| Model | R | R square | Adjusted R square | Std. Error of the estimate | F | Sig. |
|-------|-------|----------|-------------------|----------------------------|---------|-------|
| 1 | .571a | .327 | .325 | .50251 | 193.034 | .000a |

a. Predictors: (Constant), Customer satisfaction

b. Dependent variable: Brand loyalty

Significant level = 0.05



Regarding to the regression analysis from the Table 5, the relationship between customer satisfaction and brand loyalty, considered with R Square, is 0.327. It means that the customer satisfaction factors can explain 32.7% of change for the dependent variable (brand loyalty) and this is considered with the Adjusted R Square value of 0.325. Hence, service quality

factors and customer satisfaction has a strong relationship of about 32.5% and this is considering that the Sig. value is .000^a which is lower than the level of significance or the alpha level ($\alpha=0.05$) for the hypothesis test. Thus, hypothesis 3 is supported, which proves that customer satisfaction has positive affect to brand loyalty.

Table 5.1 ANOVA of the brand loyalty

| | Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|--------------|-----------------------|-----------|--------------------|----------|-------------|
| 1 | Regression | 33.147 | 10 | 3.315 | 19.299 | .000 |
| | Residual | 66.812 | 389 | .172 | | |
| | Total | 99.959 | 399 | | | |

a. Predictors: (Constant), Customer satisfaction

b. Dependent variable: Brand loyalty

Significant level = 0.05

From the table 5.1 showed that the F values of ANOVA analysis is equalled to 19.299 and the significant level was 0.000 which was less than significant level at 0.05. This

means that there was significant relationship between customer satisfaction and brand loyalty.

Table 5.2 Result of hypothesis the influence between customer satisfaction factor and brand loyalty

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-----------------------|------------------------------------|-------------------|----------------------------------|----------|-------------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 1.674 | .160 | | 10.489 | .000 |
| Customer satisfaction | .542 | .039 | .571 | 13.894 | .000 |

Dependent Variable: brand loyalty

Significant level = 0.05



For the Table 5.2, The Sig. value of factor satisfaction is lower than the level of significant for the hypothesis test and this is considered with the value of Coefficients Beta. Hence, customer satisfaction factor has a strong relationship with brand loyalty of about 57.1%, and thus the customer satisfaction has positive affect to brand loyalty.

Furthermore, the value B of customer satisfaction value is 0.542, meaning when customer satisfaction value increases by 1 unit, the brand loyalty will increase by 0.542 units.

The reasonable multiple regression equation for Brand loyalty is $\text{Brand Loyalty} = 1.674 + 0.542(\text{customer satisfaction})$

Table 6 The summary of hypothesis testing result

| Description | Result |
|---|-----------|
| H1: service quality has positive affect to customer satisfaction. The outcome quality, process quality, and remedy quality factors have relationship with the customer satisfaction. | supported |
| H2: brand image has positive affect to customer satisfaction. The functional, emotional, and symbolic factors have relationship with the customer satisfaction. | supported |
| H3: customer satisfaction has positive affect to brand loyalty. The customer satisfaction factors have relationship with the brand loyalty. | supported |

From the table 6 it was showed that result of all the hypothesis were supported.

Conclusion

The relationship between service quality and customer satisfaction (Hypotheses1)

The hypotheses aimed to identify the service quality factors (outcome quality, process quality and remedy quality) and their positive affects to customer satisfaction. According to the result of the tests of hypotheses showing the

relationships between service quality and customer satisfaction, service quality factors and customer satisfaction has a strong relationship about 27.7%. Thus, the service quality has positive affect to customer satisfaction. Hence, when customers are using the express delivery service, customers would get higher satisfaction if they received better service quality,



The relationship between brand image and customer satisfaction (Hypotheses 2)

The hypotheses aimed to identify the brand image factors (functional, emotional, and symbolic) which have positive affect to customer satisfaction. According to the result of the tests of hypotheses showing the relationship between brand image and customer satisfaction, the brand image factors and customer satisfaction has a strong relationship about 26.9%. Thus, the brand image has positive affect to customer satisfaction and if express delivery company can build a better brand image for customers, customers would get higher satisfaction.

The relationship between customer satisfaction and brand loyalty (Hypotheses 3)

The hypotheses aimed to identify the customer satisfaction factors has positive affect to brand loyalty. According to the results of the tests of hypotheses showing the relationship between customer satisfaction and brand loyalty, the customer satisfaction factors and brand loyalty has a strong relationship about 32.5%. Thus, the customer satisfaction has positive affect to brand loyalty and if customers are not satisfied with the express delivery company, they will choose other express delivery companies.

Discussion

Service quality Based on the literature review, three American experts and scholars, referred PZB (1985) believe that service quality is the result of comparison between the actual and expected. Service quality of the logistics industry is not only an aspect of the evaluation, it also should include entity delivery quality and quality of marketing services, which is the delivery quality of goods and the customer perception of service quality respectively. Only if the two aspects were of high quality, good logistics service and high-quality logistics services will prevail. (Wang Lei, Meng hai, 2006). From the analysis result, it was found that as for outcome quality, the respondents paid more attention to whether order delivery is convenient or not. For process quality, it was found that respondents paid more attention to the service times which express delivery company offer. For the remedy quality, it was found that respondents pay more attention to whether express delivery company service hotline was unimpeded or not.

Brand image Brand image is the consumer's perception and overall view of the brand and it is reflected by the brand association exists in the minds of consumers which is a key driving factor to brand equity (Fan Xiucheng, Chen Jie, 2002). Brand image is the brand's overall perception of the people, as a cognitive



concept, and it is an important part of consumer's information processing (Jiang and Cao, 2003). For functional, the respondents paid more attention to Express delivery brand to provide delivery process timely tracking and tracing services. For emotional, it was found that respondents pay more attention to Express delivery brand service commitment to ensuring high delivery standards. For the symbolic, it was found that respondents pay more attention to the characteristics of Express delivery brand.

Customer satisfaction Based on the literature review, Oliver (1980) proposed the theory of "expectation inconformity", which proved that customers will feel satisfied when the services actual performances are beyond their expectations. On the other hand, when the services actual performances are under their expectations, customers will feel dissatisfied. During the last decade, satisfaction has been considered as one of the most important theoretical as well as practical issues for most marketers and customer researchers (Jamal, 2004). Kotler and Keller (2006) proposed that, "satisfaction is a personal feeling of satisfaction or dissatisfaction resulting from comparing service performances in relation to his or her expectation." For customer satisfaction, the respondents paid more attention to whether the delivery process makes you satisfied. and overall whether you're satisfied with the Express

delivery company.

Brand loyalty Based on the literature review, service brand loyalty means brand loyalty in the service industry, namely, consumers' brand loyalty to one of the services provided by the service enterprise, referred to as service loyalty. In the early days of the study, Jacoby (1978) argued that service loyalty is a customer behavior, he saw whether customers continuing to purchase a certain service as an important measure of loyal service. The brand loyalty factors are consisting of two dimensions, which are behavioural loyalty and attitude loyalty. From the analysis result, it was found that as for behavioural loyalty, if the respondents are satisfied with the express delivery company, when they need express delivery service in the future, they will take this express company as the preferred. For attitude loyalty, if the respondents are satisfied with express delivery company, they would think that this express delivery company is repeatedly of better quality than other express delivery company. Thus, although there are other alternatives for express delivery companies, they still prefer to this express delivery company.

Implication

Service quality Managers should develop a more convenient way to order delivery, such as the development of application, where customers can fill in their own address detailed information and



the agreed time, and also customer and courier can know the position of each other via GPS. In this era of network information, as more people began to use online applications, customers can give their assessment and recommendations of every service through applications. In addition, companies also can reduce manpower expenditures while have a better understanding of customer needs and employees when they are given the service outcome. Meanwhile, the company should hire more staffs familiar with network operations, as they will be better equipped to pass customer order information to the courier. At the same time, stringent requirements can ensure that the courier arrives at the agreed place within the specified time to receive goods or not via application. In addition, the company should be educated to ensure that a safe system for customer's goods is in place, in order to improve the quality of couriers. Finally, companies should look for ways to reduce unnecessary costs and improve the outcome quality, thus giving the customer a reasonable price. Also when hiring couriers, human resource department should place more focus on the courier's personality and hire couriers who have good communication with customers. Training and assessment should be conducted on a regular basis for couriers to ensure that they are skilled enough to master professional knowledge. And managers should develop more ways of providing after-sales service, such as an

opening of after-sale service exclusive line which can allow customers to contact the company quickly and easily when service problems arise, or through applications from which customers can submit the issue during the service.

Brand image Managers should provide convenience service to customers in all aspects of service, and pay attention to the efficiency of each service process. Couriers training can be conducted for easier and more convenient placing of orders. Positive express delivery of goods in the process of tracking inquiries and timely notice to customers should be in place to guarantee quality and safety of each service and this service can give customers a responsible good image. At the same time, processes should be to be in place to ensure that the goods are not lost or destroyed to ensure efficiency and good custody for the goods. By ensuring that these good functionality is set while maintaining a good price, customer satisfaction can be improved. And Administrators should periodically carry out trainings and assessment and tracking surveys on the service attitude of the couriers in order to ensure that the customer gets good service attitude and quality every time. Requirements in place for a unified dress code for couriers makes them look more professional to customers. Efforts should be made to meet the requirements raised by customers, to ensure that the process of customers



receiving service is a happy one. When the customer in the service process is in a happy mood, customer satisfaction would be improved. Hence, managers should primarily focus on the every detail of services process through staff training in order to give customers a positive impact. This will also make customers feel that the express delivery company has a sense of responsibility and the company can have a good evaluation, which can improve customer satisfaction.

Customer satisfaction managers should raise the threshold of the couriers, strengthen training the couriers to ensure delivery goods are not damaged or lost, so that customer is satisfied with delivery goods. Meanwhile, the mode of transport should be diversified, flexible and delivery goods should be timed to avoid traffic jams. Only through this way, customers will be satisfied with the service and brand loyalty can be enhanced.

If the express delivery company can improve service quality, enhance brand image. To give customers a good service quality and good brand image, it would be help the express delivery company to improve customer satisfaction. At the same time, improve customer satisfaction, will help the express delivery company enhance brand loyalty.

Limitations

1. In this study, as the data collection only focuses on Taobao merchants, this data survey cannot be fully represented to all customers of express delivery services. In addition, as Taobao merchants will pass down the courier costs to online shopping customers, their emphasis on price is not as strong as other ordinary customers.
2. In this study, the factors influencing customer satisfaction and brand loyalty also has their limitations. Service quality and brand image can cover some factors of company. There are also many theories of factors worth exploring.
3. For the questionnaire, the data were collected by questionnaire that translated English into Chinese language. So might not quite be the standard for Chinese people. Chinese Taobao merchants may have some questions that they did not understand, which may influence their answer to the questionnaire.

Recommendation for the future research

1. The respondents of this study only focus on Taobao merchants. Future researchers can expand the scope of respondents, to not only Taobao merchants, but also investigate other groups using express delivery service, such as the university students.



2. This study only explore two factors that can influence customer satisfaction and brand loyalty of private express delivery Service. Future researcher can explore the other factors that can influence customer satisfaction and brand loyalty of Top 5 express delivery service. such as the marketing mix.

3. This study only focus on Top 5 express delivery service company in China. Future researcher can study the international express delivery service, making data more effective and persuasive.

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Appendix

Questionnaire

Part 1: Personal information. Please checking only one answer for each question listed below. And check \surd in the .

1. Gender: Male Female
2. Age: ≤ 20 21-30 31-40
 41-50 > 50
3. Education level:
 Under high school High school Technical college
 Bachelor Master and higher
4. Income /per month:
 Under 2000 Yuan 2001~4000 Yuan 4001~6000 Yuan
 6001~8000 Yuan 8001~10000 Yuan 10001 and Above
5. How long have you set up the shop in Taobao?
 Less than one year 1~2 years more than 2 years~3 years
 more than 3 years~4 years more than 4 years~5 years
 more than 5 years
6. How many pieces of parcel do you send and receive each month?
 < 100 100~300 > 300
7. Which express delivery company are you using?
 EMS SF STO YTO ZTO others
8. What types of goods you are selling on taobao?
 costume food jewelry digital product
 cosmetic article for daily use household product
 entertainment product car others



Part 2: In the following questions, please check the corresponding scores according to the real experience after you using the express service. Please draw (√) according to your level of agreement in the corresponding box : 1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree

| Dimension | Measurement | 1 | 2 | 3 | 4 | 5 |
|------------------------|---|---|---|---|---|---|
| Service quality | Outcome quality | | | | | |
| | 1. Order delivery is Convenient. | | | | | |
| | 2. This Express delivery company can arrive at the agreed place within the specified time to receive goods. | | | | | |
| | 3. This Express delivery company courier service can be completed within the promised time limit. | | | | | |
| | 4. This Express delivery company can guarantee of good Safety of goods. | | | | | |
| | 5. Price of express delivery company is reasonable. | | | | | |
| Service quality | Process quality | | | | | |
| | 6. Courier with a skilled professional knowledge, easy to communicate. | | | | | |
| | 7. Courier attitude polite, enthusiasm to help you. | | | | | |
| | 8. When you take or send Express, waiting time is short. | | | | | |
| | 9. This express delivery company offer the service time able to meet your needs. | | | | | |
| Service quality | Remedy quality | | | | | |
| | 10. When delivery items a problem arises, Express delivery company can make a reasonable explanation. | | | | | |
| | 11. Your complaints can be solved quickly. | | | | | |
| | 12. When the Express delivery company's own fault occurs, it can give you reasonable compensation. | | | | | |
| | 13. The express delivery company service hotline is unimpeded. | | | | | |



| | | | | | | |
|--------------------|---|--|--|--|--|--|
| | 14. When Service problems arise, you can easily find Express delivery company to solve. | | | | | |
| Brand image | Functional 15. The employee of this Express delivery brand is of high professional quality. | | | | | |
| | 16. This Express delivery brand provided on-site service and it is very convenient. | | | | | |
| | 17. Express delivery brand to provide delivery process timely tracking and tracing services. | | | | | |
| | 18. This Express delivery brand goods served on are not lost, destroyed or exchange. | | | | | |
| | 19. This Express delivery brand is high cost performance. | | | | | |
| | Emotional 20. This Express delivery brand good service attitude of staff. | | | | | |
| Brand image | 21. This brand Express staff can patiently listen to my request or complain. | | | | | |
| | 22. The staff dressing of this Express delivery brand uniform specification. | | | | | |
| | 23. This brand Express staff to timely respond to the needs. | | | | | |
| | 24. This Express delivery brand service committed to ensuring high. | | | | | |
| | Symbolic 25. The characteristics of this Express delivery brand close to my personality. | | | | | |
| Brand image | 26. Use this Express delivery brand can help me a good impression to others. | | | | | |
| | 27. Use this Express delivery brand can help me establish a positive and healthy personal image. | | | | | |
| | 28. Use this Express delivery brand can let people think I'm very social responsibility. | | | | | |
| | 29. Everyone thinks highly of this Express delivery brand. | | | | | |
| | Customer satisfaction | | | | | |



| | | | | | | |
|------------------------------|--|--|--|--|--|--|
| | 30. This Express delivery company goods of delivery make you satisfied. | | | | | |
| Customer satisfaction | 31. Express delivery company courier time make you satisfied. | | | | | |
| | 32. Overall you're satisfied with the Express delivery company. | | | | | |
| Brand loyalty | Behavioural loyalty 33. You will praise this Express delivery company to others. | | | | | |
| | 34. You will recommend this Express company to others. | | | | | |
| | 35. When need express delivery service, you will take this express company as the preferred. | | | | | |
| | Attitude loyalty 36. I find this express delivery company better than other company. | | | | | |
| | 37. This express delivery company is repeatedly of better quality than other express delivery company. | | | | | |
| | 38. Although there are other express delivery company alternatives, I still prefer to this express delivery company. | | | | | |