Determinant Factors That Affected Reuse Intention: A Case Study of Didi Chuxing Technology Company, Limited

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Abstract
This study examines the factors affecting reuse intention of the car service company, Didi in China. This study uses exploratory and explanatory mixed method sequential designed by Creswell (2011). There are two rounds of interview in order to confirm independent variables prior to quantitative methodology. As a result, this study distributes 201 sets of questionnaires via Wenjuanxing (online survey) from September to October 2018. Multiple Linear Regression (MLR) has applied through Statistical Analysis System (SAS) license number 12400609. The study found that perceived quality and rebuild the trust will have an impact on the reuse intention. Particularly, rebuilding the trust plays the most important role in reuse intention. However, except all variables, the analysis of data shows that the passengers still strongly rely on Didi’s services. Target sample focus only on Chinese in Jiangsu province, China. The findings are limited to financial concerned and time of research operation. Accordingly, Didi should seriously considered that rebuild the trust is crucial for reuse intention.

Keywords: Perceived Quality, Perceived Benevolence, Rebuild the Trust, Reuse Intention, Didi

Introduction
Nowadays, “customers reuse intention” plays a very important role in the service company. Reuse intention is defined as the customers will continue to use a product or service from the same company (Rezaei et al., 2014). This research has applied the theory of planned behavior (TPB) by Ajzen (1991) and quality perception theories by DeLone and McLean (1992) into research practices underneath Didi Chuxing Technology Company, Limited, China.

Didi is a major Chinese ride-sharing, artificial intelligence (AI) company. It was established in June 2012 by Chengwei. Its headquarter in Beijing. It provides services including taxi hailing, private car hailing, Hitch (social ride-sharing), DiDi Designated Driving, DiDi Bus, DiDi Test Drive, DiDi Car Sharing, DiDi Enterprise Solutions, DiDi Minibus, DiDi Luxe, bike and e-bike sharing and food delivery to users in China via a smartphone application. Until 2018, 32.14% of Chinese people (www.Didiglobal.com) use Didi. In this research, the researcher focused on calling taxi service. Before, Didi has competitive advantage in mobile
application, however the bad events like criminal cases occurred by Didi driver continuously effect the Didi a lot. They lose their customers immediately, and it caused them to take solve the problem in order to rebuild the trust from customers.

This research aims to find the key variables determine the customers to rebuild the trust and reuse the Didi mobile application. There are three independent variables, which are perceived quality, perceived benevolence, and rebuild the trust. Firstly, the research focus on how perceived quality affect reuse intention. Secondly, the research focus on how perceived benevolence affect reuse intention. Finally, the research will focus on how rebuild the trust affect the reuse intention.

**Perceived quality (Perceived system quality, Perceived information quality, Perceived service quality)**

According to Zeithaml (1988), perceived quality is conceptualized as the consumer’s judgement about a product’s overall excellence or superiority. In addition, Snoj et al. (2004) found that perceived quality results from the comparison of consumer expectations with the actual performance of a brand or product. The role of perceived quality in influencing consumer purchase decision in the store brands’ context is well supported, being considered as one of the most relevant factors in explaining purchase intention (Baltas & Argouslidis, 2007; Bao et al., 2011). Previous studies (e.g. Lee and Chung, 2009; Gao and Bai 2014) have used the quality dimensions to represent users’ perceived benefits for mobile services. Based on previous research, it is important to believe that these three quality dimensions are good indicators of reusing the online systems. The perceived quality of mobile application is significant factor. In this research, perceived quality of Didi is defined as the Didi car mobile application provides a convenient platform, quick calling taxi, friendly drivers to passengers. Perceived quality in this study contains three parts which are perceived system quality, perceived information quality, perceived service quality.

**Perceived system quality** is defined as the quality manifested in a system’s overall performance and measured by individual’s perceptions (Delone and Mclean 2004). Several researches (Ahnetal, 2007; Bock et al. 2012; McKnight et al. 2002) revealed that if consumers perceive a system with high quality, customers will be likely to have more intention to reuse this system and will be willing to spend money with that system. It indicated that it is important for perceived information quality of mobile application if it has higher system quality, ease of use, clear layout and prompt responses, it will increase the reuse intention.

In this research, perceived system quality of DiDi provide a convenient platform for ordering the taxi, reliable driving route and each emergency button can be used any time after the bad event. It is very important to monitor the system quality, because for the mobile application, system is the key platform for the customers, based on a good system can help customers gain good experience, contribute to total perceived quality.

**Perceived information quality** is defined as the relevance, sufficiency, accuracy and timeliness of the information. If this information is irrelevant, inaccurate or out of date, users may feel that service providers lack of the ability to offer quality service to them (Lee et al., 2015). Zhou (2011c) indicates that poor information quality has a negative effect on trust in mobile application. It is important for this research to explore whether perceived information quality will effect reuse intention. In this research, perceived information quality of Didi is drivers information are accurate, all the drivers do not have criminal record and
also GPS system can always know the passengers’ location accurately. The researcher assumes that the perceived information is the significant factor of the reuse intention.

**Perceived service quality** is defined as reliability, responsiveness, assurance and personalization (Gao et al., 2015). The conceptual definition of perceived service quality developed by Parasuraman et al. (1988) has been largely employed for comparing excellence in the service encounters by customers. Bitner (1990) defined service quality as the customers’ overall impression of the relative inferiority/superiority of a service provider and its services and is often considered similar to the customer’s overall attitude towards the company (Parasuraman et al., 1988). If users face unreachable service connection and service interruption during the interaction with systems, they may doubt service providers’ ability to offer quality services to users (Zhou 2011, 2013; Lee and Chung 2009). It indicated that response within a short time and give personalized and prompt service, it will contribute to increase the reuse intention. To analysis whether the perceived service quality affect the reuse intention. This research assumes that perceived service quality is significant factor to reuse intention. Perceived of service quality of Didi is each driver has good personality to treat passengers, Didi has rating system for drivers. For the customer service provider, they can always deal with the problems immediately, also they can provide the personalized services for the passengers.

**H1:** There is a significant relationship between perceived quality and reuse intention

**Perceived benevolence**

Perceived benevolence is found as one of the predictors of trust. Benevolence is described as goodwill, act of kindness, or desire and interest to be good to the others. In this research, Didi needs to focus on the passengers benefit rather than their own interest. Perceived benevolence is that motivation to act in the customers’ interest. According to Roland (2010), the aspect of perceived benevolence is critical for the reuse intention process. In this research, the author want to focus on how the perceived benevolence affected the Didi’s Chinese consumers in their reusing intention.

**H2:** There is a significant relationship between perceived benevolence and reuse intention

**Rebuild the trust**

Rebuild the trust is defined as the regain of trust is much slower than the initiation of trust. Trust mechanism is dynamic. Although quite slow, trust is able to be regained between the same groups after detrimental events.

There are arguments that trust judgments are continuously revised based on experience and thus might continue to affect behavior (e.g. Gefen, 2002; Wirtz & Lihostky, 2003). Gefen(2002)assumes that trust plays an important role in repurchase. This study assumes that rebuild the trust is the significant factor to the reuse intention. This study applied the concept of rebuild the trust of DiDi mobile application, which is after the bad event, the passengers are willing to trust the DiDi again. They will trust DiDi’s service, information system again.

**H3:** There is a significant relationship between rebuild the trust and reuse intention

**Reuse intention**

Reuse intention belongs to Attachment theory which created by Blowby (1958). Reuse intention is the customer will continue to use a product or service from the same company. Reuse is defined as a
consumer's actual behaviour resulting in the using of the same product or service on more than one occasion. The majority of consumers' purchases are potential repeat purchases (Peyrot and Van Doren, 1994). To make the repurchase in this study is reuse intention. Customers will use similar products repeatedly from similar sellers, and most use represent a series of events. In this research applied the concept of reuse intention of Didi company, which is the passengers’ measurement about using Didi again in the future. Therefore, three research objectives are designed to fit with this study. Firstly, it is to study perceived quality has a significant relationship with rebuild the trust; Secondly, it is to examine perceived benevolence has a significant relationship with rebuild the trust; finally, it is to examine rebuild the trust has a significant relationship with reuse intention. These three objectives proposed the conceptual framework as the following:

[Diagram of conceptual framework]

**Research Methodology**

This research combined two methods both exploratory and explanatory designed by Creswell(2011). Exploratory sequential design was selected to know and understand data management practices, behaviors, and preferences of Didi reuse intention. First of all, qualitative data collected and analyzed to drive the development of the quantitative instrument. As a consequence, quantitative analysis was built up to test an initial findings. This method is selecting each variables by purposively selected interviewees, who have ever used the Didi at least once in the past three weeks and also heard about the bad event of Didi (started from June 2018).

There are two rounds of interview, the first round is selecting two graduated students. The results finalized the two independent factors, which are perceived quality and perceived benevolence. The second round with the three Didi passengers who have used Didi at least three times each week. This round shows that rebuild the trust may be an important factor. These two rounds of interview parallel with literature review, the framework of this research can be conceptually designed.

Explanatory sequential design show the quantitative method to test the relationship with selected variables on the 30 passengers who have visited and heard about the bad event. Data analysis of 30 pre-testing of
questionnaire via wenjuanxing (Chinese online survey) shows reliability according to Cronbach’s coefficient alpha result. In the sampling procedure, the researcher develops screening question to filter the prospect respondents to examine. Therefore, the researcher applied $p=40\%$ ($p=0.4$) and $e=8\%$ ($e=0.08$) into the $n_4$Studies calculation. As per the calculation, the result showed the sample size of 145 ($n=145$). However, since there is a limitation of time and budget, the researcher designed to collect the sample size of 201 respondents ($n=201$) via Wenjuanxing (Chinese online survey) as an instrument in order to collect the data from target respondents. The questionnaire divided into three parts. Firstly, screening question; secondly all three variables; and the last part is demographic profile. Each step of data analysis can be operated in Statistical Analysis System (SAS).

As a consequence, the researcher used multiple linear regression to analyze the research data. The result shows that rebuild the trust plays the most important role to reuse intention.

**Reliability**

The results of Cronbach’s coefficient alpha test of all variables were analyzed both in the pretest period when the number of respondents was 30 ($N = 30$) as well as ending period when the number of respondents was 201 ($N = 201$).

**Research Results**

**Descriptive Analysis**

The demographic profiles in this research are gender, marital status, age, children numbers, car plate number, monthly income, educational level, and employment status and will be presented and show in terms of frequency and percentage with a total of 201 respondents ($n=201$). Therefore, the details of demographic factors will be male with 37.31% (75 respondents) and female with 62.69% (126 respondents). The group of respondents, whose age is between 21-30 year old were the majority with 64.18% (129 respondents). The group of respondents hold a Bachelor Degree was the majority with 62.69% (126 respondents). The results showed the groups of income level respondents, whose income of 4,001-8,000 RMB$^1$ or 811.562-1,154.401 USD were the majority with 43.28% (87 respondents).

**Multiple Linear Regression (MLR) Analysis**

As a result, all three independent variables has contributed to over 48% in the Didi reuse intention. After backward elimination, there are only one variable remained significant towards Didi reuse intention. If the perceived quality for 1% plateau will affect Didi reuse intention 27% ($\beta_1 =0.27222$) at 95% confidence interval. The perceived benevolence for 1% plateau will affect Didi reuse intention 12% ($\beta_2 =-0.11659$) at 90% confidence interval. Finally, rebuild the trust for 1% plateau will affect Didi reuse intention 46% ($\beta_3 =0.45569$) at 99.99% confidence interval. The formula is shown as follows:

$$\hat{Y} = 1.28805 + 0.27222 X_1 - 0.11659 X_2 + 0.45569 X_3$$

where: $\hat{Y}$ = Reuse intention; $X_1$ = Perceived Quality; $X_2$=Perceived benevolence;$X_3$ = Rebuild the trust

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$^1$ According to Bank of China (BOC) exchange rate as of Sunday, November 4$^{th}$ 2018, 1 USD is 6.93 RMB

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Multicollinearity Analysis
There is no multicollinearity result based on this study based on the three multicollinearity indicators which comprising eigenvalue, variance inflation (VIF), and tolerance. Eigenvalue of 3.91597 which is more than zero indicate no multicollinearity problem. VIF of indicates that variance inflation factor at lower than 5 while Tolerance is higher than 0.2. VIF and tolerances confirms that these three independent variables have no multicollinearity problem.

Implications and Discussions
If Didi provides continuously prompt service, reliable driving route, the emergency button is available upon needed, accurate, sufficient and updated information of the road condition, professional service provider, according to the research result, it indicates that the increase of the quality of Didi, the more quantity of passengers will reuse the Didi.

The result indicates that the perceived benevolence of Didi has a negative relationship with reuse intention. It means that the passengers do not believe Didi will put the passengers benefits first rather than their own interest. Also the passengers do not believe Didi will consider their long term benefit. Therefore, it will help Didi company deeply understand of the customers thoughts, they need to take care of the passengers interest rather than each time their public relation team give some apologize and promise. The result indicates that rebuild the trust was the most significant factor that determine the reuse intention. The higher degree of rebuilding the trust, the higher possibility to reuse intention.

Conclusions
The research aims to find the factors determine reuse intention of Didi after bad event. Moreover, the researcher designed the questionnaire for collecting the data from 201 respondents who have used Didi before and known the bad event also. To test the relationship between each variable. In this research, the independent variables are perceived quality, perceived benevolence, and rebuild the trust, the dependent variable is reuse intention. The researcher use the Statistical Analysis System to get the result that the perceived quality and rebuild the trust have the positive relationship of reuse intention, however the perceived benevolence has the negative relationship of the reuse intention. According to the data, it indicates that the rebuild the trust was most important factor that determine the reuse intention.

Recommendations
After the bad event, first of all, Didi needs to pay more attention to make the passengers trust them again, it maybe take more time than build the initial trust, however they must rebuild the trust. For example, they need to make all promise come true, rather than just for come down the public opinion storm. Secondly, Didi needs to focus on the quality of its service for passengers, for example giving the accurate road condition, accurate driving route and take more care about the ladies especially midnight service. Didi needs to make sure the passengers safety absolutely, to prevent the bad event. Thirdly, Didi needs to consider of passengers benefit higher than their own profit. Accordingly, the passengers will reuse the Didi. However, the research is only
focused on Didi in China and are not extended to other populations. Considering the national cultural difference, the research maybe vary between people in different parts of the world (Malaquias and Hwang, 2016). Therefore, future research should attempt to generalize the results to other countries. This research considers perceived quality, perceived benevolence and rebuild the trust as the main influence factor for reuse intention. Aside from this, it would be possible to detect other factors that determine the reuse intention of Didi.

References


