Customers’ online group buying decision-making in emerging market
A Quantitative Study of Chinese online group buying

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Abstract

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Title: Customers’ online group buying decision-making in emerging market

Research Question: What factors influence customers’ online group buying decision-making in emerging market?

Research Purpose: To explore whether the factors of the Social Exchange Theory, market stimuli and e-commerce systems affect customers’ online group buying decision-making in emerging market

Method: This research is a quantitative study by using survey as a research strategy. A questionnaire which designed according to theory framework is used to collect data for analysis. The questionnaires are posted in Chinese Baidu PostBar.

Conclusion: In the end of data collection, 375 questionnaires have been analyzed. After analyzing empirical data, results for research questions have been answered. According to the analysis and theoretical framework, “reciprocity”, “trust”, “price”, “word of mouth” and “website design” are attributes which have been detected to influence customers ‘online group buying decision-making in China. However, “loyalty “and “logistic services” are not attributes to influence customers ‘online group buying decision-making.

Key Words: Online group buying, Buying decision making, Social exchange theory, market stimuli, e-commerce systems
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1 Introduction

*Online group buying, a practical component of electronic commerce, is a popular shopping model in the current electronic market. This chapter will briefly show the developing history of online group buying and the background of the emerging markets and Chinese online group buying market. After that, the purpose and research question will be formulated based on the problem description.*

1.1 Background

The e-commerce technology became a strategic necessity for business organization (Al-Mashari, 2002). Until the early 1990s, e-commerce started to expand rapidly, due to the Internet became commercialized and the wider use of the World Wide Web. E-commerce’s development is closely related to the development of Internet (Turban *et al.*, 2006). Online group buying is defined as a large number of customers get together online, and perform collective buying to benefit price discounts as a group (Erdogmus and Cicek, 2011; Cheng and Huang, 2012). With the increasing development of e-commerce, the online group buying (OGB) has become a popular shopping model in the e-commerce market (Cheng and Huang, 2012). Online group buying was originally developed by a United Stated website (Accompany.com) in 2008, and it has become one of the fastest growing OGB websites. In United Stated and Europe, OGB is highly popular and successful (Cheng and Huang, 2012; Shiau and Luo, 2012). This popular trend in online shopping experienced significant growth during 2010 and 2011 (Shiau and Luo, 2012). By the end of 2010, online group buying works with businesses market in more than 18 countries (Xu, 2011). A CNN report in 2010 indicated that OGB are also experiencing rapid growth in Asia (CNN, 2010). OGB differed from the traditional e-commerce patterns, such as business-to-business (B2B), business-to-customer (B2C) and business-to-employees (B2E) (Turban *et al.*, 2006). As a newly emerged model of e-commerce business, OGB is kind of a business-to-team (B2T) pattern (Chen *et al.*, 2013).

Li *et al.*, (2010) defined an emerging market is a country which has some characteristics of a
developed market but is not a developed country. The emerging markets stated rapid economic growth and make greater contributions to the global economic growth (Ibid). The four largest emerging and developing markets are the BRIC countries (Brazil, Russia, India and China). At the beginning of 2010, China became the largest regional emerging market in the world (Li et al., 2010). Since 2010, online group buying has become an increasingly popular consumption pattern in China; Chinese OGB has a broad market prospect (Dong et al., 2012; Chen et al., 2013). The first Chinese OGB website was launched in January 2010, and now China has more than 1215 group-buying websites (Network World, 2010). According to the data released by China Internet Network Information Center (CNNIC, 2011), the population of OGB customers had reached 18.75 million by the end of 2010. The total transaction value of the OGB market was projected to reach RMB980 million (US$147.6 million) (Network World, 2010). Online group buying, its real name in Chinese is “Tuangou” that means group buying or collective buying (Xu, 2011). The emerging group buying company, such as the Meituan, Nuomi, Lashou, Aibang, Juhusuan, all are popular in China, and they are in fierce competition with each other (Dong et al., 2012).

1.2 Problem Description

More and more scholars have conducted researches on online group buying activities. Based on their study and comparison of their findings, the basic concept of OGB activities turned out to relatively similar, OGB is a comprehensive and new topic (Song et al., 2009; Chen et al., 2009; Tong, 2010; Li et al., 2010; Pi et al., 2011; Gong, 2012; Cheng and Huang, 2012; Shiau and Luo, 2012). Numerous studies on the e-commerce are extensively centered on the factors of market stimuli and e-commerce system that positively influence consumers’ purchase intention and satisfaction in the past; such as price, e-trust, website design, recommendation, logistic and sale promotion (Turban et al., 2006; Abbas et al., 2008; Cai and Xu, 2008, Becerra and Korgaonkar, 2009; Chang et al., 2011). There are no researches investigate these factors in customers’ online group buying decision-making. Therefore, this paper focuses on whether the factors of market stimuli and e-commerce system affect customers’ online group buying decision-making.
Online group buying is a new business model that has not been fully investigated (Zhu et al., 2010; Tsai et al., 2011). A few e-commerce studies had revealed that showing off is closely linked to effects of SET (Luo, 2002; Lin et al., 2010). Lin et al., (2012) have explored how social exchange theory can be applied to studying online learning ability and its antecedents. The results showed online learning ability is positively affected by social exchange theory’s trust, reciprocity and loyalty (Lin et al., 2010). Based on this research, the lack of social exchange theory is applied in online group buying. Although Social Exchange Theory (SET) has been conducted in the domain of economics, psychology and sociology; the research related to SET in online group buying is scare (Shiau and Luo, 2012). This study tested whether the factors of SET affect OGB purchase intention, such as reciprocity, loyalty and trust, there are no focus on a given country or area. In addition, the results of previous study showed that consumer satisfaction with online group buying is predicted primarily by trust, followed by reciprocity. Therefore, this study is to investigate whether these three factors of SET influence OGB decision-making in China.

According to (China Internet Network Information Center report, 2013), by the end of 2012, China had a total of 83.27 million online group buying users, and the user ratio rose from 2.2% to 14.8% over the end of the 2011. Estimated by the Boston Consulting Group (BCG), there will be 329 million online shoppers in China by 2015 (BCG, 2012). With the development of online shopping services in China, the scale of online shopping users is continuously growing (CNNIC, 2013). However, the survey of Data Center of China Internet (DCCI, 2011) showed that at the beginning of online group buying development, of all customers who participated OGB, 51.5% of them no longer want to participate it again. It was mainly because of the lack of OGB vendors’ loyalty in China (DCCI, 2011). According to previous studies, Chinese market as a popular topic has been investigated. Based on their results, for example, price, e-trust, website design, recommendation, logistic and sale promotion has positively affected in Chinese e-commerce market. As an aftermath, in order to help OGB vendors to understand customers’ buying decision-making in China. Therefore, the current study sets out to explore whether SET, market stimuli and e-commerce systems affect on customers’ OGB decision-making in China, and find out which factors should be attention by vendors. As an aftermath, in order to help OGB vendors to understand customers’ buying
decision making in China. This study sets out to explore whether the factors of SET, market stimuli and e-commerce systems affect on customers’ OGB decision-making in China.

1.3 Purpose and Research question

This paper aims to explore whether the factors of the Social Exchange Theory, market stimuli and e-commerce systems affect customers’ online group buying decision-making in emerging market. To fulfill the aim, the paper is going to answer this question:

What factors influence customers’ online group buying decision-making in emerging market?

1.4 Report structure

This paper consists of 6 chapters, and the following structure:

Chapter 1—Introduction. Following the introduction, relevant theories are presented which brings depth into identified research gap.

Chapter 2—Theory and Hypotheses. The hypotheses are presented which is based on the theoretical framework.

Chapter 3—Methodology. The methodology chapter then presents the research method used, how data was collected, and its results, analysis thereon.

Chapter 4—Results and Analysis. It presents the collected data from the online questionnaire results. Based on the theoretical framework and results, justifies and provides analysis of the empirical investigation presented.

Chapter 5—Discussion. Based on the results and data analysis, comparing the results of the hypotheses test with results of previous studies and discuss.

Chapter 6—Conclusion and Implication. The study points out conclusion, contribution, limitations and managerial implications including suggestions for future research.
2 Theory and Hypotheses

This chapter summarized the relevant theories about online group buying, consumer characteristics, Social Exchange Theory (SET), and other potential driving factors which from prior research articles and books. After a definition of each dimension, hypotheses will be proposed.

2.1 Online Group Buying (OGB)

The Internet provided a platform where customers can find others who share the same needs or wants (Cheng and Huang, 2012). Online group buying refers that a group of consumers can achieve a special discount price when they get products or services at a given time period. Meanwhile, the transaction proceeds only when required the number of a minimum of consumers is reached (Cheng and Huang, 2012; Shiau and Luo, 2012). Consequently, online group buying enable vendors to reduce price to attract customers, and enabled customers to purchase desired products or services more cheaply (Ibid).

Online group buying includes two types of online group buying models, one is to participate group buying within a fixed time period to purchase completion. Another online group buying with a fixed price that is reached only enough customers involve purchase completion (Cheng and Huang, 2012). Moreover, online group buying creates a win-win situation for both vendors and customers (Erdogmus and Cicek, 2011). It provides lower price for customers, as more people indicate willingness to purchase from the vendors’ websites based on the Internet. From the vendors’ perspective, online group buying can increase sales, since they make discounts on their products or services for their customers. In addition, online group buying can create customer satisfaction and loyalty along with positive word-of-mouth for the vendors (Erdogmus and Cicek, 2011).

2.2 Online Group Buying Decision-making

According to Pi et al. (2011) and Shiau and Luo (2012), buying decision-making can affect
online group buying behavior, and the decision-making can influence transaction activities in the future. “Intention is defined as the degree of customer perception that a particular online group buying behavior will be performed” (Shiau and Luo, 2012, p. 2435). Understanding the buying decision-making is the first step for developing the marketing communication plan. (Fill, 2009) According to Kotler and Keller (2008) and Fill (2009), this process takes place before purchase behavior comes into question. Even though the customers have bought something, they are reevaluating the different stages of the process afterwards. Turban, et al. (2006) also state that the buying decision-making process is used not only in research done in the regular market but also in research of customer buying behavior in e-commerce. There are five stages in the buying decision-making, such as problem recognition, information search, and evaluation of alternatives, purchase decision and post-purchase behavior (Kotler and Keller, 2008). These stages describe the beginning when customers realize their desired position but they cannot fulfill it with their current status. Next, they will use Internet to search for related information if they have the intention to use e-commerce (Kotler and Keller, 2008). After that, customer tries to satisfy their needs when they purchase products or services, and they search for some benefits from these product or services. Come to the purchase decision stage, Kotler and Keller (2008) indicate depending on others’ positive or negative attitudes or experiences about some products could be a motivation for the customers to make a purchase decision. The last stage, the degree of customers’ satisfaction after purchase is in inverse proportion to the gap between the reality and the expectation. Overall, buying decision-making affect customers’ willingness to return to online group buying during a period of time, for instance, next three months or the next years (Pi et al., 2011).

2.3 Customer Characteristics

According to and Keller (2008), customer characteristics impact on the buying decision-making that include the customer gender, age and economic circumstances some researchers have already realized that these characteristics important for the customer online buying decision (Rodgers and Harris, 2003; Yang and Lester, 2006; Solomon et al., 2008; Monsuwé et al., 2004; Puni, 2011). Online group buying is a type of online shopping.
Therefore, understanding OGB customer characteristics that can help OGB vendors target specific customer groups well (Hasslinger et al., 2007).

As Rodgers and Harris (2003), Yang and Lester (2006) mention, the buying decisions ultimately lead by customers’ perceptions of product or service, and male and female customers are affected by advertising stimuli factors to a different extent in e-commerce. Besides that, male customers are less affected than female customers care more about price while male customers pay more attention to the shopping time (Yang and Lester, 2006). The factors are also different than those that influence female customers (Yang and Lester, 2006).

Solomon et al. (2008) find out significant differences in buying behavior when comparing children, teenagers, and adults, middle-aged to elderly. Teenagers tend to be much more familiar with the usage of the Internet, and they feel comfortable when researching goods’ and services’ information on online (Monsuwé et al., 2004). However, few of the Internet users buy products on the Internet. The other characteristic is personal income. Solomon et al., (2008) define that comparison with high-income customers, low-income customers prefers to purchase online than in traditional shops. In addition, the character of time-saving of shopping online attracts the high-income customers, while money-saving is the character that attracts low-income customers in e-commerce (Puni, 2011).

However, few of these Internet users buy products on the Internet (Solomon et al., 2008). The other characteristic is income. In comparison with high-income customers, low-income customers choose to purchase on the Internet rather than in traditional shops. According to Puni (2011), the character of time-saving of shopping online attracts the high-income customers; while money-saving is the character that attracts low-income customers online shopping.

2.4 Social Exchange Theory (SET)

Social exchange theory was introduced in the 1958 and based on psychology; Homans (1958) defined SET as the exchange of tangible or intangible activities between at least two human beings in order to analyze human behavior. After that SET was later applied to organizational behavior that emphasis on the significance of social institution and formal organizational
exchange behavior (Blau, 1992). Therefore, the SET stated that people and organizations exchange to maximize their rewards and minimize their costs (Homans, 1958).

This paper applied SET to understand knowledge exchange and sharing at social psychologists. According to Hsu and Lin (2008), knowledge sharing was defined by a transaction process of knowledge markets, and the buyers and sellers who have reciprocal benefits from the knowledge exchange. In addition, all knowledge markets have a price system in order to efficiently rendered and recorded value exchanges (Davenport and Prusak, 2000). Within the knowledge transactions, sellers and buyers exchange knowledge because they believe they can gain from the transaction. Davenport and Prusak (2000) have conducted several knowledge factors based on the concept of knowledge exchange can provide benefits. In order of significance from great to least, they are reciprocity, loyalty and trust. Otherwise, there is mutual benefit exists on online group buying because provide knowledge and gain feedback from others. Therefore, the factors of reciprocity, loyalty and trust can provide the perceptions of social exchange theory.

2.4.1 Reciprocity

Reciprocity is interpreted as quid pro quo behavior that was defined by responding to a positive action with another positive action, rewarding kind of actions (Davenport and Prusak, 2000). The focus of reciprocity is centered more on trading favors between sellers and customers. With reciprocity, a small favor can produce the feeling of reciprocation to a larger return favor (Davenport and Prusak, 2000).

Reciprocity is considered as a strong determining factor that drives knowledge exchange and sharing (Davenport and Prusak, 2000). The customers have reciprocal acts of knowledge sharing, after that they feel positive attitudes or confidence toward sharing knowledge online (Shiau and Luo, 2012). For example, the writing and comments on online group buying can be mutually helpful to customers (Hsu and Lin, 2008). Therefore, the customers have positive feeling toward sharing knowledge online again (Shiau and Luo, 2012). The customers received benefits through sharing knowledge online when they have positive attitudes about their exchanges knowledge, encouraging them to shopping online (Davenport
and Prusak, 2000; Shiau and Luo, 2012). Collectively, this paper supports the following hypothesis:

\[ H1: \text{Reciprocity is positively associated with customers’ buying decision-making to engage in online group buying.} \]

### 2.4.2 Loyalty

Loyalty referred to attracting the customers, and getting them to purchase often. The sellers bring more benefits to customers and build them loyalty (Davenport and Prusak, 2000). The importance thing is increasing between sellers and buyers based on satisfaction and loyalty. In online context, a perceived attitude or experiences increase in loyalty is because information sharing within other buyers or sellers. For instance, Hsu and Lin (2008) defined blog users’ participation in knowledge sharing enhanced their loyalty. Loyalty is a crucial factor that affects customers’ attitude. People’s participation enhances their loyalty tends to have a positive attitude toward knowledge sharing and contribute helpful responses to e-commerce (Sierra and Quitty, 2005; Shiau and Luo, 2012). According to Hsu and Lin (2008) stated loyalty as a significant factor for knowledge sharing that positively influences user attitudes toward participating in a blog. Similarly, online group buying improves user loyalty; they are pleased with sellers that offer online group buying services. Therefore, the following hypothesis is proposed:

\[ H2: \text{Loyalty is positively associated with customers’ buying decision-making to engage in online group buying.} \]

### 2.4.3 Trust

Trust is also an important component of social exchange theory (Shiau and Luo, 2012). Blau (1992) indicates that trust is believed to be used in calculating the perceived attitude or confidence of purchasing in e-commerce. Previous studies on online shopping state that customers purchasing decision-making, satisfaction, and loyalty are based on trust (Rifon et
al., 2005; Chang et al., 2012). According to Becerra and Korgaonkar (2009), lack of trust is one of the reasons that keep the customers away from purchasing online products. Trust reduce customers’ sense of uncertainty about online shopping, and trust also gained security (Becerra and Korgaonkar, 2009). Bélanger et al. (2002), Jacobs (1997) and Muysken (1998) stated that protection of private information is important to the customers when they buying online. Most researchers find out that the primary factors which influencing prospective customers are: trust and previous purchasers experience on a given website (Jacobs, 1997; Muysken, 1998; Bélanger et al., 2002). If an online vendor was seen as trustworthy, then customers’ recognition of a secured transaction in e-commerce will be enhanced. In addition, some researchers notice that trust could also be increased if the online vendors have detailed contact information, such as their name, address to their website (Rifon et al., 2005; Chang et al., 2012). Otherwise, trust is the attitude or confidence when consumers purchased online. Trust creates positive feelings toward online buying and customer trust toward vendors has a significant effect on their satisfaction intentions. Therefore, this paper supports the following hypothesis:

H3: Trust is positively associated with customers’ buying decision-making to engage in online group buying.

2.5 Factors of Market Stimuli and E-commerce systems

Turban, et al. (2006) indicate the factors of market stimuli and e-commerce systems affect the buying decision-making in e-commerce; the customers can not control the factors of market stimuli and e-commerce systems. The market stimuli include two factors; they are price and word of mouth (WOM).

According to Kotler and Keller (2008), price as a key factor in stimulating customers to purchase, and the customers’ opinions are governed by price consciousness. The previous studies demonstrate the importance of price that influences customers online shopping purchase decision-making (Cai and Xu, 2008; Erdogmus and Cicek, 2011). Following the growing accessibility of the Internet, customers are increasingly used to receiving online information and comments based on products and brands online, changing customers
purchase behavior (Cheng and Huang, 2013). Furthermore, Cheng and Huang (2013) confirm the importance of WOM as an influence on product sales. When it comes to e-commerce systems, the factors contain logistics support, technology and so on, such as logistics service and website design. Logistic service has been a significant factor in the online marketing as the delivery of high service quality, which influence to customer purchase intention and satisfaction (Yuan et al., 2010). Yuan et al., (2010) indicated that logistic service is considered an important driver for the success of e-commerce. Website design refers to structure of online catalogues that include system quality, information quality, and service quality. The results of Cheng and Huang (2013) indicate that website design significantly influence customers’ purchase attitude and satisfaction. This demonstrated the importance of website design to the success of e-commerce. In the following paragraphs, this section will present each factor influence in online group buying (Ibid).

2.5.1 Market Stimuli

Price

According to Cai and Xu (2008), price is a key factor in stimulating customers to decide whether they will make a purchase or not when they shopping via e-commerce. Online group buying is a new selling system which provides customers a discounted price for different kinds of products and services (Erdogmus and Cicek, 2011). Erdogmus and Cicek (2011) pointed out two types of OGB price systems. The one type is dependent on dynamic pricing mechanisms. OGB referred to collective buying where products and services can be purchased at significantly reduced prices on the condition when a required number of customers participate in the purchase as a group (Erdogmus and Cicek, 2011; Cheng and Huang, 2012). During a given period of time, customers will enjoy the products and services at the same discounted price when they formed a group (Erdogmus and Cicek, 2011). Group buying vendors offers another type of OGB discount price, they provided certain products and services over 50% price discount, and the price would be fixed when the number of buyers increased or decreased (Erdogmus and Cicek, 2011; Cheng and Huang, 2012).

The online marketplaces provide a given price information, which help customers to evaluate
product or service alternatives in different online group buying websites and to select the cheapest product (Cai and Xu, 2008; Pi et al., 2011). If the products price is similar to that of others, the detailed online information of quality could help the customers make a better decision-making (Park and Kim, 2003; Pi et al., 2011). However, Wu and Lin (2006) and Pi et al. (2011) indicate that when the customers cannot search for certain information about the products or services in different online group buying, such as detailed product description, picture, and size, customers would decide to purchase the products or services with the lower prices. Therefore, the following hypothesis is raised:

H4: Low price is positively associated with customers’ buying decision-making to engage in online group buying.

Word of Mouth (WOM)

WOM is important for customers to decide whether purchase online product or not (Turban et al., 2006; Abbas et al., 2008). Other customers is one of product recommendation source is from other customers, for instance, relatives, friends and colleagues. A good WOM only stem from a customer’s satisfaction with a product or service they have purchased (Ibid). Customers sometimes ask close friends or relatives about which attributes need to consider for a given product, which means that the recommendation from friends or relatives can help customers make decide to purchase the product or not (Abbas et al., 2008). Another source is recommendation systems which “are being used by an ever-increasing number of ecommerce sites and retailers to help customers find products to purchase, or service to use.” (Abbas et al., 2008, p. 190) The systems are proposing the top e-company on the website. When customer input the keyword of the product, the rank of the companies’ list will be based on the performance of the companies (Turban et al., 2006; Abbas et al., 2008). The companies with better performance appeared on the top. This system helped the customers made the right decision and found the most appropriate product or service (Abbas et al., 2008). In addition, the system could recommend product or service to customers that depend on customers’ registration information and past purchasing history (Ibid). Thus, WOM
reviews from virtual communities are very useful to the customers, this hypothesis is proposed:

\[ H5: \text{Word of Mouth is positively associated with customers’ buying decision-making to engage in online group buying.} \]

2.5.2 E-commerce systems

Logistics service

According to Anderson and Srinivasan (2003), the customers access an online shop website and select products first, and after they make a choice to purchase, they will pay for the products via electronic payment or a credit card. Then the products will be delivered to the customers’ home. According to different products and online shops, the customers may need to pay the freight or not (Anderson and Srinivasan, 2003). In addition, Yuan et al., (2010) states “physical distribution is generally regarded as part of a firm’s outbound logistics and deals with finished products and incorporates a relationship between the firm and its customers and provides time, place and form utilities that are crucial to customer service” (p. 418). The logistics service quality is important because it influences the customer’s perception about online shop’s home delivery service, and it is also seen as a factor for the customer to evaluate their online shopping experiences (Yuan et al., 2010). There are four constructs affecting logistics service in e-commerce. The first construct is timeliness which means that the choice of delivery date including delivery within a specified time and prompt delivery. The availability of order tracking and system, and the minimum level of damage in-transit are the second and third construct that affecting logistics service in e-commerce. The finally construct involves ease of return, promptness of collection and replacement in the event of the goods received being unsatisfactory (Xing and Grant, 2006). Careful consideration of the constructs of logistics is vital in influencing customers to make a positive buying decision in today’s online marketplace (Yuan et al., 2010). Thus, the sixth hypothesis is given:
**H6: Logistics service is positively associated with customers’ buying decision-making to engage in online group buying.**

**Website Design**

According to Oppenheim and Ward (2006), the website design, directly affect the customers which include the color, text style and webpage layout. The website design is meant to enable the customers to navigate the site easily and to facilitate the purchasing decision. The design of website is one of the standards for customers to decide whether they will purchase the goods from the company or online; the high quality website has positive influence on customers’ decision (Liao et al., 2006).

Park and Kim (2003) state shopping online is like purchasing through paper catalog. Since customers cannot touch or smell products in e-commerce, they have no access to the whole information about products on the websites. According to Marsha (2011), a website is the foundation of customer service connections in e-commerce, vendors provides related information to attract customers’ trust and prompt them to make purchase decision (Ibid). The information includes mailing address and phone number through which helps customers to contact the vendor. In addition, the link with FAQs (frequently asked questions) offers matching questions which respond to “canned” answers and these are predetermined responses to common questions (Turban et al., 2006; Marsha, 2011). This paper wants to test whether website design affects online group buying, the following hypothesis is raised:

**H7: Website design is positively associated with customers’ buying decision-making to engage in online group buying.**

**2.6 Theoretical model**

This section describes the relationship between the online group buying decision-making and the factors of social exchange theory, market stimuli and e-commerce system. That includes reciprocity, loyalty, trust, price, Word of Mouth, logistics service and website design. This paper will analyze the following factors that influence customers’ online group buying decision-making combine with the customers’ characteristic in order to ensure the analysis
completed from the customer perspective.

*Figure 1* Factors affect online group buying decision-making by Shiau and Luo, 2012 and Turban, et al. (2006)
3 Methodology

This paper aims to detect and delve into the factors which affect Chinese customers buying decision-making in online group buying. In the quantitative research, this paper will introduce design of research, the design of the questionnaire, population, sampling and data collection procedure, the measurements, and validity and reliability will be present.

3.1 Research Design

According to Burns and Bush (2006), there are three different types of research designs based on the different purposes: exploratory research, causal research and descriptive research. Descriptive research focuses on the answers to questions of who, what, when and how. The sample from descriptive study is representative. Moreover, aim of a descriptive research is to explore and explain a person, an organization or a phenomenon (Saunders et al., 2009). The research question of this paper is: what factors influence customers’ online group buying decision-making in emerging market? This paper aims to answering the question “what”. The descriptive research therefore is appropriate and chosen for this paper. Overall, the research design in this paper is defined as descriptive.

Quantitative and qualitative approaches are widely used in social science area. Quantitative research emphasizes a description of numerical data, and presents a relationship between theory and research (Bryman and Bell, 2011). This research is a deductive approach. The deductive approach refers to the relationship between theory and research which is inferred from former references (Bryman and Bell, 2011). This research proposes hypotheses and then designs a research in order to test and support the relationship between theory and research. Therefore, this research applies to the quantitative research and the deductive approach.

In this research, the quantitative data is collected by using a questionnaire method. In this study, the collected data will be analyzed by using SPSS software and further test the hypotheses. So the study needs to collect quantitative data, because quantitative data can
provide a solid foundation for the further analysis, and the data can be analyzed by using statistic tools (Denscombe, 2010). Moreover, the paper uses the regression analysis to test hypotheses. Hence it requires that the quantitative data can change themselves into a numerical form. And then they will be analyzed by using statistical tools. Quantitative data can be transferred into different forms of statistical techniques (Denscombe, 2010). Therefore, this study uses a questionnaire method to collect the quantitative data.

3.2 Research Method

Denscombe (2010) mentions four different methods of social research in his book: questionnaire, interview, observation and documents. In this study, the author selects questionnaire to solve the research question and to achieve the research purpose.

3.2.1 Questionnaire

Questionnaire is a method used to set up the questions that the researcher wants the respondents to answer. (Burns and Bush, 2006) The information collects from questionnaire is divided into two categories: facts and opinions. Opinions include attitude, beliefs, and preference and so on. If the respondents need to answer the questions about opinions, their judgments are more necessary than the mere reporting (Denscombe, 2010).

In this paper, questionnaire is chosen as the research method to deal with the research question: What factors influence customers’ online group buying decision-making? This question is asked to probe respondents’ opinion and aligns well with the nature of the questionnaire (Denscombe, 2010). The online questionnaire is appropriate to investigating the influential factors on the Internet. Website questionnaire is one kind of online questionnaire, the questionnaire will be designed as a web page and published on a popular and niche targeting website in order to attract more respondents (Ibid). The reasons for choosing website questionnaire are as follows. Firstly, the questionnaire can be attractive and clear with the special design of web pages, for example: using colorful background or clear button and frame (Ibid). Secondly, a database can be collected automatically when using a website questionnaire, this kind of questionnaire saves time and guarantees accurate database
(Ibid). However, the major barrier between questionnaire respondents and researchers is that the website questionnaire barely communicates with the two. Website questionnaire, moreover, can hardly examine respondents’ truthfulness (Denscombe, 2010). The bias of website questionnaire appears where the respondents may misunderstand the question. Furthermore, no timely communications are made there (Ibid). Questionnaire design and questionnaire piloting are two necessary steps before conducting the questionnaire.

### 3.2.2 Measurements

The questionnaire uses the Likert-scaled measurements to measure the degree of customers' perceptions of each dimension and its indicators (Bryman and Bell, 2011). Likert scale defines as a format which is used to ask respondents' attitudes to questions. Respondents answer their degree of agreements with a range of measurements. The scale can examine the intense reflection that respondents perceive a dissatisfactory problem or a satisfied aspect (Ibid). The thesis uses seven Likert-scaled measurements (1 "strongly disagree" to 7 "strongly agree"). On one hand, seven type measurements can decrease bias of the results and makes the results more accurate comparing with five Likert scaled measurements. On the other hand, Seven Likert scaled measurements can provide more options for respondents, which can reflect their attitudes more accurately. (Ibid). Besides, seven type measurements can be pre-coded to answers. So it is convenient for this paper to turn this kind of data into software. It is a simple task to use software to analyze the data (Ibid). Based on these reasons, the answers to each question give seven measurements.
### 3.2.3 Operationalization and measurement of variables

| Concept                        | Conceptual Definition                                                                                                                                                                                                 | Operational Definition                                                                                                                                                                                                 | Measure                                                                                   | Item used                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purchase Decision-making      | It takes place before purchase behavior comes into question. Even though the customers have bought something, they are reevaluating the different stages of the process afterwards (Fill, 2009). | A measure reflects whether purchase decision-making affect customers’ online group buying (Shiau and Luo, 2012)                                                                                                           | Pervious purchasing experiences (Shiau and Luo, 2012)                                                                                                                                                                                                                                                                                                                                                      | 5. Perceived attitude or experiences influence my buying decision-making on online group buying again (Shiau and Luo, 2012)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                               |                                                                                                                                                                                                                         |                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                               | 6. When I consider whether buying or not on OGB, I am worried that product quality may not meet my expectations (Shiau and Luo, 2012).                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

19
<table>
<thead>
<tr>
<th>Concept</th>
<th>Conceptual Definition</th>
<th>Operational Definition</th>
<th>Measure</th>
<th>Item used</th>
</tr>
</thead>
</table>
| Reciprocity | It was defined by responding to a positive action with another positive action, rewarding kind of actions (Davenport and Prusak, 2000). | A measure reflects whether reciprocity affect customers’ online group buying decision-making | 1. Writing comments (Hsu and Lin, 2008)  
2. Purchase experiences (Hsu and Lin, 2008) | 7. I find that writing and commenting on OGB can be mutually helpful (Hsu and Lin, 2008).  
8. I find my participation in OGB can be advantageous to me and other customers (Hsu and Lin, 2008). |
| Loyalty | Loyalty is referred to attracting the customers, and getting them to purchase often. The sellers bring more benefits to customers and build them loyalty (Davenport and Prusak, 2000). | A measure reflects whether loyalty affect customers’ online group buying decision-making | 1. Positive attitude affect customer to return online group buying in the future (Shiau and Luo, 2012)  
2. Earn respect from others (Hsu and Lin, 2008). | 9. I would like to use a given online group buying website for my needs, and I will always return to this site in the future (Hsu and Lin, 2008).  
10. I earn respect from others by participating on OGB (Hsu and Lin, 2008). |
| Trust | Trust is believed to be used in calculating the perceived attitude or confidence of purchasing in e-commerce (Fang and Tseng, 2012). | A measure reflects whether trust affect customers’ online group buying decision-making | 1. Uncertainty vendor or products’ information (Shiau and Luo, 2012) | 11. I can always trust seller of OGB (Zineldin and Jonsson, 2000)  
12. The seller keeps promises (Zineldin and Jonsson, 2000)  
13. The seller is always honest with me (Zineldin and Jonsson, 2000) |
<table>
<thead>
<tr>
<th>Concept</th>
<th>Conceptual Definition</th>
<th>Operational Definition</th>
<th>Measure</th>
<th>Item used</th>
</tr>
</thead>
</table>
| **Market      | **Price**                                                                            | Price is a key factor in stimulating customers to decide whether they will make a purchase or not when they shopping via e-commerce (Cai and Xu, 2008). | A measure reflects whether low price affect customers’ online group buying decision-making | 14. When I decide to buy a product or not, I would like to buy the lowest-priced product (Erdogmus and Cicek, 2011).  
15. When it comes to group buying, I focus on heavily price (Erdogmus and Cicek, 2011).  
16. When I decide to buy a product or not, I look for the more discount product (Cai and Xu, 2008). |
| stimulii      |                                                                                       |                                                                                                          | Lower price or discount attracts more customers to purchase (Erdogmus and Cicek, 2011). |                                                                                                                                 |
| **Word of     | **Mouth**                                                                            | WOM is an effective routine to provide product information to potential consumers from a user perspective (Park and Kim, 2008).                     | A measure reflects whether word of mouth affect customers’ online group buying decision-making | 17. When I decide to buy a product or not, I am influenced by relatives, friends or colleagues’ suggestions (Abbas, Sanaz and Nima, 2008).  
18. When I buy a product, I am influenced by recommendation systems (Abbas, Sanaz and Nima, 2008). |
<table>
<thead>
<tr>
<th>Concept</th>
<th>Conceptual Definition</th>
<th>Operational Definition</th>
<th>Measure</th>
<th>Item used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics service</td>
<td>“Physical distribution is generally regarded as part of a firm’s outbound logistics and deals with finished products and incorporates a relationship between the firm and its customers and provides time, place and form utilities that are crucial to customer service” (Anderson et al., 2003. pp. 418)</td>
<td>A measure reflects whether logistics service affect customers’ online group buying decision-making</td>
<td>1. Delivery within a specified time and prompt delivery (Xing and Grant, 2006). 2. Ease of return (Xing and Grant, 2006). 3. Order tracking system (Xing and Grant, 2006).</td>
<td>19. I am worried whether I can get a product on time (Algestam and Kilicaslan, 2011). 20. I believe the availability of order tracking system when I decide to buy a product on OGB or not (Algestam and Kilicaslan, 2011). 21. I think OGB website can give me prompt service (Liu, 2013). 22. I look for ease of return when the received product makes me unsatisfactory (Algestam and Kilicaslan, 2011).</td>
</tr>
<tr>
<td>Website design</td>
<td>Website design, directly affect the customers which include the color, text style and webpage layout. The website design is meant to enable the customers to navigate the site easily and to facilitate the purchasing decision (Oppenheim and Ward, 2006).</td>
<td>A measure reflects whether website design affect customers’ online group buying decision-making</td>
<td>1. Complete website information (Park and Kim, 2003). 2. Website operates reliably (Park and Kim, 2003).</td>
<td>23. OGB website provides information to be easily accessible to me(Park and Kim, 2003) 24. The set of function on OGB website makes it easier for me to decide purchase the products or not(Park and Kim, 2003) 25. OGB website offered the information is accurate(Park and Kim, 2003) 26. OGB website provides me with a complete information(Park and Kim, 2003) 27. OGB website operates easily(Park and Kim, 2003)</td>
</tr>
</tbody>
</table>
3.2.4 Data Collection & Questionnaire Design

This questionnaire is planned to be posted on a website with a high browsing rate for one week from 28th April to 5th May 2014. Baidu PostBar (tieba.baidu.com) is “the world’s first and largest Chinese-language query-based searchable online community platform.” (Baidu, n.d.) On this online community platform, users can communicate with other users and freely publish or share their texts, photos, videos and etc. Its system is similar as the bulletin board system (BBS). Hence, Baidu PostBar is the appropriate place to do this questionnaire in China. The website questionnaire is attached in Baidu PostBar’s online group buying field, and the customers who participated online group buying are invited to answer it.

In this paper, the linear regression is used to examine the hypothesized relationships among seven factors (reciprocity, loyalty, trust, price, recommendation, logistics service and website design). According to Pallant (2010), the causal paths include each standardized path coefficient, t-value and significance level for each hypothesis. The standardized path coefficient indicates the connection between dependent variable and independent variable.

At the beginning of the questionnaire, the author introduces herself and research purpose to the respondents in order to get more authentic answers. In the website questionnaire, there are 27 close-ended questions. Question 1 is set to testify whether the respondents have bought products on online group buying, and leads the respondents who have purchasing experience can answer questions 2 to 27. The reason for set up the first question is: Baidu PostBar only could limit the questionnaire respondents have participated online group buying, but no limitation for someone who has purchasing experiences on online group buying. Questions 2 to 4 focus on the background of the respondents, such as: age, gender and monthly income. The respondents’ background could use to deep analyze the factors from customer perspective. Question 5 to 27 asks about the detailed information of each factor, which affects customers’ online group buying decision-making. All the concept of each question strictly follows the theoretical frame.
3.2.5 Data Analysis

In this paper, the regression analysis is used to examine the hypothesized relationships among seven factors (reciprocity, loyalty, trust, price, recommendation, logistics service and website design). Regression analysis is used to investigate the relationship between a dependent variable and an independent variable (Studenmund, 2006). For this study, the dependent variable is the online group buying decision-making and independent variable is each factor. The results show the coefficient of each factor is interpreted to be able to support or reject the hypotheses.

According to Pallant (2010), the linear regression indicates whether a relationship between a dependent variable and one or more independent variables. In linear regression, data are modeled applying linear predictor functions, and unknown model parameters are estimated from the data. The results of regression analysis describe different types of values, for this paper t-value, R-square value, β-value (Beta), adjusted R square and significance level for each hypothesis (Pallant, 2010). When the t-value is higher 1.96 at 95% confidential interval, which meaning the independent variable has a statistically significant effect on dependent variable (Bryman and Bell, 2011). When the significance level (p-value) is lower than 0.05 at 95% confidential interval, which indicating the independent variable has a statistically significant effect on dependent variable.

The R-square is a squared correlation index that shows the proportion of variance of a dependent variable, which is explained by independent variable (Bryman and Bell, 2011). The higher values of R-square are desirable that measure the relationship of dependent variable and independent variable is strong. In this paper, if the R-square between the dependent variable (online group buying decision-making) and the independent variable (one of seven factors) is higher that means this factor is influencing strongly the online group buying decision-making.

According to Bryman and Bell (2011), the β-value is used to denote the standardized regression coefficient. A high β-value measures a strong relationship between a dependent variable and independent variable; for example, a positive β-value indicates a positive relationship between the variables (Ibid).
3.2.6 Questionnaire Piloting

In a questionnaire, the question bias appears when the wording or format of questions affects the respondents’ answers or understanding of the questions (Burns and Bush, 2006). Before the questionnaire came into effect, the author invited fifteen people to pre-test the questionnaires both in English and in Chinese. These fifteen people include the school professors, friends, strangers; they put some comments on words, structure and grammar of the questionnaire in order to avoid the misunderstanding. For example, the question 16 was decided depend on the comments from Chinese people, they prefer understandable language rather than formal academic language to ask the question. Plus, most of people do not want spend time to complete a strangers’ questionnaire, especially on the Internet. The comments from them are quite useful to avoid question and data bias. After the questionnaire piloting, the researchers achieved a higher standard questionnaire, which paves a smooth way for research analysis (Bell, 2010).

3.2.7 Size of Questionnaire Sample

The aim of this study is to investigate what factors influence customers’ online group buying decision-making in emerging market. Considering the huge amount of online group buying customers, the author has to zoom out the population size so as to maintain the research as effective as possible. There are two types of choosing sampling: Probability sampling and non-probability sampling. Probability sampling is more random than the non-probability (Denscombe, 2010). The convenience sampling of non-probability sampling techniques is chosen for this paper. Denscombe (2010) stated that quick, cheap and easy are the major advantage of convenience sampling, this sampling always used when the researchers face limited money and time. The samples should be chosen from those, who notice and filled in the website questionnaire, the process is totally uncontrollable for the researchers. There are three approaches to determinate the size of the sample: statistical, pragmatic and cumulative. According to the trait of this paper, the cumulative approach is a suitable one to decide the size of sample. All the customers who have online group buying experiences in China are the researcher’s targeted group, the population of this study. However, this group is too large and according to Denscombe (2010), when the target group is too large and the researchers are not able to know the whole population, cumulative approach is suitable to collect
data from this population.

3.3 Research Strategy

The research strategy used in this study is a survey. Bell (2010) defines a survey as: “the aim of survey is to obtain information which can be analyzed and patterns extracted and comparisons made” (p.13). This paper intends to study people who have online group buying experiences in China. It is a large population with a specific issue which is a group of people has relatively uncomplicated facts and behaviors, so it is well suitable to use a survey. In this paper, after one-week conduction of online questionnaire, 459 questionnaires in total were received through the online survey system Wenjuan.com. Among 459 questionnaires, 84 respondents have no yet anything experiences from online group buying. The remaining 375 respondents finished the questionnaire completely; hence there are total 459 samples and 375 effective samples. The response rate of questionnaire is 81.7%.

<table>
<thead>
<tr>
<th>Total sample</th>
<th>459</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncompleted</td>
<td>84</td>
</tr>
<tr>
<td>Effective Sample</td>
<td>375</td>
</tr>
<tr>
<td>Response Rate</td>
<td>81.7%</td>
</tr>
</tbody>
</table>

Table1. The sample size of questionnaire

3.4 Choice of Statistical Software

After collecting data, this paper chooses SPSS software to analyze the quantitative data. Due to it makes the results more scientifically and accurately when further data was analyzed by SPSS statistical software. In this study, the seven hypotheses will examine the relationship between the customers’ online group buying decision-making and each factor (reciprocity, loyalty, trust, price,
recommendation, logistics service and website design) separately. Regression analysis is used to investigate the relationship between a dependent variable and an independent variable (independent variables) (Studenmund, 2006). The regression analysis can find out the seven relationships. The dependent variable is online group buying decision-making and independent variable is each factor. The results of the coefficient of each dimension can show whether a positive or negative relationship between online group buying decision-making and each factor.

3.5 Reliability and Validity

As Denscombe (2010) defined reliability refers to “whether a research instrument is neutral in its effect and consistent across multiple occasioned of its use”. (Denscombe, 2010, p.298) In order to enhance the reliability, pre-test questionnaire is implemented in this paper. Since piloting questionnaire can improve the quality of questionnaire, and ensure respondents understand each questions well (Ibid). For the data analysis part, SPSS 21.0 was applied to measure reliability, including reliability of the whole scale and subscales of each variable. In this paper, the Cronbach alpha is a commonly used test of internal reliability. The figure 0.8 is typically applied as a rule to denote an acceptable level of internal reliability (Bryman and Bell, 2011). The reliability coefficients (Cronbach alphas) are examined by using Statistical Package for Social Sciences (SPSS) software. The value is between 0(indicating no internal consistency reliability) and 1 (indicating perfect internal consistency reliability) (Bryman and Bell, 2011). In addition, the minimum level of the value is 0.6 which describing an accepted value and efficient internal consistency reliability. The value over 0.8 is preferable, which is showing very good internal consistency reliability (Ibid).

Validity “refers to the accuracy and precision of the data” (Denscombe, 2010, p.298). Construct validity refers to operationalization that can assess how well a set of indicators really measures the construct and concepts in a questionnaire (Bryman and Bell, 2011). To increase the construct validity of this study, the 22 items are generated based on previous studies (Zineldin and Jonsson, 2000; Hsu and Lin, 2008; Shiau and Luo, 2012). The questionnaire guide need to strictly followed the theoretical framework, and ensure that the researcher’s collected data related to the topic and measured data correctly (Denscombe, 2010). Moreover, the criterion validity was mentioned by
statistical hypothesis testing, which is to identify relationships between independent variables and dependent variables (Bryman and Bell, 2011).
4 Results and Analysis

Chapter 4 describes and analyses the empirical data that are collected from 375 questionnaire respondents, that included customer characteristics, test and the previous seven hypotheses will be tested based on the results.

4.1 Descriptive Data of Customer Characteristics

The table 2 shows the distribution of customer characteristics, and the following section analyzes each item.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Items</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td>Male</td>
<td>178</td>
<td>47.47</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>197</td>
<td>52.53</td>
</tr>
<tr>
<td><strong>Age group</strong></td>
<td>&lt;18</td>
<td>18</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>18-29</td>
<td>193</td>
<td>51.47</td>
</tr>
<tr>
<td></td>
<td>30-39</td>
<td>80</td>
<td>21.33</td>
</tr>
<tr>
<td></td>
<td>40-49</td>
<td>39</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>&gt; 49</td>
<td>45</td>
<td>12</td>
</tr>
<tr>
<td><strong>Monthly income</strong></td>
<td>&lt;1000</td>
<td>71</td>
<td>18.93</td>
</tr>
<tr>
<td>(RMB)</td>
<td>1000-3500</td>
<td>105</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>3501-6000</td>
<td>99</td>
<td>26.4</td>
</tr>
<tr>
<td></td>
<td>6001-8500</td>
<td>53</td>
<td>14.13</td>
</tr>
<tr>
<td></td>
<td>8501-11000</td>
<td>26</td>
<td>6.93</td>
</tr>
<tr>
<td></td>
<td>&gt;11000</td>
<td>21</td>
<td>5.6</td>
</tr>
</tbody>
</table>

Table 2: Demographics details of the respondents

Gender

From the 375 valid questionnaire respondents, there are 178 male respondents and 197 female respondents. In this sample, there is unbalance distribution of genders, and female group is larger than male group. So the results indicate that online group buying female people might be more than male people in the Chinese online group buying market.
Age

In the table, the 18-29 age group has the highest percentage (51.47%) among these five age groups, followed by the 30-39 age group (21.33%). The smallest proportion of the age group is less than 18 age group; there is only 4.8% of the total percentage. The 40-49 age group and over 49 age group account for similar percentage (10.4% and 12%). From the results, it can be seen that the age groups of the respondents focus on 18-29 years old groups. The results show that the unbalanced percentage for each age group, customers who are in 18-29 age group is biggest. Since the Chinese online group buying market targets young people as the major target group.

Monthly Income

For the monthly income, 28% of respondents have income between 1000 to 3500 Yuan per month. In the following, of 99 respondents have the monthly income is between 3501 and 6000 Yuan, it accounts for 26.4%. 18.93% of the respondents have income less than 1000 Yuan per month. Followed by the respondents’ monthly income is between 6001 and 8500 Yuan (14.13%). The last two lower proportion of the respondents’ income between 8501 and 11000 Yuan, and more than 11000 Yuan which is 6.93% and 5.6%. From the results, Chinese respondents associate with low monthly income prefer to engage in online group buying.

4.2 Reliability Analysis

The reliability analysis uses the Cronbach alpha to examine the internal consistent. The decision rule is that the alpha is over 0.8, the internal consistent of the indicators within each dimension is high. In addition, alpha is 0.6 that was been suggested as a rule for considered to be efficient (Bryman and Bell, 2011). The reliability coefficients (Cronbach alphas) are examined by using Statistical Package for Social Sciences (SPSS) software. From the results, it could be excluded that there is a connection between the amount of items and the value of Cronbach alpha. The highest alpha is website design (0.852), followed by trust (0.818), price (0.743), reciprocity (0.736), word of mouth (0.705), loyalty (0.674) and logistics service (0.627). All the seven Cronbach alphas are all over 0.6, meaning results have reliability in our study.
4.3 Factor Analysis

Factor analysis is to reduce the number of variables with a specific concept into a smaller set of factors or items (Bryman and Bell, 2011). The factor analysis examines the pattern of relationships between the variables and from that calculates new variables to be used (Bryman and Bell, 2011). For this paper, the factor analysis will measure to determine whether all the questions are used for analyzing the data in SPSS. Before carrying out factor analysis, the correlation matrix among seven factors should be calculated to examine the feasibility through Kaiser-Meyer-Olkin (KMO). According to Malhotra (2010), the KMO measures the sampling adequacy which should be greater than 0.5 for a satisfactory analysis to proceed. If any variables has a value lower than 0.5, consider dropping one of them from the analysis (Malhotra, 2010). For example, when the results showed that KMO coefficient was 0.740, which indicate the survey data was suitable for conducting factor analysis. In addition, Bartlett’s test is another measurement of the strength of the relationship among variables (Ibid). It tests the null hypothesis that correlation matrix is an identity matrix. The values of matrix, which in all of the elements are between 1 and 0 (Ibid). For instance, when the significant of the Bartlett’s test is 0.05, the hypothesis is significant. After a factor analysis on each factor and in every measurement, the results indicate that the most of scales have good validity (Ibid). However, there is one question have some problems, its KMO coefficient was 0.864 that is larger than 0.5, and the significant of Bartlett’s test is 1.056 which is bigger than 1. Therefore, the result of these items could be considered strengthening of each hypothesis of this paper, there are one question has been dropped.
4.4 Correlation Analysis

Correlation analysis indicates the relationship between two variables, if their relationship is strongly correlated decrease or increase in one variable will be accompanied by an increase or decrease in another variable (Bryman and Bell, 2011). Pearson’s r is a measurement for examining relationships between two variables. The coefficient will between 0 and 1 that presents the strength of relationship. In addition, when the coefficient between variables should lower than 0.9, which means independent variables correlate to highly with the same concepts. (Bryman and Bell, 2011). Table 4 presents a correlation below 0.9 among all the variables; therefore the correlation was considered acceptable in this paper.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Online group buying decision making</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Reciprocity</td>
<td>.593*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Loyalty</td>
<td>.467</td>
<td>.685</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Trust</td>
<td>.539*</td>
<td>.674*</td>
<td>.625</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Price</td>
<td>.726*</td>
<td>.528*</td>
<td>.562*</td>
<td>.467</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Word of mouth</td>
<td>.658*</td>
<td>.596*</td>
<td>.736*</td>
<td>.517*</td>
<td>.479*</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Logistic service</td>
<td>.694</td>
<td>.635*</td>
<td>.495*</td>
<td>.673*</td>
<td>.475*</td>
<td>.598*</td>
</tr>
<tr>
<td>8</td>
<td>Website quality</td>
<td>.582*</td>
<td>.749*</td>
<td>.645*</td>
<td>.721*</td>
<td>.463*</td>
<td>.592*</td>
</tr>
</tbody>
</table>

Table 4: Correlation analysis

* Correlation is significant at the .01 level (2-tailed)
4.5 Hypotheses Testing

This section will illustrate whether or not the seven hypotheses are supported. The hypotheses are tested by using linear regression analysis. The results focus on analyzing the coefficient and the p-value. The coefficient can examine the relationship between the dependent variable and independent variable(s). And then the size of coefficients can help us to find which indicator or indicators have relative big effects on its dimension. The higher coefficient the indicator has, the bigger effect on its dimension has. The p-value is lower than 0.05 that shows the independent variable is significant (Bryman and Bell, 2011). In addition, the R Square is defined by one variable explains how much of variable by other. In this paper, the R Square of this model is 0.673, which means this model has 72.8% of the variance in customers’ online group buying decision-making. The results of linear multiple regression analysis indicate the adjusted R square. It is a statistical measure that represents how much percentage of dependent variable that can be explained by independent variables.

4.5.1 Hypothesis H1: Reciprocity

*H1: Reciprocity is positively associated with customers’ buying decision-making to engage in online group buying.*

Table 5 presents the adjusted R square of 0.728, which means reciprocity has 72.8% of the variance in customers’ online group buying decision-making. The coefficient beta of the reciprocity is 0.489, which is a positive value. The Beta value is 0.489, t-value is 9.432 which is larger than 1.96. The significance value is absolutely below 0.05. The p-value of this dimension is 0.000 (p<0.05). Therefore, the result implies that reciprocity is positively associated with customers’ buying decision-making to engage in online group buying. In addition, it has a strong significant related to online group buying decision-making. Therefore, the results supported the hypothesis H1.
Dependent variable: Reciprocity

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Adjusted R square</th>
<th>Beta</th>
<th>t-value</th>
<th>p-value</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>OGB decision-making</td>
<td>0.728</td>
<td>0.489</td>
<td>9.432</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 5: Regression analysis of reciprocity in OGB decision-making

4.5.2 Hypothesis H2: Loyalty

*H2: Loyalty is positively associated with customers’ buying decision-making to engage in online group buying.*

In the Table 6, the result shows adjusted R square of 0.097, which means loyalty has 9.7% of the variance correlate to customers’ online group buying decision-making. The relationship between the loyalty and the buying decision-making is negative and significant in the online group buying. Beta value of -0.001, t-value is 0.026 and smaller than 1.96; and p-value is 0.979 that is bigger than 0.05, it presents that loyalty is positively associated with customers’ online group buying decision-making. However, it is not significantly related to online group buying decision-making. The results do not support the hypothesis, as the significance level is bigger than 0.05. H2 is rejected.

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Adjusted R square</th>
<th>Beta</th>
<th>t-value</th>
<th>p-value</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>OGB decision-making</td>
<td>0.097</td>
<td>-0.001</td>
<td>0.026</td>
<td>0.979</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

Table 6: Regression analysis of loyalty in OGB decision-making

4.5.3 Hypothesis H3: Trust

*H3: Trust is positively associated with customers’ buying decision-making to engage in online group buying.*
H3 examines the relationship of trust and customers’ online group buying decision-making. Table 7 indicates adjusted R square of 0.548, which means trust has 54.8% of the variance correlate to customers’ online group buying decision-making. The Beta value is 0.093, t-value is 3.532 larger than 1.96, p-value is 0.000 that is absolutely lower than 0.05. It shows that trust is positively associated with customers’ online group buying decision-making, and this factor has a strong significant effect on online group buying decision-making. The results support the hypothesis H3.

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Adjusted R square</th>
<th>Beta</th>
<th>t-value</th>
<th>p-value</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>OGB decision-making</td>
<td>0.548</td>
<td>0.093</td>
<td>3.532</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 7: Regression analysis of trust in OGB decision-making

### 4.5.4 Hypothesis H4: Price

H4: *Price is positively associated with customers’ buying decision-making to engage in online group buying.*

H4 tests the factor price has a positive relationship with customers’ online group buying decision-making. Table 8 shows adjusted R square of 0.586, which means price has 58.6% of the variance correlate to customers’ online group buying decision-making. The high Beta value of price is 1.137 that measures a positive relationship between price and customers’ online group buying decision-making. The t-value of price is 19.307 which is bigger than 1.96, and p-value is 0.000 that is lower than 0.05. It indicated that price has a strong significant effect on customers’ online group buying decision-making. H4 is supported.
## 4.5.5 Hypothesis H5: Word of Mouth (WOM)

*H5: Word of Mouth is positively associated with customers’ buying decision-making to engage in online group buying.*

From the results, Table 9 indicates adjusted R square of 0.569, which means WOM has 56.9% of the variance correlate to customers’ online group buying decision-making. The Beta value of WOM is 0.138, t-value is 3.421 more than 1.96, and p-value is 0.001 that is less than 0.05. It measures this factor has positive and significant effect on customers’ online group buying decision-making. The results support the hypothesis H4.

### Table 8: Regression analysis of price in OGB decision-making

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Adjusted R square</th>
<th>Beta</th>
<th>t-value</th>
<th>p-value</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>OGB decision-making</td>
<td>0.586</td>
<td>1.137</td>
<td>19.307</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

### Table 9: Regression analysis of WOM in OGB decision-making

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Adjusted R square</th>
<th>Beta</th>
<th>t-value</th>
<th>p-value</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>OGB decision-making</td>
<td>0.569</td>
<td>0.138</td>
<td>3.421</td>
<td>0.001</td>
<td>Supported</td>
</tr>
</tbody>
</table>

## 4.5.6 Hypothesis H6: Logistic service

*H6: Logistic service is positively associated with customers’ buying decision-making to engage in online group buying.*

Table 10 shows adjusted R square of 0.078, which means logistic service has 7.8% of the variance correlate to customers’ online group buying decision-making. The Beta value is 0.015, the t-value is
0.638 which is smaller than 1.96, and p-value is 0.524 that is larger than 0.005. Therefore, the results show that has a positive relationship between logistic service and online group buying decision-making. However, this factor does not have a significant effect on customers’ online group buying decision-making. The results reject H6.

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Adjusted R square</th>
<th>Beta</th>
<th>t-value</th>
<th>p-value</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>OGB decision-making</td>
<td>0.078</td>
<td>0.015</td>
<td>0.638</td>
<td>0.524</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

Table 10: Regression analysis of logistic service in OGB decision-making

### 4.5.7 Hypothesis H7: Website design

*H7: Website design is positively associated with customers’ buying decision-making to engage in online group buying.*

Table 11 indicates the relationship between the website design factor and the buying decision-making is positive and significant in the online group buying. The adjusted R square of 0.697, which means website design has 69.7% of the variance correlate to customers’ online group buying decision-making. Since the Beta value of 0.842, t-value is 10.414 that is larger than 1.96. There is a positive correlation between website quality and customers’ online group buying decision-making. P-value is 0.000 which is absolutely smaller than 0.05, it indicates this factor has a strong significant related to online group buying decision-making. The results support the hypothesis H7.

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Adjusted R square</th>
<th>Beta</th>
<th>t-value</th>
<th>p-value</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>OGB decision-making</td>
<td>0.697</td>
<td>0.842</td>
<td>10.414</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 11: Regression analysis of website design in OGB decision-making
5 Discussion

In this chapter, according to the results and data analysis, comparing the results of the hypotheses test with results of previous studies and discuss.

After testing these seven hypotheses, this paper will discuss the analysis results in relation to previous research. In this paper, the R Square of this model was 0.673, which indicated a statistical measure that represents 67.3% of this model that could be explained by customers’ online group buying decision-making, and also means that 32.7% is explained by other variables. This value measured the success of this model. Sierra and Quitty (2005) and Shiau and Luo (2012) proposed two factors (reciprocity and loyalty) of social exchange theory related to assessing customers’ online group buying decision-making. From the results in this paper, two factors of social exchange theory supported to assessing customers’ online group buying decision-making, they are reciprocity and trust.

**H1: Reciprocity**

The survey results of hypothesis H1 presented that reciprocity is positively associated with customers’ buying decision-making to engage in online group buying. Davenport and Prusak (2000) connected knowledge exchange and sharing to reciprocity. In addition, reciprocity came out when customers get new information and buying products or services at a given price, and they could confirmed quickly to influence customer buying intention (Shiau and Luo, 2012). In this paper, the results could be explained by Hsu and Lin (2008), when customers found and read a leaving comment or other customers’ previous comments, that could help them to decide whether purchase on online group buying. The customers’ participation experiences or knowledge on online group buying could be advantageous to them and other customers who considered whether purchase. Due to the value of beta is 0.489 for reciprocity, and the adjusted R square of 0.728 that presented reciprocity can explain customers’ online group buying decision-making to 72.8%. Meanwhile, customers’ online group buying decision-making would be explained by 27.2% to other unknown variables or factors. Therefore, the results showed that reciprocity has a greater affect on Chinese customers’ online group buying decision-making.
H2: Loyalty

From the results, this hypothesis H2 was rejected, which indicated there is no association with loyalty to engage in customers’ online group buying decision-making. In this study, Chinese customers did not consider using a given online group buying website, and they would not always return to the same online group buying site in the future. Moreover, the customers did not receive more loyalty from others by participating in online group buying. However, Sierra and Quitty (2005) indicated that sharing information about online group buying would increase customers’ personal loyalty. Based on the data of this paper, the adjusted R square is 0.097 that mean there are 9.7% can be explained loyalty correlate to customers’ online group buying decision-making. The Beta value is -0.001, t-value is 0.026 which is smaller than 1.96, and p-value is 0.979>0.05. Comparing with previous study, this paper showed that customers’ online group buying decision-making would be affected by other unknown factors.

H3: Trust

When come to the relationship between trust and customers’ online group buying decision-making, trust is positively associated with customers’ buying decision-making to engage in online group buying. Shiau and Luo (2012) indicated that trust was customers’ confident belief on an online group buying sellers’ honesty towards the customers. In addition, trust could reduce customers’ sense of uncertainty about online shopping, and trust gained security for customers (Becerra and Korgaonkar, 2009). According to the results, that can be explained by Shiau and Luo (2012), customers can always trust the online group buying sellers, and the customers considered the sellers could keep promises when they purchased on online group buying. Also, the online group buying sellers are honest to their customers. Based on the data of results, the value of beta is 0.093 for trust, and the adjusted R square of 0.548 that presented reciprocity can explain customers’ online group buying decision-making to 54.8%. At the same time, customers’ online group buying decision-making would be explained by 45.2% to other unknown factors. T-value is larger than 1.96, and p-value is lower than 0.05. Hence, trust has a greater affect on Chinese customers’ online group buying decision-making.

H4: Price
The survey results of hypothesis H4 presented that low price is positively associated with customers’ buying decision-making to engage in online group buying. Previous study demonstrated the importance of price that influences customers online shopping purchase decision-making (Cai and Xu, 2008). Moreover, when the customers could not search for certain information about goods in different online group buying websites, they would consider to buy the goods with the lower prices (Pi et al., 2011). In this paper, the results can be explained by Erdogmus and Cicek (2011), the lower price or discount attracts more customers to purchase on online group buying. When customers consider whether purchase on online group buying, they focused on heavily price, more discount and lowest-priced product or services. According to the data of results, the adjusted R square is 0.586 that mean there are 58.6% can be explained price correlate to customers’ online group buying decision-making. The Beta value is 1.137, t-value is 19.307 which is larger than 1.96, and p-value is 0.000<0.05. Therefore, this study showed that customers’ online group buying decision-making would be influenced by low price.

**H5: Word of Mouth (WOM)**

When looking at the relationship between word of mouth and customers’ online group buying decision-making, the results presented WOM was positively associated with customers’ buying decision-making to engage in online group buying. In this paper, connected to Abbas, Sanaz and Nima(2008), the results indicated that WOM was important for customers to decide whether purchase online product. The customers would consider recommendation source to make purchase decision, such as suggestions from relatives, friends, colleagues and website recommendation systems. According to the findings, the beta value of 0.093 for WOM, and the adjusted R square of 0.569 that presented reciprocity can explain customers’ online group buying decision-making to 56.9%. T-value is 3.421>1.96, and p-value is 0.001<0.05. Hence, WOM has a greater effect on Chinese customers’ online group buying decision-making.

**H6: Logistic service**

According to the results, the hypothesis H6 was rejected that indicated no association with logistic service to engage in customers’ online group buying decision-making. Xing and Grant (2006) presented that careful consideration of the constructs of logistic is vital in affecting customers to
make a buying decision in today’s online marketplace. However, in this paper, Chinese customers did not consider so much about receiving products or services on time from online group buying. Also, the customers did not think online group buying website offered them prompt service. Following the data from the results, the adjusted R square showed that 7.8% could be explained logistic service correlate to customers’ online group buying decision-making. The Beta value is 0.015, t-value is 0.638 which is smaller than 1.96, and p-value is 0.524>0.05. Comparing with previous study, this paper showed that customers’ online group buying decision-making would be affected by other unknown factors, not affected by logistic service.

**H7: Website design**

When addressing the relationship between website design and customers’ online group buying decision-making. The results of hypothesis H7 showed that website design is positively associated with customers’ buying decision-making to engage in online group buying. The website design was enable the customers to navigate the site easily and to facilitate the buying decision (Liao, Palvia and Lin, 2006). In this study, related with Marsha (2011), when the Chinese customers decide whether purchase on online group buying, they were influenced by a site access information, and website operate easily or not. In addition, the customers thought online group buying website offered a complete and detailed products’ information that was accurate. When come to the survey results, the adjusted R square is 0.697 that means there are 69.7% can be explained website design correlate to customers’ online group buying decision-making. The Beta value is 0.842, t-value is larger than 1.96, and p-value is 0.000<0.05. Therefore, this study presented that customers’ online group buying decision-making would be influenced by website design.
6. Conclusion and Implication

In this chapter, the research will summarize the solutions about the research questions through the analysis of empirical findings. Limitation and future research will be discussed after the conclusion.

6.1 Conclusion

The purpose of this paper is to find out what factors affect customers’ online group buying decision-making in emerging market. This research model has been tested in this paper, applied to customers’ online group buying decision-making. Five hypotheses have been supported; they are H1, H3, H4, H5 and H7. However, H2 and H6 were rejected. There are two factors of social exchange theory are accepted: reciprocity and loyalty. Three factors of market stimuli and e-commerce systems are accepted: price, word of mouth and website design. Therefore, the results revealed that the buying decision-making is affected by five factors in online group buying in China: reciprocity, trust, price, word of mouth and website design.

In order to carry out this project, this paper summarized these five factors affect customers’ online group buying decision-making. A questionnaire was conducted in Chinese Baidu PostBar for empirical data collection. There are 375 respondents which 178 males (47.47%) and 197 females (52.53%) of the total collected in the end. In addition, the percentage of 18-29 age group were stronger influenced by online group buying decision-making than other age groups. Moreover, there are two similar distributions into both the monthly income group from 1000-3500RMB (28%) and income group from3501-6000RMB (26.4%), which were more influenced by online group buying decision-making than other monthly income groups.

6.2 Managerial Implications

Although this paper has shown which factors impact on customers’ online group buying decision-making, the results provide more benefits for online group buying vendors as well. Based on five factors affect customers’ online group buying decision-making, they are: reciprocity, trust, price, word of mouth and website design. There are different effects for managerial implications.
The results mention that a relationship with reciprocity is online group buying vendors should focus on providing good quality of products or services. In order to attract more customers to leave helpful comments that can help sellers gain more customers to purchase on their online group buying website. In addition, this study indicated that trust is positively associated with Chinese customers’ buying decision-making to engage in online group buying. Implications for online group buying vendors are to ensure they are honest with their customers. The vendors need to build up a friendly and stable relationship with their customers in order to gain more trust from their customers. Moreover, this paper suggests that online group buying vendors pay more attention to product’s price. Due to the customers would like to consider lower price and discount when they purchase on online group buying. Furthermore, online group buying vendors have to rich and enhance the information about product or services in their recommendation systems. Since the customers are influenced by recommendation systems when they decide whether buy a product on online group buying. Finally, this paper suggests online group buying vendors check and improve their website design about color, text, layout, website operation and completed and accurate product information. Due to a good website design can attract more customers to purchase on online group buying website.

6.3 Limitations and Future Research

This paper has successfully tested the positive relationship between the online group buying decision-making and the seven factors. But there are still some limitations in the study. First, online group buying as a new consumption model in e-commerce in emerging markets, and this market is not yet mature. Therefore, there may be other related dimensions that affect customer online group buying decision-making. Second, the survey has only been done for a specific time period. And the researching area setting just focuses on China. Therefore, the short time and a particular emerging country limit this study. If the study conducts during another time period and another online group buying market in other countries, the findings will be different from the current findings in this paper. Third, the uncertainty of website questionnaire’s quantity and quality, this is hard to control by researches.

Based on these limitations in this paper, there are some suggestions for future research. First, this paper has explored online group buying from customer perceptions which is buying
decision-making, future research could conduct online group buying from other points of customer perceptions, such as customer satisfaction, preference and loyalty. Moreover, the future research could investigate several online group buying companies in order to understand the customer online buying behavior from managerial perspectives. Second, there may be other dimensions that influence the customers’ online group buying decision-making. Therefore, the online group buying can be tested by using more than seven factors. Third, this study collected empirical data that is only using quantitative research and questionnaire approach. For future research, it could conduct the qualitative analysis in the future research to get more detailed information from customers or companies.
7. Reference


APPENDIX I Questionnaire (English)

Questionnaire in English:

Hello Sir/Madam,

I am a master student from Linnaeus University (Sweden) and I am currently doing my thesis on Chinese customer buying decision-making on online group buying. This questionnaire will be recorded anonymously which means that the answers are used solely on a summative level in my thesis; therefore it cannot be traced back to the individual. Please help me the following 27 questions which will only take you about 2-3 minutes.

Thanks in advance for your participation.

Part 1 Background

1. Have you ever participated online group buying?
   ○ Yes
   ○ No (If no, you do not need to answer the following questions)

2. What is your gender?
   ○ Male
   ○ Female

3. Which age group do you belong?
   ○ < 18
   ○ 18-29
   ○ 30-39
   ○ 40-49
4. What is your monthly income? (1RMB=0.1155EUR)

- <1000RMB
- 1000—3500RMB
- 3501—6000RMB
- 6001—8500RMB
- 8501—11000RMB
- >11000RMB

Part 2: For the following questions, there are seven options for each question from 1 to 7. 1= strongly disagree and 7= strongly agree.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. I think the previous attitude or experiences affect whether I continue to purchase on online group buying</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>6. When I consider whether buying or not on OGB, I am worried that product quality may not meet my expectations</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>7. I find that leaving a comment and reading other consumers’ previous comments on OGB website can be mutually helpful</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>8. I think my participation experiences on OGB can be advantageous to me and other customers</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>9. I would like to use a given online group buying website for my needs, and I will</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>always return to this site in the future</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I receive more respect from others by participating in OGB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I can always trust seller of OGB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I think the seller of OGB keeps promises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. The seller of OGB is always honest with me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. When I comes to online group buying, I focus on heavily price</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I would like to consider the lowest-priced product when I come to online group buying</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. When I consider whether purchase a product on online group buying, I prefer to more discount product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. When I participate online group buying, my decision about the product will be influenced by relatives, friends or colleagues’ suggestions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. When I consider whether buy a product or service on online group buying, I am influenced by recommendation systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. When I decide to purchase on online group buying website or not, I consider whether I can receive a product on time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. When I consider to purchase on online group buying website or not, the availability of order tracking system is important for me</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>21. I think online group buying website could provide me prompt customer service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. I look for ease of return when the receives unsatisfactory product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. When I consider to purchase on online group buying or not, a website make me to access information easily</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I think a set of website function on online group buying, it easier for me decided to purchase a product or not</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. I think online group buying website provides the information is accurate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. I think online group buying website provides me with a complete and detailed information about a product or service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. I think online group buying website operates easily</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX II Questionnaire (Chinese)

我是来自瑞典林奈大学的学生，目前正在完成一篇关于中国消费者在团购中的购买决策的论文。这份匿名的问卷调查的答案将仅用于我论文中的总结用途，而且无法追溯至个人。请放心回答以下的 27 个问题，这将仅占用您约 2-3 分钟的时间。

提前感谢您的参与！

第一部分背景信息

1. 请问您是否有过团购经历？
   ○ 是
   ○ 否（如选否，仅回答本题而无需回答以下问题）

2. 请问您的性别是？
   ○ 男
   ○ 女

3. 请问您的年龄是？
   ○ 18 岁以下
   ○ 18—29 岁
   ○ 30—39 岁
   ○ 40—49 岁
   ○ 49 岁以上

4. 请问您的月收入是？
   ○ 1000RMB 以下
   ○ 1000—3500RMB
   ○ 3501—6000RMB
   ○ 6001—8500RMB
   ○ 8501—11000RMB
   ○ 11000RMB 以上
第二部分：对于下面的问题，每个问题后面有7个方框，从左到右代表数字1到7，而数字表示您对每题所陈述的观点同意与否的程度：1代表非常不同意，7代表非常同意。
在您做选择时，请点击相应的数字下方框

<table>
<thead>
<tr>
<th></th>
<th>非常不赞同</th>
<th>非常赞同</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. 我认为以往的团购经历会影响我是否继续团购</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. 当我考虑是否购买团购产品时，我担心产品质量和我预期的不同</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. 团购网上其他客户的评论和评价对我做购买决策有影响</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. 我认为我以往的团购经历有利于我以后可以更好的购买团购商品</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. 我会选择某个特定的团购网站，并且持续在这个团购网站上购物</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. 我的团购经历很有说服力，可以帮助他人有更好的抉择</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. 卖方通常会给我一种信任感</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. 我认为卖方会守诚信</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. 我认为卖方会给我提供真实的信息</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. 当我考虑是否购买团购产品时，我倾向于选择价位低的</td>
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<td></td>
<td>当我考虑是否购买团购产品时，我对其显示的价格很敏感</td>
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<td></td>
<td>当我考虑是否购买团购产品时，我会寻找折扣最大的产品</td>
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<td>16</td>
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<td></td>
<td>当我考虑是否购买团购产品时，容易受到亲戚、朋友、同事建议的影响</td>
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<td></td>
<td>当我考虑是否购买团购产品时，我会受到网页推荐的影响</td>
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<td>当我考虑是否购买团购产品时，我担心是否可以按时得到商品</td>
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<td>19</td>
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<td></td>
<td>当我考虑是否在团购网站上购买产品时，我更在乎订单追踪系统的可靠性</td>
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<td></td>
<td>当我考虑是否购买团购产品时，团购网站给我提供了及时的客户服务</td>
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<td>□ □ □ □ □ □ □ □</td>
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<td></td>
<td>当我对收到的商品不满意时，团购网站会为我提供便捷的退货服务</td>
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<td></td>
<td>我认为团购网站提供的信息通俗易懂</td>
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<td>我认为团购网站服务功能的设置简单快捷，利于我使用</td>
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<td>我认为团购网站提供的商品信息是准确的</td>
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<td></td>
<td>我认为团购网站提供给我的商品或服务信息是完整和详细的</td>
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<td>□ □ □ □ □ □ □ □</td>
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<td>27. 我认为团购网站容易操作</td>
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