The differences between Groupon and other group-buying intermediaries: from transactional and relational coordination perspectives

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Abstract
Groupon is a popular group-buying website offering daily deals and has experienced fast growth. It has attracted amounts of imitators and they sprang up all over the world. We treat this phenomenon by taking Groupon as an intermediary executing coordination between merchants and customers in the group-buying activities. To see the particular practices of Groupon in operating transactional and relational coordination mechanisms, we collect diverse group-buying forms from the earliest buying club since 1860s till now and make comparison among various involved intermediaries. After that, five main differences are identified including the nature of initiator, product and service selection, pricing mechanism, frequency of deals, network and relations, which either contributes to reduction of transaction cost or maintaining the interactive relationships. Through these collection, comparison and analysis, we have new insights into the features of Groupon’s group-buying coordination and accordingly implications for future electronic intermediaries.

Keywords: group-buying, Groupon, electronic intermediaries, transaction cost, network, coordination mechanism
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1 Introduction

1.1 Background

Do you want to get $40 worth of sushi for only $20 today and a voucher of more than 50% discount for car washing tomorrow? Maybe you would like to ask where it is and how to enjoy; the answer is on Groupon (www.groupon.com), a Chicago-based group-buying service company. No matter if you are in Chicago, or you are in other cities in the United States, you can always find a great deal every day. You can also share with your friends and join in the group-buying with sometimes over 10 thousand people through this website. It works as follows: this website generates one deal one day in terms of coupons or discounts for various kinds of service and products offered by local merchants. The deal can be activated only when a certain minimum number of customers choose to make the purchase (Dholakia ,2010). And Groupon obtains profits by charging fees from those merchants, usually 50% of coupon price. For instance, if a restaurant together with Groupon generates a $20 coupon for $40 of food, Groupon retains $10 (Edelman, Jaffe, and Kominers ,2010).

Groupon, which was established in 2007, is one of the most well-known and popular group-buying websites. It has experienced dramatically fast growth. In 2009, Groupon had 120 employees, 2 million subscribers, and 33 million dollars in revenue. At that time, it operated in 30 American cities. Now, Groupon has more than 5,900 employees, more than 40 million subscribers in the worldwide. It has about 760 million dollars in revenue by the end of 2010. (Groupon anxiety ,2011; Stone and MacMillan ,2011; Hicks ,2011) The official website of Groupon claims its ongoing expansion in over 500 markets in 44 countries and soon more than that. Up till now, according to some statistics (Surowiecki ,2010), Groupon is estimated to 10-digit valuation, and recently rejected a $6 billion acquisition from Google.com.

Groupon is not the pioneer executing the idea of group-buying on the Internet. In fact, online group-buying auctions were introduced during mid-1990s to the end of 1990s (Kauffman ,2010; Kauffman and Wang ,2001; Li, Zhao, and Wang ,2009). And it was primarily originated in the United States. Mobshop.com and Mercata.com, two early
successful American companies, were regarded as market leaders and created great popularity of group-buying at that time. For example, Mobshop.com had attracted more than 10,000 customers to form a buying group at the early stage of development. Mercata.com, founded in 1999, had raised over 85 million dollars by mid-2000 (Kauffman and Wang ,2001). Not only in U.S., but also in Europe, there existed some entrepreneurs who had had strong confidence in group-buying auctions websites. Letsbuyit.com and Coshopper.com, respectively founded in Sweden and Norway, had been heavily funded and expanded throughout over 10 countries. However, these early players went out of business within around two and a half year one by one after flash sales. Interestingly, this is not the end of the online group-buying story.

Following the time line, we find that group-buying named "Tuangou" in Chinese has arisen through the Internet since 2002, after when the Western cases reported bankruptcy and went to failure (Montlake ,2006; Tang ,2008; Guangzhou ,2006). There are some difference between the early Western online group-buying events and those ones in China at that time, although they both embraced the same concept of "buying together". Usually, an online group-buying event, or say "Tuangou", is initiated and organized by consumers themselves. They communicate via the online chartrooms, forums, bargain with vendors or suppliers, and then purchase together. Even, in 2004 in Taiwan, online group-buying service such as "BuyTogether Board" has been established under one website. And its formal group-buying website appeared in 2007 (Tsai ,2009).

With the development and maturity of electronic commerce, online group-buying, especially those following the Groupon models, is experiencing another wave of vogue now. Fast and significant growth with its simple business concept has attracted skilled copiers and thousands of clones spring up all over the world (Underwood ,2010). Nowadays, even if you are in Latin American, Japan, or China, you can have access to online group-buying service and enjoy great discount coupons from more and more similar group-buying websites. In China mainland, over 4,000 clones of Groupon are born. They have been developing quickly, running into more than 40 cities since 2008. Nevertheless, Groupon is taken as a representative of recent generation of group-buying websites by some authors when making critic or analysis of online group-buying
(Dholakia, 2010; Edelman, Jaffe, and Kominers, 2010; Surowiecki, 2010; Kauffman, 2010; Underwood, 2010; McIntosh, 2010).

Many reporters, journalists, commenters, and also scholars have made analysis and opinions on online group-buying activities. Based on their study and comparison of their findings, the basic concept hold by diverse online group-buying activities turned out to be more or less similar. That is to aggregate the individual demands to reach a lower price or enjoy volume discounts via the Internet. A patent article states that the core idea kept by online group-buying activity is to "globally locate, encourage and enable" potential buyers who tends to buy a particular goods or services in a certain time duration to "join forces in a buying group" to achieve a specific purchase in which all the bidders would win together rather than compete against each other (Van Horn, Gustafsson, and Woodford, 2000). By adopting group-buying, volume discounts with lower prices, which are usually only available to large volume buyers such as retailers or wholesalers, now could be gained by those individual buyers who aggregate their purchasing quantities together (Kauffman, 2010; Kauffman and Wang, 2001; Chen, Chen, and Song, 2002; Chen, 2006a; Chen, 2007; Chen, 2011; Kauffman, 2001; Anand, 2003).

Although the basic concept converged to some extent, online group-buying is still a comprehensive and new topic. There exist various controversial opinions about online group-buying activities from different perspectives. And the second generation of online group-buying business led by Groupon is still developing and may evolve into various facets.

Some scholars regarded the online group-buying auction as a kind of pricing mechanism on the Internet and there are many studies focusing on the dynamic pricing mechanism that was widely used by the earlier western online group-buying websites such as Mobshop, Mercata and Letsbuyit. According to Aron and Anand (2003), the product, pricing scheme and the starting and closing time of those dynamic-pricing group-buying activities usually would be published before the sales start. And once the sales are in progress, the price would be updated dynamically with the increase of the number of bidders. Following the sales trajectory, buyers with different valuations for
the product would join the bid at a certain moment. Once the bid is succeeded, all the winning bidders become customers. It is possible that the actual prices at which they bid are different; however, they are able to get the product at the same price in the end. Based on this mechanism, Kauffman and Wang (2010) conducted a relatively thorough survey on several websites which use dynamic pricing mechanism from the operational aspect. Besides, in another study (2001), they analyzed the bidder behavior over various periods of time under dynamic pricing mechanism with case study of Mobshop.com and revealed three effects. The "positive participation externality effect" explained that the positive effect between number of existing orders and the new orders. The "price drop effect" showed the expectations of falling prices which usually happened when the number of orders approaches the next price drop. And the "ending effect" revealed more orders would be placed during the last three-hour period of the auction cycles. In addition, Chen et al (2002) investigated into the bidders’ dominant bidding strategy which might shed light on how the sellers could set auction parameters better to achieve their expected goals. Also, Aron and Anand (2003) involved in the comparison between most web-based dynamic pricing mechanism and posted-price mechanism to provide some implications for firms’ choice of price-discovery mechanisms.

There are some authors who mentioned the online group-buying phenomenon as a kind of marketing strategy, while most of them just discussed it by a few sentences. They take this opinion for granted to some extent and few explained in detail. Edelman et al (2010) said that the discount voucher provided by online group-buying websites could be regarded as a marketing tool for advertising. Merchants hope that by using this marketing tool more people would be aware of the merchants’ existence and provide the merchants with more opportunities to get new customers. McIntosh (2010) also depicted that group-buying websites could be considered as one of the new social promotion strategies for merchants to make advertising and reach new customers. Especially for Groupon, Dholakia (2010) stated that Groupon could be looked as a way of social promotion which encouraged groups of people to buy products together and share their experience with each other. Also as stated by Groupon itself, it provided an efficient and measurable marketing since the marketing fee would not be charged before reaching the deal and bringing the customers to the merchants (GrouponWorks, 2011b).
Parekh (2011) also pointed out that Groupon made use of the power of word-of-mouth marketing by the aid of its large number of subscribers.

However, many critics called the effectiveness of this marketing tool into questions. Both Edelman (2010) and Dholakia (2010) investigated into this issue by studying Groupon promotions. Problems such as the unprofitability, failing to attract targeted customers, and shortcomings such as low return rate of customers at full price or unsure customer loyalty were raised with this marketing tool (Dholakia ,2010; Edelman, Jaffe, and Kominers ,2010; Coffey ,2011; Arar ,2011)

Besides the above various perspectives, "business model" is a term favored by many authors when they mention or even define this online group-buying phenomenon. They take Groupon, Mercata and Mobshop as different business models. For example, when Mercata was born and popular, some magazines such as Forbes had reported it for its innovative business model especially for the first appearance of its dynamic pricing mechanism (Patsuris ,2000). Kauffman and Wang mentioned that group-buying and dynamic pricing mechanism were the keys of these businesses, but the difference in some other components led to various facets of these business models (Kauffman and Wang ,2001). They compared Mercata and Mobshop through some other dimensions including information, sites features, product focus, and logistics, and then distinguished the two business models. After the birth of Groupon, some authors also used this term. Some focused on the novelty and high valuation of the particular business model created by Groupon (Surowiecki ,2010; Saporito ,2011). And some said that its business model is easy to imitate for the simple business concept (Underwood ,2010). Groupon also claims that it is always thinking about adding new features to its model and then avoid the high ease of imitation (Stone and MacMillan ,2011).

1.2 Problem statement

Then we wonder whether there is another way to understand and treat the phenomenon of Groupon. If following the above perspectives, is it reasonable to say that Groupon is executing particular pricing mechanism, offering unique marketing tools, or creating
special business models which lead to its leadership in the industry? Or it is possible that there is no difference between Groupon and other group-buying websites in pricing mechanism, marketing service, while they perform differently from other aspects. We would like to take Groupon as an intermediary in the group-buying activities and see its features of practicing group-buying coordination.

Our research question is:

**What are the differences between Groupon and other group-buying intermediaries from transactional and relational coordination perspectives?**

Group-buying, as the core concept of these businesses, is similar. Moreover, it is not new since there have been many earlier cases in the offline world. People practice group-buying face-to-face rather through the Internet. If tracing the history of group-buying, "buying club" can be seen as the earliest informal organizational form of group-buying activity beginning around 1860s (Bullock ,1933). And another well-known marketing strategy, coupon distribution, has been used to aggregate people, increase the sales volume, promote the new products and bulk the purchase. It was started by Coca-Cola in 1887 (Coca-Cola ,2011). And Chinese customers organize group-buying events in the early 2002 by the combination of online coordination, sign in group-buying events and offline negotiation and real transactions (Tan ,2010). And now, there is large uncertainty whether Groupon can sustain under the unstable electronic commerce environment in the future, although its CEO is now preceding the globalization strategy and this leading company has just finished several acquisitions (Underwood ,2010). Mercata and Mobshop ran group-buying service at that time too. However, they did not survive at the end after evanescent profits. Although many of those early group-buying websites were not successful, there were some analysts who hold optimistic opinions on the viability of group-buying on the Internet after their closure (Flynn ,2001). It is possible that Groupon is another short-term fashion like them. And more and more players are joining in the online group-buying market. It is questionable whether those online group-buying clones will replace Groupon, or they modify some components of this kind of business models and then develop a more competitive and innovative way of group-buying. And other websites involving group-buying service are emerging too. For example, Facebook and Google have launched the group-buying feature, which is a
great threat to Groupon (Efrati, 2011; Purewal, 2011). Although all of them embrace the same idea, group-buying activities have shown different patterns.

No matter how these group-buying activities are organized and how Groupon is defined as pricing mechanism, marketing tool or business model, there are always three main players involved in, who are customers, merchants and group-buying intermediaries. Compared to traditional merchant-customer transactions, here the group-buying websites appear as new players. They are middlemen between customers and merchants upon the electronic commerce context. Also, it is them who initiate the business, convince investors and go through ups and downs. Due to their creation and design of the business strategy and model, online group-buying received various identities from the above researchers and critics. So we are interested in them and decided to take Groupon as our main objective of these group-buying intermediaries. That is to say, group-buying activities led by Groupon can be distinguished from those by others through some dimensions.

Groupon, as a middleman or say intermediary, helps merchants and customers meet and transact online. There existed a saying that the Internet could reduce or bypass the role of intermediaries due to that information technology increases the efficiency of communication and lowers the costs of transaction (Malone, Yates, and Benjamin, 1987; Benjamin and Wigand, 1995). For instance, many companies have their own websites to reach the customers directly. However, there is another saying that the electronic marketplaces would make some roles of intermediaries disappear and bring out a new generation of electronic intermediaries with new roles (Janssen, 2000; Sarkar, 1998; Bailey, 1997). And Sarkar (1998) named them "cybermediaries" or "electronic intermediaries" and defined them as "organizations that operate in electronic markets to facilitate exchanges between producers and consumers by meeting the needs of both the producers and the consumers".

Groupon thus could be seen as a new kind of electronic intermediary. It supports and coordinates the trading process between merchants and customers through diverse functions. Searching, matching, agreement, settlement, and after service etc., which are commonly seen in traditional trading process, can all be found in current group-buying
websites. And maybe in the future, Groupon might generate more functions to its offering. Then it leads to the question who are the middlemen in other group-buying activities and how they coordinate differently compared with Groupon.

Group-buying intermediaries need to balance the interests of merchants and customers and benefit both of them. To the customers, they can get great discounts, but they are faced with uncertainty and risk during the purchasing. They are not sure whether the final deal can be activated, what the final price is under the dynamic pricing mechanism, how the perceived value and quality of products and service is. Kauffman and Wang focused on this aspect and studied how customers behave in the group-buying events. For the merchants, they have to choose partners from amounts of similar intermediaries. Although cooperation with group-buying websites is a new channel of marketing for them to reach more customers, they might meet inefficient advertising as discussed by Edelman, Dholakia, Arar, and Coffey (Dholakia, 2010; Edelman, Jaffe, and Kominers, 2010; Coffey, 2011; Arar, 2011).

We wonder if Groupon runs different coordination mechanisms when it takes intermediation to satisfy the needs of merchants and customers. According to Williamson, the market coordinates economic activities automatically. Price delivers all the information of supply and need between buyers and sellers. However, due to the existence of various human and environmental factors, there appears market failure with imperfection and transaction costs occur. Hierarchy is then regarded as a more efficient mechanism to allocate resources and coordinate activities by authorized management. Firms exist for their intermediation between buyers and sellers to save the transaction costs. Moreover, except for the transactional coordination, personal interaction and relationship is also important to be one of the coordination mechanisms. Then, it is worthwhile to doubt if Groupon’s coordination is special from the transactional and relational perceptive compared with those intermediaries in other forms of group-buying activities. When Groupon acts as an intermediary in the group-buying activities, how does it perform differently in dealing with transaction cost and the relationship among three actors?

Our research may have several empirical and theoretical contributions as follows.
Firstly, our research would help to understand the phenomenon of Groupon in a particular way, which would also benefit to visualize other similar group-buying events. Through examining the different coordination of involved intermediaries, it could be seen how group-buying activities are organized and present various forms.

Then, Groupon’s group-buying coordination covers a wide range of products and service including beauties, automotive, health, travelling, and so on. Recently, it has been developing more food and entertainment offering. Also some of other group-buying websites such as Mercata and Mobshop hold an abundant catalogue. However, there are some group-buying initiators or organizations who select only relatively few kinds. Then we wonder whether Groupon is suitable for all products and service. And when competitors or new players plan to join in the online group-buying, the answer to this may imply suggestions for them to decide which products and service to be bundled.

Our discussion of these questions may also have some theoretical implications. With the fast development and change of information technology, the roles of electronic intermediaries and the way of their intermediation are still under construction. Groupon, as a new model of electronic intermediary, can act as a case example to be observed, which will aid the better and richer understanding of electronic intermediaries and their coordination. Also, it is Groupon’s coordination, which expanded and extended group-buying across amounts of merchants especially those local small ones involving numberless customers. This kind of innovative coordination would offer some insights to visualize the current organizational forms in the real world.

After we reveals the differences in Groupon’s coordination from others, it could generate implications for those merchants who want to seek online group-buying service, the entrepreneurs preparing the online group-buying business, big companies considering group-buying functions, or other group-buying industry participants. We think it also helps other electronic intermediaries or traditional intermediaries, and researchers in this field have more insights into their coordination service or group-buying activities.
2 Literature Review

As the research question mentioned above, we would like to study whether there are special features of Groupon’s coordination. Firstly, we use the intermediaries’ theories to have insights into the identities of Groupon in the group-buying activities. Then, we collect the various approaches about the coordination mechanisms.

2.1 Electronic intermediaries and their roles

According to Spulber (1996), an intermediary is "an economic agent that purchases from suppliers for resale to buyers or that helps buyers and sellers meet and transact". Intermediaries can appear as individuals or organizations. For example, a jewellery middleman is an intermediary who makes profits through buying at lower price and selling at higher (Biglaiser, 1993). From a broader view, most firms can be seen as intermediaries between buyers and sellers, who establish and manage markets (Spulber, 1996). Therefore, an intermediary can also be named a third-party market maker (Sarkar, Butler, and Steinfield, 1995). Besides that sellers and buyers exist in a market, intermediaries are also key participants who facilitate the exchange and help form the market (Malone, Yates, and Benjamin, 1987).

To distinguish with traditional and physical intermediaries, many researchers start to use the term "Electronic intermediaries" or "Cybermediaries". Sarkar et al. (1998) gave out the definition that "organizations that operate in electronic markets to facilitate exchanges between producers and consumers by meeting the needs of both the producers and the consumers". It implies that many entrepreneurs took the new changes brought by the e-commerce and act as intermediaries that support the electronic trading processes between buyers and sellers (Janssen, 2000). They are regarded as trying to overcome the weakness of non-electronic ones, which are threatened by direct communication between sellers and buyers.

During the traditional trades, intermediaries add great costs on the final consumer price (Sarkar, 1998). Some authors think that with the advancement of information technology, companies can directly reach buyers and then bypass intermediaries to save
these costs. However, the existence of all kinds of electronic business running the intermediation online shows that this saying does not apply to the reality. Sarkar et al. argued that because of the costs of for intermediaries’ coordination and market making also decrease, companies could choose to outsource the intermediation functions to intermediaries, and then encourage more intermediaries and new roles.

Then comes the question why do intermediaries exist? The reasons of intermediaries’ existence and their intermediation activities lie in the condition of information imperfection (Williamson, 1975). As said by Biglaiser (1993), it is hard for buyers and sellers to meet by their own in complicated markets. Intermediaries can help solve this problem. Alternatively, improper selection may lead to the poor quality that intermediaries can validate or guarantee even if information is complete. That is to say, intermediaries improve the welfare of both buyers and sellers and realize added value along the supply chain. Sarkar et al. (1995) also wrote in its article that intermediaries act their roles to benefit both buyers and sellers and balance their conflicting interests. Janssen and Sol (2000) proposed a modelling approach to evaluate the added value created by the electronic intermediaries’ roles. They pointed out that the electronic relationships between merchants and customers created by intermediaries could be a potential source of competitive advantage.

Although Janssen and Sol stated in 2000 that the main functions of intermediaries are based on the support of the coordination of the trading processes between merchants and customers, there are various detail roles, or say functions of them. Spulber (1996) concluded four of the most important roles of economic intermediaries, including setting prices and clearing markets; providing liquidity and immediacy; coordinating buyers and sellers; and guaranteeing quality and monitoring performance.

Bailey and Bakos' (1997) classified the roles of intermediaries, namely "aggregation, trust, matching and facilitation", which are also applicable for electronic intermediaries. In brief, they stated that a) The intermediaries could aggregate the demand of different customers or the products provided by various suppliers; b) The intermediaries should prevent the stakeholders from being opportunistic and ensure all the involved parties keep trusts in the whole process of transaction; c) As for matching, an intermediary
should be able to assist the finding of appropriate partners using its capability; and d) The intermediary could facilitate the information transfer between organizations by coordinating the process of information exchange, translating the information, and providing associated services.

2.2 Coordination and different approaches of coordination mechanisms

Nowadays, electronic intermediaries arrange group-buying activities in a new way. It is possible that in the future some entrepreneur middlemen would take advantage of the Internet and generate more roles appearing as multi-facets. Sarkar et al. claimed that the service provided by intermediaries might be underestimated (1995). However, its objective is always to operate the coordination between merchants and customers. Then there is need to clarify what we mean by using "group-buying" coordination. Here, referring to (Thompson, 1991), the term "coordination" implies bringing the disparate activities and events into a relationship. The article also says that that there exist bottlenecks among various parts. Economic coordination is to prevent them and achieve harmonization in an economy. Meanwhile, Malone and Crowston (1994) said that through coordinating, independent activities can be managed.

This question how coordination is achieved has been discussed for a long time and it is still underway. There are several approaches of opinions on it. One is through the market coordination, which is unseen and guided by automatic market force. Another is hierarchy, which is mainly through administrative control and rules to coordinate. Beside these two, network is also regarded as a model, which mainly involves the interpersonal relations among the exchange units. Various coordination mechanisms including respective or overlapping elements bring out the different organizational forms in the society.

Researchers are continuously seeking a terminology to depict the coordination of economic activities from markets, hierarchies, networks, to hybrid modes of these three. It does not mean that the former and early coordination ways disappear and are replaced totally by the later ones. Basically, markets-versus-hierarchies theories from the
transactional perspective are one side, and network with relational perspective is another. These alternatives exist together and complement with each other catering to the reality closely and enriching the concepts of the coordination. We would like to examine two perspectives of coordination as follows.

2.3 Transactional approach

Oliver E. Williamson used to make discussion concerning the distinctions between two concepts, markets and hierarchies. With reference to him (1975), markets and hierarchies were regarded as two different ways to coordinate the economic transactions. He admitted that the transaction participants relied on the invisible hand of market to conduct exchange at the beginning. However, based on the transactional approach, there might appear market failures under some conditions. That is to say, instead of the autonomous market, internal organization or hierarchy arises as a more efficient mechanism to facilitate the exchange through reducing the transaction costs. And due to this advantage, "there is a shift of a transaction or related set of transactions from market to hierarchy (Williamson, 1975)."

People's wide concern on transaction cost reveals their interests in studying the economic organizations. R. Coase in 1937 first brought out the concept "transaction cost" in his work named "The nature of the firm" (Williamson, 2010a). And according to Williamson (2010b), from Markets and Hierarchies (Williamson, 1975) till 2010, the transaction cost economics has shown its wide reach across various disciplines and achieved a remarkably empirical success. Thus we decided to take a look at the transaction cost for the better understanding of how the transaction cost influences the coordination of activities. We reviewed theories of the causes of transaction cost and the dimensions for characterizing transactions, which were mainly based on the studies of Williamson. Instead of reviewing them one by one separately, we process them in a correlative way. By connecting and combining the theories together, overlaps on several properties could be avoided and a clearer structure might be generated for the further analysis of group-buying cases.
In 1975, Williamson identified several factors, which might occasion the transactional problems and cause the happening of transaction cost in economic exchange process. And Williamson in 1998 pointed out three instructive dimensions among many attributes of transactions to characterize the transactions. They were "the frequency of transactions, the uncertainty of transactions, and the condition of asset specificity". Here we take the causes of transaction cost as the main stream of our theory structure to generate a better understanding of the influences of the transaction cost on the choice of market or hierarchy, and two overlapping dimensions of transactions (the uncertainty of transactions and the assets specificity) were classed into the causes of transaction cost.

Williamson (1975) classified the main factors, which cause the happening of transaction cost mainly into two categories: human factors and environmental factors. Instead of viewing these two kinds of factors respectively, Williamson discussed them together by posing the notion that neither human factors nor environmental factors alone could pose the transaction problems, but rather the joining of these two factors would arise the problems. Here we first reviewed two pairing of the human factors with environmental factors and then discussed the other derivative factors based on these two pairs. Also, frequency of transactions as the last dimension of transaction was reviewed.

The first pair is the environmental influence of "Uncertainty" and the human issue of "Bounded rationality" on the economic behaviors. According to Williamson (1973), uncertainty is usually resulted from the various unpredictable changes under the transaction context. And transaction participants have to take it into consideration since most of the decisions problems have to be made under uncertainty rather than deterministically (Williamson, 1975). This requisite position of uncertainly brought out the problem of "Bounded rationality". Each individual intends to be rational, however there does exist various physical, intellectual or emotional limitations on their capacities (Williamson, 1973). Such bounded rationality might affect the people who are involved in the transactions with uncertainty, and thus constrain the optimal efficiency of the organizational coordination modes (Williamson, 1975).

The second pair shows the influence of "Opportunism" with the join of "Small numbers". "Opportunism" as a human factor refers to the self-interest seeking efforts to
achieve individual benefits by sacrificing the fairness and honesty in transactions (Williamson, 1975). And "Small numbers" reveals the phenomenon of decreasing number of transnational participants during the whole transaction process, either at the beginning of the transaction or during the contract execution (Williamson, 1975).

Here one of the transactional properties called "Assets specificity" could be used to explain how some traders with specific investment, idiosyncratic resources or other particular assets take the advantages of opportunism and finally transform the large-numbers transactions into small-numbers ones. Asset specificity occurs in many forms—physical assets, human assets, site specificity, dedicated assets, brand name capital, and etc. (Williamson, 1979). And according to Williamson (1975), by taking use of the "pre-existed or fully disclosed productive conditions" which are generated from specific locations, extraordinary skills, the disclosure of "selective or distorted information" or else, distrustful and suspicious behaviors among the transaction participants increase and then the problem of opportunism emerges. Those firms possessing specific assets could take advantages of opportunism. However, on the other hand, those firms might also endure significant losses once their partners break off the transaction relationship with them since it would be hard to recycle or transform their asset specificity.

Williamson in his book (1975) stated that "Information impactedness" was a derivative factor that arised due to the possible transaction problems of uncertainty and opportunism. The problem of asymmetry might appear if one party held deeper knowledge or more information than others (Williamson, 1973). The strategic disclosure of asymmetrically distributed information by individuals was the most commonly used form in achieving the transactional opportunism (Williamson, 1975). High cost might be put into the achievement of information parity or to avoid information impactedness for those parties with less information. First mover conditions need to be mentioned since that usually the first movers are equipped with firm-specific, task-specific or transaction-specific resources or experience which are not owned by outsiders or the followers and are valuable for strategic decisions.

As pointed out by Williamson (1973), "Atmosphere" as one of the causes of transaction cost related the kinds of preferred gains to the modes of organization. If the modes of
organization or practices didn't match with people's expected gains, then the bad atmosphere generated by unsatisfied people would increase the difficulties of transactions.

As for the frequency of transactions, Williamson in 1979 classified the frequency into 3 categories: one-time, occasional, and recurrent. He believed that the transaction cost usually went up with the increase of the transaction frequency under market mechanism if not considering the factor of assets specificity. And such increases in both frequency and cost would push the firms internalizing their transaction activities to save the costs. However, the characteristics of assets would influence the decision of internalization or not even the frequency increased. As depicted by Williamson (1979), highly standard transactions with few special assets were not preferred to be internalized into an organization. And on the contrary, if the transactions happened recurrently and idiosyncratic assets are needed, it would be better to construct a special structure by internalization.

2.4 Markets and hierarchies

From the above, Williamson in his paper (1979) mentioned that if the transaction costs were negligible, then the organization was irrelevant. But the existence of huge amounts of various organizations and firms demonstrated the great attentions and needs in eliminating unnecessary costs, where transaction cost played a crucial role in the reality. In another sentence, the existence of transaction costs determines the way of coordination from market to hierarchy.

Malone, Yates and Benjamin (1987) connect that with the emerging electronic commerce context. Their arguments started with these two. And they gave out the definitions: "Markets coordinate the flow through supply and demand forces and external transactions between different individuals and firms"; "Hierarchies, on the other hand, coordinate the flow of materials through adjacent steps by controlling and directing it at a higher level in the managerial hierarchy".
With the fast development of information technology, the costs of coordination between two exchange parties were reduced and electronic commerce intensifies the communication by saving time and errors. Especially, production attributes including complexity of product description and asset specificity are more easily handled. It seems that the advantages of hierarchies mentioned by Williamson become less important. Those possible transaction costs aroused by market mechanism decrease, and therefore, the general structure would then evolve to a more market-like one. Moreover, Malone, Yates and Benjamin (1987) claimed that there existed more possible market makers, or say intermediaries, middlemen or financial service firm who help the formation and growth of the total markets".

The two kinds of coordination relationship, market and hierarchy, respectively rely on autonomous incentives and unified command (Williamson ,2010b). These two are only the idea types in the theoretical world. It offers a simple framework to think, but the view of a continuum with two poles is overly simplified and inadequate (Thorelli ,1986; Powell ,1990). The real world shows on-going complex situations. The dichotomy of either market or hierarchy is not perfectly applied any more. Then comes the first question that markets and hierarchies are mutually exclusive or not. From the point of conceptual interests, these two are different relying on two kinds of coordination mechanisms. But according to the real observation, they can co-exist. For example, Lazerson observed that Italian small firms gained success by integrating horizontally or vertically. And the survey showed that both markets and hierarchies within the same group of firms have experienced growth (Lazerson ,1988). Therefore, it proves that market and hierarchy are not in opposition and that the decrease of one does not mean the rise of another. Interestingly, this was not because of the reduction of transaction costs, rather, they had greater reliance to secure the strategic position and avoid mutual competition (Lazerson ,1988). Furthermore, Lindkvist promoted a "market-like process within hierarchies" when discussing the governance of project-based firms, which was also named a hybrid mode (2004).

Another question is whether there exist any other coordination mechanisms. Grandori suggested a cumulative way to look upon governance structures (Grandori ,1997). Similarly, other researchers put forward the use of "network", "hybrid", "cluster", and
"bazaar" and so on to present a mixture state of the real situation. Although researchers use different terms to describe, the core idea is to involve relational approach into coordination mechanisms other than transactional ones only.

2.5 Relational coordination

"Network" is a popular term accepted by many researchers when considering the relational approach. Thorelli (1986) defined network as an intermediary between a single firm (hierarchy) and market including several firms. It may cover part of the market or several different markets. It is not on the basis of transaction cost approach as the market-versus-hierarchy way. In dealing with the inter-firm relationships, according to Johanson and Mattsson (1987), transactional approach is to help the organization choose market or hierarchy, while network thinking is more to describe the industrial systems to see where the firm is and how they interact with other firms. From a structural view, network way of coordination is a wider and more systematic to show the whole analysis framework or picture. On one hand, markets and hierarchies are not regarded as mutually exclusive anymore and instead they are both contained in the concept of network. And the other, there are more stakeholders involved into the consideration who have interaction with the focal firm. Here the main point for network is its focus on the nature of interaction among these players (Johanson, 1987; Cunningham, 1993). When analyzing how economic activities are coordinated, the focal firm has to concern other parties’ actions and reactions first and then takes strategies.

"Hybrid" is regarded as a different and distinct category or class including plural forms and has their own characteristics (Grandori, 1997; Bradach and Eccles, 1989; Noorderhaven, 1994). Williamson also claimed that there was an intermediary mode named hybrid between the pure market and pure hierarchy end 1991 (). Or it can be described as partly market and partly hierarchy. This description is very similar to that of network. These forms differentiate from each other relying on the dimensions, elements that constitute or confine them. Bradach and Eccles (1989) suggested that price, authority and trust are three independent mechanisms and can be combined in a variety of ways. Furthermore, Haugland and Reve (1994) took these three as ingredients and argued that any combinations of either two or three can be seen as a governance
vector. Similarly, Grandori proposed that "hybrid" is a mix of constitutive components decided by a bundle of property rights and a set of coordination mechanisms (authority and agency relations, group decision-making, negotiation, and institutionalization of rules and norms). In fact, this kind of combinatorial view is analogous to Williamson’s reflection of transaction cost economics in 2010. Where they differed is that he defined the three dimensions as incentive intensity (market), administrative control (hierarchy) and legal rules (Williamson, 2010b). Then "hybrid" means the combination of thus three and within every combination each dimension holds value from the degree of extreme weak to strong.

No matter the ways of coordination is still under construction, there is a trend. Firstly, within a transaction or a set of transactions, there are more participants brought into the objectives. Taking the network theories, network generally consists of more and more nodes, units, or actors relying on the information technology (Thorelli, 1986). Although transactions take place only between two exchange parties, to facilitate one transaction or a set of transactions, there is need to have all those stakeholders who have direct or indirect connection with the focal organization, for example, customers, suppliers, competitors and other players along the supply chain in an industry. Within an industry or market, there are more niches of specialization from the idea of disintegration. There appear more categories of participants. Under each one category, the absolute number is also increasing. On one hand, it is the enhancement of organizational capabilities that lead them to cooperate with more partners and amounts of business. This can be seen from the growing size of those giant companies. And the other, the fast development of information technology changes the way of communication radically and reduces the distance among exchange parties. Those exchange parties who are difficult to get connection in the past are able to have connections now. Therefore, when conducting business or researches, more players can be taken into consideration.

Since there are more participants, there is more possibility of establishing the linkages or connections among them. There are some other terms in various contexts to express the meaning of links, which are ties, bonds, channels, and relationships (Thorelli, 1986). It takes less and less time and cost to get reach with each other among a network. Linkages do not exist only between two individual nodes, but also between two
organizational units, and even groups of people or different networks. These groups of people, organizations or networks are linked only if there are necessities to exchange or share. And Cannon et al. Cannon (1999) summarized and developed theories that specified six dimensions called relationship connectors (information exchange, operational linkages, legal bonds, cooperation, and relationship-specific adaptations by buyers and sellers) to articulate various types of relationships in business markets. It can be seen the content of the business linkages. Based on a comprehensive empirical research, it showed that market antecedents and purchase situations affect the types of relationships. And types of relationships at the same time are related how buyers evaluate the performance of sellers. Another way to articulate the content of relation is put forward by Burt (1982). He uses "the intensity or strength of the link between two actors" and "the level of joint involvement in the same activities".

Following this, the focal organization could choose to develop connections as required. Although it has to invest in the development, the structure of the organizational coordination with outside actors is not limited as before. That is also why researchers start to focus on the open boundaries of firms. Williamson (1975) mentioned moved boundaries of firm very early. But his arguments are only based on the transaction costs that that kind of potential flexibility is less elastic than network or hybrid thinking. Then it is worth discussion how these connections are, whether they are loose or tight, temporary or permanent, how often the linking action takes place etc. The causes and attributes of each connecting are diverse and then generate a mixture profile linkages in a network or among several networks (Thorelli ,1986). These connections occur from the multi-dimensions except transaction costs. They could be price, authority, or other possible coordination mechanisms. That is why Stephenson advocated the word "heterarchy" to describe how organizations or institutions are networked and shows a mega-state of connected hierarchies (Stephenson ,2009).

Duration is another factor, which is involved in researchers’ discussion. The world is rapidly changing, and there is great appeal to react and survive over time. More and more claims are calling on sustainable competitive advantages to have a long-time development. It is important to seek and adopt a comparatively more sustainable governance mode and according coordination mechanisms. Relational properties are
thus regarded as the most vital variables, which are added into the consideration as coordination means. Or say, social perspective is gradually included into governance structure researches such as culture and norms. To improve the collective and long-term interests of organizations, interpersonal relationships are important parts when coordination is operated (Arrow, 1974). Compared with market-versus-hierarchy way, network and later hybrid thinking is more durable and stable since involving social elements: trust, commitment, power, reciprocity, and influence to increase the sustainability. This proposition is rooted in that there are social and relational exchanges other than transactional exchanges, put forward by Dwyer (1987). In the article, he thought that the buyer-seller exchanges are an on-going relational process rather than discrete transactions. He even distinguished the difference between the two categories of transactions.

In sum, intermediaries operate the intermediation to facilitate the exchange between merchants and customers and meet their needs. Through their coordination, disparate exchange parties are included in a relationship and added value increase along the supply chain. They act as various roles to benefit both merchants and customers through combination of coordination mechanisms. Their value adding coordination can be seen from multiple aspects. They can contribute to the increasing possibility of meet of supply and demand needs through market making. Also they can generate standards, rules or control to align other two and then reduce the total transaction costs. Besides the transactional perspective, they also coordinate where there are possible interactions among merchants and customers to establish lasting and large-wide relationship and maintain a durable coordination.

By combining these related bodies of knowledge, we build our perspective on the research question. When Groupon as an intermediary coordinates a group-buying activity, or a series of group-buying events, it brings amounts of merchants and customers into this group-buying relationship. And we wonder if Groupon owns particular characteristics and executes a special combination of coordination mechanisms compared with other group-buying intermediaries. Does it make more markets, reduce transaction costs, and focus on building relationships differently which
may have implications for the future group-buying business and electronic intermediaries?

3 Methodology

3.1 Background

From the aim of the research, which is to gain deeper insight of how Groupon as an intermediary facilitates the group-buying activities especially from other group-buying intermediaries, different coordination mechanisms were used to examine Groupon's coordination. And after reviewing the research questions, Groupon which is considered as a kind of intermediary turned out to be the object of our studying.

The group-buying phenomenon brought out by Groupon is not a new concept since many earlier group-buying activities were identified through the literature research. When doing the literature research, we used "group-buying" as one of our key words to search similar events and related information in the earlier time. We found that there were several other alternative terms, which were interchanged to express this meaning or concept due to different needs. For example, they are "collective buying", "co-buying/shopping", "cooperative/consortia/consolidated purchasing", "group/joint/team/bundled purchasing" and many more you can form freely by changing one or two of them. Moreover, there were some correlative nouns mentioned, which were cooperation, coalition, consortia, and collaboration etc. describing the behavior of "group-buying". Incidentally, there appeared various modes of organizations, no matter informal or formal ones, which coordinate the group-buying economic activities such as "buying club", "cooperative retail buying association", "employee store" etc.

It is worth thinking why there are various linguistics expressions, which would help us clarify what "group-buying" means in our thesis. This is a word composed of two parts. If resolving it, it can be seen that "buying" is from a verb to indicate the action and "group" is to modify the verb showing how actors perform the behavior. Firstly, we can take a look at the alternative words that are used to replace "buying". They are mostly
"purchasing". The former is commonly seen in those articles which regard organizations as their focal discussion objectives. Cooperative purchasing is defined as "the sharing or bundling of purchasing related information, experiences, processes, resources or volumes to improve the performance of all participating organizations.(Schotanus ,2005)" Also, in another article, a purchasing group is defined as the consist of dependent or independent organizations that share and/or bundle together in order to achieve mutually compatible goals that they could not achieve easily alone(Schotanus and Telgen ,2007). These organizations have different identities or roles in the business trade. They can be producers, manufacturers, distributors, wholesalers, or retailers according to several articles’ description of their operation. That is to say, group-buying exists not only among consumers but also among other participants along the value chain or distribution channels. They can be producers, manufacturers, distributors or retailers away from final consumers’ market, who are individuals or organizations.

Then we found that there were many alternative terms used to express the similar meaning of "group". Many of them took the words like collective, cooperative, consortium, consolidated, joint, team or bundled to explain the grouping behavior. However, there existed certain differences between these various terms. For instance, consolidated buying which is usually used to depict the bundled buying behavior of chain store is not the same as the group-buying activities which allow individual stores have the right of choice in selection of goods. (Harvard business review ,1929)As mentioned before, cooperative purchasing was regarded as the pooling of information, expertise, resources or volumes between independent organizations to improve their purchasing behaviors (Walker et al. ,2007). And "cooperative" was often used in the public sectors whilst "consortia" usually concentrate on the private sectors. In general, we found that by distinguishing the attributes of the organizations such as whether they are public or private sectors, whether they are independent or subordinate to other organizations would influence the usage of the terms.

In this paper, our researches in the group-buying activities or cases would focus on the B2C (business to customer) fields where the group-buying events happened among final consumers rather than other involvers in the value chain. And in order to have a deeper
and better understanding of the specificity of Groupon's coordination mechanism, it is interesting and necessary to look into other cases of B2C group-buying activities along the history.

### 3.2 Theory collection

The theoretical supports were composed by those theories processed in the literature review part and Linköping University’s Library database is of most importance for us to find worthy and valuable information. At the outset, a brief review on the definition of intermediaries and electronic intermediaries and their roles were conducted to provide the readers with insights of the identities of Groupon in the group-buying activities. Then coordination issue and the coordination mechanisms with different approaches were discussed. From the transactional approach, by identifying the market failure, theories including the causes of transaction cost and main dimensions for characterizing transaction were handled in a logical and integrated way, which served as the basis of for the choice of market or hierarchy. By reviewing the different viewpoints against the transactional market-and-hierarchy approach, relational approach was put forward and other coordination mechanisms such as "network" and "hybrid" were brought out. These relational approaches enjoyed a more durable and large-wide relational coordination by the involvement of social elements such as trust, commitment, power, reciprocity.

### 3.3 Empirical data collection

As for the empirical data, case studies were conducted to Groupon and its reference objects in a qualitative way and the comparative case data were collected for analysis as a result. The purpose of conducting case collection is to facilitate an in-depth investigation of how the group-buying intermediaries coordinate the group-buying activities.

It is appropriate also beneficial to conduct case studies in our researches for the following reasons. First, case study provides the readers more immersed experience which might ease their further understanding. Second, case study is said to be of significant importance to help the exploration of the evolving areas (Kauffman ,2000).
Group-buying activities which are still going on and under construction appear to be very suitable for case study since no final conclusion which might set the rules or boundaries for further group-buying activities was gathered till now. Especially, case collection might be very useful for the study of recent appearance of Groupon-like group-buying activities which is under quick changes and lots possibilities existed for its future development. And also new innovative findings are more possible to be acquired through case study since case study and comparison usually contains less constraints conditions and leaves a more open and broader platform for exploration than other methods. Moreover, by studying the relative all-around group-buying case from the earliest offline ones to the current online ones which was seldom done by others before, this case collection could be regarded as a useful summary which might provide guidance for future researches.

Most of the cases about contemporary and prospective companies which involving in the group-buying events were collected by visiting those companies' official websites, by reviewing other research studies by those people or organizations who were interested in the operations of group-buying websites, and by searching latest news or reports from journal magazines. Internet turned out to be a good source for such kind of materials since online group-buying is a natural Internet-facilitated activity. While for the other earlier or past group-buying activities, cases which were studied by other researchers in their papers before became the major origin of our database.

The cases were gathered according to the searching of alternative terms and were arranged following the timeline from the early 1860s till now. Most kinds of group-buying businesses in B2C fields were reviewed in our paper including: the old offline consumer cooperatives such as buying clubs, co-ops and employee clubs; coupon; the early group-buying websites such as Mercata.com, Mobshop.com, Letsbuyit.com and other group-buying websites with different ways of operations in that wave; the development of Tuangou in China as the new round of online group-buying of early group-buying websites such as Liba.com, soufun.com; the current followers and clones which imitate Groupon's business model and are considered as the competitors of Groupon; the electronic commerce players such as Taobao.com or Amazon.com who introduced the group-buying feature; the SNS (Social Networking Service) providers
such as Facebook, Kaixin and the Searching Engine companies which added the group-buying services such as Google. These reference objects were chosen following the timeline and most forms of group-buying activities in the B2C field were embraced.

To our knowledge, most of the selected companies or organizations in the cases are regarded as the pioneers or famous representatives in the group-buying history. As for the offline consumer cooperatives, they seem to be one of the earliest instances of group-buying with historical records. Although the information available was limited, several relative representable cases were gathered to explain the coordination process of group-buying events. As for coupon, coupon issuing, as the earliest way of pooling or aggregating different customers together for volume purchasing, had a close relationship with Groupon's operational model and was worthy of attention. As for the early group-buying websites such as Mercata or Mobshop, they appeared to be among the first professional group-buying websites and were regarded as the pioneers in the online fields. As for Tuangou, it is a popular model through the combination of online and offline group-buying emerged in China which brought out another round of group-buying after the fadeout of early western group-buying websites. As the current significant threats to Groupon, Groupon's major clones or competitors would also be taken into case to see how Groupon could outperform them or vice versa with the similar general external background. Besides, some e-commerce websites, SNS providers or searching engine companies just opened or get ready to open the new group-buying functions. They might become the new players and competitors to Groupon in the near future and it is of great importance to conduct the study of them.

For Groupon and other major early group-buying websites which comprehensive data could be gathered, a structure with five categories of information was used to conduct the case collection. These five categories include a) the general background, including the website's established year, mission, founders, investors, number of subscribers, sales performance, market coverage, main business milestones, current status and value or position in the group-buying industry; b) The pricing strategy; c) the auction initiator and the auction cycle; d) the product offering including the selection of product line and the provision of related product information; and e) the special features owned by the websites.
As for other cases, although they were not compiled in a structured way, many information was still collected and tried to supplement the major cases to constitute a relative integral cases compilation following the timeline. In brief, the information collected in these cases includes: their significance for the research (that is, the reasons of the existence of those kinds of group-buying forms and their relationship with Groupon), the history such as the origins and development, the general background (including the era and industry that the case involved in, the mission, founders, main business milestones, current status), the initiator of the auction, the auction cycle and operational process, product selection, the special features embedded in each case.

After the case collection and observation, we identified 5 special attributes through the comparison of different coordination operations in each case from the intermediary's perspective. Theories which were chosen as the theoretical tool then were used to conduct the analysis of the different cooperation mechanisms and finally proved the existence of these special attributes belonged to Groupon particularly.

### 3.4 Limitation

There are several limitations in this paper. The first limitation is caused by the data selection. Our case studies and the following analysis are mainly targeted in U.S., China and European countries, which may not be applicable to other different countries since the general condition of each country varies to some extent. Secondly, factors such as the changes of economic circumstances and the development of technology are not taken into consideration that turned out to be another limitation. In addition, the identification of the specific attributes that differentiate Groupon from other forms of group-buying activities is subject to our knowledge which might have some defects.

### 4 Case collection

Group-buying is an issue preceded in the history. Before the advance of the Internet, group-buying has been practiced in different ways. To have a whole view of group-buying and its different state as time goes by, we traced back to the beginning of this
phenomenon since 1860s at the record. Firstly, various related events, organizations and
tools of offline group-buying along the timeline were introduced until the birth of early
online group-buying at the end of 20th. Then, information about several has-been
successful early group-buying websites such as Mercata.com, Mobshop.com,
Letbuyit.com and other special websites with different ways of operations at that time
was collected. Also, the online group-buying boom in China from the end of 2002 was
incorporated to our case collection. Finally, Groupon, which was launched in 2008, was
elaborated as our major study object. In additions, brief information of Groupon’s
imitators and Groupon’s potential competitors such as electronic commerce players,
SNS providers or searching engine companies who just employed or prepare to employ
the online group-buying feature was collected.

4.1 Offline group-buying

In the following part, three main types of consumer cooperatives including buying clubs,
co-ops and employee clubs were proposed out as the earliest forms of group-buying
activities among consumers. Various cases among these three types were presented to
help sense the group-buying phenomenon in a better way by collecting information
including why and how the group-buying events got initiated; who were involved in the
events; in which way people organized the events; and what special advantages or
disadvantages were embedded in each of the types.

4.1.1 Buying clubs

"Buying club" was considered as the oldest organizational form of group-buying
(Dameron ,1928). And many buying clubs were set up firstly in the grocery and food
industry. The precise origin time and case is not known. There are several other
examples at record which can help show the meaning of "buying club".

One is that the Great Atlantic & Pacific Tea Company generated a "club plan" at around
1860s. The founder of this company, George F. Gilman, informed consumers in the
advertising that "all towns, villages or manufactories where a large number of men are
engaged, by clubbing together can reduce the price of their teas and coffees about one-
third by sending directly to the Great American Tea Company". Orders were sent once a week or less than a week according to stated periods. Those parties or individuals who initiated a club could get a complementary quantity of package. He (Bullock ,1933) also explained to consumers that the current price they paid for the tea and coffee imported from Japan and China was high, because there were various middlemen during the tea and coffee trade process. To give consumers the idea of who they were and how they made profits, a list was presented which included eight actors and their performed functions. Gilman called this "Eight profits", for they obtained revenues through charging brokerages, cartages, storages, etc. But the Great American Tea Company would help eliminate most of these costs, get fresh tea and coffee directly from supplier at a lower "Cargo Price" (Bullock ,1933).

Another famous case is the Larkin Company’s "Clubs of Ten", which was created around 1890 (Stanger ,2010; Stanger ,2008). This was a company, which had a mail-order house and manufactures soap, household products and gradually foods. Under its direct selling strategy, "Factory-to Family: Save All Cost Which Adds No Value", it established a club selling system (Stanger ,2008). At that time, it encouraged women, who were usually living in the rural area and small towns, to form a "Larkin Club". And they could purchase home supplies and furnishings together directly from Larkin. In each club, there was a member called "Secretary", who was also a loyal customer of Larkin. The secretary exploited her social network and recruit another nine customers, usually their family members, friends, co-workers, neighbours to join in and create a club. Some secretaries organized multiple clubs each. They spared a few hours monthly, and they hosted members’ gathering, solicited orders, purchased with Larkin, and collect payments (Stanger ,2008). These secretaries did not have commissions or wages from their work; rather, they got premiums, discount products or free gifts (Stanger ,2008). This "Clubs of Ten" was a great contribution and success to Larkin’s development, although it eventually went to failure due to external environment such as the Depression, other innovative distributions and so on (Stanger ,2010).

4.1.2 Co-ops
Compared to the above two examples of buying clubs which are initiated by companies as one way of promotion, there was another type of organization called "co-ops" which the group-buying events are organized by consumers themselves. With the consumer movement starting in the England in 19th century, consumer cooperatives, which are also named "buying clubs" or "co-ops" were established in mainly United States, the Scandinavia countries, and other places in the world. Early consumer cooperatives usually have a pre-order purchasing system. One of the characteristic of co-ops is that members, who are households living in the same local area, friends, families, office co-workers, trade their labor to run the co-op in return to food at considerable lower prices, and sometimes better quality. They share the operation responsibilities. Each member is in charge of one or more tasks in turns including registration the order in advance, bulk all the orders, purchasing with suppliers or vendors, transportation and delivery. (Cofflerill, 1981) These consumer cooperatives come in different sizes and shapes. There was one co-op starting in 1930s that had 12,000 members and 32,000 square feet of actual store with its gradual development (ref). And nowadays, some co-ops enlarge and take advantage of the Internet to run the co-op. For example, SHARE is a nonprofit buying club serving 200 communities, which was created in 1983. Its idea was to help people purchase food in bulk. Through recruiting volunteers and distributing their workforce, SHARE makes many families achieve significant savings 30%-50% on grocery food. SHARE publishes all related information about itself online, and also it set up online order form to collect needs (http://www.sharewi.org/).

There are two principles of these co-ops which differentiate them from supermarkets or other business stores. The first is that co-ops are non-for-profit. Its main objective is to benefit the members through add their net surplus rather than the maximum profits (Enke, 1945). Even if some membership fee is required, the rest will be rebated back to the price if overhead cost is less than the total collection. Then comes the democratic rule. Each member can vote and all members agree on the selection of common needs such as natural, organic, healthy preferences (Cummins, Lilliston, and Lappé, 2004; Judy Krizmanic, 1989).

However, not all the food buying clubs are successful. Due to lack of facilities and organization, and the increase of club members, members have difficulty in
communication and handle the growing transactions. Thus, for individual members, they would possibly consider the balance of the savings and invested energy and then quit (Enke, 1945).

### 4.1.3 Employee clubs

Also, "employee clubs" were set up in various kinds of organizations to deal with the group-buying activities by internalizing the function of buying club. According to the record by one article, organizations such as universities, insurance companies, and banks had some purchase agents or one department to handle the group-buying of employees. Even, some organizations have their own storage places or employee store. Usually, employees registered their preferred products including name, size, color etc. and those staff in charge of purchase agents would contact suppliers to coordinate the transactions. These organizations helped employees to secure the possible lowest prices. The price is slightly over the wholesale prices, which add some markup to cover the operation expenses. However, there are some disadvantages. For the institutions, they reported the coordination cost time and labor. And for the employees, they felt unsatisfactory due to various reasons such as wrong product type, size or color and lead to return back. (Taylor, 1937)

### 4.2 Coupon

In this part, the close relationship between coupon and the way Groupon running its online group-buying activities was explained first. Then a brief history and development of coupon was brought out. Finally several scholars' insights about the motivations or reasons to use coupon in the economic transactions were explained.

Coupon, as one of the earliest tools used by merchants to pool or aggregate different customers together for volume purchasing, had a close relationship with Groupon's operational model and was worthy of attention. The business model of Groupon is sometimes considered as the combination of coupon discount and group-buying (neXtup Research, 2011). And Abrahamsen (1948) said in his article that Groupon
contained all the features of coupons. Also from the observation of various group-buying websites, the daily deals offered by most group-buying dotcoms appear as coupons, the discount vouchers which are certificates for customers to enjoy merchants’ products or services at lower prices.

In 1887, Asa Candler, as one of the partners of Coca-Cola, brought out a new advertising tool called "coupon" (Coca-Cola, 2011). "Coupon" is derived from the French word "couper", which means, "to cut". Thousands of hand-written coupon tickets were distributed across U.S., by the salesman’s hand-outs, the magazines or mails. This campaign turned out to be a great success of the promotion of new drinks. Coca-Cola provided the Americans a total amount of 8.5 million glasses of Coca-Cola through the free redemption of coupons.

And in 1909, C.W.Post, as the owner of Post Cereal brand, caught on the basic idea created by Asa Candler. He decided to offer coupons to attract customers for the purchasing of his Grape Nuts cereals. Customers only need to pay one cent by the use of coupons to get the product. He launched the official coupons for business use as the beginning of coupon development in the 20th century. (CouponSherpa, 2010)

From then on, more and more manufacturers or retailers in different industries followed the cue by Coca-Cola and Post and start to issue coupons. While the coupons didn't encounter a real boom until the Great Depression in 1930s in U.S.. It was popular for the struggling Americans to use the coupons to save the expenses. Coupon-clipping had the first big leaps during that specific period. Such coupon-clipping habit still went on after the Depression. It also became common among chain grocery stores to run the operation of coupons to induce more customers. In 1957, a new supplement industry was created based on the popular usage of coupon and Nielsen Coupon Clearing House became the first clearinghouse, which was devoted to the entire administrative activities of coupon redemption. And by 1965, about half of the people in U.S. were reported as the coupon clippers (CouponSherpa, 2010).

The emergence of Internet in 1990s and the development of e-commerce stimulated the creation of printable coupons and online coupon codes. People could download and print these coupons, which are available on the Internet and then use them in stores, or
they could access the coupon codes through own computers and then fill them in the ordering form when executing online shopping to enjoy the saving of money. And in 2008, thanks to the maturity of mobile Internet and mobile business, merchants introduced the innovative mobile phone coupons that the scalable bar codes stored in the mobile phone could enable a more convenient way for consumers to do shopping.

Not only the individuals, the household, also the U.S. Government involved into the coupon activities in 2009 by dispensing more than 64 million coupons to promote the purchase of digital television converter boxes (CouponSherpa, 2010). There are more and more organizations involved in coupon distribution. The use of coupon in other countries also turned out to be prospective till now and the Coupon effect did influence the whole world. It has been a part of people’s lives, which is still been used now although the forms of coupons are continuing change.

Then why were the manufacturers keen on using this kind of coupons? There were several explanations summarized by Narasimhan (1984) based on the past researches. One explanation was that firms could collect market research data gathered through the distribution and redemption phase. These data would support the further analysis of the customers’ price sensitivity, customers’ profile and the pattern of redemption to improve the efficiency of coupon activity. Another reason was that coupons themselves contain rich information which could be used to inform the customers with the existence of manufacturers’ brands or new products. Many authors took for granted that issuing coupons was an advertising tool since it was believed that through coupon distribution, more chances could be created to induce the customers have a trial or push repeat purchases of products or services.

Although Narasimhan (1984) thought these two motivations of using coupon mentioned above couldn’t be ignored, these two explanations were applicable for some forms of coupons but not all. He put forward another price discrimination theory which coupon is regarded as a price discrimination device to differentiate more elastic demanders from the less ones (Narasimhan, 1984). Besides, Nielsen mentioned in 1965 that coupons could also be a tool to reduce excessive inventory of the products where not only manufacturers do distribute coupons, retailers or supermarkets also take part in these
events. In addition, in some specific cases or periods such as during the Depression Era, the drive for using coupons was transformed from the business merchants’ pursuit of advertising to the customers’ needs for saving money.

### 4.3 Early online group-buying

Since 1998, a new round of group-buying activities began with the emergence of many group-buying websites, which partly should attribute to the fast development of Internet. Here three major also most famous group-buying websites including Mobshop, Mercata and Letsbuyit were selected for comprehensive case collection. The data was collected following a structure which could be categorized into five aspects and was expected to aid the further analysis. These five aspects were: a) the general background, including the website's established year, mission, founders, investors, number of subscribers, sales performance, market coverage, main business milestones, current status and value or position in the group-buying industry; b) the pricing strategy; c) the auction initiator and the auction cycle; d) the product offering including the selection of product line and the provision of related product information; and e) the special features owned by the websites. Afterwards, other group-buying websites holding specific mechanisms which are different from these main dynamic-pricing websites are described briefly.

#### 4.3.1 Mobshop

Kauffman was an expert in the study of group-buying activities, especially in Mobshop case. We reviewed his studies regarding the operation of Mobshop so as to help our understanding on this famous but dead websites.

**a) General background**

Mobshop.com was regarded as the first two innovators in web-based online group-buying companies. This website which was originally named Accompany.com, was founded in October 1998 by three co-founders whose names are Jim Rose, Salim Teja and Jonathan Ehrlich (JIM) launched its initial group-buying website in March 1999. There are several investors including Visa International and GE Capital and so on (JIM). This San Francisco, California-based aimed to provide group-buying services in United
States and changed its name into Mobshop.com in March 2000. (Kauffman and Wang, 2001)

As described by Kauffman (Kauffman, 2001), Mobshop's basic idea was to create an "e-shopping club" to bring people together for efficient online transactions. Mobshop was always motivated by its founders for the pursuit of becoming a unique intermediary between consumers and merchants through accumulating the customers' collective bargaining power, also asking the merchants to fulfill customers’ orders and Mobshop made money by taking a certain percentage cut of each sale it did. Customers just need to pool their purchase volume together while no specific effort needed to be put into the bid coordination activities since the online marketing retailer would arrange them instead. (Kauffman and Wang, 2001)

The number of its subscribers soared to 132 thousand in April 2000 and its market interest was kept increasing during the first half year of 2000. While its market soon turned into an unfavorable situation then. It was until January 2001, which was half year later since Mobshop started providing online group-buying software to organizations such as U.S. General Services Administration and companies including Citibank, AOL, that Mobshop decided to terminate its customer business and change its strategic direction to demand aggregation software licensing and because of the unaffordable costs and the too diverse customer base in B2C business. (Kauffman and Wang, 2001; Kauffman, 2001; Flynn, 2001)

Figure 1. Example of Mobshop's webpage
b) Pricing strategy

According to Kauffman (Kauffman, 2001), specific dynamic pricing model named "group-buying discounts" was used by Mobshop.com. Price trajectory histogram (see Figure 2) was used to describe such dynamic pricing mechanism. The different prices with corresponding total number of the orders would be shown on the buying interface. Discrete price level would decrease bit by bit according to increasing numbers sold. It is necessary to mention is that the total numbers sold would not be shown on the webpage while the spots number on a specific price could be found in the buying interface.

Figure 2. Price trajectory histogram of a digital camera auction cycle at MobShop.com

(Mobshop.com, 2011)
c) Auction initiator and auction cycle

In Mobshop, the products for auction could be proposed either by the suppliers of the products or the potential buyers. On one hand, suppliers such as the manufacturers, the merchants or the website itself could propose the products they wanted to be offered for group-buying events. On the other hand, the customers could suggest their wanted products which were not available at that time. But the final decision-making power of the products offering still stayed in Mobshop's hand. It was Mobshop who decided the offering of the product and initiated the auction after negotiating with both parties. (Kauffman and Wang, 2001)

Before putting up a deal for sale, the starting and ending times for the selling process must be decided (2001). This means the usual auction cycle is determined at the same time, while the actual auction cycle might be advanced to an earlier time according to the practical situation. This cycle usually would continue until the ending time or when a predetermined maximum number of the specific deal came first, the auction cycle would be terminated at that time which is before schedule. After the auction cycle, even some buyers’ earlier orders were at a higher price level, all the buyers would be charged the same final price.

d) Product offering

Mobshop's selection of products includes computers, PDAs, MP3 players, digital cameras, DVD players, software, newly released movies and computer games. Although the commodities vary a little, most of them were still high-tech commodities and were
in the prime of their growth in the market. And for each product offered for auction, a brief specifications was provided to the browsers at the auction page. (Kauffman and Wang ,2001)

e) Special features

Mobshop.com embraced several special features including "Save-a-Spot", "Buyer Flash" and "Click-and-Tell". Figure 3 shown below is the interface of these three features.

Figure 3. Mobshop Marketplace’s "Save a Spot", "Buyer Flash" and "Click and Tell" Features

(Kauffman and Wang ,2001)

"Save a spot" could be used if a customer is not satisfied with the current price of the sale item, he or she could save a spot at any of the lower price levels by indicating a reserve price. The customer would not be included into the buyer group until the current price decreased to his or her reserve price. "Buyer Flash" provided the potential customers with email reminder services when the price reached a certain level or certain
time duration was left in the auction cycle. In addition, "Click and Tell" made use of the effort of "word of mouth" and create opportunity to attract more new visitors by allowing the visitors send emails to their friends easily.

4.3.2 Mercata

a) General background

Mercata.com, a Washington-based group-buying company was established by Tom Van Horn in September 1998. Its website went into alive in May 1999 just following Mobshop.com. These two United States-based websites were regarded as the first pioneers in offering new and innovative group-buying services to the Internet-based customers. (Kauffman and Wang ,2001)

Figure 4. Welcome to Mercata

(Mercata.com ,1999)
Bearing the slogan "the more people who buy, the lower the price", Mercata trademarked a mechanism called "PowerBuy" auction cycle. And by using this mechanism, customers were allowed to aggregate their buying volumes in limited time so as to obtain the volume discount for lower product prices which was traditionally enjoyed by bulk buyers. Also, the slogan "Down is Good" is introduced to help to educate the customers on potential collective bargaining power by doing group-buying. As declared by Mercata itself, those people shop at Mercata would enjoy greater buying power in a fast, easy-to-use and secure shopping environment than ever before by the support of the technology. (Kauffman and Wang, 2001)

**Figure 5. Mercata webpage example**

(Mercure, 2011a)

Moreover, Mercata initiated a multimillion dollar advertising campaign aiming to enlarge and deepen its brand identity. For instance, $100 shopping vouchers were issued
to attract new customers once they did purchases on Mercata.com. (Kauffman and Wang ,2001)

Mercata continued its significant growth in 1999 and early 2000 and according to Randy Nargi as the Vice President of Marketing of Mercata. And there were more than 10,000 people participated in some of the largest buying groups (Kauffman and Wang ,2001). By jumping over the suppliers and negotiating with the manufacturers directly, Mercata was able to get a lower price for the consumers. Its creative business model was noted by many magazines with innovative and promising features. The well performances during its first year of operation enabled Mercata to file for an initial public offering (IPO) of stock valuing $100 million in March 2000 (Kauffman and Wang ,2001).

**Figure 6. Print ads for Mercata**

![Mercata Print Ads](image.png)
Situations went to difficulties with increasing rumors since the late third to the early fourth quarter of 2000 and this previous most well-known group-buying dotcom company, the market leader, ceased its entire operation on January 31, 2001 due to the shortage of fundings. (Kauffman and Wang, 2001)

**b) Pricing strategy**

The figure below is a PowerBuy auction page for a Nikon digital camera on Mercata.

**Figure 7. A PowerBuy Webpage at Mercata.com**

The content on this page includes the product information such as the brand name, the model and the pixel resolution of the camera, attached with a picture. Dynamic pricing model was also adopted by Mercata. In the "PowerBuy Summary" box, there listed three kinds of prices: the list price (usually the Manufacturer's suggested retail price), the starting price and the current price. The starting price in this case, was less than the list price and the gap between the list and the current prices provide the potential customers of how much money might be saved through PowerBuy. (Kauffman and Wang, 2001)

The same as Mobshop, the total number sold could not be found on the Powerbuy auction page. While different from Mobshop, the customers at Mercata could not get access to the information such as the number of price tiers, the lowest possible price
which might be reached and the relationship between the different price tiers and the relevant number of orders needed(Kauffman and Wang ,2001). Such kind of "black box" operation arose several criticisms.

*c) Auction initiator and auction cycle*

Like Mobshop, the suppliers of Mercata have the full option in proposing the products for the group-buying offering, while Mercata still keeps the final decision right in choosing the products. Mercata also took in charge of the arranging, initiation and coordination work during the whole auction process. (Kauffman and Wang ,2001)

Similar to Mobshop, information about the action cycle including the starting and ending time, the remaining time for this auction process could be found on the page with an additional note saying that the auction cycle might finish earlier than the scheduled time if the supply runs out.

*d) Product offering*

Mercata’s range of products varied from consumer electronics, computers, home appliances, household goods to jewellery and other commodities (Kauffman and Wang ,2001). As said by Jerome Pache, the vice president of Business Development at Mercata, brand-name products with high quality was pursued by Mercata (Embeddedtechnology.com ,2000). And although Mercata covered a wide category of products, the product selected in each category that tended to be offered to the customers were limited (Kauffman and Wang ,2001). Also, the detailed information about the product was not available which required the potential buyers to find somewhere else.

*e) Special features*

Distinguished from Mobshop, Mercata didn’t have many supportive features. They only feature was "make an offer" which allowed the potential customers specify their reserve price. This "make an offer" was similar to Mobshop’s "Save a Spot" feature. Unless the current price reached the reserve price, otherwise the bidding customers would not be included into the final buying group (Kauffman and Wang ,2001).
4.3.3 Letsbuyit

a) General background

Letsbuyit.com was another welcomed group-buying website born at the end of 1990s, whose business was based in Europe. In fact, one of the co-founder Johan Stael Von Holstein got this idea in 1998, and John Palmer agreed to it and founded this company in Sweden in January, 1999 (Matthew Magee ,2000). This website had European heritage, which was registered in Netherlands, listed on Germany tech-heavy Neuer Markt and mainly managed in UK (BBC News ,2001). It went alive in April 1999 and by August became available in Scandinavian area including Denmark, Finland and Norway.

Letsbuyit.com was running around the strategy of "co-buying" which followed the saying "the more people who use it, the cheaper everything get." It bulked bidders, and thus the more purchase the larger volume of discounts they could negotiate with the manufacturers usually the consumer goods. And its innovative model in Europe helped the website won the Grand Prix prize of the New Media Age Effectiveness Awards.

Letsbuyit.com had spent amounts of money in advertising and marketing and had some strategic partnership with other firms such as the leading travel website called Priceline.com and the famous online auction community named QXL Ricardo by taking use of those partners' mail distribution channel, consumer base, well-established service platform and etc.

By the end of late 2000, almost 1.2 million registered users were recorded and 14 national websites have been established. Letsbuyit was ranked eighth among the European Internet-based sellers in 2000 August. In December 2000, it filed for bankruptcy due to financial constraints and applied for temporary court protection from creditors (Kauffman and Wang ,2001). Many investors joined in the rescue action and finally Letsbuyit was resumed due to the new fund in February 2001. In 2008, a Paris-based international operation team with 20 members bought the LetsBuyIt.com brand and domain names and readjust its business to serve as "price comparison tool". Their
goal of this acquisition was to take advantage of the identity and history of this great site to re-launch its flagship concept: "More power to shoppers."

b) Pricing strategy

The following figure shows the web-page of a specific auction.

Figure 8. The Co-Buying Mechanism at LetsBuyIt.com

(Kauffmann and Wang, 2001)

It is one of the websites which took dynamic pricing mechanism as its pricing strategy. There were three price choices, which were current price, the price when the auction closes, and the best price compared with the average retail price at Letsbuyit.com. According to the operation rule of Letsbuyit.com, before you join a co-buy, you need to decide whether you would like to buy at the current price—the price reached when the co-buy closes—or at the Best Price only. If you choose to buy at the current price, you will receive the product and you will pay the closing price. If you choose to buy at the Best Price and the Best Price is not reached (i.e., the required number of participant co-buys is not reached), your order will be cancelled, you will not be charged neither receive the goods. Different from the previous two websites (Mobshop and Mercata, the total number of sold products of current in-progress auction could be found on the Co-
buying page. Also, the number of price tiers and the price of each tier were shown clearly on the page.

c) Auction initiator and auction cycle
The same as Mobshop or Mercata, Letsbuyit took in charge of the arranging, initiation and coordination work during the whole auction process. The selection of group-buying products at Letsbuyit.com could be proposed either by the suppliers or the potential buyers, and still the final decision power was kept by the intermediary, Letsbuyit.com itself. Also, the end date and the time left for the current auction cycle were stated on the auction page clearly.

d) Product offering
Kauffmann (2001) in his article said that Letsbuyit.com had the emphasis on the sale of high quality and medium to high-priced goods with known brands. And there was reported that it had had plans to have marketing campaign every week with brands such as Sony and Gucci, or promote latest model of one digital camera. Moreover, there was saying that Letbuyit.com focus on only the high-liquidity products, which are of great consumer interest. Even, it pointed out that the website limited the numbers of auctions and then lure the customers to specified sale items (Chen et al., 2010). Also information including the general product specification, the buying deadlines and the delivery duration and charge was listed on the page.

e) Special features
One of the features owned by Letsbuyit was the "Tip-Your-Friends" function which the interface was shown below.

Figure 9. The "Tip-Your-Friends" Feature for Co-Buying at LetsBuyIt.com
Tip your friends and lower the price!

**Camcorder: Canon MV 300** Canon’s latest and lightest camcorder (only 550g) is not only futuristic in design but also carries the highly praised features of the MV range. Your creativity is assured – the logical handling makes sure of that. Optical steady shot picture, digital zoom, multi-screen...the list is endless!

**End date: 26.03.2001**
**Best price £649**
**Average retail price £749**
**Start price £922**

Do you know someone who might be interested in this co-buy? Complete the information below to tell them about it.

![Image]

**Your name**
Rob Kauffman

**Your email address**
rob7665@yahoo.com

**Friend’s email address**
weng@csu.mmm.edu

Separate multiple addresses with commas (max. 10).

**Please write a personal message below**

(Input your message here)

Send

(Kauffman and Wang, 2001)

And the other is "suggest-a-Product" tool. By this, if some products are not listed or involved in the website, customers can put forward their wishing products to Letsbuyit.com. Besides, it is possible that some others have already suggested the same production, and then suggestion search box enables customers to browse and click to vote for the already one. Thus a "Top suggestion" ranking ban was generated to show the current most wanted products among the members.

**Figure 10. LetsBuyIt.com’s "Suggest-a-Product" Feature**
(Kauffman and Wang, 2001)

### 4.3.4 Other early group-buying websites

Apart from these three dynamic-pricing websites who taking the mechanism similar to the traditional "discount shopping clubs" by aggregating buying power to get lower prices, there are many other websites either taking the same mechanism but with particular or unique characteristics or taking different mechanisms. A brief summary is collected below.

Despite Mobshop, Mercata and Letsbuyit which were recognized as the most well-known group-buying websites using dynamic pricing mechanism, there emerged many other websites since then which taking the similar mechanism such as actBIG.com (now Etrana.com, www.etrana.com), CoShopper.com, C-Tribe.com, DemandLine.com, OnlineChoice.com, PointSpeed.com, SHOP2gether, VolumeBuy.com and Zwirl.com. Among them only CoShopper was founded in Norway and the others are all based in United States (Kauffman and Wang, 2001). On one side, the products and services offered among these websites varied. On the other side, some of the websites possess some particular features which were worthy of note.

For example, the European-based Co-shopper adopted a zero inventory policy and outsourced its order fulfillment to two European logistics firms and a fixed delivery fee was charged to the shoppers (Kauffman and Wang, 2001).
C-Tribe appeared to be unique because of the kinds of commodities it provided. It just focused on the group-buying of offline retail gift certificates and proved that online websites could also be subsidiary rather than a competitor with offline retailers (Kauffman and Wang, 2001). The "cash-back" rewards encouraged consumers to shop at top national offline stores (Business Wire, 2000). Also, C-Tribe positioned itself as the first credit-card based rewards network and provided customers access to its offers through the Internet, phone, and Internet-enabled wireless devices (Business Wire, 2000). While the difficulty of maintaining a critical mass of shoppers beat down C-Tribe appears finally and C-Tribe shut in late 2000.

Another distinctive mechanism is called reverse auction. Different to the usual auction that the customers bid for the commodities, customer could set the price by themselves in reverse auction and instead the suppliers act to bid for the consumers' business (Ding, 2005).

Priceline.com (www.priceline.com) is one of the most famous websites in this reverse auction field. The "name-your-own-price" mechanism it takes gives the initiatives to the consumers and help them to get discount rates for travel-related items such as airline tickets, hotel stays and etc. (priceline.com, 2011). The gap between the price an individual bid and the price charged by the suppliers constituted Priceline's proceeds (businessinsider.com, 2010). According to Min et al (2005), neither the customers knew the lowest price Priceline.com which could get from the suppliers nor the suppliers knew the actual price the customers bid by, the function of Priceline became the market maker instead of a pure facilitator.

Onlinechoice.com is another reverse auction service provider which negotiated deals with suppliers on behalf of buyers to obtain discounts, and as the matchmaker a referral fee would be charged by Onlinechoice from the consumers if the deal went through (Kauffman and Wang, 2001). In addition, Online Choice and Mercata formed the strategic group-buying alliance during September 2000 to share group-buying members across their distinct product bases although they regarded each other as the competitor (Market Wire, 2005).
In addition, the reverse auction service provider called Demandline.com provided the potential consumers with the opportunities to have discussions with the vendor directly. And the reverse auction websites Shop2gether adopted the first education-focused group-buying platform and also charged a fixed fee from buyers when transactions went through. (Kauffman and Wang ,2001)

VolumeBuy.com provided its customers with 3 types of buying tools. The "Time Power Pool" ensured the consumers a low price based on the amount of time they were willing to wait for making a purchase. The "Flex Power Pool" tool works like Mercata, Mobshop and Letsbuyit's group-buying business models that prices would decrease as more people joined the pool. Finally, the "Group Power Pool" would not close until a pre-specified buying group size has been reached that everyone in the pool would receive the same discounted group price. (Kauffman and Wang ,2001)

Besides, there also existed "seek out a seller" mechanism which were used by TravelBids.com and Mortgagecentre.com (Kauffman and Wang ,2001). Firstauction.com introduced the "time-to-transaction" for time-conscious bidders (Kauffman and Wang ,2001). And its flash auctions in some circumstances only validates 5 minute for consumer goods (Wilson and Wilson ,1988).

4.4 Tuangou Developement in mainland China and Taiwan

Although earlier generation of group-buying websites in Europe and U.S which were mentioned above went to failure in the end, a similar phenomenon has been growing popularity in Mainland China since 2002. "Tuangou" is the Chinese name of it, which means group buying when loosely translated. Sometime, it is also translated into "collective buying" and "team buying". Many press reported this phenomenon which becomes an increasing and booming concern in the world. (Montlake ,2006; Guangzhou ,2006; Arreddy ,2006; Chen ,2006b; Harkin ,2007) Even, we found that recently there was a group-buying website born in Spain who named itself "Tuangou.es". The basic idea seems to be the same as the Western one. That is to say,
customers aggregate and bulk together to purchase the identical or similar products and service and then have the possibility to enjoy the following discounts.

From around 2002, this kind of phenomenon has arisen in China. It originated in online forums or chat rooms. Buyers, who are usually internet surfers or say netizens, communicate through these online platforms by making a post or just enquiring whether there are likely-minded people who have similar shopping plans and preferences. After certain numbers of people express the interests and sign in for a buying group, a "tuangou" event is about to gel. A group leader, who is either elected or volunteer, will be in charge of coordination during the purchasing process. Or the leader might share some work and responsibility with other group members. They would meet offline at a designated time and place through online agreement. And then usually the leader will be in charge of bargaining with the vendors face-to-face to get discounts for their collective buying. Sometimes they call or pre-announce the store manager or retailer, and sometimes they just go without notice and show up directly to make negotiation. Buyers can enjoy the benefits of discounts, while there are many negative problems such as time consuming, the salesmen’s refuse of discounts, non-uniform cost sharing etc. because this group-buying events are usually informal and organized by consumers themselves. This kind of "tuangou" is comparatively earlier and considered as consumer-initiated mode (Li, Zhao, and Wang, 2009).

Until 2003, a formal "tuangou" website named Liba.com was founded in Shanghai, China. We translated the historical story of this website according to its official webpage (www.liba.com). It says that at first some beginners made discussion about the problems and trouble met when sprucing up their accommodation and thus created this online forum. Further, they found they could share experience of selection and collocation of decoration materials. Then they collectively purchased similar materials and bargained with vendors to have discounts, ensure the qualities and fair contracts. And more and more people joined in, the expense of website became high. New members asked to continue this forum for them to learn the experience and organize "Tuangou". Then some initial members decided to establish a professional forum which could maintain a longer relationship with vendors, negotiate larger discounts, deal with more purchasing problems and have commission as profits also. Gradually, it develops
and expands. Now, it involves four main businesses: home furnishing materials and appliances, wedding supplies, driving training courses, and maternal-infant products. It has cooperation with more than 2,600 brands and makes transaction of around 30 billion annually. And, there are more than 30 million registered users and 10 million visitors daily. It is this group-buying website who initiates "tuangou" events and coordinate the purchasing activities.

Moreover, there are some other well-known websites who also conduct group-buying business. For example, Teambuy.com.cn was founded in 2006 and based in Guangzhou. It has more than 100 city branches all over the China. Besides group-buying events organization and coordination, it has posted on its official website that it serves as a platform for manufacturers to broadcast promotion information (www.teambuy.com.cn). After birth of Groupon.com and similar copycats in China, this website generates a Slogan that it is dedicated to Chinese version of group-buying, which combines online and offline group-buying transactions.

Also, Soufun.com is a leading real estate website in China. It organized many events for customers to purchase property together. Also, it has generated several times of abroad activities. It arranged a group visit for Chinese who want to purchase property in American (ref). Chinese customers signed in through Soufun.com, as a media site, more to have group visits rather than make real transactions during the "Tuangou" process (Li, Zhao, and Wang ,2009).

4.5 Groupon and its competitors

In 2008, the emergence of a online coupon website brought a new round of reformation in online group-buying industry. Groupon, the organizer of the daily group-buying events which providing up to 90% discounts caught wide attentions around the world and was followed by many imitators and challengers. As mentioned before, the basic idea that guides Groupon is not new. By reviewing the Groupon and its competitors’ cases, differences might be found between Groupon and other group-buying intermediaries. The structure which had been used in collecting the cases of three early
group-buying websites was still used in Groupon's case. Five aspects' data including general background, pricing strategy, auction initiator and auction cycle, product offering and special features were collected.

4.5.1 Groupon

a) General background
Groupon.com, a deal-of-the-day website which later localized its markets to the worldwide, launched its first deal in November 2008 in Chicago. Groupon used to be a project side of an online community called ThePoint.com. The Point launched in November 2007 which mainly focused on online collective action and fundraising, and one year later, Andrew Mason, now the CEO of Groupon.com, brought Groupon into birth. The concept of making use of collective buying power to get a daily deal based on geographically localized goods and services was originated by Groupon at that time (GrouponWorks, 2011a). Its investors includes New Enterprise Associates, Accel Partners, Digital Sky Technologies, Battery Ventures, Andreessen Horowitz, Greylock Partners, Kleiner Perkins Caufield & Byers and about 1.12 billion dollars was raised after 5 rounds of funding (neXtup Research, 2011).

Groupon demonstrated its own operation equation which used collective buying power and the social media such as Twitter, Facebook to get a large amount of new customers in a day time. The 3-step operation process provided by Groupon.com gives the subscribers and potential business affiliates a simple and clear view of how Groupon works.

Figure 11. How Groupon Works
As stated by Groupon on its own website, "We only win if you win" (GrouponWorks, 2011b), Groupon doesn't take the advertising fees from the suppliers nor customers. Groupon only takes portion of the revenues generated by each deals sold by the supplier as its profits.

According to Groupon.com's own record, there are more than 36,750,000 subscribers across more than 160 cities in the U.S. (GrouponWorks, 2011a). In the global market, Groupon has entered countries including UK, Canada, Australia, Brazil, China, France, Germany, Japan, Norway, Sweden, Ruassia and others, in total 44 countries. Groupon US noted that more than 40 million deals have been bought so far and more than 1.69 billion dollars have been saved by using Groupon's coupons. By the end of 2010, Groupon attracted 51 million subscribers in 565 cities in the world and generated about $760 million revenues with more than four thousand staffs (Groupon anxiety, 2011). Groupon hopes to increase the number of subscribers three-fold, to 150 million, by the end of 2011 and in the memo, Mr. Mason wrote that he hopes for, "at least $1B in revenue from new products we launch in 2011, not just the current daily email." (Hickins, 2011)

Already realized the strong competition worldwide because of the low entry barrier of this industry, Groupon now is trying to work out the right strategy to against the imitators by making better use of the data it collected. For instance, America Groupon has already tailored some offers depending on "the sex, location and buying history of a subscriber" (Groupon anxiety, 2011). Also Groupon Promise which says that "Nothing is more important to us than treating our customers well." shows how Groupon treasures its relationship with the customers. This rule of the statement is quite simple that if Groupon let the customers down, just call Groupon and Groupon would return the purchase (Groupon.com, 2011c).

In February 2011, Groupon entered China through the establishment a joint venture with Tencent which is one of China's biggest internet companies. Groupon used "Gaopeng" as its Chinese name and launched its website (www.gaopeng.com) on March 16th. The
new site's name appears to be taken from a Chinese phrase meaning "cherished friend sitting around the table" (Chao, 2011). The products it offered were mainly focused on the discounted food&dining, hair salon, spa and fitness. Different from previous acquisition strategy adopted in Latin America, Japan, Singapore and Taiwan, Groupon create a new website in China rather than acquiring an existed one. Obviously Groupon want to convey a fresh new value or idea to the Chinese consumers who has already equipped with certain group-buying experiences.

The diagram below shows the main turning point or milestones Groupon has achieved through the timeline.

**Figure 12. Groupon Timeline**
b) Auction initiator and auction cycle

Playing the role of intermediary in the group-buying activities, Groupon is responsible for the coordination work during the whole process including initiating, negotiating,
arranging, execution and etc. The auction cycle run by Groupon runs could be briefly described as follows. A daily deal with promotional text would be provided in each local cities and all the subscribers could check the local websites or Twitter, Facebook feeds every day to see the new deal of each specific city or an email would be sent to the subscribers every weekday morning. By entering their names and billing information, all the intended subscribers sign up for the daily deal. In order to reach the minimum sold number required by each deal to enjoy the discounts, the subscribers are encouraged to broadcast the deals by email or via their social network to their friends. Subscribers would not be charged until the enough people have signed up before midnight to let the deal go through, and those people who have successfully got the deal would receive the Groupon tickets for use in their mailbox the next morning.

**Figure 13. Example of the auction web page at Groupon**
c) Pricing strategy

Different to early group-buying websites with dynamic pricing mechanism such as Mercata.com, Mobshop.com or Letsbuyit.com, the deals offered by Groupon has a fixed price shown on the website. Each deal's price would not change according to the time nor to the number of the people who signed up for the deal. The only factor which influences the success of the deal is the minimum number needed to validate the deal. Only after the minimum number is reached then all the previous intended subscribers could switch to the real customers and to enjoy the deal at the discounted price.
**d) Product offering**

Groupon holds a relative wide product line. The products could be categorized into customer packaged products; accessories; automotive; beauty; restaurant; diet and fitness; electronics; entertainment; fashion; health & pharmaceutical; financial; travel and etc. Groupon as the auction initiator decides which goods or services would be offered to each local market. Each of the geographically based local market has its own destination link with specific product for those shoppers in that local area.

There is lots of information on the auction webpage. Not only the usual introduction of products would be listed on the page, also Groupon would generalize several highlights of each featured auction to show its specific advantages. Moreover, the website linkages of the featured companies (if any) and their locations on the map would be clarified on the auction page. There is also a link called "Join the Discussion" for the subscribers to comment and exchange opinions about the products.

**e) Special features**

At Groupon's webpage, linkages to Facebook, Twitter and FeedBurner are added to attracting people to share Groupon with their friends. Apart from the traditional email distribution channel which had already been used in early group-buying websites to attract consumers, the new social networking service providers and web feed management providers are selected as the new channels for Groupon to enlarge its awareness among the public.

Similar to the previous explorer such as Mercata, Groupon also awards its subscribers if they could bring more people to Groupon.com. While Groupon developed a program named "Refer Friends, Get $10" to standardize this advertising tool. For Groupon U.S., if someone joined Groupon within 3 days and make first purchase after clicking the link sent by the inviter, a $10 Groupon Bucks would be added to the inviter’s account as a reward. Besides,
In addition, Groupon also provide Mobile Applications for the subscribers which allow the customers to get the new deal and make the new purchase more conveniently. (Groupon.com ,2011b)

**Figure 14. Groupon Mobile Application**

![Groupon Mobile Application](image)

(Groupon.com ,2011b)

**4.5.2 Groupon's contemporary and potential competitors**

Since Groupon's business model is easy to copy, proliferation of the clones overflowed and there already existed about 500 only in America (Groupon anxiety ,2011; Weiss ,2010). These various websites operate in slightly different ways by the production selection, the background, while they all adopt the similar auction cycle, pricing strategy, features and bring customers to the featured companies to get a cut of the total revenue (Madslien ,2010). In the following paragraphs, we would not follow the structure which we used to collect relative detailed cases of Groupon, Mercata,
Mobshop and Letsbuyit, instead we would give a brief summary of the current market to help better understand the present circumstances of online group-buying industry.

One group-buying website named Living social which just received $175 million investment from Amazon in December 2010 emerged to be a genuine competitor and was regarded as the market number two in U.S. (Groupon anxiety, 2011; Madslien, 2010). Other competitors in America includes BuyWithMe, Plum district, Jasmere.com, Groop Swoop, TownHog, and eWinWin (Madslien, 2010).

Groupon's challenges in China is strong since not only international companies such as Google, Ebay and Yahoo have all launched operations in China, many local group-buying companies who has localized their businesses to fit the preferences of Chinese users also are strong competitors (Chao, 2011). Big group-buying websites such as Lashou.com, Meituan.com, and Nuomi.com followed by thousands of small group-buying websites compete for the market share with Gaopeng.

Taobao.com, the largest e-commerce website in China, has also started to offer the group-buying service. From the above table, only self-employed and individual merchants promote "Tuangou" event in a small scale. Until the active of "Ju Hua Suan", an attached website dedicated to group-buying, it promotes three deals a day. Through this group-buying platform, many kinds of merchants can initiate group-buying events after applying to Taobao.com including individual merchants for their personal online stores, other group-buying websites etc. Thus, these merchants have the chance to reach 370 million registered users of Taobao.com (Chao, 2011). There is a vivid example about its cooperation with Mercedes, who sold 205 Smart cars in 204 minutes on September 9, 2010. And customers enjoyed 6,150 dollars discounts with this group-buying compared to regular price.

After the famous but unsuccessful attempt to buy Groupon for a reported sum of $6 billion in December 2010, Google confirmed the development of Google Offers in January 2011 which aimed to get a larger share of the small but growing online-advertising market for local businesses. (Efrati, 2011)
On April 21st, 2011, Google Offers BETA was announced coming via the Google Places on Facebook. Although the general model is similar to Groupon or Living Social, Google could bring some different things to this industry. As observed by Mr Eichman, "Google has a strong relationship with consumers, but they don't have a commercial relationship with consumers" (Madslien ,2010). By taking the use of its huge followers and users, Google Offers could provide more opportunities featured retailers or providers.

In addition, according to The Wall Street Journal, Facebook would "soon start testing a service to provide local discounts to its more than 500 million members" which would push the "social network into direct competition with daily deals provider Groupon" (Morrison ,2011). All the local promotions running at a given time would be listed once the users check into a specific location, and users will be able to find the links to all the deals page via their Facebook's home page (Morrison ,2011). This new services would let people buy and share the deals with their friends and this feature would be available for the local businesses to sign up according to Facebook's statement.
5 Analysis

Compared with the offline group-buying, there is no deny that online intermediaries enjoy the benefits such as great convenience of communication brought by the information technology. That can explain why some offline buying clubs also begin to use online orders to reduce partial coordination costs. It is also the Internet that makes it possible that disparate customers have interaction and bundle into group by themselves and then initiate group-buying events eliminating intermediaries. If comparing Groupon and early online group-buying intermediaries, we wonder whether it takes more advantages of the World Wide Web for its coordination. Some external environmental factors have to be considered. On one side, the whole online retail industry has experienced development over the last decade. Online retail sales in the United States grew from $5.3 billion in 1999 to almost $143 billion in 2008, which is estimated to $279 billion in 2015 (Daley ,2000; U.S. Census Bureau ,2010; Wauters ,2011). And the electronic commerce market is tending to relatively maturity. For the business-to-customer sector, the better payment system such as PayPal and Alipay increase the security of online shopping. And complementary service and policy including delivery, return, privacy protection etc. facilitate the transactions. It is much easier and cheaper to have access to the Internet and various online services for customers with the widespread of information technology and related devices. Accordingly, customers have more experience, knowledge and trust of online shopping process and the numbers of Internet shoppers have exploded in the world (Nielsen Online ,2008).

Besides these, we identified difference among various group-buying activities through five dimensions and the comparison analysis as follows.

5.1 The nature of initiator

By comparing the auction initiation of the group-buying activating, we distinguished three kinds of initiators by categorizing these different forms of group-buying drivers, including the merchant, the consumer and the intermediaries. For merchant-driven group-buying, the merchants keep the full discretion to decide what products they want
to offer for sale. If the consumers act as the initiator, usually they maintain the right of autonomy to decide the products according to their preference. And if the intermediaries initiate the group-buying activities, they usually would coordinate with both the merchant and consumers so as to decide the products for sale and finish the deals.

*Merchant-driven:* For the early "buying clubs" which the companies who want to sell their products to the club members, it is the companies themselves initiate the group-buying activities, propel the group-buying by encouraging the consumers to purchase the products directly from them and avoid the cost caused by middleman. Other than the merchants, there exist individuals or parties taking the role of intermediaries to gather the members into the club, consolidated the orders, conduct the purchasing with the merchants and collect the payments. As for "coupon" which could be regarded as a tool for promotion would result in the group-buying phenomenon, rather than as a group-buying form itself. A new coupon is usually started by the merchants, either the manufacturers, the wholesalers or else, who want to promote the products to new or old consumers. Rather than bypassing the role of intermediaries, the strategy of coupon issuing puts more emphasis on the price saving incentive to gather volume sales. To obtain and use a coupon, the potential consumers don’t need to gather together to enjoy the benefits. Other than performing as the common participants, these consumers with coupons act relatively individually. Also, there are some self-employed and individual merchants participating in "Tuangou" as the initiator of the group-buying activity.

*Consumer-driven:* "co-ops" as a group-buying form is initiated and run by the consumers themselves as intermediaries. Their co-ops behaviours are not-for-profit and full of democracy since the members in the cooperatives are entitled the right to select the products according to their needs. As for "employee club", members in such club are usually colleagues with each other. Although the runner of the group-buying activities could be the employees themselves or their company, which help its employees to coordinate the buying activities, the needs for group-buying are usually generated from the individual employees. And some other early group-buying websites adopting reverse auctions such as Priceline allow the consumers to initiate group-buying cycles by themselves. In addition, "Tuangou" as a combination of online and offline
group-buying form, could also be initiated by consumers who want to enjoy the discounts.

*Intermediary-driven:* Groupon, playing as the intermediary who coordinates the group-buying activities between the merchants and consumers, is also the initiator of the deals. By selecting the deals according to its own standard and considering the preference of consumers, Groupon decided the deals offered everyday with most autonomy. Although Groupon sets wishing lists for customers to suggest preferred offering, there is no evidence showing most of them are satisfied. Mainly it is Groupon who initiates the group-buying activity and encourages its subscriber to purchase the featured products to gather the volume orders and reach the economy of scale. Groupon facilitates the whole transaction process by matching the needs of customers to the provision of merchants, aggregating the demands under a well-controlled trusted environment. And for most of the early group-buying websites such as Mercata, Mobshop, Letsbuyit, for Groupon’s clones and its new innovators such as Google Offers, and for those "Tuangou" sites as the driver of the offer, all of them perform similarly to Groupon as both the formal intermediaries and the initiator of the activities.

Considering these three different kinds of initiators, they have various motivations, which guide their activities. For most of the merchants as initiators, their major purpose is to increase their sales, promote their products and etc. Even the aim to promotion is not for profit; the long-term purpose is still for monetary earnings. For the consumers as initiator, most of activities are not for profit but aiming at collective benefits together. They can aggregate the buying power to bargain with suppliers or share coordination work. As for the intermediary initiator such as Groupon, they have profits by charging certain fees for their efforts made to coordinate the group-buying activities between merchants and customers.

From above, we could identify the possible intermediaries whose roles are played by individuals. Such condition happened in early the merchant-driven "buying clubs", the consumer-driven "co-ops", some "employee clubs" and the Tuangou events which are managed by individual himself. For those individuals who coordinate the group-buying activities by themselves, they usually possess better knowledge and relationships with
the consumers than those organizations who are hard to target the desired consumers since the consumer base is too big. However, these individual intermediaries have to take more risks that are caused by bounded rationality compared to their organizational intermediaries. For example, they are not sure to persuade merchants to generate a group-buying deal or they have less power to control customers’ join or quit. It is also possible that they do not have professional knowledge about one purchasing item and deliver inadequate information. Once the numbers of participants increase to some extent, they may have no capability to deal with too much information. For those organizations such as Groupon who consists of various specialized labor and take the role of intermediaries, their collective actions could extend the domain of the individual rationality to reduce the uncertainty in the transaction process (Arrow, 1974).

5.2 Pricing mechanism

From the cases, we found that Groupon and its recent copiers or challengers all take use of the fixed pricing mechanism, while most early group-buying websites adopted the dynamic prices in the auction process. In addition, coupons usually mark the discount percentages or prices on the face of the coupon ticket, which is valid until the expiry date. Compared to the dynamic pricing mechanism in group-buying events where price varies according to the total amount of the bidders, such fixed price reduces the uncertainty existed in the change of prices and provides the consumers with more guaranteed price since the consumers don’t need to worry about the changing prices when they are considering other factors when doing the buying decisions. Moreover, the unchangeable price helps to avoid the opportunism actions during the process of the auction.

As for those group-buying events, which take place offline, the prices usually are not decided until the auctions are succeeded. People might have some information about the prices such as the range of the discounted level, while they are not decided before the negotiation is finished and usually the final published prices are through negotiation between different participants. This issue also appears in some early dynamic-pricing group-buying websites. Although websites such as Mobshop and Letsbuyit pre-arranged both the current price and best price of the deal, Mercata hided the best price on its
webpage and the consumers did not know the final price when they committed to the purchase. On the country, the prices are kept fixed and ensured once Groupon and its clones posted their offers till the termination of the offer. Thus the information about prices is more open and transparent to all the participants if the prices are decided in advance.

Since usually the profit allocation/sharing rates are confidential, little information was found which discussed about the way of how commission fees were charged by the early group-buying websites, Tuangou sites. But for the current activist, Groupon, the company stated that fees would not be charged to the merchants until the merchants did make businesses via Groupon’s featured offering. That is, Groupon charge the advertising fee by effect. Previous researches revealed that Groupon usually obtain certain percentage of the revenues generated from the deals as its proceeds. Thus the price set for each offer would influence the gaining of Groupon if they relate their income with the sales achievement.

5.3 Product and service selection

Groupon has a wide variety of its featured products as mentioned in the case. Compared to those offline group-buying clubs whose product line focused on the limited assortments such as food, grocery and household products and those early group-buying websites where hi-tech electronics, hotel and travel offering took the majority, Groupon also included many services into its products line, especially diet and fitness, fashion and beauty, entertainment activities and other up-to-date products. However, Tuangou which emerged in China maintained a special product range which mainly focused on the decoration materials and wedding supplies.

Following the timeline of the history, we could find that the product assortments expand wider and wider with an unlimited trend. Even the products under the same category were embedded with more heterogeneity than before, which could be owed to the development and improvement of the market. Since there were not so many brands for similar products in one industry in the past, and also those offline group-buying events were usually hold in a relative limited small group or area where people's needs for the
products are similar, the products provided to consumers were relative homogeneous than they are now.

Coupon, as a marketing tool to enlarge the companies’ or products’ awareness and increase the sales, is used by Groupon to deliver its offerings. Different to the offline group-buying or early websites who usually distributed the real goods to the consumers, Groupon takes coupon as the certificate of voucher to be the way of its product delivery. Consumers redeem the coupon at the merchants when they conduct real consumptions. Such way of product delivery reduces the uncertainties which might happen in real goods delivery and also helps Groupon to widen its product line toward unlimited assortments.

Another difference existed in the product information provided to the consumers. For Groupon, brief introduction and clear description of the featured product would be shown on the webpage with attractive photos, also sometimes with comments from those people who have already tried it. Though the accuracy and reliability are not one hundred percent ensured, this information is relatively detailed and could help to avoid many uncertainties caused by information shortage if compared to the product information provided by previous group-buying websites. For instance, Mercata endows the consumers with relatively little product information and no detailed product features or specifications were available from its webpage. Here arose the problem of information impactedness. The asymmetry of information on one side limits the rationality of consumers when making the buying decision, and on the other side might result in the issue of opportunism if the supplier or intermediary tend to take advantages over the consumers by using the deeper information owned by them. This problem also existed in the offline group-buying activities. Information impactedness appears if the merchants or intermediaries deliberately hide some information to the consumers.

In addition, Groupon and its current competitors are famous for its geographically distributed markets, which divided its offering area according to the cities. And unique website and related featured offerings are established and provided by each of these geographically divided cities. By localizing the Groupon offerings, the organizers could better serve both the consumers and merchants based on their better familiarity with the
local market. Similar to the early offline buying clubs whose club members usually knew each other, the knowledge and needs for products of the consumers in each geographically distributed Groupon city tend to be more homogeneous. Such homogeneity helps Groupon to ease the group-buying activities to be smoother by lowering the uncertainty, which is caused by the heterogeneity. Furthermore, the runners of the local group-buying events gradually gain asset specificity in that local area. They command a better knowledge about the composition of local businesses, the product preference of local consumers, which would help the guide for product selection, and also obtain the site specificity. And the closer relationship kept with the local consumers also local businesses/merchants is also of great importance. In contrast, those early group-buying websites, which offered their products across the whole country, didn't enjoy such benefits brought by geographical distribution. Moreover, Groupon and its followers also provide offerings opened to the whole country. Under this circumstance, the products offered are usually embedded with well-known features, standards and popularity across the country.

5.4 Frequency of the deals

For the frequency of group-buying aspect, or say how often one group-buying event is organized by the intermediaries, there are various situations. In the offline cases including all kinds of consumer cooperatives mentioned above, it ranges from once a week to once a month. And it is uncertain for those events that depend on the initiators’ needs. Only when consumers aggregate enough people to have the bargaining power, group-buying takes place. Compared with those, Groupon and recent online group-buying intermediaries set up one to three deals daily. Although Groupon insists that one deal daily is its feature, it adopts two to three deals daily when going to China. In all, the frequency increases to a large extent.

Then the question is whether the higher the frequency is the better. In the offline world, if the frequency is high, the cost of coordination increase accordingly for the communication is less convenient at that time. Online group-buying intermediaries use the information technology and reduce the communication cost to a negligible degree, which makes them able to operate the group-buying more frequently. However, it is
only limited within communication with consumers. There is almost no difference between telling customers one deal one day and three deals through various digital channels, while Groupon has to invest more time and resources to find potential deals. It identifies the merchants and encourages their needs, has more negotiation with them, which yet could raise the transaction costs. It is possible that Groupon and some online giant companies have more reputation and some merchants would drive the cooperation more actively. There are still transaction costs for the initial agreements, mutual adaptation before final launch. Only when the group-buying event occurs with the same merchant more often, then the total transaction costs would be considered reduced.

And whether the frequency and duration of a group-buying event is fixed is another side. Among all the cases, except for the early group-buying websites using dynamic pricing mechanism and online consumer-driven cases, most group-buying activities occur based on an agreed and steady cycle. If customers involve in series of group-buying and the frequency is not settled for them, they have uncertainty and do not know when the next event is.

In those two cases, the duration of one group-buying event is not known, for everyone involved in has to wait for the decisions by others. Although in other cases, people who run the intermediation set fixed duration, we observed that some copiers of Groupon make a rather longer duration, usually several days for one event. The setting of the lowest numbers of group-buying is related to this. It is possible that these intermediaries have already had contract with merchants. But they are unable to make sure to activate the deal due to some possible external factors such as customers’ preference and population. And they adopt this solution to expect coming consumers, increase the possibility of final reach of a group-buying, and avoid loss. Groupon has rules and routines of the comparatively stable frequency and duration of group-buying, which is beneficial to lower the transaction costs. And the minimum for a group-buying of Groupon is usually far less than the final numbers of involved people. This creates a trustful atmosphere and reduces the risks customers and merchants are faced with. However, for its Swedish sites, the frequency of group-buying is floating and varies from cities.
5.5 Network and relations

We will analyse different group-buying cases from a structural perspective first and then the relations among participants. If examining the total numbers of group-buying participants in all forms, it increases generally along the timeline. Especially for the online group-buying websites, they aggregate not only more consumers but also rather more merchants than offline ones. But the numbers of people involved in every group-buying deal is diverse. That is to say, the online intermediaries have more capabilities to involve more actors and create more links among the whole group-buying network, however, for each deal or each group-buying segment market the numbers of actors and links brought into is not stable. In the buying clubs, these two data is comparatively much closer.

How these consumers are linked and the relations are worth noticing. In the buying clubs, co-ops, and employees clubs, people who are families, friends, neighbors, co-workers, or those who live in the same town, village, or community are bulked or linked together. The content of the relationship can be regarded as kinship or descent relations (Thompson, 1991). These personal relationships are concrete and produce more trust (Thompson, 1991). Besides the group-buying events that connect them, their relationships have many more other interactions. Even the one who coordinates group-buying keep this kind of relationship with consumers such as the Secretary in the Larkin Club. The influence of personal network is relatively strong in these cases.

For the online ones, in a group-buying event, it is possible that the participants are strangers and do not know each other before; they are pooled together because of the common purchase needs and interests. They are linked or blocked into a particular group-buying deal by the intermediaries. After this temporary gathering, they could exchange reviews or discuss about the satisfaction of the service or products, while usually they are separated again and the relations are usually impersonal, which produce low trust when making transactions. Some cases such as home decoration group-buying driven by consumers, their relations include more communicational messages and mutual dependence to make the deal achieve success than those initiated by for-profit intermediaries.
Non-for-profit and consumer-driven group-buying intermediaries share the same mission with consumers. There is a more aligned mission among the participants, and opportunism is less. Intermediaries’ relations with them are closer and their mutual trust is built before the group-buying event because of the personal relationship or expression of willing to activate the group-buying. Compared with those, for-profit intermediaries have to invest in and experience a trust building process with their consumers to make on-going transactions (Haugland, 1994). Then it comes to the problem how for-profit intermediaries maintain the relationships. According to Kauffman, reputation and word-of-mouth assist online intermediaries increase consumers’ trust (Kauffman, 2010). Groupon and many other online intermediaries adopt textual comments and ratings to facilitate this, to some extent positive comments increase the trust for the merchants’ offering. The consumers’ trust with the intermediaries lies in the quality of its recommended products or service, the percentage of activating a group-buying event and even after-service. It matters if those intermediaries have or not related policies to ensure consumers’ benefits. For instance, if consumers have trouble during the consumption of group-buying deal, intermediaries’ according guarantee or solutions would reduce their uncertainty. If some intermediaries always do not have the enough numbers of people to activate a group-buying deal, it is possible consumers’ trust decrease and turn to others. Only after consumers purchase the deal and make redemption in the stores, the entire transaction is completed and their trust with intermediaries is established. With the accumulation of good experience, intermediaries gain loyalty from them. Groupon’s rate of activating a deal is higher than small competitors. It settles a thorough system of norms and policies to educate the consumers how to enjoy group-buying step and step.

Groupon and for-profit online intermediaries have a feature of "telling your friends", which is to encourage customers to use their personal social networks. Through combination with more and more social media such as online communities, emails, blogs etc., every consumer can be seen as a marketing unit to post the deal. Groupon now give commissions to those welcomed blogger only if they help Groupon attract new members through their websites’ links. It seems that it can help Groupon extend the various channels. The launch of mobile commerce increases more these kinds of
communication ways. These innovative media may enlarge the whole group-buying network and then possibly expand each deal market, while, there is no evidence how much percentage of a deal is activated and influenced by participants’ own personal relations. Or say it is uncertain how strong the influence of each one’s personal network and this kind of visualized word-of-mouth.

For the merchants, linkages with them in the above group-buying cases show different states. It is possible that merchants have already had relations with consumers before the group-buying event. For example, in the buying clubs and co-ops, those local residents are familiar with grocery merchants through products and their brands, while intermediaries link merchants only to transfer the group-buying needs especially the potential sales volume, their benefits from economics of scales and help them aggregate the people. In the consumer-driven cases, intermediaries need to negotiate with merchants and persuade them to offer discounts. Another possibility is that merchants are new to the customers, and intermediaries are dedicated to creating the link through the promotion discounts, advertising and marketing techniques like Groupon. It means that these merchants have gaps with their potential customers’ network, and intermediaries occupy the structural holes and make profits (Kauffman ,2000). Also, in the offline group-buying and consumer driven cases, merchants are relatively regular members, whose numbers is small. The numbers of merchants involved in online intermediary driven group-buying such as Mercata and Groupon is large. Since more and more merchants are involved in this group-buying network, then it leads to the management of these relations and potential links among the merchants. Then there comes the adaptation between merchants and intermediaries. Intermediaries need to translate the information of merchants into its standard and ensure the originality. Otherwise, there will be difference between customers’ perceived quality and the real offer by merchants. Groupon has a particular website to guide merchants to do marketing through Groupon and attract them with successful stories, especially post the large volume of participants in a buying group. However, even if intermediaries successfully link new merchants with their new customers, there is no guarantee how long this link will sustain. This may explain why many consumers visit the merchants’ stores only once rather than repeat purchase (Dholakia ,2010). Intermediaries have longer relations with them and build mutual trust, which would lower the transaction
costs. However, it is not common in online group-buying cases. Although there are merchants who cooperate with Groupon twice or more times, the percentage of this is around 50% according to a survey (Dholakia, 2010). And amounts of imitators come forth and then intensify the competition in online group-buying market. It is possible that more merchants would turn to these imitators rather than Groupon to have similar coordination service and maybe at a lower fee.

When intermediaries choose to link merchants, they prefer involving those who have group-buying needs, the least adaptation costs and possible high welcome among customers. However, there is doubt whether these merchants share the same target group of customers or they can possibly develop some package deals between two complementary merchants. Groupon is now focused on the selection of merchants who run local small business. It benefits them by creating links and connecting customers in the electronic market and thus extends their sole traditional physical markets. Moreover, Groupon would decide whether to link some giant companies, who could also start online group-buying function by themselves. It is possible that through Groupon’s coordination of these group-buying, the reduction of transaction cost might not be so attractive that big companies establish or buy an online group-buying platform for its customers. Another possibility is that Groupon’s coordination has high added value and big companies need larger costs in other aspects to internalize this than outsourcing it to Groupon.

6 Findings

To sum up, Groupon is defined as an intermediary-driven organization, which provides for-profit intermediation services of group-buying activities. By comparing other merchant-driven or consumer-driven intermediaries, those individuals or organizations bypass the role of intermediary through internalizing such function by those individuals, parties or even the companies in some employee club cases. Groupon, on the contrary, involves in the transactions as an independent player who is not on behalf of the merchants, nor buyers or other parties. Groupon not only initiates the group-buying events, but also takes charge of the intermediation by itself with specially set structures.
The intermediation functions of Groupon is externalized and coordinates in a much more market way.

The assortments of Groupon's offerings vary a lot compared to the early group-buying forms and by the continuous intake of increasing assortments, more and more potential consumers would move to Groupon if it provides the products the consumers want. And the geographically divided markets helps facilitating Groupon's customization strategy by providing the consumers with more appropriate and familiar products based on the advantages of localized asset specialty. Besides, the relative detailed product information provided by Groupon to the consumers reduces the risk of uncertainty kept in the consumers' minds that encourage them to take the deal. Also, the discounted prices plays as the incentives to try to attract consumer's consumption in limited time duration might take effects. All these four points mentioned above help Groupon strengthen its functions in the market mechanism and push it toward the more market direction.

Groupon, as an independent organization, have transactions with both merchants and customers. It is Groupon who takes the initiation of setting series of rules and policies during the group-buying transaction process and the other two players follow the settled steps. Through its authority in controlling the production or service selection, fixed price and discount decision, the stable frequency and duration of deals, and the management of relationship with merchants and customers, Groupon as an intermediary create a special online group-buying infrastructure by itself. Merchants and customers make adaptation to this model through experience. Merchants need to post its business in accordance with the way of marketing designed by Groupon. Their product or service information is translated to Groupon’s unified standard. Customers who want to enjoy the discounts trade efforts in abiding the instructions and managed by Groupon through online electronic transaction system. Groupon establishes a respective one-to-one hierarchy relationship with each merchant and customer. Due to the information technology, it involved amounts of actors in and run the group-buying intermediation toward a more hierarchy way.
Groupon take advantages of the information technology to have the interactions with numberless customers at the same time without geographical limitation. Meanwhile it inspires customers to make more links with itself by social media. To satisfy the customers’ needs and keep operation of everyday deal, it constantly encourages and develops the contact with local business. It expands the group-buying transaction network with the increase of both market and hierarchy; it needs to manage all the interactive relationships with merchants and customers as a focal actor. However, in this network, the connections among them are dynamic and not stable since there exist other players who gradually offer the similar intermediation and it is possible that Groupon lose partial relationships.

7 Conclusions

Through the collection of various group-buying cases along a timeline, we articulate that group-buying activities evolve into different models and show multiple facets although they embrace the same idea. From the comparison between Groupon and other group-buying intermediaries within these events, we found that there are five main differences including the nature of initiator, pricing mechanism, product and service selection, frequency of the deals and network and relations. These differences help show Groupon’s characteristics in the spontaneous transactional and relational coordination. Groupon practices intermediary-driven group-buying activities as a for-profit initiator and coordinator and moves toward a coordination mechanism by combination of more market, more hierarchy and more network way.

These differences also contribute to enriching the theories of intermediaries. Intermediaries are faced with diverse merchants and customers’ needs in their respective network. To satisfy their linked merchants and customers’ needs in a better way, these five differences could be taken into consideration to adopt strategies and improve their coordination. For the future research, these differences might also apply to other new types of electronic intermediaries when practicing coordination rather than group-buying intermediaries. It is possible to see if other potential intermediaries coordinate economic activities toward a more market, more hierarchy and network way too or toward either one of them.
Furthermore, it could be explored how intermediaries satisfy merchants and customers’ needs through different performance in these five perspectives. For instance, it is possible that linked merchants can be categorized and intermediaries then develop some complementary offering. This may match the more diverse needs of customers, facilitate the relationship between merchants and strengthen the mutual connection among intermediaries’ network. It is also possible to look into how intermediaries identify potential appropriate merchants and take the first move advantage to link them. In sum, through examination of Groupon’s group-buying activities and comparison between it and other group-buying intermediaries from past to now, the difference of Groupon’s coordination and the evolvement of various involved intermediaries are displayed. This would contribute to a wide view of intermediaries, their coordination mechanisms and the implications for the future intermediaries.
References


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