



Are the benefits of group buying limited to monetary value? A study on the ultimate value of online group-buying

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Abstract

The global prevalence of the Internet has effectively overcome the intangible limits of physical distance while elevating consumers' inclination to engage in online shopping. Online group buying is now extremely popular during the bleak economic times. Therefore, the purpose of this paper is to identify the goal of customer in online group-buying. This study uses the theory of Mean-end chain as basis, applying the "Soft-laddering" of "Laddering" to understand the perceived value of online group-buying through depth interviews. Among the nine attribute variables, quantity-based pricing ranked first in terms of occurrence, followed by convenience and word-of-mouth marketing. Out of the eight consequence variables, cost-saving and opinion exchange ranked first, followed by effort and time saving and risk aversion. Finally, fun and enjoyment of life topped the nine value variables, followed by security and self-fulfillment. After classifying by content analysis, we draw the Hierarchical value map (HVM) to explore that user's pursuit the final value by online group-buying.

Keywords: Online group-buying, means-end chains, customer value

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Introduction

As the progress of technology and the development of internet, many people tend to shopping online. Group buying is a trend that had incredibly growth throughout 2010 that in order to sustain its current market valuation, it will need to rely on bigger, faster, more lucrative deals (Davila, 2011). Chen *et al.* (2007) find that the model of group buying is more suitable for electronic commerce than the model of fixed pricing because group buying has a learning effect. By using online group buying, it is easy to find more people in a short period of time to share freight costs and to buy in bulk so as to lower prices. It is also easier to get bigger discounts when more people take part in a group purchase. Online group buying is a new way of online shopping, based on the network platform to aggregate buyers' needs, and to obtain the benefit of quantity discount.

During the bleak economic times, group buying has become extremely popular. According to BIA Kelsey's assess the amount of USA's group-buying market reached from US\$ 873 million in 2010 to US\$ 3.9 billion in 2015, an annual growth rate of 35.1% (Business Next Report, 2011). In less than a year, the number of Chinese online group buying users registered 18.75 million, and the sales valued RMB1.66 billion (China Online Group Buying Industry Report, 2010-2011). Zhang (2010) show that there was over 1,000 online group buy websites in China and sales had reached one billion Yuan (Chinese RMB, equal to USD\$ 15 million). Meanwhile, online group buying websites are popping out lately in Taiwan. The Market Intelligence and Consulting Institute (MIC) estimates that Taiwan's online shopping market reached NT\$ 3,583 million in 2010, an annual growth rate of 21.5%. The MIC's report indicates that 11% of users adopted online group-buying behavior (MIC's Report, 2010). These figures demonstrate that more and more people are using the Internet in smart ways to save money. The most frequently purchased items are food and daily necessity.

Past researches on online group buying mostly focused on the investigation of consumer purchasing intention (Anand and Aron, 2003; Li *et al.*, 2004; Chen *et al.*, 2009; Li *et al.*, 2010), conforming behavior, ordering behavior or perceived risks (Gefen *et al.*, 2003; Hsu *et al.*, 2006; Pavlou, 2003; Kauffman *et al.*, 2009), and few studies provided in-depth discussion of the benefits and ultimate values that consumers stand to gain from their participation in online group buying. And as such, this research has adopted the means-end chains method as its basis for the discussion of customer value in online group buying through in-depth interview with 60 consumers who had previous experience in online group buying to determine the structure of consumers' value perception in online group buying behavior.

Theoretical framework

Online group-buying

The global prevalence of the Internet has effectively overcome the intangible limits of physical distance while elevating consumers' inclination to engage in online shopping. Online group buying is not subject to regional restrictions and through various online shopping platforms, consumers would be able to combine their needs for specific products and take advantage of better leverage to negotiate prices with vendors to benefit from discounts and additional services. And as such, online group buying offers better market conditions than individual purchases. Furthermore, the online group-buying platforms present advantages such as the facilitation of mutual cooperation, sharing of shopping experiences, rapid transmission of information and so forth to draw more and more consumers to engage in online group-buying.

The first recorded online group purchasing may have occurred in 1998 when mercata.com and mobshop.com offered a new dynamic pricing model for group discounts (Kauffman and Wang, 2001). Anand and Aron (2003) identify that group buying is composed of demand aggregation and quantity discounts. Online group-buying is the aggregation of geographically dispersed consumer purchasing power from all over the countries. Consumers can purchase the product at the prices below market. They have coordination abilities with vendor to increase bargaining power in order to achieve price discount which they want (Dodge, 1999; Horn and Gustafsson, 2000; Kauffman and Wang, 2001:2002; McHugh, 1999; Pitt *et al.*, 2002; Rezabakhsh *et al.*, 2006; Yuan and Lin, 2004). The incentive mechanism could encourage buyers to join group buying earlier or to buy more.

The main online group buying demographic comprises consumers between the age of 20 and 39, mostly students and white-collar workers, due to their clustering tendencies. Since it is easy for coworkers and friends to share information and for information to spread rapidly via online group buying websites, consumers can easily browse relevant information and save time from physical shopping. And as such, offices and schools have emerged as the primary proponents of online group buying.

Means-end chain theory

Means-end theory originally developed for consumer marketing by Gutman (1982). The means-end chain is the cognitive representation of the connections between a person's knowledge about a product attributes, consumers' perceived positive consequences, and personal values. Means-end analysis was used to identify linkages among program attributes, outcomes, and values (Gutman, 1982, 1997).

According to the means-end chain, consumers identify products by their physical or intangible characteristics. At the next level of abstraction are positive consequences, that is, consumers' personal meaning associated with product attributes. Peter and Olson (2005) explained that consumers identify both functional consequences and psychosocial consequences related to a product. A key importance of the means-end chain is that consumers view products as bundles of benefits (consequences), rather than bundles of attributes. Consumers are more likely to consume or purchase specific products that satisfy their immediate personal values; that is, the principles that guide their actions and behaviours (Young and O'Neill, 1992). Satisfactions of functional and psychosocial consequences lead to the realisation of personal values. According to the List of Values (LOV), a typology developed for measuring values in survey research (Verhoff *et al.*, 1981; Kahle, 1983), nine core values can be identified, which include a sense of belonging, excitement, warm relationships with others, self-fulfillment, being well respected, fun and enjoyment of life, security, self respect, and a sense of accomplishment (Joubert and Mabunda, 2007).

There is several researches focus on consumer purchasing behavior (Walker and Olson, 1991; Baker *et al.*, 2004; Huber *et al.*, 2004), investigating the role of personal values in tangibilising services and advertising effectiveness (Hill and Gandhi, 1992; Tripp, 1997; Stafford, 2005). Pitts *et al.* (1991) were the first demonstration of using means-end for non-consumer based decision making behavior. Other researchers examined consumers' involvement (Mulvey, Olson, Celsi, and Walker, 1994), travel decision making (Klenosky *et al.*, 1998; Klenosky, 2002), greenway benefits and personal values (Frauman and Cunningham, 2001), student athletes' college selection decisions (Klenosky *et al.*, 2001).

An advantage of the means-end chain model is that it provides a deeper understanding of consumers' product knowledge and their motivation to consume a certain product, compared to studies focusing only on a product's attributes or benefits. The indication here is that it is crucial for managers to identify product attributes and positive consequences important to consumers, in order to develop specific marketing strategies targeted at stimulating consumers' perceived personal relevance of the product in fulfilling their desired end-goals. Managers have to understand how and why consumers view some products to be more personally relevant to the self, compared to other products in the same category.

Method

Participants

There are many means-end studies that have sample sizes of 60 informants. As a general rule of thumb, a mini of 20 respondents should be included in any single subgroup. Also, 20 respondents can provide the full range of attributes, consequences, and valued associated with the key brands in

the category, when the respondents are carefully specified and screened (Reynolds, *et al.*, 2001). Hence, a total of 60 subjects (27 male and 33 female) with prior experience in online group buying were interviewed for the purpose of this research. Due to the nature of the subject matter, the interviews required subjects who can articulate abstract thoughts in a clear manner. Therefore, in terms of their educational background, most of the interviewees had received college education (or higher), with a monthly income of NT\$25,000 (or lower) with prior experience in group buying. On a related note, as many as 79.3% of the subjects had more than 6 months of experience in online group buying, thereby reflecting the fact that most of the subjects had adequate knowledge and experience.

Design and procedure

For the purpose of this research, a means-end chain model has been adopted as the research method. Using soft laddering interviews, the study is designed to gradually elicit attributes, consequences and values from interviewees' psyche to examine consumers' mentality with open-ended questions such as "What features of group buying matter most to you?", "Why is the feature important to you?" "What values will this consequence bring?" and so forth to guide the interviewees to reveal the values they long for in the depths of their mind. Using a soft-laddering technique, respondents attended individual interview sessions, of between 45 minutes to 1 hour. The recordings of the interviews were then transcribed into text for content analysis. Results of the analyses were used to derive chains of the path for each interviewee for the compilation of the attribute-consequence-value matrix summary. A tree diagram of the important paths (i.e. the hierarchical value map) was then illustrated from the summary after repeated reviews.

Measures

Content analysis and coding of the data was performed according with the relevant literature (Kassarjian, 1977; Reynolds and Gutman, 1988). The data collected from the interview were coded and categorized independently by three researchers who have experience of using online group-buying platform. The index of reliability was 0.94, exceeding the recommended guideline (interrater reliability = 0.70) (Perreault and Leigh, 1989). Once initial intercoder reliability was determined, researchers worked together to resolve differences in coding of the data. All disagreements were resolved by discussion.

Result and analysis

Attributes-consequences-values

The means-end analysis began when a list of attributes, consequences, and values was created based on phrases and key words that emerged from the interviews. The content analysis results comprised extraction of nine attributes, eight consequences, and nine values. As shown in Table 1, among the 9 attribute variables, *quantity-based pricing* (n=53) ranked first in terms of occurrence, followed by *convenience* (n=26) and *word-of-mouth marketing* (n=25). Out of the 8 consequence variables, *cost-saving* (n=42) and *opinion exchange* (n=32) ranked first, followed by *effort and time saving* (n=26) and *risk aversion* (n=19). Finally, *fun and enjoyment of life* (n=47) topped the 9 value variables, followed by *security* (n=33) and *self-fulfillment* (n=24).

Table 1: Content codes and frequencies considering all the ladders

	Attributes	Frequency	Consequences	Frequency	Values	Frequency		
A01	Quantity-based pricing	53	C01	Cost-saving	42	V01	Self-fulfillment	24
A02	Popular goods	18	C02	Risk aversion	19	V02	Excitement	4
A03	Fashion	7	C03	Increase income and reduce expenditure	18	V03	Fun and enjoyment of life	47
A04	Aggregate buyers' needs	7	C04	Effort and time saving	26	V04	Self Respect	2
A05	Group purchasing	5	C05	Search immediately	18	V05	Being well respected	4
A06	Store service	5	C06	Opinion exchange	32	V06	Sense of belonging	8
A07	Real-time platform	6	C07	Recreation activity	10	V07	Warm relationships with others	13
A08	Convenience	26	C08	Full information	3	V08	Sense of accomplishment	17
A09	Word-of-mouth marketing	25				V09	Security	33

HVM

From a total of 60 respondents, 152 value ladders were constructed, and the average number of times the ladder was mentioned was 2.53. Based on the implication matrix (IM) results, the respondents produced a total of 320 links, with the average number of links being 5.33. The IM rows and

columns represent the links between A-C-V, and the figures in the table indicate the links between variables (as shown in Appendix).

In their research, Reynolds and Gutman (1988) suggested that for studies with 50 to 60 respondents, the cut-off value could be configured between 3 to 5 and adjusted accordingly depending on the situation, with the goal of demonstrating the most stable chain relationship for the research topic to prevent too many weak relationships from complicating the connections of the ultimate hierarchical value map. And as such, the cut-off value has been configured at 4 for the purpose of this research.

Overall

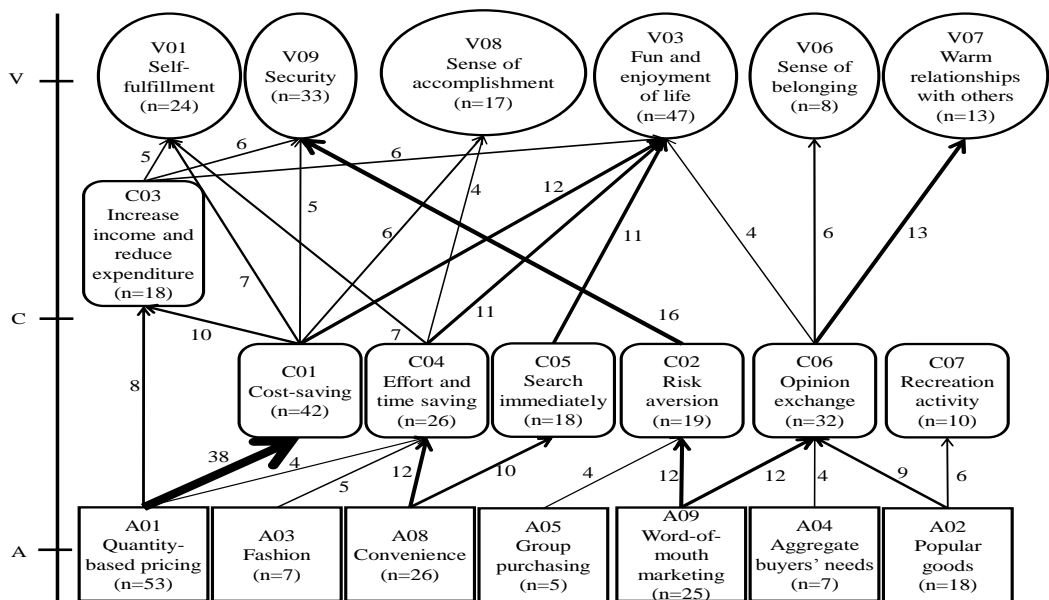


Fig. 1 HVM for all online group-buying participants

The attribute of *quantity-based pricing* occurred as many as 53 times in the chains. Close to 90% of the interviewees connected the attribute to the consequence of *cost-saving* due to the fact that buyers were able to acquire products they need at lower costs because vendors were more willing to reduce their profit margin by offering special prices/gifts when consumers pooled their purchases. And since these interviewees felt they hadn't wasted their money, they experienced the value of *fun and enjoyment of life* from the association of pleasant feelings and satisfaction with life.

For the attribute of *word-of-mouth marketing*, factors such as blogger recommendations, sharing of experience by fellow consumers, popularity of group buy websites, and the number of group buyers would affect consumers' purchase intentions. When pondering the decision to make an order,

consumers would gain confidence for a product if they had heard word-of-mouth recommendations from their friends/relatives or read recommendations from fellow consumers. This would thereby create a feeling of security and protection from risks for the consumer during the process of group buying, allowing them to psychologically feel the consequence of *risk aversion*. And once they feel safe and assured, they would ultimately have *security*. In addition, through product discussions, manufacturer ratings and sharing of opinions from other buyers, the consumers would further benefit from the opportunity of becoming acquainted with other buyers and new friends. Through word-of-mouth marketing among friends and family, blogger articles/recommendations and so forth, consumers would gain better understanding of the product/manufacturer. With this additional information, the consumers would arrive at the consequence of *opinion exchange*, which would facilitate interpersonal relationships and bonding, ultimately connecting to *warm relationships with others*.

In the world we live in today where the Internet has thrived and prospered, many have cultivated the habit of online shopping. Without the limitations of time or distance, the attribute of *convenience* has therefore become a vital characteristic of online group buying. The convenience of the Internet has allowed many consumers to save the time of donning appropriate attire and leaving their homes for shopping, thereby achieving the consequence of *effort and time saving* by being able to shop in the comfort of their own homes. Such convenience makes these consumers feel happy and satisfied, thereby establishing the connection to *fun and enjoyment of life*.

Gender groups

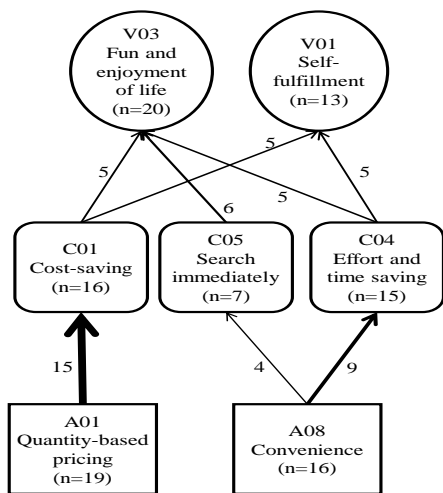


Fig. 2 HVM for Male Participants (n=27)

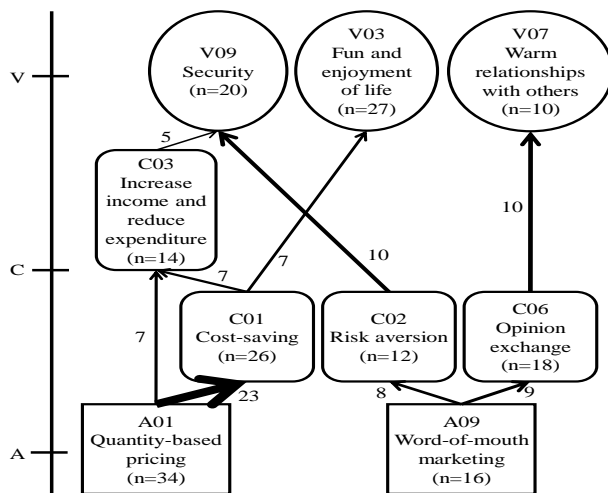


Fig. 3 HVM for Female Participants (n=33)

At this point, the research takes one step further to categorize the subjects into different groups,

starting with gender. Most of the male subjects believed that purchasing in great quantities would lead to a reduction of prices (i.e. *quantity-based pricing*), thereby leading to the consequence of *cost-saving*. Such consequence would in turn lead to a feeling of happiness and joy, thereby achieving the goal of *fun and enjoyment of life*. Among the 27 male respondents, 13 subjects perceived convenience as the most important attribute. They felt that the convenience of the Internet saved them from the limitations of time and space by allowing them to place bids for items at any time they wanted, thereby leading to the consequence of *effort and time saving*, so they could have more time to do other things such as play games or work on reports. With such freedom, these subjects felt they could do more things with their time and this leads to the linking of *self-fulfillment*. The emergence of “otaku culture” in the society of today has bred a population of “nerds” who sit in front of their computers all day long and rarely leave their homes. For these consumers, *convenience* would be the attribute they value most. Being able to buy what they need while taking a break from gaming, they would arrive at the consequence of *effort and time saving*, which would induce a positive feeling and satisfaction from life, ultimately connecting to the value of *fun and enjoyment of life*.

As for the female subjects, most of them felt that they would be able to cut down prices by ordering products in greater quantities to achieve the group buy attribute of *quantity-based pricing*. Orders in large quantities would boost consumers’ purchasing capacity by reducing their expenses. Just like the saying goes, “strength through unity”, the collective needs of numerous consumers would offer better leverage in the negotiation of prices with product suppliers and the idea is in accord with the group buy attribute of *quantity-based pricing*. This allows consumers to obtain more products at a lower price, thereby leading to the feeling of saving/making no waste and the consequence of *cost-saving*. The feeling of joy they experience after that connects to the value of *fun and enjoyment of life*. Female consumers tend to chat with their friends to identify the most economical online auction website and reliable group buy products and through this process of discussion and exchange of opinion, they arrive at consensus and shape recognition. In other words, after discussions and comparisons of their online shopping experience, female consumers would pass on their ratings of specific products to others to become word-of-mouth marketing through extensive discussion. In contrast to male consumers, female consumers have shown a greater tendency to rely on word-of-mouth confidence as a reference for purchase. They would in turn become less inclined to buy products that are less suited to their needs or of inferior quality to boost the feeling of security for their shopping experience. Female consumers usually associate product reputation with greater importance because they feel more secure with a product that others have already used and recommended, which makes them less prone to deception and more confident with product quality.

Food and non-food groups

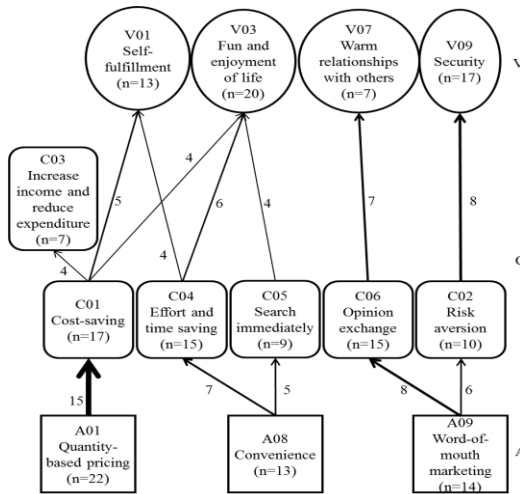


Fig 4: HVM for food participants

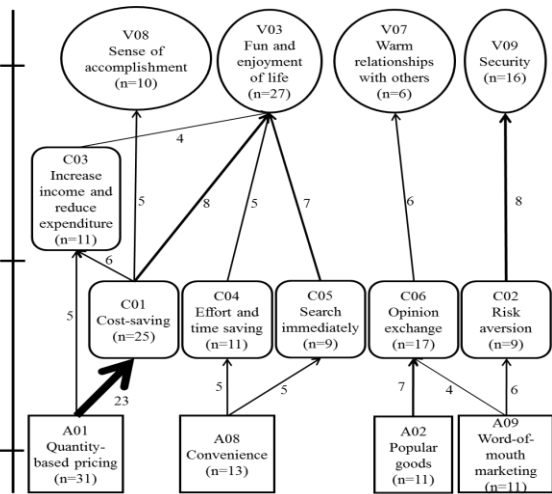


Fig 5: HVM for non-food participants

The next portion of the research separates group buy items into food and non-food groups. For consumers of group buy foods, *quantity-based pricing* turned out to be the most important attribute. These consumers believe by converging their needs and buying products in greater quantities from the vendor, they would be able to get a lower price, thereby being able to enjoy great tasting food at a lower cost and leading to the consequence of *cost-saving* and value of *fun and enjoyment of life*. Furthermore, the healthiness and safety of food is another major concern for the consumers. Online buyers of food would make an effort to search for information on the safety and quality of ingredients and materials of food and relevant recommendations from other buyers (i.e. if the food were delicious). This information is equivalent to the *word-of-mouth marketing* that involves the sharing of opinions, thereby leading to the consequence of *opinion exchange*. Through discussion and sharing, strangers could become acquainted and more familiar with one another, ultimately leading to the beneficial value of *warm relationships with others*. Although advancements in public transportation today have rendered the issue of accessibility obsolete for many consumers (i.e. they could go wherever they want within a reasonable period of time), the Internet has remained the choice of group buying consumers due to its sheer speed; all these consumers have to do is to sit in front of their PC and open their Internet browser – all the information they need would be seconds away. This is the attribute of *convenience* that helps consumers to save the effort and time of leaving their home.

Similarly, the non-food group buying consumers also share the same belief in *quantity-based pricing*, which allows them to acquire more products (i.e. apparel or accessories) at a lower price. In

the market for accessories and apparel, products can be divided into trendy products, seasonal products and apparel more suited to individual styling. Among these products, “buzz items” receive the most attention in discussion – “Is this piece of clothing easy to wear? Is it warmth retaining? Does it look nice?” Such topics are very common among consumers and such phenomenon constitutes the attribute of *opinion exchange*. When consumers discuss and share their shopping experiences, they would experience the warmth of human interaction and this ultimately links to *warm relationships with others*.

Conclusions and discussion

Results of the research identified seven significant attributes that were brought up several times and they were connected to seven beneficial consequences and six ultimate values. Among these, the path of “*quantity-based pricing* → *cost saving* → *fun and enjoyment of life*” became the most significant, reflecting the fact that users of online group buying emphasize cost-saving as the most important function of behavior. In other words, *cost-saving* is the greatest incentive that drives consumers to engage in online group buying. The second incentive of *opinion exchange* creates opportunities for users to chat and interact with others, thereby benefitting from *warm relationships with others*. The third incentive of *effort and time saving* derives from the convenience of the Internet, which saves time for many users from leaving their home, thereby creating the feeling of joy and happiness.

Analysis of gender difference revealed that subjects in both gender groups perceived *quantity-based pricing* as the most important attribute of group buying and it leads to the consequence of *cost saving* and the ultimate value of *fun and enjoyment of life*. This means the process of combining the collective needs of consumers to negotiate price with the suppliers to obtain lower prices allows consumers to derive pleasure from the act of economizing. From this, one can deduce that in the group buy market, consumers of both sexes exhibit “significant” versatility in pricing and they are highly sensitive to product pricing. In other words, if consumers were to choose from products of limited differentiation, they would always opt for the lower-priced item. As for female consumers, most of them emphasize the psychological consequences of *opinion exchange* and *risk aversion*, leading to *warm relationships with others* and *security* respectively. This suggests that female consumers place greater emphasis on human interaction. On the contrary, male consumers emphasize more on the functional consequences of *real-time query* and *effort and time saving*, linking to the values of *fun and enjoyment of life* and *self-fulfillment* – revealing a preference for convenience. This coincides with the common impression that “women are creatures of the senses and men are creatures of reason”.

With regards to the differentiation of group buy products, the research has divided the subjects into two major groups – “food buying” and “non-food buying”. Subjects in both groups perceive

quantity-based pricing as the most important attribute of group buying, which leads to the consequence of *cost-saving*. A minor difference stands between the two groups – food-buying consumers connect to the ultimate value of *self-fulfillment*, since they believe the desire of consuming delicious food to be a wish. For the non-food buyers, they simply take joy in buying products at a cheaper price. The greatest difference between the two groups lies in the fact the food-buying consumers care about *convenience* and *word-of-mouth marketing*. They are less inclined to spend time to go out and shop; they prefer to buy tasty food in the comfort of their own home and share the food with their friends. With the reputation of the food they buy and their exchange of opinions with friends, these consumers gain recognition and enjoy *warm relationships with others*. The non-food buyers emphasize the “buzz” aspect of products and they would choose popular products that would trigger greater response from fellow buyers and engage in discussions with friends to enjoy improved interpersonal relationships.

Results of the study revealed that buyers connect to the target value of *fun and enjoyment of life* through the chains of four consequence variables, namely *increase income and reduce expenditure*, *cost-saving*, *real-time query* and *opinion exchange*. Based on this information, manufacturers could develop and distribute lower-priced products with more features to generate buzz so that consumers could enjoy the benefits of cost-saving and opinion exchange during the process of shopping. On a related note, most of the group buy consumers prefer not to be subject to the feeling of insecurity. From this, one can deduce the connection of *security* to variables including *risk aversion*, *increase income and reduce expenditure* and *cost-saving*. Base on this information, manufacturers should establish a comprehensive and secure ordering system to present the actual appearance of products through the platform so that consumers could deepen their trust of the manufacturers during the purchasing process. This will ensure a zero-discrepancy reputation for the product (when compared against online images). Many consumers felt that *increase income and reduce expenditure*, *cost-saving* and *effort and time saving* would allow them to realize the goals of economizing, saving money and making good use of time, thereby leading to a *sense of accomplishment*. And as such, manufacturers could adopt strategies of selling higher volume at lower profit margins so that consumers would feel that they have gotten the best deals through price differentiation. Coupled with the attribute of *security*, manufacturers could create an ordering system that is comprehensive, secure and convenient for consumers to shop with ease and confidence. The two target values of *warm relationships with others* and *sense of belonging* were both derived from the chains to *opinion exchange*, since both were generated through human interaction and exchange of thoughts and ideas. Therefore, manufacturers could establish platforms for interaction so that consumers could share their thoughts and suggestions, thereby bringing unacquainted consumers together. This would make them feel connected through the behavior of group buying, thereby realizing the target values of *warm relationships with others* and *sense of belonging* through the act of making new acquaintances.

From the gender perspective, subjects of both sexes valued the attributes of *quantity-based pricing*, *convenience* and *word-of-mouth marketing*. Manufacturers are therefore recommended to adopt these three key attributes as the basis of consideration for the configuration of marketing methods. For the attribute of *quantity-based pricing* in light of the lack of gender difference, manufacturers could appeal to consumers with competitive pricing (i.e. accumulative purchases) for neutral products that have equal attraction for consumers of both sexes (i.e. food). For example, consumers could enjoy special discounts on the tag price after accumulating a specific number of buyers. This would make consumers feel that the more they buy, the more they could save. And through the word-of-mouth spread of information, the volume of products sold would increase accordingly. For the attribute of word-of-mouth marketing that is more effective on female consumers, manufacturers could make a better effort at improving product reputation (i.e. by implementing full QA control) to create improved customer impression. This would in turn lead to an extensive network of word-of-mouth marketing among consumers.

In the analysis of consumer differences, the results of the study revealed that both food and non-food buyers placed great emphasis on the attribute of *quantity-based pricing* and the value of *warm relationships with others*. The difference between the two groups lies in the fact that food buyers link the attribute of *quantity-based pricing* to the value of self-fulfillment, while the non-food buyers associate the attribute with the value of *fun and enjoyment of life*. Food buyers wish to establish *warm relationships with others* by sharing with their friends the delicious food they have purchased; non-food buyers sought to achieve the result of *fun and enjoyment of life* by capitalizing on the popularity of products to initiate discussion with their peers. Based on these observations, food manufacturers should take steps to improve the safety and flavor of their food so that habitual buyers of food products could acquire delicious food that they could share with their friends, thereby building their interpersonal network and benefitting from warm relationships with others. For manufacturers of non-food items, a feasible recommendation would be the development of unique and innovative products to create market buzz, which would draw the attention of consumers and thereby create business opportunities.

Finally, the group buying attributes of *store service* and *real-time platform* failed to appear in the HVM paths because their occurrence and instances of links fell below the cut-off point. From this, one can deduce that the contents of *store service* cover discounts, delivery services, convenient store pick-up and so forth that consumers have already perceived to be services that suppliers are obligated to provide. Furthermore, consumers also feel that store service does not matter much as long as the buyers conveniently receive their goods. And as such, the attribute of *store service* tends to be easily overlooked. As for the reason why *real-time platform* failed to make the list of key group buying attributes, it could be due to the fact that since many online shopping platforms are highly similar, most consumers pay attention only to the degree of convenience, rather than making

a conscious effort to keep track of real-time platforms by manufacturers (i.e. if the platforms have been constantly updated) except for the dedicated fans of specific brands. And as such, the attribute has not been identified as an important attribute for online group buying by the subjects.

Since most of the subjects in the study were students, future researches could be conducted on samples that mainly comprise housewives and white collar workers to determine the contents of customer values for group buying through different perspectives.

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