

國立交通大學

管理科學系

碩士論文

探討客製化、認知需求與產品種類對於顧客滿意度及
購買意願的影響

The Interactive Effects between Need for Cognition and
Level of Customization on Customer Satisfaction and
Purchase Intention across Different Product Types

研究生：邱柏源

指導教授：張家齊 博士

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中文摘要

客製化的目的藉由讓顧客參與產品設計，提供最適合消費者需求的產品；換句話說，客製化就是把消費者視為共同的生產者，讓消費者自己設計要購買的產品。在這個以消費者為中心的社會中，越來越多公司採用客製化的策略，目的就是要讓消費者更滿意、並且提高消費者的購買意願。本篇研究旨在探討當消費者參與設計的過程，對滿意度及購買意願的影響；在客製化的過程中，消費者必須處理產品有關的資訊，而認知需求代表對於處理資訊的喜好程度，所以本研究探討認知需求會如何影響消費者對於客製化產品的滿意度及購買意願。此外，不同產品的特性也會影響到客製化的效果，本研究深入探討不同的產業類別中，認知需求和客製化之間的交互作用如何影響到對產品的滿意度及購買意願。結果指出，高認知需求的人對於體驗性產品的客製化有較明顯的滿意度增量，同時也更願意去購買；而低認知需求的人則對於搜尋性產品有較明顯的滿意度增量，購買意願也較高。



Abstract

The purpose of customization is to provide products which meet the needs of each individual customer because they can participate in design process. In other words, customers are considered co-designers during process of customization. They can design the products which they are going to buy on their own. In order to make customers more satisfied and have higher purchase intention, more and more products providers adopt customization strategy in this customer-centric society. This study investigated the effects of customer participation on satisfaction and purchase intention. During the process of customization, customers need to deal with information which is related to products. Need for cognition represents tendency to deal with customization. Hence, we investigated the impacts of interaction between need for cognition and customization on satisfaction and purchase intention. Furthermore, we also try to find out the impacts of interaction between need for cognition and customization on satisfaction and purchase intention across different products types. The results show that high-NFC customers are more satisfied with customized experience products and low-NFC customers are more satisfied with customized search products.

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兩年研究所的生活一下子就結束了，我很驕傲我成功的完成一篇論文，也許不是什麼曠世巨作，但絕對是我這輩子花最多時間，最用心去完成的一件任務。在過程中，有許多人曾經給我幫助，首先，我非常感謝我的指導老師—張家齊博士，張老師是我這輩子遇過最平易近人而且最認真的老師，老師平常就像是我們的朋友，可以跟我們很自然的聊天，但是做研究的時候，卻絲毫不馬虎，她每個星期都要花至少五個小時跟所有指導學生 meeting，適時給予我們意見，讓我們可以更順利的完成碩士論文，在這一年的指導中，老師犧牲許多自己的休閒時間，因為有她耐心的指導，我的論文才能如期完成。

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交通大學管理科學所
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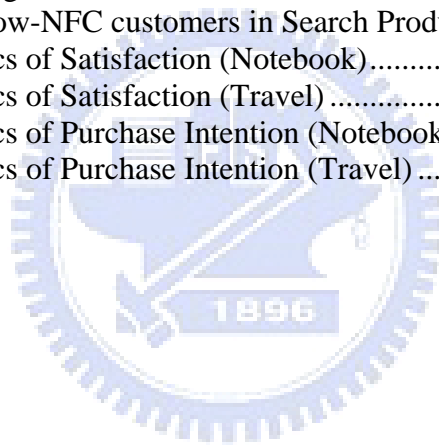
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Chapter 1 Introduction

1.1 Research background

Since customers nowadays are no longer willing to relinquish their own preferences, they are finding products or services which exactly meet their needs. Individualization of demand is increasing. Pine, Peppers, and Rogers (1995, p. 103) argue that “*Customers, whether consumers or businesses, do not want more choices. They want exactly what they want—when, where, and how they want it—and technology now makes it possible for companies to give it to them.*” Therefore, customization strategy is becoming more and more important for companies. Many companies have already adopted customization strategies, for example, the international sports shoes companies like Adidas, and Nike. Because of a tendency towards a new awareness of quality and functionality that demands durable and reliable products corresponding exactly to the needs of the buyer, Adidas’ management decided to head towards mass customization (Berger & Piller, 2003) and created its customized sports shoe brand “mi adidas”, and it can charge higher premiums of up to 50% higher. Another example is Olay. In 2008, this company offered a website (<http://www.olayforyou.com/index.jsp>) where customers can follow the directions and get the most suitable products that Olay recommends for them. Capital one has recently started offering a customized credit card service. Customers can choose which interest rate they want and other personal preferences on the website: http://www.capitalonecardlab.com/?linkid=WWW_Z_Z_tg04a_CCOMP_C1_01_T_BYOCG. These companies are all applying customization strategy and their purpose is to increase their competitiveness and profits.

1.2 Research objectives

In any industry, what companies really care is how customers will be satisfied with customized service? And how much are customers willing to pay for it? Companies need to

determine the optimal level of customization in order to maximum profits. It is, however, easy to see that increasing customization levels not only increases benefits, but also increases costs. If companies keep elevating customization level, what they pay may exceed what they earn. Similarly, if they offer too low a customization level, they lose the opportunity to earn more. Neither situation is ideal for a company. Thus, it's important to find the optimal customization level. Furthermore, as customers participate in a product design process (like at Nike), they are required to spend some time “designing” the products or services, they need to deal with more information (B. J. Pine et al., 1995). Need for cognition (NFC) thus refers to an individual's tendency to engage in and enjoy effortful cognitive endeavors (Cacioppo & Petty, 1984). Hence, we infer that high-NFC customers enjoy customization processes more than low-NFC customers. Also, different product types have different traits. For example, qualities of products being searched for may be known before being purchased, but customers can only experience the quality after purchase. This characteristic may have different effects for either high-NFC or low-NFC customers. If we can clarify the interaction among three variables, companies would know how to apply customization strategies favorably in different circumstances.

This research project was conceived to find out if the relationship between customization level and satisfaction or purchase intention across different service types would be affected by the level of customers' need for cognition (NFC).

The following research questions were developed:

1. Do customers feel more satisfied with customized products?
2. Do customers have higher purchase intention for customized products?
3. Are there any differences in satisfaction and purchase intention between high and low-NFC customers when buying customized or standard products?
4. Do high-NFC customers feel more satisfied with customized experience (search)

products than standard experience (search) products?

5. Do high-NFC customers have higher purchase intention for customized experience (search) products than standard experience (search) products?
6. Do low-NFC customers feel more satisfied with customized experience (search) products than standard experience (search) products?
7. Do low-NFC customers have higher purchase intention for customized experience (search) products than standard experience (search) products?



1.3 Research process

The research was designed as follows. First, a framework is presented in Chapter 2. Second, the literature pertinent to customization, need for cognition and product type was reviewed and integrated with the various research hypotheses, each hypothesis being followed the literature reviewed. Methodology is presented in Chapter 3, which includes experimental design, manipulation, measurements and the statistical method used to test the hypotheses. After analyzing the data, I report the results, and make conclusions. I also discuss the implications and limitations of this project, and make suggestions for the direction of future research in the last chapter.

The specific research flow is presented as follows.



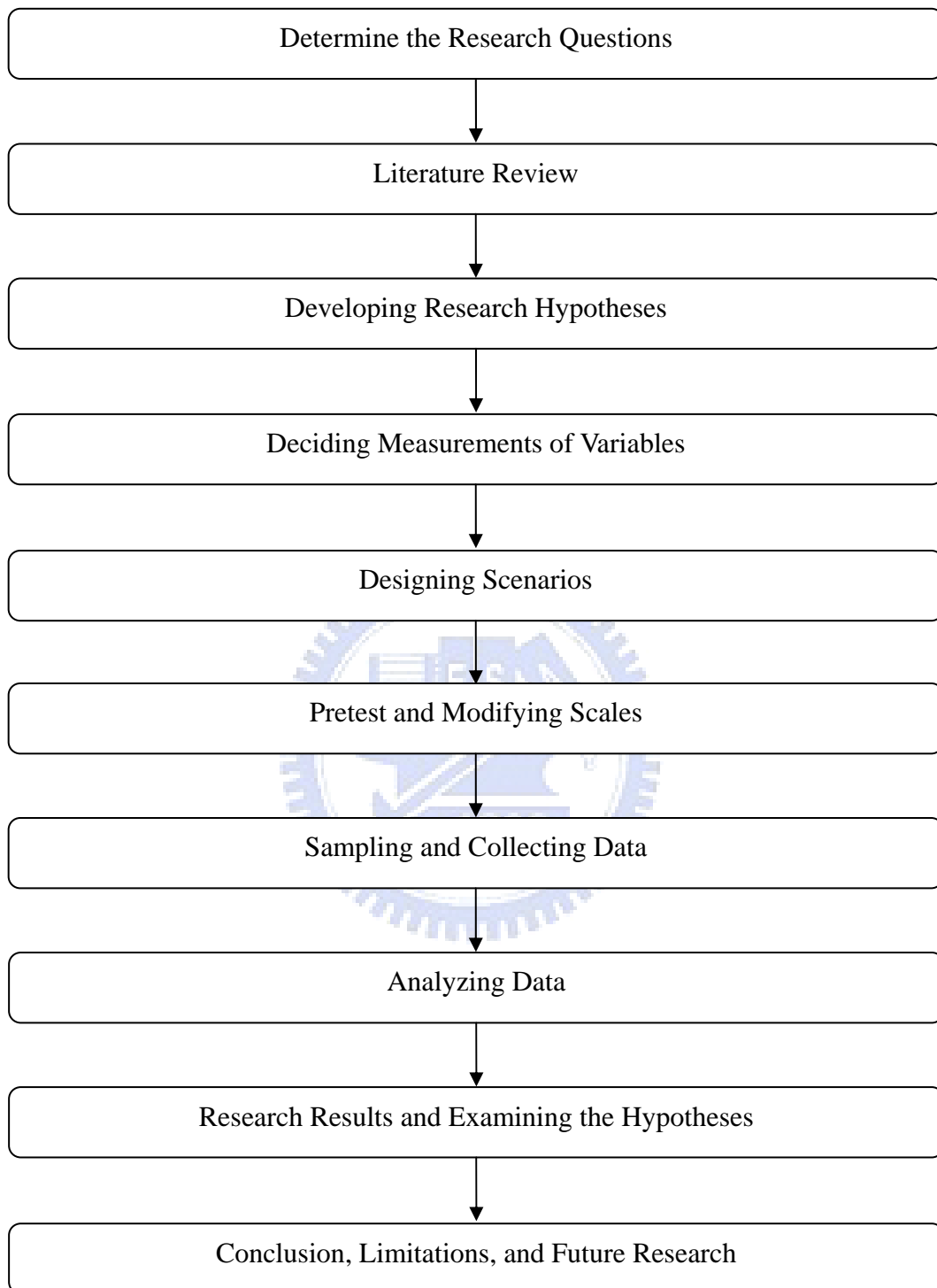


Figure 1 Research Flow

Chapter 2 Literature Review

2.1 Research Framework

The major focus of this research is to analyze whether the impacts of customization level on customers' satisfaction and their purchase intention would be different across different product types. Furthermore, I also analyze how the moderator, the need for cognition, influences the effects of customization level on satisfaction and purchase intention across different product types. Figure 2 is the conceptual model followed in this study. The variables will be discussed in the literature review that follows.

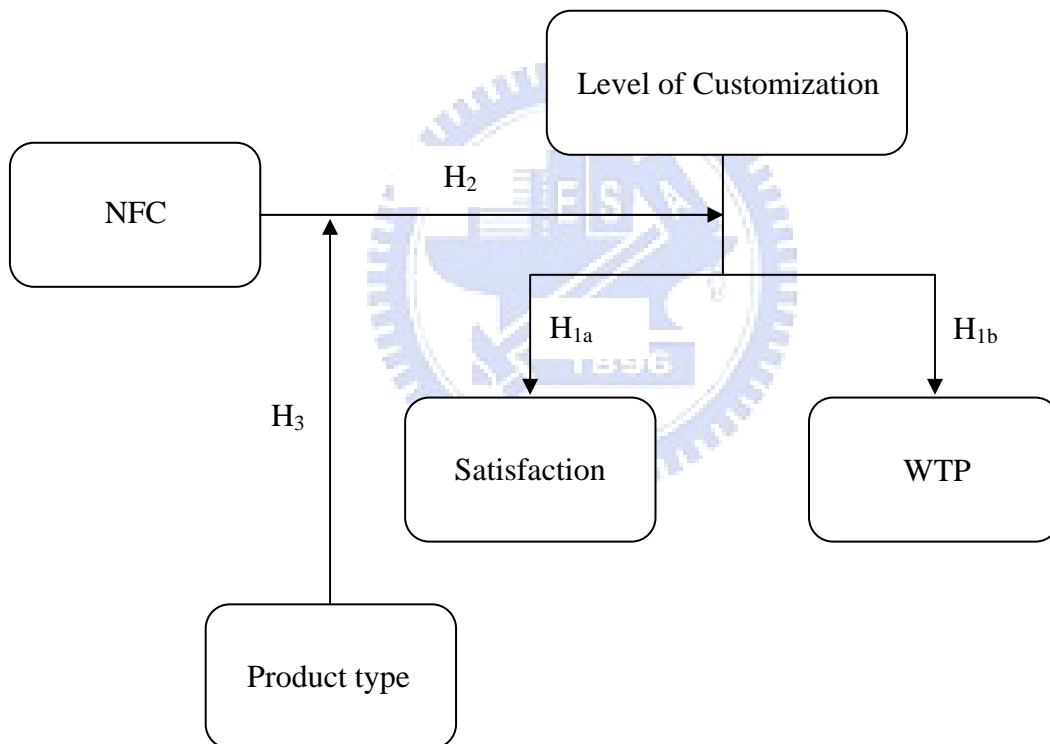


Figure 2 Research Framework

2.2 Customization

Definitions of mass customization are abundant in the literature. It can be defined either in a broad or a narrow way. Davis (1989) first coined the broad concept of mass customization as the ability to provide individually designed products or services to every customer through high process agility, flexibility and integration (Eastwood, 1996; Hart, 1995; J. Pine, Victor, & Boyton, 1993; Silveira, Borenstein, & Fogliatto, 2001). Mass customization systems may contact customers in the mass market economy but fulfill individual requirements as in pre-industrial economies (S. Davis, 1989).

Many authors who propose a narrower concepts of mass customization define it as a system that uses information technology, flexible processes, and organizational structures to deliver a wide range of products and services that meet the specific needs of individual customers, at a cost near that of mass-produced items (Silveira et al., 2001).

The development of mass customization systems is based on three main ideas. First, new flexible and agile manufacturing and information technologies enable production systems to customize goods or services at lower cost. Second, demand for product variety and customization is increasing. Finally, the shortening product life cycles and expanding industrial competition has led to the breakdown of many mass production industries. Therefore, the need for production strategies focused on individual customers is increasing (Ahlstrom & Westbrook, 1999; Hart, 1995; Kotha, 1995; J. Pine, 1993b; Silveira et al., 2001). Another ambitious definition of mass customization was proposed by Hart who defined it as *“the ability to provide your customers with anything they want profitably, any time they want it, anywhere they want it, any way they want it”* (Hart, 1995, p. 36).

2.3 Satisfaction

According to the expectancy disconfirmation paradigm (Oliver, 1980), customers' satisfaction is based on the expectation that previously held perceptions of product or service performance continue to be valid. In addition, cognitive processes of confirmation / disconfirmation lead to positive or negative emotions, and thus contribute to satisfaction or dissatisfaction (Homburg, Koschate, & Hoyer, 2005; Oliver, Rust, & Varki, 1997; Oliver, Rust, & Varki 1997). Satisfaction is the result of customer's evaluation of products or services after consumption or usage, containing both cognitive and affective elements (Oliver, 1997). Besides, customers' satisfaction / dissatisfaction can be judged by the qualities and benefits customers gained, and the costs and efforts they obtain from the purchase (Ostrom & Iacobucci, 1995). Satisfaction is also a function of customers' evaluation of service quality, product quality and price (Parasuraman, Zeithaml, & Berry, 1994). Satisfaction reflects whether consumers' expectations have been met. It is negatively related to complaint behavior (Bearden & Teel, 1983). Bardakci and Whitelock (2004) summarized the work by Peppers and Rogers (1997), which showed that when customers are satisfied, price is no longer important to them (Bardakci & Whitelock, 2004; Peppers & Rogers, 1997). According to this argument, research of British Airways with USAir revealed that passengers in America were willing to pay more for a comfortable seat (Bardakci & Whitelock, 2004). Thus, it is conceivable that the more consumers are satisfied, the more profit companies can earn.

Since customized products are more likely to meet customers' exact needs and desires (J. Pine, 1993a), customers perceive higher value in customized products (Flynn, 1999). Hence, when providing products or services that meet customers' needs more precisely, it is likely to achieve a higher level of satisfaction. Also, customized products would conform more closely to customers' needs than standard products do; we maintain customers will feel more satisfied

with customized products than with standard products.

The following hypothesis was thus developed:

Hypothesis 1a: Customers are more satisfied with customized products than standard products.

2.4 Purchase intention

Willingness to buy is defined as the likelihood that buyers intend to purchase a product (Dodds, Monroe, & Grewal, 1991). In their research, willingness to buy is a term similar to purchase intention. Therefore, purchase intention in our research is defined as the possibility that customers are willing to purchase a product or a service.

Customers' overall satisfaction contribute to their attitude towards overall service quality which means more satisfied customers also think that qualities of products are higher (Shu, Crompton, & Willson, 2002). Past studies suggested that when customers perceived higher qualities of products, they are more likely to buy the products (Dodds et al., 1991). Also, Oliver (1980) indicated that satisfaction is believed to have influence on purchase intention. On the other hand, more satisfied customers have higher purchase intentions.

This led to formulating the following hypothesis:

Hypothesis 1b: Customers have higher purchase intention for customized products than standard products.

2.5 NFC

The term need for cognition (NFC) was first coined by Cohen and his colleagues. They defined NFC as "*a need to structure relevant situations in meaningful, integrated ways. It is a*

need to understand and make reasonable the experimental world" (Cohen, Stotland, & Wolfe, 1955, p. 291) and they argued that *"stronger needs lead people to see a situation as ambiguous even if it is relatively structured, indicating that higher standards for cognitive clarity are associated with greater need for cognition"* (Cohen et al., 1955, p. 292). They also conceptualize that NFC as ambiguous intolerance which means high-NFC customers have lower tolerance toward ambiguous situation (Cohen et al., 1955).

Need for cognition (NFC) can also be defined as a person's tendency to engage in and enjoy effortful cognitive activity. NFC is a stable individual difference. Cacioppo and Petty (1982) defined need for cognition at a macrolevel, and they argued that NFC is a person's general tendency to engage in and enjoy cognitive endeavors or effortful thinking, rather than a chronic tendencies to deal with information in a particular domain or as individual variations in cognitive complexity (Cacioppo, Petty, Feinstein, & Jarvis, 1996). In other words, customers have high need for cognition are willing to dealing with information in all kinds of fields such as math, science, computer and so forth, rather than in particular domain such as math.

Customers who are low in need for cognition were defined by the relative absence of extended tendencies to engage in and enjoy effortful cognitive endeavors (Cacioppo et al., 1996). They are not willing to deal with information and avoid any cognitive activities.

The levels of effortful thinking and problem solving that people engage in can vary, including the numbers of dimensions that are considered or the extent of thought or elaboration in each dimension (Cacioppo et al., 1996). For example, when high-NFC customers are selecting a computer from three alternatives, they probably consider more dimensions such as hardware, screen, memory and CPU while low-NFC customers may only take one dimension such as CPU into consideration. Moreover, high-NFC customers think further in each dimension, for example, they consider screen size and screen dpi. In contrast,

customers who are low in need for cognition only consider screen size

Tam and Ho indicated that the interaction between NFC and preference matching is more salient for high-NFC customers than it is for low-NFC customers. In the research of Tam and Ho, participants were first asked to fill in a questionnaire about their demographic information ring-tone download habits and personality. And then they were asked to indicate their preferences for rhythms and singers. Finally, they were asked to select one ring tone from the list. Half of the participants received high preference-matching ring tones which came from the participant's favorite singers and rhythms. And the rest participants received low-preference matching ring tones which are randomly selected. When users who are high in need for cognition face high preference-matching content, they elaborate the information to a larger extent and are more likely to accept the choice outcome (Tam & Ho, 2005). In the research of Tam and Ho, the level of preference-matching represents a concept similar to level of customization in this study, and choice outcome represents customer's purchase behavior. In other words, high-NFC users inherently enjoy processing information (Cacioppo & Petty, 1982), so that when they have the chance to customize, they will process further and choose products which meet their needs more closely. Thus feel more satisfied. That's why they are more likely to accept the choice outcome. Based on their research, we speculate similar results will be found in our study: high-NFC customers are more likely to elaborate information when customizing and thus they are more satisfied with customized than standard products, and they have higher purchase intention.

Tam and Ho (2005) also indicated that low-NFC customers process more and are more likely to accept customized offers when they see preference-matching content. But the interaction between NFC and preference matching is less significant for low-NFC customers. In other words, low-NFC customers will not process additional information when buying customized products. There is no difference between customized and standard products for

them. Therefore, the difference in satisfaction is not significant. In this study, our speculation follows their results and accordingly, the following hypotheses were formulated:

Hypothesis 2a: The increased customer satisfaction due to customization is larger for high-NFC customers than for low-NFC customers.

Hypothesis 2b: The increased customer purchase intention due to customization is larger for high-NFC customers than for low-NFC customers.

2.6 Product type

Numerous product classifications have been provided in the marketing literature. The product classification that was adopted for this research project is based on three distinctive attributes: search, experience and credence attributes (Darby & Karni, 1973; Nelson, 1970).

Nelson (1970) distinguished between products on the basis of search versus experience attributes. Search characteristics can be evaluated prior to purchase and experience characteristics were those attributes that can be discerned only after purchase and consumption. Darby and Karni (1973) extended Nelson's work and created a new attribute which is called "credence", and proposed that credence attributes cannot be judged confidently by consumers even after they purchase and consumption (Darby & Karni, 1973).

Search attributes are qualities of a service or product that can be judged prior to consumption and use of the service or product (e.g. colors of a pair of shoes). Search attributes can be divided into *linguistic* or *cognitive* and *sensory* attributes. *Linguistic* or *cognitive* attributes are those that can be described by any written or verbal documentation of a product's characteristics or benefits, including features like a product's physical dimensions, ingredients and composition (e.g. size, color). It also includes the physical benefits or

outcomes of a product's use (e.g. the processor speed in a computer). These can be communicated either in writing or orally in a relatively objective manner (Mittal, 2004).

Sensory attribute refers to the physical features of a product, which interface with human senses (e.g. sound, touch, taste, smell) (cf. Lindauer, 1972). Since one has to experience sensory attributes with one's own senses, all of them are deemed to be experiential. In some cases, however, if these attributes can be experienced before purchase, then they can be referred to as search attributes. For example, by tasting a food item before buying, smelling the perfume prior to purchase and so on.

Experience attributes are those qualities of a service or product that need to be experienced by customers themselves (e.g. the quality of a restaurant). To distinguish precisely, experience quality can be divided into experience attributes and experience benefits. Experience attributes are inherent in the product—it is a characteristic of a product's composition or ingredients—whereas experience benefits are what a customer realizes after using the product. Sometimes experience attributes are tied to experience benefits. For example, when a customer drinks a cup of coffee, it impacts not only an experience attribute, but also an experience benefit. However, for some attributes are separate from benefits (Mittal, 2004).

Many services are experiential. The quality of service in restaurants, for example, is entirely experiential. But experience in services has a different meaning: what a customer experiences is not the sensory perception, it's the interactive experience (Mittal, 2004; Ostrom & Iacobucci, 1995). For example, was the waiter of a restaurant polite or was a clerk in a convenient store courteous? The services need to be experienced at the episode level not the sensory level (Mittal, 2004).

Finally, credence attributes are those characteristics of a service or a product that can't even be judged or determined after purchasing or using of the service or product (Darby &

Karni, 1973).

In this research, we are not interested in credence products. We only discussed search and experience products.

Earlier research suggests that consumers are more likely to have lower perceived risks when they buy search services or products. Conversely, they perceived higher risks when they buy experience services or products (Mitra, Reiss, & Capella, 1999) because customers can't identify quality of experience products before purchase but they can identify quality of search products prior to purchase.

It is suggested that there is positive relationship between perceived risk and information search (Murray, 1991; Newman, 1977), which means consumers with higher perceived risks can reduce their perceived risk by elaborating additional information about products or services (Crocker, 1986; D. L. Davis, Guiltinan, & Jones, 1979; Eigler & Langeard, 1977; Hugstad, Taylor, & Bruce, 1987; Lutz & Reilly, 1973; Zeithaml, 1981). Also, Tam and Ho (2005) suggested that there is an interactive effect between NFC and the level of preference matching in the elaboration of the information, but the results are more salient for high-NFC customers than for low-NFC customers. In their research, preference matching is a concept of customized offers in this study. In other words, high-NFC customers are more likely to deal with the information when they buy customized products. However, there is no significant difference in information elaboration between customized and standard products for low-NFC customers.

The following conclusions can thus be drawn. First, for experience products, high-NFC customers perceive higher risks so they need more information to decrease their perceived risks. When high-NFC customers buy customized experience products, they will deal with information further (Tam & Ho, 2005). Therefore, their perceived risks are reduced. Thus they are more satisfied with customized experience products than standard experience products. As

for low-NFC customers, they also perceived higher risks for experience products. But they won't elaborate more information when buying customized experience products than standard products (Tam & Ho, 2005). Hence, their perceived risks remain the same. They are not more satisfied with customized experience products than with standard products. The following hypotheses were thus formulated:

Hypothesis 3a: For experience products, high-NFC customers are more satisfied with customized products than with standard products, but there is no significant difference in satisfaction between customized and standard products for low-NFC customers.

Hypothesis 3b: For experience products, high-NFC customers have higher purchase intention for customized products than with standard products, but there is no significant difference in satisfaction between customized and standard products for low-NFC customers.

Second, for search products, when high-NFC customers buy search products, their perceived risks are low. They don't need additional information, but they will still elaborate the information when customizing. Consequently, their perceived risks are not diminished significantly. Thus they are not more satisfied with customized search products than with standard search products. As for low-NFC customers, again, they won't elaborate more information when buying customized products (Tam & Ho, 2005). Their perceived risks do not decrease. Hence, they are not more satisfied with customized search products. To summarize, neither high-NFC customers nor low-NFC customers are more satisfied with customized search than with standard search products. Thus, the following hypotheses were developed:

Hypothesis 3c: For search products, there is no significant difference in satisfaction between customized and standard products for both high-NFC and low-NFC customers.

Hypothesis 3d: For search products, there is no significant difference in purchase intention between customized and standard products for both high-NFC and low-NFC customers.



Chapter 3 Research Methodology

3.1 Overview

Need for cognition (NFC) refers to a customer's intention of coping with more information. It is correlated with a person's satisfaction with customized products because customers must deal with more information in the customization process. This study attempts to determine the effects of NFC on customization. Because different product types have different characteristics, the project focuses on whether there are any impacts of NFC on customization of each product category. Under which conditions can firms make larger profits by adopting customization strategy.

3.2 Stimulus and manipulations

3.2.1 Stimulus

The criterion of selecting products as the stimuli was that two products had to belong to search and experience products respectively. For search products, past studies have shown that computers are search products, because a customer knows the qualities they require in a computer before they purchase one (Jiang, 2004). A notebook computer was thus selected as the search product stimulus because it is a product similar to a computer which a customer can figure out the outcomes prior to use. For an experience product, we choose a travel package as the stimulus. Travel packages are one of main products that travel agencies provide and are recommended as an experience product by (Ekelund, Mixon, & Ressler). Furthermore, this product has all the characteristics of an experience product because customers can only evaluate the qualities of a travel package after they have experienced one by themselves.

To ensure that each product belongs to the category that we assigned, they were pretested using a two-item, seven-point scale, which asked the following specific questions:

1. I could determine the product quality by collecting knowledge or information before using.
2. I could determine the product quality only after using.

3.2.2 Manipulation of customization

In the experiment, a yoke design was adopted so as to manipulate customization by giving half the participants opportunities to design their own products. Participants could customize products by selecting from four different attributes, each with three choices, to meet their own preferences. The other participants could only read the information about the products; they had no chance to modify them. What they received were the products designed by the participants who can design their own products.

Manipulations of customization in search and experience products are identical. We fixed the numbers of attributes and numbers of choices of these attributes, which meant that all the participants in customized situations had four attributes with three choices for each attributes.

In each scenario participants face either customized or standard products. Again, to ensure that there was a significant difference between customized and standard products, and the selection was confirmed by a three-item, seven-point scale, asking the following questions:

1. The travel agency (computer provider) provides me different alternatives in travel packages (computer equipments).
2. The travel agency (computer provider) provides different choices in travel packages (computer equipments) to satisfy my preference.
3. The travel agency (computer provider) provides me different choices in travel packages (computer equipments).

Therefore, a pretest was conducted to determine the product types and level of customization.

3.3 Experimental design

A $2 \times 2 \times 2$ factorial experiment with 30 respondents per cell was conducted (Table1), which consisted of two levels of customization (customized and standard), two types of products (search and experience product) and two levels of NFC (high and low). The dependent variables which we are interested in were satisfaction, and purchase intention.

Table 1 Cells of Experimental Design.

		Service type			
		Experience Service		Search service	
Level of Customization	Customization	High NFC	Low NFC	High NFC	Low NFC
		A	B	C	D
	Standard	High NFC	Low NFC	High NFC	Low NFC
		D	E	F	G

3.4 Procedure

There were four scenarios in this study because NFC was not manipulated. Every participant was randomly assigned to each scenario. All the scenarios are shown in the Appendix.

Each scenario was divided into four parts. For the first part of the experiment, participants were asked to answer some questions in order to measure NFC. We used average scores of all participants to divide them into two groups. People who had scores over the average were referred to as high-NFC customers and those whose scored below the average were referred to as low-NFC customers.

The purpose of second part is manipulation check of product type and to measure perceived importance. In the third part of scenario, half of participants were assigned to scenarios which asked them either to customize the travel package or the notebook. Each of the remaining participants only read the information on about travel package or notebook designed by participants in the corresponded cell of target group, and they were paired together (customized search product→standard search product, customized experience product→standard experience product). After the experiment, all participants were asked to fill out a questionnaire which included dependent variables, manipulation check of selection, perceived risk measurement and lastly to collect demographic information.

3.5 Measurements

All items in the questionnaire which are used to measure the constructs in the study were modified from past studies. Each construct was measured by multiple items. We used seven-point scale to measure NFC, satisfaction purchase intention, perceived risk and perceived importance.

3.5.1 NFC

The 34-item scale used to measure NFC was first developed by Caccioppo and Petty (1982). In 1984, these authors shortened the scale into 18 items and which we adopted for this research (Cacioppo & Petty, 1984).

Scale Items:

1. I would prefer complex to simple problems.
2. I like to have the responsibility of handling a situation that requires a lot of thinking.
3. Thinking is not my idea of fun.
4. I would rather do something that requires little thought than something that is sure to

challenge my thinking abilities.

5. I try to anticipate and avoid situations where there is a likely chance I will have to think in depth about something.
6. I find satisfaction in deliberating hard and for long hours.
7. I only think as hard as I have to.
8. I prefer to think about small, daily projects to long-term ones.
9. I like tasks that require little thought once I've learned them.
10. The idea of relying on thought to make my way to the top appeals to me.
11. I really enjoy a task that involves coming up with new solutions to problems.
12. Learning new ways to think doesn't excite me very much.
13. I prefer my life to be filled with puzzles that I must solve.
14. The notion of thinking abstractly is appealing to me.
15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
16. I feel relief rather than satisfaction after completing a task that required a lot of mental effort.
17. It's enough for me that something gets the job done; I don't care how or why it works.
18. I usually end up deliberating about issues even when they do not affect me personally.

3.5.2 Satisfaction

Overall satisfaction with a customization process was measured by a three-item, seven-point scale which was developed by Keaveney and Parthasarathy (2001) to gauge a person's general perceptions with regard to some specific services. The scale was adapted to measure satisfaction with customization process and was self-administered. High scores suggested that respondents were very satisfied with customization experience whereas low

scores implied that participants were not pleased with the experience.

Scale Items:

1. On the whole, I am/was very satisfied with my experience of accepting information of travel package (notebook).
2. Overall, my negative experience outweighs/outweighed my positive experience with information of travel package (notebook).
3. In general, I am/was happy with the experience of accepting the information.
4. This travel package (notebook) meets my requirements.
5. This travel package (notebook) is not as good as I expected.
6. This travel package (notebook) is exactly what I need.
7. This travel package (notebook) is attractive to me.
8. I like this travel package (notebook) very much.

3.5.3 Purchase intention

Purchase intention was measured by a four-item, seven-point scale which was used by Dodds, Monroe and Grewal (1991).

Scale Items:

1. The likelihood of joining this travel package (buying this product) is high.
2. If I were going to travel (buy a notebook), I would consider joining this travel package (buying this notebook.)
3. The probability that I would consider joining this travel package (buying this notebook) is high.
4. My willingness to join this travel package (buy this notebook) is high.

3.5.4 Perceived risk

The items used to scale perceived risk were referred to the scales which were used in the past research (Peter & Tarpey, 1975; Stone & Gronhaug, 1993). We adapted them to this study. We finally decided to use a four-item, seven-point scale to measure respondents' perceived risks. The items are listed below:

Scale Items:

1. I'm concerned that the travel package (notebook) is not as good as I expected.
2. I feel uncertain about the quality of this travel package (notebook).
3. I am not worried about the quality of this travel package (notebook).
4. Because I'm not sure about the quality of this travel package (notebook), perceived risks are high for me to join this travel package (buy this notebook).

3.5.5 Perceived importance

Perceived importance is a covariate in this study. A two-item, seven-point scale was used to measure perceived importance of each attribute. There are four attributes in each product type. Only one of the attribute in each product type is listed below:

Scale Items:

1. For me, dinner (CPU) is very important for travel (notebook).
2. I care about dinner (CPU) when traveling (when buying notebook).

3.6 Pretest

A pilot study was conducted to test the reliabilities of all the scales. We failed and modified the scales and ran a trial twice. The third version of pretest finally succeeded. Therefore, we decided to put those attributes in the experiment for formal test. Fifty participants participated in this pretest. The process of the formal test was the same as pretest.

The reliabilities were tested with Cronbach's alpha. All factors were found to be above 0.7.

We summarized the data on Table 2.

Table 2 Reliability Statistics

Factors	Cronbach's Alpha	N of Items
NFC	.888	18
Selection	.962	3
Satisfaction	.903	8
Purchase Intention	.982	4
Perceived Risk	.907	4



Chapter 4 Research Analysis and Results

4.1 Background of Participants

Of the total of 254 participants, 69.3% were students, 55.5% were males, 75% were between 21 and 25 years old, 48.8% had college degree, 48.8% had graduate degree or higher, and 52.0% had income of below NT10,000 per month. All the demographics of respondents are listed on Table 3.

Table 3 Demographics of Participants

Demographics	Category	Number of Participants	Percentage
Gender	Male	141	55.5%
	Female	113	44.5%
	Total	254	100.0 %
Age	16-20	16	6.3%
	21-25	190	75.0%
	26-30	44	17.2%
	31-35	4	1.5%
	Total	254	100.0%
Education Degree	Senior High	6	2.4%
	College	124	48.8%
	Graduate upward	124	48.8%
	Total	254	100.0%
Occupation	Students	176	69.3%
	Others	78	30.7%
	Total	254	100.0 %
Income	Less than 10,000	132	52.0%
	10,001-30,000	82	32.3%
	30,001-50,000	32	12.5%
	50,001-70,000	5	2.0%
	70,001-90,000	0	0.0%
	More than 90,000	3	1.2%
Total	254	100.0%	
Experience of Customization	Yes	117	46.1%
	No	137	53.9%
	Total	254	100.0%

4.2 Reliabilities

The reliabilities of all constructs in this research were tested with Cronbach's alpha. Table 4 shows all reliabilities as all above .7 across all factors which means the high internal consistency of each item of the same factor.

Table 4 Reliability Statistics

Factors	Cronbach's Alpha	N of Items
NFC	.862	18
Selection	.972	3
Satisfaction	.840	8
Purchase Intention	.964	4
Perceived Risk	.778	4

4.3 Manipulation checks

4.3.1 Manipulation check of selection

We used an independent-samples T test to examine manipulation checks. It was shown that the selection of a customized product was significant higher than the selection of a standard product (t -statistic = 14.232, $p = 0.000$). In other words, participants in the scenarios which ask them to customize products feel they have more choices than people in the scenarios where they can only read the information about the products. Results are shown on Table 5.

Table 5 Manipulation Check of Selection

	Customization Level	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Selection	Customization	129	5.16	0.865	14.232	0.000
	Standard	125	3.37	1.119		

4.3.2 Manipulation check of product type

We used a two-item, seven-point scale to categorize product type. The purpose of first item was to examine whether the quality of a product could be evaluated prior to purchase, which defines a search product. The second item determined whether the quality of a product could be determined only after purchase, which defines an experience product. Scores of the first item were significantly higher for search products than for experience products, and

scores of the second item were significantly higher for experience products than for search products. The results are listed on Table 6 and Table 7.

Table 6 Manipulation Check of Product Type

	Customization Level	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Item 1	Search	128	5.3047	1.05691	9.994	0.000
Item 1	Experience	126	3.9345	1.12747		

Table 7 Manipulation Check of Product Type

	Customization Level	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Item 2	Search	128	3.1562	1.16545	-14.989	0.000
Item 2	Experience	126	5.3175	1.13244		

4.4 Analysis of results

After assuring all manipulation checks and reliabilities of the scales, the study proceeded to conduct ANCOVA to test the hypotheses. Each product type had four attributes. As perceived importance was found to impact on satisfaction, an attempt was made to control the importance of each attribute across the two product types. However, not all attributes in two product types could be controlled. The descriptive statistics are shown on Table 8. Hence, ANCOVA was used to eliminate the impact of perceived importance on our results.

4.4.1 Effects of customization on customer satisfaction and purchase intention

To examine whether there were effects of customization on customers' satisfaction and purchase intention, ANCOVA was used here. H1a and H1b speculated that customers were more satisfied with customized products than with standard products, and that customers have higher purchase intention for customized products than for standard products. Table 9 shows the descriptive statistics for customized and standard products. Table 13 and Table 14 give the

results of ANCOVA. The main effect of customization on satisfaction and purchase intention were examined ($F= 47.622$ and 37.757 , $p = 0.000$). Thus, H1a and H1b were supported.

Table 8 Descriptive Statistics of Perceived Importance

	Product Type	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Attribute 1	Search	128	5.80	.833	8.396	0.000
	Experience	126	4.75	1.129		
Attribute 2	Search	128	5.64	1.018	-1.462	0.145
	Experience	126	5.82	.907		
Attribute 3	Search	128	5.74	.974	2.592	0.010
	Experience	126	5.40	1.119		
Attribute 4	Search	128	5.35	1.362	2.539	0.012
	Experience	126	4.94	1.239		

Table 9 Descriptive Statistics of Customization Level

Dependent Variable	Satisfaction		Purchase Intention	
	Mean (Std. Deviation)	N	Mean (Std. Deviation)	N
Customization	4.90 (0.720)	129	4.95 (1.004)	129
Standard	4.32 (0.616)	125	4.15(1.140)	125

4.4.2 Interaction between NFC and levels of customization

In this section an attempt is made to demonstrate whether there is an interaction effect between NFC and the level of customization on customer satisfaction and purchase intention. H2a posited that high-NFC customers were more satisfied with customized products than with standard products, but low-NFC customers were not. H2b indicated that the same resulted in purchase intention. We used ANCOVA to test H2a and H2b. Table 10 and Table 11 give the descriptive statistics of satisfaction and purchase intention respectively. Table 13 shows that there was no interaction effect on satisfaction ($F = 0.232$, $p = 0.631$) and Table 14 shows that

there was no interaction effect on purchase intention ($F = 1.157, p = 0.283$). Both high-NFC and low-NFC customers were more satisfied with customized products, and they had higher purchase intention for customized products. Thus hypotheses 2a and 2b are partially supported. The results are more clearly shown on Figure 3 and Figure 4.

Table 10 Descriptive Statistics of Satisfaction

	NFC			
	High		Low	
	Mean (Std. Deviation)	N	Mean (Std. Deviation)	N
Customization	4.93 (0.773)	65	4.86 (0.665)	64
Standard	4.31 (0.678)	63	4.33 (0.551)	62

Table 11 Descriptive Statistics of Purchase Intention

	NFC			
	High		Low	
	Mean (Std. Deviation)	N	Mean (Std. Deviation)	N
Customization	5.11 (0.927)	65	4.80 (1.061)	64
Standard	4.16 (1.176)	63	4.14 (1.112)	62

Table 12 MANCOVA

Dependent Variable: Satisfaction						
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Satisfaction	27.762(a)	8	3.470	7.971	0.000***
	Purchase Intention	71.867(b)	8	8.983	8.490	0.000***
Intercept	Satisfaction	70.990	1	70.990	163.067	0.000***
	Purchase Intention	66.651	1	66.651	62.988	0.000***
Cov (Perceived Importance)	Satisfaction	1.839	1	1.839	4.224	0.041*
	Purchase Intention	2.241	1	2.241	2.118	0.147
Customization Level	Satisfaction	20.732	1	20.732	47.622	0.000***
	Purchase Intention	39.952	1	39.952	37.757	0.000***
NFC	Satisfaction	0.001	1	0.001	0.002	0.960
	Purchase Intention	1.182	1	1.182	1.117	0.292
Product Type	Satisfaction	0.220	1	0.220	0.505	0.478
	Purchase Intention	11.469	1	11.469	10.839	0.001**
Customization Level *NFC	Satisfaction	0.101	1	0.101	0.232	0.631
	Purchase Intention	1.224	1	1.224	1.157	0.283
Customization Level * Product Type	Satisfaction	0.084	1	0.084	0.192	0.661
	Purchase Intention	1.109E-05	1	1.109E-05	0.000	0.997
NFC * Product Type	Satisfaction	0.105	1	0.105	0.241	0.624
	Purchase Intention	6.095	1	6.095	5.760	0.017*
Customization Level *NFC * Product Type	Satisfaction	3.245	1	3.245	7.453	0.007**
	Purchase Intention	3.968	1	3.968	3.750	0.054

Error	Satisfaction	106.658	245	0.435
	Purchase Intention	259.248	245	1.058
Total	Satisfaction	5541.078	254	
	Purchase Intention	5610.500	254	
Corrected Total	Satisfaction	134.421	253	
	Purchase Intention	331.114	253	

a. R Squared = .207 (Adjusted R Squared = .181)

b. R Squared = .217 (Adjusted R Squared = .191)

*Significant at $p < .05$ level; ** Significant at $p < .01$ level; *** Significant at $p < .001$ level.



Table 13 ANCOVA of Satisfaction

Dependent Variable: Satisfaction					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	27.762 ^a	8	3.470	7.971	0.000***
Intercept	70.990	1	70.990	163.067	0.000***
Cov (Perceived Importance)	1.839	1	1.839	4.224	0.041*
Customization Level	20.732	1	20.732	47.622	0.000***
NFC	0.001	1	0.001	0.002	0.960
Product Type	0.220	1	0.220	0.505	0.478
Customization Level *NFC	0.101	1	0.101	0.232	0.631
Customization Level * Product Type	0.084	1	0.084	0.192	0.661
NFC * Product Type	0.105	1	0.105	0.241	0.624
Customization Level *NFC * Product Type	3.245	1	3.245	7.453	0.007**
Error	106.658	245	0.435		
Total	5541.078	254			
Corrected Total	134.421	253			

a. R Squared = .207 (Adjusted R Squared = .181)

*Significant at $p < .05$ level; ** Significant at $p < .01$ level; *** Significant at $p < .001$ level.

Table 14 ANCOVA of Purchase Intention

Dependent Variable: Purchase Intention					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	71.867 ^a	8	8.983	8.490	0.000***
Intercept	66.651	1	66.651	62.988	0.000***
Cov (Perceived Importance)	2.241	1	2.241	2.118	0.147
Customization Level	39.952	1	39.952	37.757	0.000***
NFC	1.182	1	1.182	1.117	0.292
Product Type	11.469	1	11.469	10.839	0.001**
Customization Level *NFC	1.224	1	1.224	1.157	0.283
Customization Level * Product Type	1.109E-5	1	1.109E-5	0.000	0.997
NFC * Product Type	6.095	1	6.095	5.760	0.017*
Customization Level *NFC * Product Type	3.968	1	3.968	3.750	0.054
Error	259.248	245	1.058		
Total	5610.500	254			
Corrected Total	331.114	253			

a. R Squared = .217 (Adjusted R Squared = .191)

*Significant at $p < .05$ level; ** Significant at $p < .01$ level; *** Significant at $p < .001$ level.

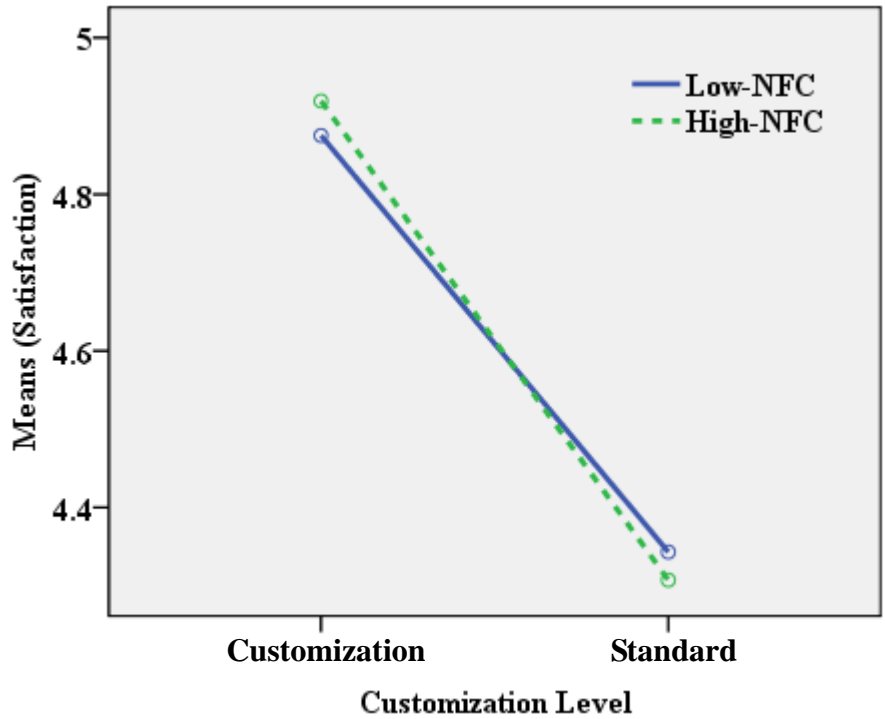


Figure 3 Interaction Effect on Satisfaction

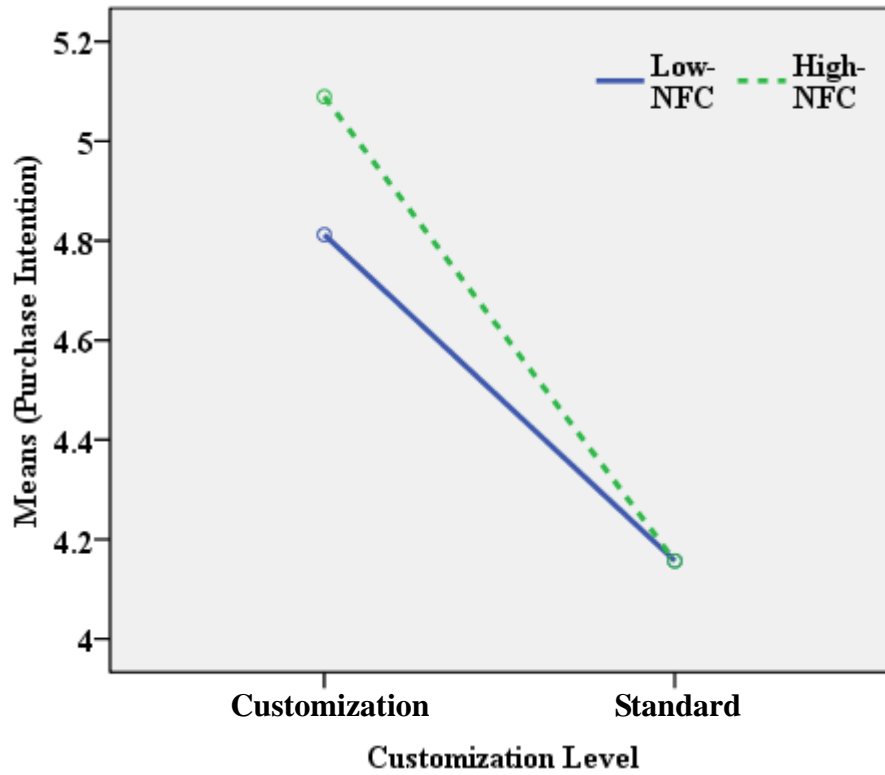


Figure 4 Interaction Effect on Purchase Intention

4.4.3 Interaction between NFC and customization levels across product types

H3a assumed that High-NFC customers were more satisfied with customized experience products than with standard experience products since their perceived risks were reduced (t-statistics = -3.982, $p = 0.000$). Table 15 shows the results of perceived risks. There was no difference in satisfaction between customized experience and standard experience products for low-NFC customers because their perceived risks didn't decrease (t-statistics = 0.288, $p = 0.774$). The data are listed on Table 16.

Table 15 Perceived risk of High-NFC customers in Experience Product

	Customization Level	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Perceived Risk	Customization	31	4.290	0.7775	-3.982	0.000
	Standard	32	5.094	0.8224		

Table 16 Perceived risk of Low-NFC customers in Experience Product

	Customization Level	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Perceived Risk	Customization	32	4.93	1.006	-0.288	0.774
	Standard	31	4.99	0.669		

Besides, H3b assumed that high-NFC customers were not more satisfied with customized search products than with standard search products, since their perceived risk remained unchanged (t-statistics = 0.195, $p = 0.846$). The data are shown on Table 17. Furthermore, low-NFC customers were not more satisfied with customized search than with standard search products, also because their perceived risks remained the same (t-statistics = -0.257, $p = 0.798$). Table 18 shows these results.

Table 17 Perceived risk of High-NFC customers in Search Product

	Customization Level	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Perceived Risk	Customization	34	4.25	1.002	0.195	0.846
	Standard	31	4.20	0.999		

Table 18 Perceived risk of Low-NFC customers in Search Product

	Customization Level	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Perceived Risk	Customization	32	4.156	1.0487	-0.257	0.798
	Standard	31	4.218	0.8385		

H3c and H3d assume that the same outcomes would happen to purchase intention. Table 19, Table 20, Table 21 and Table 22 are the descriptive statistics of satisfaction and purchase intention.

Table 19 Descriptive Statistics of Satisfaction (Notebook)

	NFC			
	High		Low	
	Mean (Std. Deviation)	N	Mean (Std. Deviation)	N
Customization	4.83 (0.884)	34	5.03 (0.667)	32
Standard	4.50 (0.762)	31	4.30 (0.622)	31

Table 20 Descriptive Statistics of Satisfaction (Travel)

	NFC			
	High		Low	
	Mean (Std. Deviation)	N	Mean (Std. Deviation)	N
Customization	5.04 (0.624)	31	4.70 (0.630)	32
Standard	4.13 (0.538)	32	4.35 (0.479)	31

Table 21 Descriptive Statistics of Purchase Intention (Notebook)

	NFC			
	High		Low	
	Mean (Std. Deviation)	N	Mean (Std. Deviation)	N
Customization	5.07 (.997)	34	5.32 (0.794)	32
Standard	4.40 (1.243)	31	4.41 (1.108)	31

Table 22 Descriptive Statistics of Purchase Intention (Travel)

	NFC			
	High		Low	
	Mean (Std. Deviation)	N	Mean (Std. Deviation)	N
Customization	5.15 (0.858)	31	4.27 (1.046)	32
Standard	3.93 (1.076)	32	3.87 (1.066)	31

ANCOVA was used to test these hypotheses. Table 13 shows that there was a three-way interactive effect on satisfaction ($F = 7.453, p = 0.007$), but Table 14 shows that there was no three-way interactive effect on purchase intention ($F = 3.750, p = 0.054$). This, however, requires further discussion determine the reason. It can be seen from Figure 5 and Figure 6 that high-NFC customers were significantly more satisfied with customized experience products than with standard experience products, and they also had higher purchase intention for customized experience products, too. But difference in satisfaction and purchase intention between customized and standard experience products for low-NFC customers was not significant. The interactive effect between NFC and level of customization for experience products is salient. Thus, H3a and H3c are supported.

Travel (Experience Product)

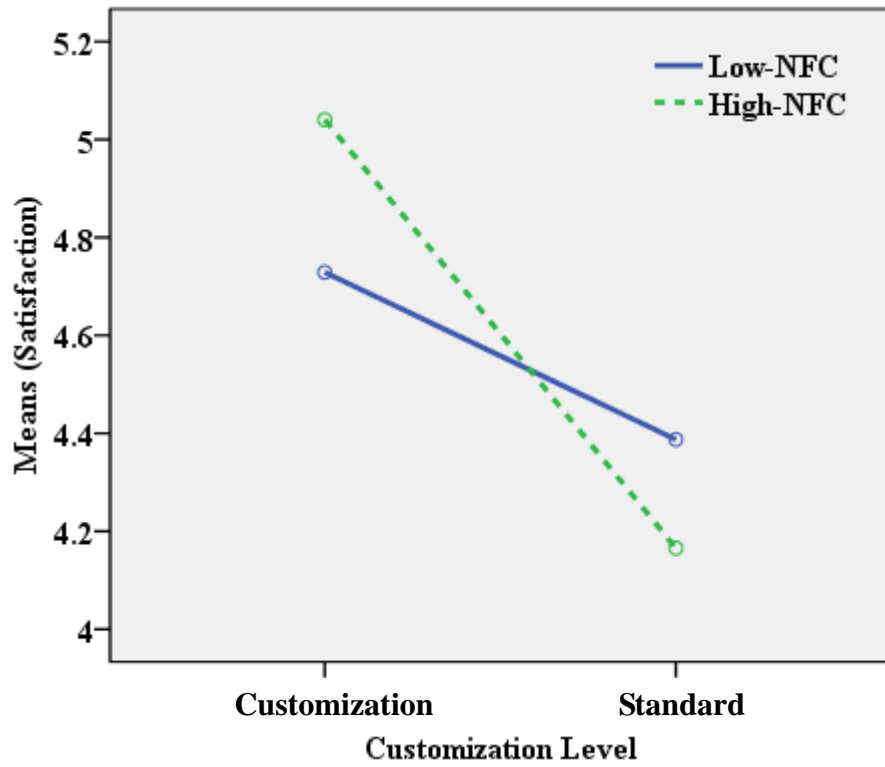


Figure 5 Interaction between NFC and customization Level

Travel (Experience Product)

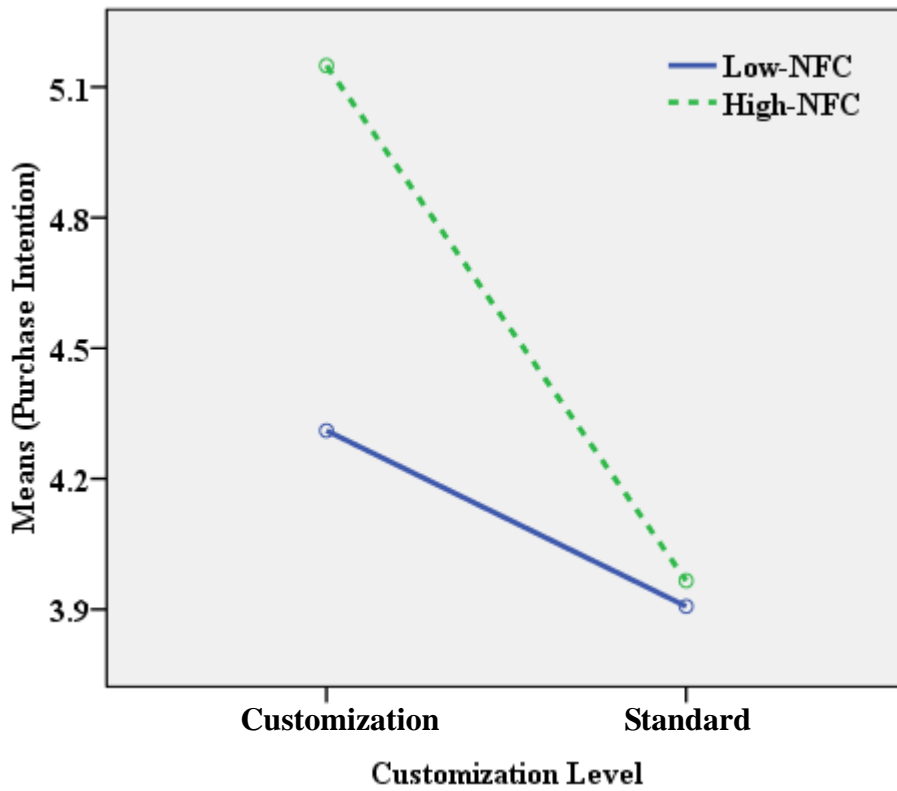


Figure 6 Interaction between NFC and customization Level

Furthermore, according to Figure 7 and Figure 8, low-NFC customers were more satisfied with customized search products than with standard search products, and they were more likely to buy customized search products. For high-NFC customers, there was no difference in satisfaction between customized and standard search products. However, they have higher purchase intention for customized search than for standard search products. Thus, there is an interactive effect on satisfaction but not on purchase intention. H3b is partially supported and H3d are not supported.

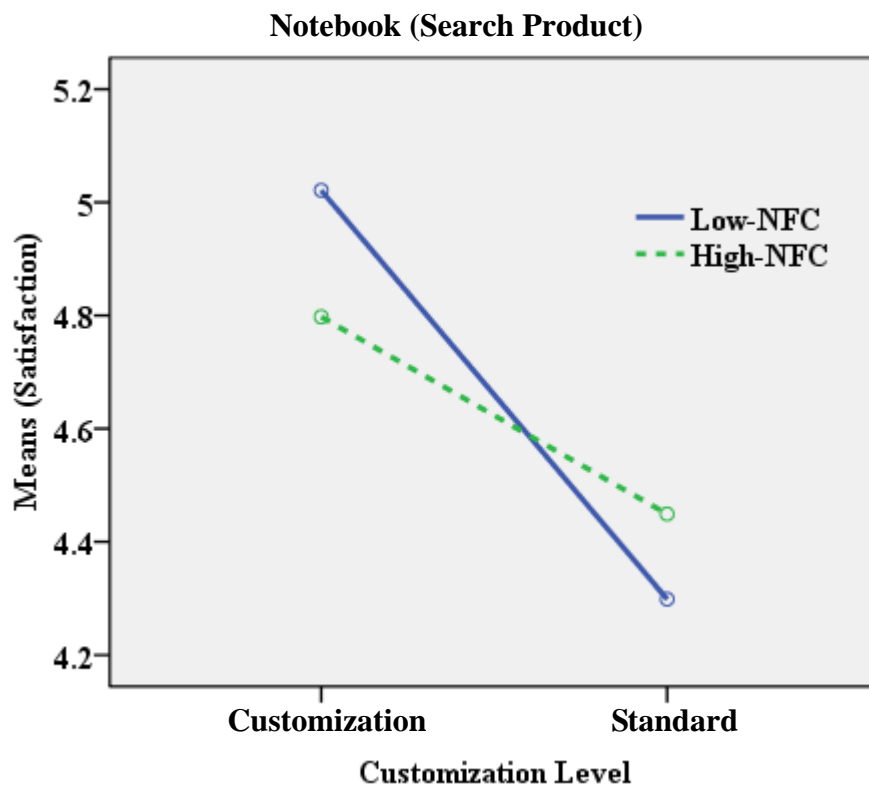


Figure 7 Interaction between NFC and Customization Level

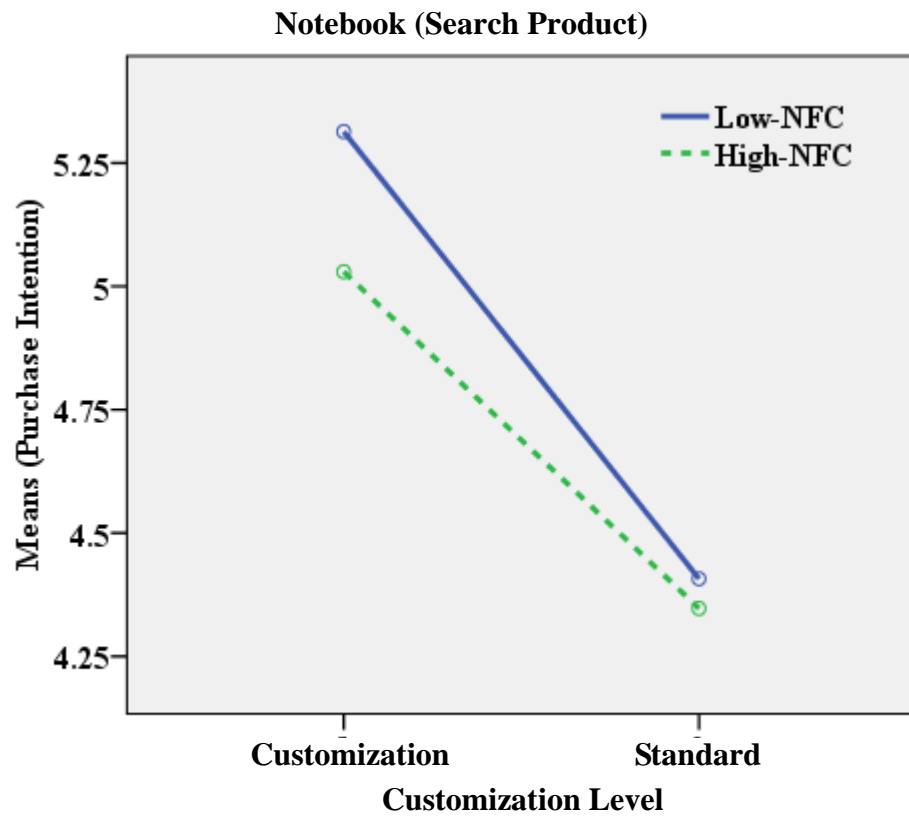
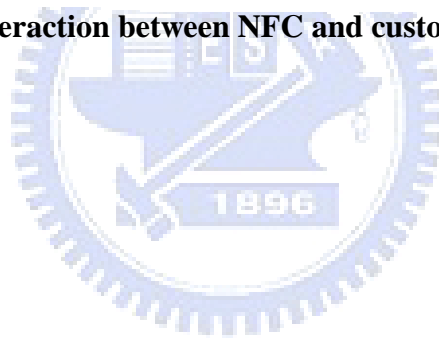


Figure 8 Interaction between NFC and customization Level



Chapter 5 Discussion and Future Research

5.1 Discussion for results

The results of this study indicated that hypotheses 1a and 1b are supported which mean that customers are more satisfied with customized products than with standard products, because customized products are more likely to meet their preferences and exact needs (J. Pine, 1993a). Customers also have higher purchase intention for customized products than standard products.

Besides, H2a and H2b are partially supported. In other words, no matter whether high-NFC or low-NFC customers are more satisfied with customized products than with standard products, and both high-NFC and low-NFC customers have higher purchase intention for customized products. No interactive effect between level of customization and need for cognition was found, which is not in agreement with the findings of Tam and Ho (2005). The following discussion will show why there is no interaction between NFC and level of customization.

Furthermore, H3a and 3b are supported. High-NFC customers are more satisfied with customized experience products than with standard experience products because they can decrease their perceived risks through the process of customization. They also have higher purchase intention for customized products than for standard products. Since low-NFC customers don't like to deal with information (Cacioppo & Petty, 1982), they are more likely to skip information during the process of customization. Their perceived risks are the same, and thus they are not more satisfied with customized experience products. Hence, there was no significant difference in satisfaction and purchase intention between customized experience products and standard experience products.

H3c was partially supported which means low-NFC customers are more satisfied with customized search products but high-NFC customers are not more satisfied with customized

search products than standard search products. Customers perceive less risk when buying search products than with buying experience products (Mitra et al., 1999). If customers can choose something that is not risky for them, it is easier to choose one which meets their own preferences more closely. Thus they may feel more satisfied which is why low-NFC customers are more satisfied with customized search products than with standard search products. However, high-NFC customers felt that the choices provided were not enough. They wanted to have more choices when customizing less risky products and in which the difference between the two types of customers lies.

H3d is rejected because both high-NFC and low-NFC customers have higher purchase intention for customized search products than for standard search products. According to H3c, high-NFC customers are not more satisfied with customized search products than with standard search products. Theoretically, they won't have higher purchase intention for customized search products. High-NFC customers felt that the choices provided for customized search products were not enough, thus they were not more satisfied. However, they could still select one which met their requirements more closely and were, therefore, more likely to buy customized search products. This is why high-NFC customers have higher purchase intention for customized search products than for standard search products even though they are not more satisfied. On the other hand, low-NFC customers are more satisfied with customized search products, and thus also have higher purchase intention.

In Chapter 2, we speculated that low-NFC customers are not more satisfied with customized products than with standard products. However, we know that low-NFC customers were more satisfied with customized search than with standard search products, but according to H3, were not more satisfied with customized experience products than with standard experience products. For this the reason H2a and H2b are only partially supported, that is, both high-NFC and low-NFC customers were more satisfied with customized

products than standard products.

5.2 Implications

The implications of this study are that customization strategy can help companies to make more profits since customers experience greater satisfaction. However, results can be different for different kinds of people across different product types. The study shows that there is a totally opposite interactive effect between NFC and customization level for two kinds of products. Hence, for each product category, companies should try to understand the characteristics of customers.

For search products, only low-NFC customers were more satisfied with customized products. For experience products, only high-NFC customers were more satisfied with customized products. If companies are able to identify the NFC level of customers, they can apply customization strategy more appropriately. They can provide customization strategy according to NFC level and maximum profits while limiting expenditures.

5.3 Limitations

One of the limitations in this study was the type of respondents used. About 70% of participants were students, and most of them were under 25 years old, which is not a reflection of the real demographics of a society. Younger people may have different perceptions about customization from people at older ages.

Furthermore, the income of most participants was under NT 30,000 per month because most were students. Although travel packages and notebooks are both expensive products for students, notebooks are necessities for students nowadays, but travel packages are not. Therefore, participants have higher purchase intention for a notebook than for a travel package. The main effect of product type on satisfaction is significant.

Furthermore, the study attempted to make all participants more involved in the experiments. However, as the internet was used to collect samples, it is possible that some participants did not concentrate on the experiments during the process. If participants could have been interviewed individually, the situation may be improved. But it also costs more time.

5.4 Future research

Most studies nowadays focus on customization in the product industry. However, service industries are becoming more and more popular nowadays. Many companies in the product industry are converting to service industries and the boundary between these two industries is becoming obscured. It is, therefore, suggested that to research into the customization of service industry would be appropriate and valuable.

As was noted above, participants have higher purchase intention for notebooks than travel packages. To ensure that purchase intentions are the same across product types, another product should be chosen to represent search product in future research.

Finally, except for search and experience products, Darby and Karni (1973) added a new product type, namely, credence products. Future research should be extended to compare and contrast three product types.

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Appendix1. Scenario for Customized Search product (with questionnaire)

第一部份 此部份測量您的邏輯思考方式，請仔細回答

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我比較喜歡複雜而不喜歡簡單的問題							
2. 我願意負責解決要花很多腦筋的事							
3. 我不以思考為樂							
4. 我比較喜歡去做不用思考的事，而不願去做需要思考的事							
5. 我對那些要花很多心思去想事情的情境，避之唯恐不及							
6. 我從深思和長考中得到滿足							
7. 我只有在需要的時候會努力思考							
8. 與其去想一些長期計劃，我寧願想一些小的日常計劃							
9. 我喜歡那些一但學會就不要再想的工作							
10. 照自己的想法爬到頂端的方式很吸引我							
11. 我喜歡那些需要想出新方法來解決問題的工作							
12. 學習新的思考方式沒有什麼意思							
13. 我喜歡我的人生充滿著我得要解決的難題							
14. 我喜歡抽象的思考							
15. 我喜歡需要動腦筋且困難的重要工作，而不喜歡還算重要但不需多想的							
16. 當我完成一件費心力的工作後，我感到的是解脫而不是滿足							
17. 我只在乎工作是否完成，我不在意它是如何或為何做成的							
18. 即使一些問題跟我個人沒有切身關係，我常會對它們深思熟慮一番							

第二部份 此部份衡量你對筆電的看法

請根據記憶體回答下列問題

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我在購買前 就能 根據蒐集到的資訊衡量記憶體的品質							
2. 我只有在購買後 才能 衡量記憶體的品質							
3. 對我而言，記憶體大小對於筆記型電腦是很重要的							
4. 購買筆電，我會在意記憶體大小							

請根據筆記型電腦 CPU 回答下列問題

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我在購買前 就能 根據蒐集到的資訊衡量 CPU 的品質							
2. 我只有在購買後 才能 衡量 CPU 的品質							
3. 對我而言，CPU 種類對於筆記型電腦是很重要的							
4. 購買筆記型電腦，我會在意 CPU 種類							

請根據硬碟回答下列問題

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我在購買前 就能 根據蒐集到的資訊衡量硬碟的品質							
2. 我只有在購買後 才能 衡量硬碟的品質							
3. 對我而言，硬碟大小規格對於筆記型電腦是很重要的							
4. 購買筆電，我會在意硬碟大小規格							

請根據筆記型電腦外觀顏色回答下列問題

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我在購買前 就能 根據蒐集到的資訊衡量外觀顏色的品質							
2. 我只有在購買後 才能 衡量外觀顏色的品質							
3. 對我而言，外觀顏色對於筆記型電腦是很重要的							
4. 購買筆電，我會在意外觀的顏色							



第三部份 請你仔細閱讀以下情境後填寫問卷

假設你打算購買一台新的筆記型電腦，而你常去的一家電腦用品專賣店最近正好推出了讓顧客設計自己電腦的服務，你可以根據自己的需求選擇你要的筆記型電腦的CPU，外觀的顏色，硬碟的容量以及記憶體的大小等等。

以下是筆記型電腦的保養方式：

筆電的螢幕保養盡可能使用超細纖維的眼鏡布擦拭。如螢幕上有灰塵，先輕拍將灰塵拍掉再進行擦拭動作，如此才能避免灰塵顆粒經拭布的擦拭磨擦，而對螢幕造成的刮傷。擦拭布如果髒了，盡可能換新；如果擦拭布十分昂貴，清洗晾乾後重複使用。使用清潔液體清理時，先將適量清潔液體倒於擦拭布上，不可直接將清潔液噴灑在螢幕上。另外要避免機器運轉中擦拭。如果你想延伸電池壽命的話，建議電量低到20%即可充電，80%停止，以延長電池的壽命，使用上不需要吝惜充電次數，只要不要電量太低才充電，或是充飽卻長時間閒置的話，電池衰退的情況並不會很嚴重，上述的現象比喻為運動的人，如果一次大量的運動，很有可能造成運動傷害或是需要較長的時間才能恢復體力，循序漸進的運動方式才能保持體力並迅速恢復。如何照顧光碟機，使用內建光碟機的筆記型電腦時，要注意光碟機讀寫頭是否常因到處攜帶使用，導致沾染灰塵；使用者若是常發生讀取不正常或燒錄不成功，可依照光碟機機種使用DVD或CD清潔片適時清理一下，清潔片售價依照種類與品牌不同從數百元到上千元都有。除了光碟機以外，其他筆電的配備也都要定時保養清潔，才能延長筆電壽命。

以下是可以讓您選擇的部份

記憶體三選一 → CPU 三選一 → 硬碟三選一 → 外觀顏色三選一



以下是三種大小記憶體適合用途說明：

1. 創見 DDRII667(1G)：

記憶體大小代表速度的快慢，記憶體越大，速度越快，記憶體通常是以奈秒(nanosecond, ns)或百萬赫茲(megahertz, MHz)來表示，對於一般筆記型電腦使用者而言，1G 的記憶體大小就足夠使用，作業系統 WindowsXP 以下都能正常運作，適合運作基本的文書資料，價格也最為便宜。

2. 創見 DDRII667(1.5G)：

若筆記型電腦的作業系統是 Windows Vista，1.5G 記憶體是不錯的選擇，多了 512MB 的記憶體就可以讓電腦運作更為順暢，一般基本文書資料等等的軟體跑起來速度也沒問題，提醒一點，DDR 與 DDRII 兩種記憶體不相容，所以若要加裝記憶體，兩者不可以共用價格比 1G 的記憶體貴 400 元。

3. 創見 DDRII667(2G)：

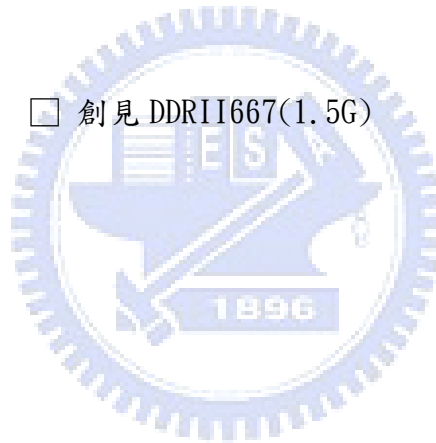
DDRII667 是現在比較常用的規格，667 代表的是記憶體的頻率，若筆記型電腦的使用除運作一般文書資料以外，還需要跑一些應用軟體，如繪圖軟體或是電動遊戲等等，2G 記憶體是不錯的選擇，多了 1G 的記憶體，速度加快不少，可以應付更多吃記憶體的軟體，2G 價格比 1G 貴 600 元。

你可以選擇你最需要的記憶體大小

創見 DDRII667(1G)

創見 DDRII667(1.5G)

創見 DDRII667(2G)



以下為三種 CPU 的介紹：

1. T7100/1.8G/64bit/L2=2MB/FSB800Mhz：

Intel T7100 的 CPU 雖然沒有 T7250 和 T7300 的效能好，但也已經相當不錯，這樣的等級對於一般玩遊戲等的功能已經足夠，不會有 lag 的情形出現，當然還要看顯示卡跟記憶體的規格。

2. T7250/2G/64bit/L2=2MB/FSB800Mhz：

Intel T7250 介於此三款 CPU 中間，效能比 T7100 好，但價格也稍貴，目前促銷價比 T7100 貴 800 元，跟 T7300 的架構差不多，比較有差的部份在於 L2 的快取只有 T7300 的一半。

3. T7300/2G/64bit/L2=4MB/FSB800Mhz：

Intel T7300 是三種規格最好，效能最棒的一款，但價格也最貴，目前公司促銷價比 T7100 貴 1500 元，CPU 快取是 4MB，相當快速，是三款當中最適合需要跑繪圖等軟體的使用者。

你可以選一個你喜歡的 CPU

Intel T7100

Intel T7250

Intel T7300



以下是三種硬碟的介紹：

1. 200G SATA(4200rpm)：

200G Serial ATA(SATA)硬碟，200G 的硬碟，算是非常大的容量，能夠存取足夠的資料，不必擔心硬碟空間不夠，主軸轉速 4200rpm（每秒 4200 轉），雖然轉速最慢，作業系統在執行上的速度以及傳送資料速度也沒有其他兩種快，但對於沒有要傳大量資料的使用者而言，速度在可接受範圍，低轉速的硬碟散發熱量最低，也最不耗電。

2. 160G SATA(5400rpm)：

160GB Serial ATA(SATA)硬碟，轉速 5400rpm(每秒 5400 轉)，是目前市面上最常見的轉速規格，作業系統在執行上的速度以及資料傳送讀取的速度都適中，耗電量和散熱量都筆 4200rpm 稍微多一些，適合一般使用者但在意硬碟速度的人，硬碟容量 160G，雖沒有 200G 的硬碟空間大，但對於一般儲存文件及影音資料都相當夠用。

3. 120G SATA(7200rpm)：

120GB SATA 硬碟，120G 的容量雖然不能說是大容量，但也絕對不算小，可以存的資料也不少，7200rpm(每秒 7200 轉)的高轉速絕對符合日常處理文書、或是家用需求，資料傳輸速度快，對於需要非常快速的獨取檔案的使用者而言，7200rpm 的轉速絕對能滿足需求，速度是三種硬碟中最快，效能也最高，但耗電量和散熱量也最高。

接下來你可以選擇你需要的硬碟種類：

200G SATA(4200rpm)

160G SATA(5400rpm)

120GB SATA(7200rpm)



以下為三種顏色介紹：

1. 黑色：

黑色是個時尚有個性的顏色，是一月出生的人的色彩，本月落在日照最少的寒冬，生命活動皆停止或處於最深切的冬眠期，大地一片黑靜。帶給別人一種成熟穩重的感受，同時也是內斂、敏銳，及高雅的象徵，選擇黑色，展現出可靠且獨立自主的個性，有泰山崩於前而不亂的冷靜思考能力，超人般堅忍的耐力與毅力，但缺乏社交能力，多與人相處即可改善，但生活裡加點玫瑰紅色，可以減少工作帶來的壓迫感並且更有包容力。

2. 白色：

白色代表純潔，雖然是個最原始最簡單的色彩，但卻代表著出眾的品味，白色是個靜態的色彩，合平的顏色，選擇白色，展現出平易近人的鄰家氣息。白色是八月出生的人的顏色，此月分太陽光強烈到由紅轉白，生命力發揮到極點。八月出生的人直覺強而敏銳，對生活特別有靈感，含蓄實在的天性常能預知並配合環境的改變，調整計劃與需求，真誠可靠值得眾人信任，但有時太注重細微末節，不做沒把握的事，反而畫地自限。

3. 粉紅色：

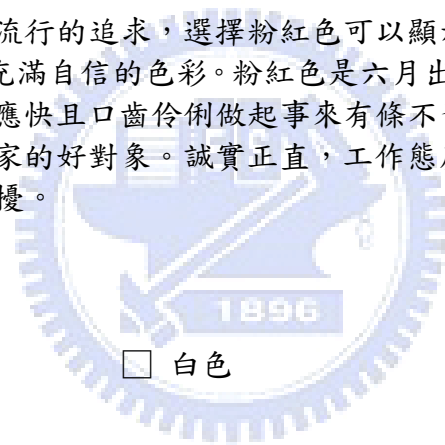
粉紅色代表著浪漫的情懷，及對流行的追求，選擇粉紅色可以顯示出自己與眾不同的品味，展現自己獨一無二的風格，是一個華麗充滿自信的色彩。粉紅色是六月出生的人的顏色，具有過人的智慧，常有令人驚訝和驚喜的表現，反應快且口齒伶俐做起事來有條不紊是團隊中顯眼傑出的角色，心地善良誠懇，時時替人著想，是顧家的好對象。誠實正直，工作態度認真。但時而明朗時而陰鬱的情緒起伏，也常帶給自己與別人困擾。

你可以選一個你喜歡的電腦外觀顏色

黑色

白色

粉紅色



第四部份 問卷

非常感謝您抽空參與本次實驗，本實驗目的在研究消費者對於旅行社的看法，請根據您參與實驗的經驗回答問卷，本問卷僅供學術研究，不會透露您的個人隱私；您的寶貴意見將會提供本研究極大的幫助以及貢獻，衷心感謝您的合作與支持！

敬祝

萬事如意

國立交通大學管理科學研究所
指導教授：張家齊 博士
研究生：邱柏源

壹.

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 整體而言，我對於此次接受筆電資訊的過程很滿意							
2. 整體而言，對於接受筆電資訊的過程，我得到負面經驗多於正面經驗							
3. 整體而言，我對於這次接受筆電資訊的過程感到開心							
4. 這個筆電符合我的需求							
5. 這個筆電並不如我想像中的那樣好							
6. 這個筆電是我所需要的							
7. 這個筆電很吸引我							
8. 我很喜歡這個筆電							

貳.

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我購買此筆電的可能性是高的							
2. 如果我要買筆電，我會考慮購買此筆電							
3. 我會購買此種筆電的機率是高的							
4. 我購買此筆電的意願是高的							

參.

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我擔心此筆記型電腦不如我預期的好用							
2. 我對此筆記型電腦配備(硬碟, 記憶體等等)的品質充滿不確定性							
3. 我不擔心此筆記型電腦配備的品質							
4. 因為我不確定此筆記型電腦配備(硬碟、記憶體等等)的品質如何, 對我而言購買此筆記型電腦的風險很高							

肆.

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 此電腦公司對於各項電腦配備(外觀顏色, 硬碟...)提供不同方案供我選擇							
2. 此電腦公司對於各項電腦配備(外觀顏色, 硬碟...)提供不同選擇來滿足我的偏好							
3. 此電腦公司對於各項電腦配備(外觀顏色, 硬碟...)提供我不同的選擇							

伍.

- 請問您的性別是 男 女
- 每個月可支配所得
10,000 以下 10,001~30,000 30,001~50,000
50,001~70,000 70,001~90,000 超過 90,000
- 請問你的年齡
15 以下 16~20 21~25 26~30 31~35 36~40 41~45
- 教育程度
國中或初中 高中、高職 專科 大學或學院 研究所以上
- 職業
醫藥 軍警 公教 自由業 農林漁牧業 服務業
家管 工 商 學生 無業, 已退休 無業, 待業中

6. 你是否購買過筆記型電腦 是 否
7. 你過去是否有客製化產品或服務的經驗 是 否
8. 你過去是否有客製化筆記型電腦的經驗 是 否



Appendix2. Scenario for Standard Search product

請你仔細閱讀以下情境後填寫問卷

假設你打算購買一台新的筆記型電腦，而你常去的一家電腦用品專賣店最近正好主打某一款筆記型電腦，這款筆記型電腦所有的相關資訊，如記憶體大小，硬碟容量，CPU 種類以及外觀顏色等等，都如下列所示。

以下是筆記型電腦的保養方式：

筆電的螢幕保養盡可能使用超細纖維的眼鏡布擦拭。如螢幕上有灰塵，先輕拍將灰塵拍掉再進行擦拭動作，如此才能避免灰塵顆粒經拭布的擦拭磨擦，而對螢幕造成的刮傷。擦拭布如果髒了，盡可能換新；如果擦拭布十分昂貴，清洗晾乾後重複使用。使用清潔液體清理時，先將適量清潔液體倒於擦拭布上，不可直接將清潔液噴灑在螢幕上。另外要避免機器運轉中擦拭。如果你想延伸電池壽命的話，建議電量低到 20%即可充電，80%停止，以延長電池的壽命，使用上不需要吝惜充電次數，只要不要電量太低才充電，或是充飽卻長時間閒置的話，電池衰退的情況並不會很嚴重，上述的現象比喻為運動的人，如果一次大量的運動，很有可能造成運動傷害或是需要較長的時間才能恢復體力，循序漸進的運動方式才能保持體力並迅速恢復。如何照顧光碟機，使用內建光碟機的筆記型電腦時，要注意光碟機讀寫頭是否常因到處攜帶使用，導致沾染灰塵；使用者若是常發生讀取不正常或燒錄不成功，可依照光碟機機種使用 DVD 或 CD 清潔片適時清理一下，清潔片售價依照種類與品牌不同從數百元到上千元都有。除了光碟機以外，其他筆電的配備也都要定時保養清潔，才能延長筆電壽命。

以下是此台筆記型電腦資訊介紹的順序：

記憶體介紹 → CPU 介紹 → 硬碟介紹 → 外觀顏色介紹



以下是記憶體及相關知識的說明：

1. 創見 DDRII667(1G)：

記憶體大小代表速度的快慢，記憶體越大，速度越快，記憶體通常是以奈秒(nanosecond, ns)或百萬赫茲(megahertz, MHz)來表示，對於一般筆記型電腦使用者而言，1G 的記憶體大小就足夠使用，作業系統 WindowsXP 以下都能正常運作，適合運作基本的文書資料，價格也最為便宜。

2. 創見 DDRII667(1.5G)：

若筆記型電腦的作業系統是 Windows Vista，1.5G 記憶體是不錯的選擇，多了 512MB 的記憶體就可以讓電腦運作更為順暢，一般基本文書資料等等的軟體跑起來速度也沒問題，提醒一點，DDR 與 DDRII 兩種記憶體不相容，所以若要加裝記憶體，兩者不可以共用價格比 1G 的記憶體貴 400 元。

3. 創見 DDRII667(2G)：

DDRII667 是現在比較常用的規格，667 代表的是記憶體的頻率，若筆記型電腦的使用除運作一般文書資料以外，還需要跑一些應用軟體，如繪圖軟體或是電動遊戲等等，2G 記憶體是不錯的選擇，多了 1G 的記憶體，速度加快不少，可以應付更多吃記憶體的軟體，2G 價格比 1G 貴 600 元。

此電腦指定使用的記憶體大小是 XXXX



以下是 CPU 的相關知識介紹：

1. T7100/1.8G/64bit/L2=2MB/FSB800Mhz：

Intel T7100 的 CPU 雖然沒有 T7250 和 T7300 的效能好，但也已經相當不錯，這樣的等級對於一般玩遊戲等的功能已經足夠，不會有 lag 的情形出現，當然還要看顯示卡跟記憶體的規格。

2. T7250/2G/64bit/L2=2MB/FSB800Mhz：

Intel T7250 介於此三款 CPU 中間，效能比 T7100 好，但價格也稍貴，目前促銷價比 T7100 貴 800 元，跟 T7300 的架構差不多，比較有差的部份在於 L2 的快取只有 T7300 的一半。

3. T7300/2G/64bit/L2=4MB/FSB800Mhz：

Intel T7300 是三種規格最好，效能最棒的一款，但價格也最貴，目前公司促銷價比 T7100 貴 1500 元，CPU 快取是 4MB，相當快速，是三款當中最適合需要跑繪圖等軟體的使用者。

此電腦指定使用的 CPU 為 XXXXX



以下是硬碟及相關知識的介紹：

1. 200G SATA(4200rpm)：

200G Serial ATA(SATA)硬碟，200G 的硬碟，算是非常大的容量，能夠存取足夠的資料，不必擔心硬碟空間不夠，主軸轉速 4200rpm（每秒 4200 轉），雖然轉速最慢，作業系統在執行上的速度以及傳送資料速度也沒有其他兩種快，但對於沒有要傳大量資料的使用者而言，速度在可接受範圍，低轉速的硬碟散發熱量最低，也最不耗電。

2. 160G SATA(5400rpm)：

160GB Serial ATA(SATA)硬碟，轉速 5400rpm(每秒 5400 轉)，是目前市面上最常見的轉速規格，作業系統在執行上的速度以及資料傳送讀取的速度都適中，耗電量和散熱量都筆 4200rpm 稍微多一些，適合一般使用者但在意硬碟速度的人，硬碟容量 160G，雖沒有 200G 的硬碟空間大，但對於一般儲存文件及影音資料都相當夠用。

3. 120G SATA(7200rpm)：

120GB SATA 硬碟，120G 的容量雖然不能說是大容量，但也絕對不算小，可以存的資料也不少，7200rpm(每秒 7200 轉)的高轉速絕對符合日常處理文書、或是家用需求，資料傳輸速度快，對於需要非常快速的獨取檔案的使用者而言，7200rpm 的轉速絕對能滿足需求，速度是三種硬碟中最快，效能也最高，但耗電量和散熱量也最高。

此電腦指定使用的硬碟為 XXXXXX



以下為外觀顏色及相關知識的介紹：

1. 黑色：

黑色是個時尚有個性的顏色，是一月出生的人的色彩，本月落在日照最少的寒冬，生命活動皆停止或處於最深切的冬眠期，大地一片黑靜。帶給別人一種成熟穩重的感受，同時也是內斂、敏銳，及高雅的象徵，選擇黑色，展現出可靠且獨立自主的個性，有泰山崩於前而不亂的冷靜思考能力，超人般堅忍的耐力與毅力，但缺乏社交能力，多與人相處即可改善，但生活裡加點玫瑰紅色，可以減少工作帶來的壓迫感並且更有包容力。

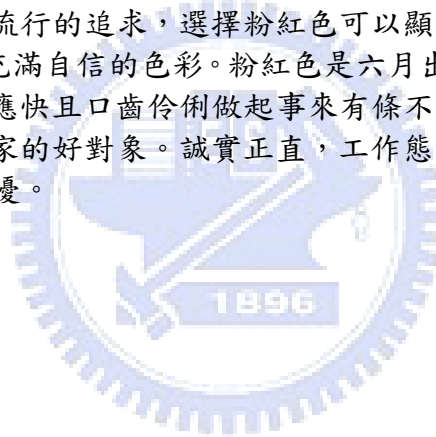
2. 白色：

白色代表純潔，雖然是個最原始最簡單的色彩，但卻代表著出眾的品味，白色是個靜態的色彩，合平的顏色，選擇白色，展現出平易近人的鄰家氣息。白色是八月出生的人的顏色，此月分太陽光強烈到由紅轉白，生命力發揮到極點。八月出生的人直覺強而敏銳，對生活特別有靈感，含蓄實在的天性常能預知並配合環境的改變，調整計劃與需求，真誠可靠值得眾人信任，但有時太注重細微末節，不做沒把握的事，反而畫地自限。

3. 粉紅色：

粉紅色代表著浪漫的情懷，及對流行的追求，選擇粉紅色可以顯示出自己與眾不同的品味，展現自己獨一無二的風格，是一個華麗充滿自信的色彩。粉紅色是六月出生的人的顏色，具有過人的智慧，常有令人驚訝和驚喜的表現，反應快且口齒伶俐做起事來有條不紊是團隊中顯眼傑出的角色，心地善良誠懇，時時替人著想，是顧家的好對象。誠實正直，工作態度認真。但時而明朗時而陰鬱的情緒起伏，也常帶給自己與別人困擾。

此電腦指定的外觀顏色為 XXXXX



Appendix3. Scenario for Customized Experience product (with questionnaire)

第一部份 此部份測量您的邏輯思考方式，請仔細回答

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
19. 我比較喜歡複雜而不喜歡簡單的問題							
20. 我願意負責解決要花很多腦筋的事							
21. 我不以思考為樂							
22. 我比較喜歡去做不用思考的事，而不願去做需要思考的事							
23. 我對那些要花很多心思去想事情的情境，避之唯恐不及							
24. 我從深思和長考中得到滿足							
25. 我只有在需要的時候會努力思考							
26. 與其去想一些長期計劃，我寧願想一些小的日常計劃							
27. 我喜歡那些一但學會就不用再想的工作							
28. 照自己的想法爬到頂端的方式很吸引我							
29. 我喜歡那些需要想出新方法來解決問題的工作							
30. 學習新的思考方式沒有什麼意思							
31. 我喜歡我的人生充滿著我得要解決的難題							
32. 我喜歡抽象的思考							
33. 我喜歡需要動腦筋且困難的重要工作，而不喜歡還算重要但不需多想的工作							
34. 當我完成一件費心力的工作後，我感到的是解脫而不是滿足							
35. 我只在乎工作是否完成，我不在意它是如何或為何做成的							
36. 即使一些問題跟我個人沒有切身關係，我常會對它們深思熟慮一番							

第二部份 此部份衡量你對到大陸文化旅遊的看法

請根據大陸傳統交通工具回答下列問題

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我在搭乘前 就能 根據蒐集到的資訊衡量大陸傳統交通工具的品質							
2. 我只有在搭乘後 才能 衡量大陸傳統交通工具的品質							
3. 對我而言，搭乘的傳統交通工具對於去大陸文化旅遊是很重要的							
4. 去大陸文化旅遊，我會在意搭乘的傳統交通工具							

請根據旅遊行程回答下列問題

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我在去之前 就能 根據蒐集到的資訊衡量大陸文化旅遊行程的品質							
2. 我只有在去之後 才能 衡量大陸文化旅遊行程的品質							
3. 對我而言，旅遊的行程對於去大陸文化旅遊是很重要的							
4. 去大陸文化旅遊，我會在意旅遊的行程							

請根據大陸傳統餐點回答下列問題

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我在用餐前 就能 根據蒐集到的資訊衡量大陸傳統餐點的品質							
2. 我只有在用餐後 才能 衡量大陸傳統餐點的品質							
3. 對我而言，傳統餐點對於大陸文化旅遊是很重要的							
4. 去大陸文化旅遊，我會在意傳統餐點							

請根據大陸傳統住宿地點回答下列問題

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 我在住宿前 就能 根據蒐集到的資訊衡量大陸傳統住宿地點的品質							
2. 我只有在住宿後 才能 衡量大陸傳統住宿地點的品質							
3. 對我而言，傳統住宿地點對於大陸文化旅遊是很重要的							
4. 去大陸文化旅遊，我會在意傳統住宿地點							



第三部份：請你仔細閱讀以下情境後填寫問卷

假設你打算參加佳飲旅行社提供的八天七夜到雲南的文化之旅，在這八天七夜的行程當中，旅行社替你安排好大部分的行程，第一天將安排去體驗雲南少數民族，交通工具、行程、晚餐和住宿的地點都可以根據你自己的喜好做選擇。

以下是去雲南旅遊的注意事項

到雲南旅遊，充分瞭解雲南旅遊注意事項很重要，注意事項對到雲南旅遊是不可少的。雲南是少數民族主要聚居之地，文化風俗與內地不同，旅遊時應由導遊引領，並尊重當地的文化風俗。要認真聽從導遊的講解，才能充分瞭解到和少數民居交流的注意事項，到雲南旅遊，由於雲南地處雲貴高原，室外紫外線照射較強，注意防曬，別忘記帶太陽眼鏡以防紫外線輻射，防曬乳也是必備物品；雲南每天早晚溫差較大，到雲南旅遊應注意著裝，預防感冒，另外雲南氣候比較悶熱潮濕，多雨，請注意攜帶雨具；在選購旅遊紀念商品、當地土特產時，請注意貨比三家；同時注意不要隨意去動擺設的樣品，以防意外損壞；雲南特殊的氣候適宜於很多品種花卉的生存，所以雲南的鮮花絕對是出乎您意料的便宜，建議您可以趁旅遊時多多欣賞，但是因為鮮花的保存期限不長，所以提醒您不要購買太多的鮮花

；最後，請注意準備一些個人用的常用藥品，以備不時之需，請注意妥善保管個人的貴重物品，照顧好隨身物件；在旅遊時，注意環境保護、尊重當地少數民族的風俗習慣；在旅遊過程中，聽從當地導遊和全陪的安排，遵守時間，以便順利完成整個旅遊行程。

以下是第一天的行程安排：

交通工具三選一 → 第一天行程三選一 → 晚餐餐點三選一 → 特色民居三選一



以下是三種交通工具的介紹：

1. 大象：

大象是傣族人最主要的交通工具，大象肩膀高約 2 米，體重約 3~7 噸。大象象徵五穀豐收，尤其是大象與他們生活密切相關，傣族人民用象和象牙作為重要貢品，各部落酋長也養象，外出遊玩要乘坐配有銀鞍的大象。大象還可作為運送基本貨品的交通工具，數量最多所以最便宜。

2. 駱駝：

駱駝性情溫順，容易馴服，能乘載相當大的重量，長途跋涉歷久不衰。胃裡有 20-30 個可貯水的地方，紅血球可膨脹吸水來貯水，所以耐饑渴。駱駝產乳，肉、絨毛，都可拿來利用，兼具四種用途。蒙古語稱它為“特莫”，是蒙古族不可缺少的交通工具。騎駱駝的價格比大象貴 400 元。

3. 犛牛：

犛牛外觀雖然兇猛，但性情溫和不粗暴。野生的犛牛的肩高可達兩米，馴養的犛牛一般只有一半高。由於體型龐大且體毛很長，可沉載重量很大且耐寒，能夠忍饑耐勞，翻山越嶺，在激流中游泳，認路的本領很強，因此成為藏族最主要交通工具，由於數量稀少，價格比騎大象貴 600 元。

你可以選擇要搭乘傳統交通工具：

大象

駱駝

犛牛



以下是 3 種行程的簡介：

1. 虎跳峽：

虎跳峽是雲南天然景觀，不需額外付費，分為上虎跳、中虎跳、下虎跳 3 段，共 18 處險灘。江面最窄處僅 30 餘米，被玉龍、哈巴兩大雪山挾峙，海拔差 3900 多米，峽谷深而險，空氣稀薄。

2. 玉水寨：

參觀玉水寨的門票為 800 元，納西族的文化發源地，有著濃濃的宗教色彩，是納西族人祭神以及文化活動的聖地重要場所。可以看到納西族人最傳統捕殺獵物用以祭神的莊重儀式。

3. 霞給藏族文化村：

藏族文化村的門票為 1500 元(含中餐)，霞給村是典型的藏族村落，有神秘部落之稱，獨具特色的藏族民居儲存完好。藏民在此舉行以“跳神”（面具舞）為主的格冬節，氣氛神秘而激烈。

你可以從三種行程中選擇一種：

虎跳峽

玉水寨

霞給藏族文化村



以下是三種餐點的介紹：

1. 餌絲：

餌絲是雲南省大理市苗族自治縣一道獨具特色麵食，由洞山鄉胡家灣村人發明，採用當地特產加工製作而成，至今已有近 400 年的歷史，苗族民間最大的祭祀活動“祭鼓節”中會拿來祭拜用。是當地人和外來客人所普遍喜愛的一種方便小吃。搭配經典醬料“喃咪”，令人讚不絕口。相傳當年曾用它招待大唐使節，從此名聲大振。

2. 苦蕎粑粑：

苦蕎粑粑是雲南納西族的主食，納西族主要群居於雲南省麗江納西族自治縣，農業是納西族的主要經濟部門，納西族會在祭壇上供奉苦蕎粑粑，換新房、婚嫁，請客宴席上也絕對少不了它，營養價值頗高。近年來，因蕎麥種子的營養保健和藥用價值引起了人們的重視，苦蕎粑粑具有人體需要的多種氨基酸，因此被納西族譽為“長壽食品”。

3. 乳膳薩瑪：

乳膳薩瑪是藏族的一種用米做成的食品，是滿族人不可缺少的東西，是清代關外三陵祭祀的祭品之一，傳說源於清朝廣州任職的一位姓薩的將軍喜愛美食，故要求廚師每天都必須做不同的食物，這道菜是所有東西裡面將軍最愛吃的一種。這種食物由藏族人引入北京，進而風行全國。婚喪喜慶或家裡有重要客人的時候，也一定會作為招待的食品。

你可以從三種餐點中選擇一種：

餌絲

苦蕎粑粑

乳膳薩瑪



以下是三種特色民居的簡介：

1. 彝族土掌房

彝族獨特的民居建築，彝族是我國具有悠久歷史和古老文化的民族之一，主要分佈在雲南、四川、兩省和廣西壯族自治區的西北部，彝族人民能歌善舞。彝族民間有各種各樣的傳統曲調，有的曲調有固定的詞，有是臨時即興填詞。彝族土掌房的牆體以泥土為主要材料，平頂的製作與石樓相似，具備曬場的功能。土掌房分佈在滇中及滇東南一帶。這一帶土質細膩，乾濕適中，為土掌房的建造提供了大量方便且容易取得的材料和自然條件。

2. 傣族幹欄式建築

傣族是一個具有悠久歷史的少數民族，自遠古以來傣族先民就繁衍在中國西南部。傣族有自己的語言文字，創造了燦爛的文化，其中尤以傣曆、傣醫藥最為出名。傣歷年為陽曆年，而月為陰曆月，一年分寒、熱、雨三季。傣族的居民建築以幹欄為主。上下兩層，以木、竹做樁、樓板、牆壁，房頂覆以茅草、瓦塊，上層住人，下層養家畜、堆放農具雜物等。整座建築空間間架高大，且以竹或木做牆壁和樓板，有利於保持居室乾燥涼爽。

3. 蒙古族蒙古包：

蒙古人是來自中亞大草原的遊牧民族。蒙古族主要分佈在內蒙古，其餘分佈在新疆、青海、甘肅、遼寧、吉林、黑龍江，外蒙古等省區。他們是兇猛的戰士，打敗牧地上的每一個敵人，並侵襲在東方和南方已開發的文明。蒙古族的蒙古包按哈那多少區分規格。哈那是支撐蒙古包的木制骨架，一組為一個哈那。有十個哈那、八個哈那、六個哈那之分。根據家庭人口、生活狀況調劑使用。儘管蒙古包的品質、裝飾各有差別，但總體結構都一樣。

你可以從三種雲南特色民居中選擇一種：

彝族土掌房

傣族幹欄式建築

蒙古族蒙古包

第四部份 問卷

非常感謝您抽空參與本次實驗，本實驗目的在研究消費者對於旅行社的看法，請根據您參與實驗的經驗回答問卷，本問卷僅供學術研究，不會透露您的個人隱私；您的寶貴意見將會提供本研究極大的幫助以及貢獻，衷心感謝您的合作與支持！

敬祝

萬事如意

國立交通大學管理科學研究所

指導教授：張家齊 博士

研究生：邱柏源

壹.

	非常不同意	不同意	有點不同意	沒意見	有點同意	同意	非常同意
	1	2	3	4	5	6	7
9. 整體而言，我對於此次接受旅遊行程資訊的過程很滿意							
10. 整體而言，對於接受旅遊行程資訊的過程，我得到負面經驗多於正面經驗							
11. 整體而言，我對於這次接受旅遊行程資訊的過程感到開心							
12. 這個旅遊行程符合我的需求							
13. 這個旅遊行程並不如我想像中的那樣好							
14. 這個旅遊行程是我所需要的							
15. 這個旅遊行程很吸引我							
16. 我很喜歡這個旅遊行程							

貳.

	非常不同意	不同意	有點不同意	沒意見	有點同意	同意	非常同意
	1	2	3	4	5	6	7
5. 我參加此旅遊行程的可能性是高的							
6. 如果我要旅遊，我會考慮參加此旅遊行程							
7. 我會參加此種旅遊行程的機率是高的							
8. 我參加此旅遊行程的意願是高的							

參.

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
5. 我擔心此旅遊行程不如我預期的好玩							
6. 我對此旅遊行程(交通工具、住宿地點等等)的品質感到不確定							
7. 我不擔心此旅遊行程的品質							
8. 因為我不確定此旅遊行程(交通工具、住宿地點等等)的品質如何，對我而言參加此旅遊行程的風險很高							

肆.

	非常不同意 1	不同意 2	有點不同意 3	沒意見 4	有點同意 5	同意 6	非常同意 7
1. 佳飲旅行社對於各項旅遊內容(住宿，飲食…)提供不同方案供我選擇							
2. 佳飲旅行社對於各項旅遊內容(住宿，飲食…)提供不同選擇來滿足我的偏好							
3. 佳飲旅行社對於各項旅遊內容(住宿，飲食…)提供我不同的選擇							

伍.

9. 請問您的性別是 男 女

10. 每個月可支配所得

- 10,000 以下 10,001~30,000 30,001~50,000
50,001~70,000 70,001~90,000 超過 90,000

11. 請問你的年齡

- 15 以下 16~20 21~25 26~30 31~35 36~40 41~45

12. 教育程度

- 國中或初中 高中、高職 專科 大學或學院 研究所以上

13. 職業

- 醫藥 軍警 公教 自由業 農林漁牧業 服務業
家管 工 商 學生 無業，已退休 無業，待業中

14. 你是否去過雲南 是 否
15. 你是否出國旅遊過
是 否
16. 請問你平均一年出國旅遊幾次
0 次 1 次 2 次 3 次 4 次 5 次以上
17. 請問你過去一年出國旅遊幾次
0 次 1 次 2 次 3 次 4 次 5 次以上
18. 你過去是否有客製化產品或服務的經驗 是 否
19. 你過去是否有客製化旅遊行程的經驗 是 否



Appendix4. Scenario for Standard Experience product

第三部份：請你仔細閱讀以下情境後填寫問卷

假設你打算參加佳飲旅行社提供的八天七夜到雲南的文化之旅，在這八天七夜的行程當中，行程的安排，搭乘的交通工具以及晚餐餐點，住宿地點等等，旅行社都已經替你安排好，接下來你看到的是這次旅遊第一天行程的相關介紹：

以下是去雲南旅遊的注意事項

到雲南旅遊，充分瞭解雲南旅遊注意事項很重要，注意事項對到雲南旅遊是不可少的。雲南是少數民族主要聚居之地，文化風俗與內地不同，旅遊時應由導遊引領，並尊重當地的文化風俗。要認真聽從導遊的講解，才能充分瞭解到和少數民居交流的注意事項，到雲南旅遊，由於雲南地處雲貴高原，室外紫外線照射較強，注意防曬，別忘記帶太陽眼鏡以防紫外線輻射，防曬乳也是必備物品；雲南每天早晚溫差較大，到雲南旅遊應注意著裝，預防感冒，另外雲南氣候比較悶熱潮濕，多雨，請注意攜帶雨具；在選購旅遊紀念商品、當地土特產時，請注意貨比三家；同時注意不要隨意去動擺設的樣品，以防意外損壞；雲南特殊的氣候適宜於很多品種花卉的生存，所以雲南的鮮花絕對是出乎您意料的便宜，建議您可以趁旅遊時多多欣賞，但是因為鮮花的保存期限不長，所以提醒您不要購買太多的鮮花；最後，請注意準備一些個人用的常用藥品，以備不時之需，請注意妥善保管個人的貴重物品，照顧好隨身物件；在旅遊時，注意環境保護、尊重當地少數民族的風俗習慣；在旅遊過程中，聽從當地導遊和全陪的安排，遵守時間，以便順利完成整個旅遊行程。

以下是第一天的行程安排：

交通工具介紹 → 第一天行程介紹 → 晚餐餐點介紹 → 特色民居介紹



以下為三種雲南最常見的傳統交通工具

1. 大象：

大象是傣族人最主要的交通工具，大象肩膀高約 2 米，體重約 3~7 噸。大象象徵五穀豐收，尤其是大象與他們生活密切相關，傣族人民用象和象牙作為重要貢品，各部落酋長也養象，外出遊玩要乘坐配有銀鞍的大象。大象還可作為運送基本貨品的交通工具，數量最多所以最便宜。

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駱駝性情溫順，容易馴服，能乘載相當大的重量，長途跋涉歷久不衰。胃裡有 20-30 個可貯水的地方，紅血球可膨脹吸水來貯水，所以耐饑渴。駱駝產乳，肉、絨毛，都可拿來利用，兼具四種用途。蒙古語稱它為“特莫”，是蒙古族不可缺少的交通工具。騎駱駝的價格比大象貴 400 元。

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犛牛外觀雖然兇猛，但性情溫和不粗暴。野生的犛牛的肩高可達兩米，馴養的犛牛一般只有一半高。由於體型龐大且體毛很長，可沉載重量很大且耐寒，能夠忍饑耐勞，翻山越嶺，在激流中游泳，認路的本領很強，因此成為藏族最主要交通工具，由於數量稀少，價格比騎大象貴 600 元。

此次旅遊，旅行社安排搭乘的傳統交通工具為 XXXXX



三個雲南不同區域的文化探索行程介紹如下：

1. 虎跳峽：

虎跳峽是雲南天然景觀，不需額外付費，分為上虎跳、中虎跳、下虎跳 3 段，共 18 處險灘。江面最窄處僅 30 餘米，被玉龍、哈巴兩大雪山挾峙，海拔差 3900 多米，峽谷深而險，空氣稀薄。

2. 玉水寨：

參觀玉水寨的門票為 800 元，納西族的文化發源地，有著濃濃的宗教色彩，是納西族人祭神以及文化活動的聖地重要場所。可以看到納西族人最傳統捕殺獵物用以祭神的莊重儀式。

3. 霞給藏族文化村：

藏族文化村的門票為 1500 元(含中餐)，霞給村是典型的藏族村落，有神秘部落之稱，獨具特色的藏族民居儲存完好。藏民在此舉行以“跳神”（面具舞）為主的格冬節，氣氛神秘而激烈。

第一天的旅行社安排的行程為 XXXX



三種雲南有名的民族餐點介紹如下：

1. 餌絲：

餌絲是雲南省大理市苗族自治縣一道獨具特色的小吃，由洞山鄉胡家灣村人發明，採用當地特產加工製作而成，至今已有近 400 年的歷史，苗族民間最大的祭祀活動“祭鼓節”中會拿來祭拜用。是當地人和外來客人所普遍喜愛的一種方便小吃。搭配經典醬料“喃咪”，令人讚不絕口。相傳當年曾用它招待大唐使節，從此名聲大振。

2. 苦蕎粑粑：

苦蕎粑粑是雲南納西族的主食，納西族主要群居於雲南省麗江納西族自治縣，農業是納西族的主要經濟部門，納西族會在祭壇上供奉苦蕎粑粑，換新房、婚嫁，請客宴席上也絕對少不了它，營養價值頗高。近年來，因其種子的營養保健和藥用價值引起了人們的重視，苦蕎粑粑具有人體需要的多種氨基酸，因此被納西族譽為“長壽食品”。

3. 乳膳薩瑪：

乳膳薩瑪是藏族的一種食物，對滿族人而言是不可缺少的東西，是清代關外三陵祭祀的祭品之一，傳說源於清朝廣州任職的一位姓薩的將軍喜愛美食，故要求廚師每天都必須做不同的食物，這道菜是所有東西裡面將軍最愛吃的一種。這種食物由藏族人引入北京，進而風行全國。婚喪喜慶或家裡有重要客人的時候，也一定會最為招待的食品。

第一天旅行社安排的晚餐餐點為 xxxxx：



三種雲南的特色民居簡介如下：

1. 彝族土掌房

彝族獨特的民居建築，彝族是我國具有悠久歷史和古老文化的民族之一，主要分佈在雲南、四川、兩省和廣西壯族自治區的西北部，彝族人民能歌善舞。彝族民間有各種各樣的傳統曲調，有的曲調有固定的詞，有是臨時即興填詞。彝族土掌房的牆體以泥土為主要材料，平頂的製作與石樓相似，具備曬場的功能。土掌房分佈在滇中及滇東南一帶。這一帶土質細膩，乾濕適中，為土掌房的建造提供了大量方便且容易取得的材料和自然條件。

2. 傣族幹欄式建築

傣族是一個具有悠久歷史的少數民族，自遠古以來傣族先民就繁衍在中國西南部。傣族有自己的語言文字，創造了燦爛的文化，其中尤以傣曆、傣醫藥最為出名。傣歷年為陽曆年，而月為陰曆月，一年分寒、熱、雨三季。傣族的居民建築以幹欄為主。上下兩層，以木、竹做樁、樓板、牆壁，房頂覆以茅草、瓦塊，上層住人，下層養家畜、堆放農具雜物等。整座建築空間間架高大，且以竹或木做牆壁和樓板，有利於保持居室乾燥涼爽。

3. 蒙古族蒙古包：

蒙古人是來自中亞大草原的遊牧民族。蒙古族主要分佈在內蒙古，其餘分佈在新疆、青海、甘肅、遼寧、吉林、黑龍江，外蒙古等省區。他們是兇猛的戰士，打敗牧地上的每一個敵人，並侵襲在東方和南方已開發的文明。蒙古族的蒙古包按哈那多少區分規格。哈那是支撐蒙古包的木制骨架，一組為一個哈那。有十個哈那、八個哈那、六個哈那之分。根據家庭人口、生活狀況調劑使用。儘管蒙古包的品質、裝飾各有差別，但總體結構都一樣。

第一天旅行社安排住的特色民居為 XXXX