### 行政院國家科學委員會專題研究計畫 期末報告

# 女性商務旅行用品設計研究成果報告(精簡版)

計畫類別:個別型

計 畫 編 號 : NSC 100-2622-H-144-001-CC3

執 行 期 間 : 100年10月01日至101年12月31日 執 行 單 位 : 國立臺灣藝術大學工藝設計學系(所)

計畫主持人: 范成浩 共同主持人: 范以欣

計畫參與人員:碩士班研究生-兼任助理人員:唐玉玲

大專生-兼任助理人員:葉人萍

公 開 資 訊 : 本計畫涉及專利或其他智慧財產權,研究成果報告(精簡版)2 年後可公開查詢

中華民國 102年03月31日

中文摘要: 設計是時代的產物,代表者當下人們的生活模式與文化,而旅遊是二十一世紀現代人不可或缺的休閒生活,讓人開闊視野體驗不同文化,豐富人們的精神生活。雖然旅遊已逐漸普及社會各階層,旅遊相關產業也隨之蓬勃發展,但市面上的旅遊商品太過繁雜、瑣碎,因此以旅遊商品做為研究主題,從女性使用者做為研究之切入點,希望能夠找出女性消費族群生理及心理的真正需求,並且設計出符合需求的旅行商

品。

中文關鍵詞: 旅行商品, 女性

英文摘要:

英文關鍵詞: Travel Goods, Female

#### A Study of the Female Travel Goods Design

女性旅行商品デザインに関する研究

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概要: 当研究は「方法目的チェーン(MEC)」の理論に基づき、消費者が製品の属性、消費結果、及び消費価値の関連性に対しての認知を了解します。先ず女性旅行に高度な了解がある消費者を5人選び、隠喩誘引技術(ZMET)を利用してモニターインタビューを行い、被訪問者が提供する図及び談話内容を通して、階段法(Laddering)と内容分析法の整理を行い、代表的な観念を得た。そ

して製品の属性ー結果ー価値関係のチェーンで、消費者心中の連結関係を代表出来、消費者が女性旅行を好む要因を整理して、顧客の価値階層図(HVM)を構築するが、研究の結果は、設計人員がより確実に顧客の内心に潜在する製品に対する概念を理解することを助ける。最後に、結果を用いて、女性向けのトラベルグッズを開発した。

Key Word: ZMET(Zaltman Metaphor Elicitation Technique)、Mean-End Chain、Female Travel。

#### 1. Purpose and motif

When designers execute product design projects, they often lack profound understanding of the target group and without understanding the true requirements and the products cannot accomplish expected effects when launched to the market. Therefore the study was based on the design of female traveling goods in attempt to explore and completely implement the preliminary design. To search for the most suitable starting point at the early design stage, two study methods, ZMET and Means-End Chain were applied to understand the true perception and requirement of female consumers in traveling, and the relationship between consumers and products has been defined through consensus map and hierarchical value map in order to assist with final product design via arranged information.

#### 2. Literature review

#### 2.1 Travel

Traveling has become one indispensable lifestyle of modern people. Global Vision Magazine conducted an investigation on domestic travelers aged from 20 to 60 years old and discovered that the total travel cost output for the domestic market reached approximately NTD340.2 billion. Following the increase in time and pressure for the domestic work, the main function of "traveling" also shifted from earlier recreation to spiritual relaxation. Many white-collar workers intend to release pressure by traveling. The "Global Vision Magazine" survey showed that as many as 70.9% of public believed in "complete rest can release pressure," has become the major function of traveling for them, which far surpassed the statement of "broadening horizon and get to know the world" or "in-depth localization and slow traveling," which becomes the key requirement of traveling for modern people.

#### 2.2 Rise of Female Consumers

The social economy under capitalism system provides suggestive signs around our life, including nature of work, automobiles, residence, clothing, mobile phone accessories, number of ravels, and self-certification of personal values. As a member of modern society, females surely will not be absent from this intensive competition and to prove self values under the rules of social system. Particularly in the rise of experience economy, the females receiving high education have more advantages during the process of economic structure transformation from manufacturing  $\rightarrow$  service  $\rightarrow$  experience  $\rightarrow$  goods of transformation.

The female market is immense but only few marketing schemes or markets take into consideration from female perspective (Liang, Jia-Chu Translated, 2007). Cunningham and Roberts proposed the "Women Rule," demonstrates the four major rules, including altruism rules, aesthetic rules, order rules, and contact law, in order to gaining approval from female consumers. Zhan, Wei-Xiong (2005) mentioned that the social economy of Taiwan in the next ten years will become the golden era of woman business.

#### 3. Research Methods

The study adopted the Revised Product Involvement Inventory (RPII) to screen out 6 highly involved groups as the study subjects, analyzed the Consensus Map and to find out the design elements and product attributes using the Zaltman Metaphor Elicitation Technique (ZMET) and Means-End Chain (MEC).

#### 3.1 Zaltman Metaphor Elicitation Technique (ZMET)

Professor Gerald Zaltman proposed Zaltman Metaphor Elicitation Technique (ZMET) in the 90s, which was a research method that combined non-written language (image) and written language (in-depth interview). Scientific research shows that human's thinking patterns are based on imaginary thinking and not written language. Such research technology can avoid errors in language or text conversion, which directly involve in the original in-depth thinking of the subjects, to find core answers even the subjects are not aware and even shape their idea. The technology is widely used in the marketing and market development side, as ZMET not only helps researchers

with understanding the reasons behind consumption but also develop the key marketing strategies according to the research results (Yu, Yi-Fang, 2004).

The reason ZMET can implement image and interview of discover the profound and unconscious perception and cognition of consumers is because images can help us categorize events, locations and thinking direction (Zaltman, 2007). Categorization is the pattern which people are accustomed with data compilation, helping us to learn, convey and effectively communicate, similarly to classification of animals or dogs into difference species. The same item under different categorization will result in different concepts of categories. When consumers make a decision, it implies influence on their growth, educational background, preference, and the ambience at the time. Xin, Ruo-Nan (2006) suggested that ZMET mainly discovers consumer concept to products and the relationship between concepts through the images prepared by the interview and the in-depth interview, forming a meaningful consensus map.

#### 3.2 Application of Consensus Map

When consumers absorb other people's experience as their purchasing reference through sharing, they generally can find the most recognized as purchasing basis from a number of word-of-mouth campaign. Nonetheless how do consumers generate recognition from other people's shared public praises? Zaltman (2007) suggested that the information of core metaphor is not sufficient to understand the deep concepts of consumers, which requires network of "consensus map" to discover the influence of opinion through mutual sharing between people.

Although the same consumer group may contain difference races, countries, language, and social classes, however the same group will have the same profound meaning and perception to products, service requirement or experiences, in order to construct the mutual contact means and to combine ideas into meaningful systems. A network organization pattern will be formed between constructions, whereas the incentive that drives consumer behaviors not lies on construction of isolated existence but the connection between constructions.

Consensus map refers to the exhibition of the shared ideas and perceptions the consumers hold towards specific themes; in other words, how to connect through network of most consumers' thinking patterns.

#### 3.3 Means-End Chain (MEC)

Means-End Chain is frequently used in marketing research related to product and customer relationships. The preliminary prototype was proposed by Young & Feigin (1975), whereas the MEC theory referred to the consumer understanding and self-interconnection with the products which generates logistic cognitive structure in memories. Gutman (1982) argued that result of related attribute connection to products, which thereby meet value perception. Gutman divided Means-End Chain into three different levels according to consumers' cognition to products, namely product attributes, consumption consequences and perception, and consumer value perception.

Wlaker and Peter suggested that the definition of product attributes is given by consumer cognition and the results or value brought by the product attributes; in other words, product attribute is a means to accomplish the goals. The final End refers to a result or a psychological value. For example, for consumers purchasing automobiles with emphasis on interpersonal relationship or family life, they tend to choose large-size vehicles or SUV because they perceive the need to travel in large number of people. At this time, the main structure of MEC, Attributes, Consequences and Values become a hierarchy of interconnected relationship (Xiao, Ru-Fang, 2006).

After establishing a connection pattern between consumer attributes, consequences and values, the connection process of how consumers transfer product attributes into psychological value can be comprehended and thereby generates Hierarchical value map (HVM) (Gutman, 1982). The connection of product chain can be provided through HVM drawing, which helps with product marketing and creative personnel with formulating appropriate product attributes and further offers the values which the consumers desire within.

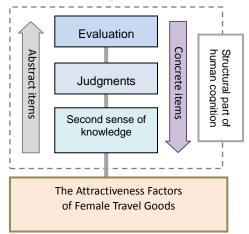
#### 4. Evaluation and conclusion

The prevalence of travel trend among Taiwan people and the culture of travel have grown constantly. The product design represents the life culture of modern people, which can be observed and interpreted from women's perspective as summarized in the following three major points in accordance with the aforementioned literatures:

- 1. Value of Tourism-Everyone has participated in various travel activities since their childhood. Tourism has evolved into one indispensable life attitudes today, which enriches our life experience. Tourism is like a book, although the lack of tourism is not life-threatening, it can bore people and tourism is closely related to people's life. The tourism group also spreads from few of high-income classes to universal tourism for everyone.
- 2. Product Attributes-According to the above data collected, the product attributes have been defined in the three directions, including female, function and modulization.

Female-Friendly, Detail, Society, Fashion, Colorful Function-Storage, Entertainment, Problem solving on traveling

Modulization- Series products, uniformed color and styles.



# 國科會補助計畫衍生研發成果推廣資料表

日期:2013/03/30

國科會補助計畫

計畫名稱: 女性商務旅行用品設計

計畫主持人: 范成浩

計畫編號: 100-2622-H-144-001-CC3 學門領域: 環境藝術與設計

無研發成果推廣資料

# 100 年度專題研究計畫研究成果彙整表

計畫主持人: 范成浩 計畫編號: 100-2622-H-144-001-CC3

計畫名稱:女性商務旅行用品設計

| 計畫名稱:女性商務旅行用品設計 |                 |           |                         |                |                    |        |  |
|-----------------|-----------------|-----------|-------------------------|----------------|--------------------|--------|--|
|                 |                 |           | 量化                      |                |                    | 備註(質化說 |  |
| 成果項目            |                 |           | 實際已達成<br>數(被接受<br>或已發表) | 171771113 6794 | 本計畫實<br>際貢獻百<br>分比 | 單位     | 明:如數個計畫<br>共同成果、成果<br>列為該期刊之<br>對面故事<br>等) |
| 國內              | 論文著作            | 期刊論文      | 0                       | 0              | 100%               | 篇      |  |
|                 |                 | 研究報告/技術報告 | 0                       | 0              | 100%               |        |  |
|                 |                 | 研討會論文     | 1                       | 1              | 100%               |        |  |
|                 |                 | 專書        | 0                       | 0              | 100%               |        |  |
|                 | 專利              | 申請中件數     | 0                       | 0              | 100%               | 件      |  |
|                 |                 | 已獲得件數     | 1                       | 1              | 100%               |        |  |
|                 | 技術移轉            | 件數        | 1                       | 1              | 100%               | 件      |  |
|                 |                 | 權利金       | 0                       | 0              | 100%               | 千元     |  |
|                 | 參與計畫人力<br>(本國籍) | 碩士生       | 1                       | 1              | 100%               | 人次     |  |
|                 |                 | 博士生       | 0                       | 0              | 100%               |        |  |
|                 |                 | 博士後研究員    | 0                       | 0              | 100%               |        |  |
|                 |                 | 專任助理      | 0                       | 0              | 100%               |        |  |
|                 | 論文著作            | 期刊論文      | 0                       | 0              | 100%               | 篇      |  |
|                 |                 | 研究報告/技術報告 | 0                       | 0              | 100%               |        |  |
|                 |                 | 研討會論文     | 1                       | 1              | 100%               |        |  |
|                 |                 | 專書        | 0                       | 0              | 100%               | 章/本    |  |
|                 | 專利              | 申請中件數     | 1                       | 1              | 100%               | 件      |  |
| 國外              |                 | 已獲得件數     | 0                       | 0              | 100%               |        |  |
|                 | 技術移轉            | 件數        | 0                       | 0              | 100%               | 件      |  |
|                 |                 | 權利金       | 0                       | 0              | 100%               | 千元     |  |
|                 | 參與計畫人力<br>(外國籍) | 碩士生       | 0                       | 0              | 100%               | 人次     |  |
|                 |                 | 博士生       | 0                       | 0              | 100%               |        |  |
|                 |                 | 博士後研究員    | 0                       | 0              | 100%               |        |  |
|                 |                 | 專任助理      | 0                       | 0              | 100%               |        |  |

其他成果 (無法以量化表達之之 果如辦理學術活動、 得獎項、重要關係 作、研究成果國際影響 作、研究成果國際影響 方及其他協助產業 新政 類 類 類 等 ,請以文字 致 列 。

本研究運用引喻誘引法及階層分析法成功探討出經常進行商務旅遊之女性,在 其他成果 (無法以量化表達之成 女性商務旅遊商品,並經合作廠商進行市場驗證,證明成果具有市場性,並已 果如辦理學術活動、獲著手進行專利佈局,準備量產,足證此次研究之成果。

|    | 成果項目            | 量化 | 名稱或內容性質簡述 |
|----|-----------------|----|-----------|
| 科  | 測驗工具(含質性與量性)    | 0  |           |
| 教  | 課程/模組           | 0  |           |
| 處  | 電腦及網路系統或工具      | 0  |           |
| 計  | 教材              | 0  |           |
| 畫加 | 舉辦之活動/競賽        | 0  |           |
|    | 研討會/工作坊         | 0  |           |
| 項  | 電子報、網站          | 0  |           |
| 目  | 計畫成果推廣之參與(閱聽)人數 | 0  |           |

## 本產學合作計畫研發成果及績效達成情形自評表

| 成果項目  |    | 本產學合作計畫 <b>預估</b> 研究成果及績效指標<br>(作為本計畫後續管考之參據)  | 計畫達成情形           |  |  |  |
|---|----|--|------------------|--|--|--|
| 技術移轉  |    | 預計技轉授權 1 項   | 完成技轉授權 1 項       |  |  |  |
| 亩 幻   | 國內 | 預估 1 件   | 提出申請 1 件,獲得 1 件  |  |  |  |
| 專利  | 國外 | 預估 1 件   | 提出申請 1 件,獲得 1 件  |  |  |  |
|   | ,  | 博士 0人,畢業任職於業界0人  | 博士 0人,畢業任職於業界0人  |  |  |  |
| 人才培育  |    | 碩士 1人,畢業任職於業界1人  | 碩士 1人,畢業任職於業界1人  |  |  |  |
|   |    | 其他 1人,畢業任職於業界1人  | 其他 2人,畢業任職於業界0人  |  |  |  |
|   | 國內 | 期刊論文 0 件   | 發表期刊論文 0 件       |  |  |  |
|   |    | 研討會論文 1 件  | 發表研討會論文 1 件      |  |  |  |
|   |    | SCI論文 0 件  | 發表SCI論文 0 件      |  |  |  |
|   |    | 專書 0 件   | 完成專書 0 件         |  |  |  |
|   |    | 技術報告 0 件   | 完成技術報告 0 件       |  |  |  |
| 論文著作  |    | 期刊論文 0 件   | 發表期刊論文 0 件       |  |  |  |
|   |    | 學術論文 1 件   | 發表學術論文 1 件       |  |  |  |
|   | 國外 | 研討會論文 1 件  | 發表研討會論文 1 件      |  |  |  |
|   |    | SCI/SSCI論文 0 件   | 發表SCI/SSCI論文 0 件 |  |  |  |
|   |    | 專書 0 件   | 完成專書 0 件         |  |  |  |
|   |    | 技術報告 0 件   | 完成技術報告 0 件       |  |  |  |
| 其他協助產業發展<br>之具體績效   |    | 新公司或衍生公司 0 家   | 設立新公司或衍生公司(名稱):  |  |  |  |
| 計畫產出成果簡<br>述:請以文字敘述<br>計畫非量化產出之<br>技術應用具體效<br>益。(限 600 字以<br>內) |    | 本研究運用引喻誘引法及階層分析法成功探討出經常進行商務旅遊之女性,在進行商務旅遊時,對於實際需求及設計元素,並經由設計的執行,設計出5款女性商務旅遊商品,並經合作廠商進行市場驗證,證明成果具有市場性,並已著手進行專利佈局,準備量產,足證此次研究之成果。 |                  |  |  |  |