

International Journal of Business Research and Management (IJBRM)

ISSN : 2180-1347

Volume 1, Issue 1

NUMBER OF ISSUES PER YEAR: 6

International Journal of Business Research and Management (IJBRM)

Volume 1, Issue 1, 2010

Edited By
Computer Science Journals
www.cscjournals.org

Editor in Chief Dr. Miquel Àngel Piera i Eroles

International Journal of Business Research and Management (IJBRM)

Book: 2010 Volume 1, Issue 1

Publishing Date: 30-10-2010

Proceedings

ISSN (Online): 2180-2165

This work is subjected to copyright. All rights are reserved whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, re-use of illustrations, recitation, broadcasting, reproduction on microfilms or in any other way, and storage in data banks. Duplication of this publication of parts thereof is permitted only under the provision of the copyright law 1965, in its current version, and permission of use must always be obtained from CSC Publishers. Violations are liable to prosecution under the copyright law.

IJBRM Journal is a part of CSC Publishers

<http://www.cscjournals.org>

© IJBRM Journal

Published in Malaysia

Typesetting: Camera-ready by author, data conversion by CSC Publishing Services – CSC Journals, Malaysia

CSC Publishers

Editorial Preface

This is first issue of volume one of the International Journal of Business Research and Management (IJBRM).The International Journal of Business Research and Management (IJBRM) invite papers with theoretical research/conceptual work or applied research/applications on topics related to research, practice, and teaching in all subject areas of Business, Management, Business research, Marketing, MIS-CIS, HRM, Business studies, Operations Management, Business Accounting, Economics, E-Business/E-Commerce, and related subjects. IJBRM is intended to be an outlet for theoretical and empirical research contributions for scholars and practitioners in the business field. Some important topics are business accounting, business model and strategy, e-commerce, collaborative commerce and net-enhancement, management systems and sustainable business and supply chain and demand chain management etc.

IJBRM establishes an effective communication channel between decision- and policy-makers in business, government agencies, and academic and research institutions to recognize the implementation of important role effective systems in organizations. IJBRM aims to be an outlet for creative, innovative concepts, as well as effective research methodologies and emerging technologies for effective business management.

IJBRM editors understand that how much it is important for authors and researchers to have their work published with a minimum delay after submission of their papers. They also strongly believe that the direct communication between the editors and authors are important for the welfare, quality and wellbeing of the Journal and its readers. Therefore, all activities from paper submission to paper publication are controlled through electronic systems that include electronic submission, editorial panel and review system that ensures rapid decision with least delays in the publication processes.

To build its international reputation, we are disseminating the publication information through Google Books, Google Scholar, Directory of Open Access Journals (DOAJ), Open J Gate, ScientificCommons, Docstoc, Scribd, CiteSeerX and many more. Our International Editors are working on establishing ISI listing and a good impact factor for IJBRM. We would like to remind you that the success of our journal depends directly on the number of quality articles submitted for review. Accordingly, we would like to request your participation by submitting quality manuscripts for review and encouraging your colleagues to submit quality manuscripts for review. One of the great benefits we can provide to our prospective authors is the mentoring nature of our review process. IJBRM provides authors with high quality, helpful reviews that are shaped to assist authors in improving their manuscripts.

Editorial Board Members

International Journal Of Business Research And Management (IJBRM)

Editorial Board

Editor-in-Chief (EiC)

Dr. Miquel Àngel Piera i Eroles
Universitat Autònoma de Barcelona (Spain)

Associate Editors (AEiCs)

Assistant Professor. Jose Humberto Ablanado-Rosas
University of Texas (United States of America)

Editorial Board Members (EBMs)

Dr. Hooi Hooi Lean
Universiti Sains Malaysia (Malaysia)

Professor. Agostino Bruzzone
University of Genoa (Italy)

Assistant Professor. Lorenzo Castelli
University of Trieste (Italy)

Dr. Francesco Longo
University of Calabria (Italy)

Associate Professor. Lu Wei
University of China (China)

Dr. Avninder Gill
Thompson Rivers University (Canada)

Dr. Haitao Li
University of Missouri (United States of America)

Dr. Kaoru Kobayashi
Griffith University (Australia)

Assistant Professor. Manuel Francisco Suárez Barraza
Tecnológico de Monterrey (Mexico)

Assistant Professor. Haibo Wang
Texas A&M International University (United States of America)

Professor. Ming DONG
Shanghai Jiao Tong University (China)

Dr. Zhang Wen Yu
Zhejiang University of Finance & Economics (China)

Dr. Jillian Cavanagh
La Trobe University (Australia)

Dr. Dalbir Singh
National University of Malaysia (Malaysia)

Assistant Professor. Dr. Md. Mamun Habib
American International University (Bangladesh)

Assistant Professor. Srimantoora S. Appadoo
University of Manitoba (Canada)

Professor. Atul B Borade
Jawaharlal Darda Institute of Engineering and Technology (India)

Dr. Vasa, Laszlo
Szent Istvan University (Hungary)

Assistant Professor. Birasnav Muthuraj
New York Institute of Technology (Bahrain)

Table of Content

Volume 1, Issue 1, October 2010

Pages

- 1 - 13 The Comprehension Modes of Visual Elements: How People
Know About the Contents by Product Packaging
Regina W.Y. Wang, Mu-Chien Chou

The Comprehension Modes of Visual Elements: How People Know About the Contents by Product Packaging

Regina W.Y. Wang

*Graduate School of Design National Taiwan
University of Science and Technology
Taipei, 106, Taiwan (R.O.C)*

wyw@mail.ntust.edu.tw

Mu-Chien Chou

*Department of Digital Media Design
Chungyu Institute of Technology
Keelung, 201, Taiwan (R.O.C)*

f1234860@ms36.hinet.net

Abstract

When shoppers enter a retail store, how do they comprehend the products in front of them? What visual elements can communicate messages in an effective way that help people comprehend product contents? Design and marketing personnel should pay attention to these issues. This study aims to investigate how people perceive and comprehend a product. It is conducted in three phases: Phase One involves collecting food package samples with “Stratified Sampling”; Phase Two consists of conducting focus group interviews to seek the participants’ opinions. Phase Three includes a summary and analysis of the interview result. There are seven modes of comprehension obtained from the opinions of focus group members. The research results summarized below can be used as reference for design and marketing personnel in developing new product packages in the future: (a) Focus group members mostly comprehend the messages of packaging via more than two visual elements. (b) “Typography + illustration” is the best mode for group members to comprehend products. (c) Design elements such as brand name, product name, product image, package shape, and color association all contributed to the comprehension of products; while attached product information design, structure design, and volume design did not make such contribution.

Keywords: Product Packaging, Visual Element, Comprehension.

1. INTRODUCTION

“Packaging” plays the important role of a “silent salesman”. It is a self-promotion tool of marketing that attracts consumers’ attention [1], and has proven to be stimulating sales volume. Even if a product has not gone through any advertising, yet its sales volume and market share continue to grow, both because of its packaging [2]. Design and marketing personnel should not only optimize the findability of packaging, but also consider how to display it on the shelf [3].

A good package can properly communicate a product for better comprehension. Design and marketing personnel expose product contents through such visual elements as word, graphics, color, trade mark, shape, size, and texture [4], so that people can more easily find and comprehend them. Some studies indicates that “comprehensibility” is the basic condition of design [5].

“Packaging” is the most immediate stimulus for shoppers. People are usually selective to varied visual elements. They have different degrees of attention, and ways of comprehending and storing information. Every individual has different comprehension and interpretation even if they are looking at an identical product. Design and marketing personnel expose the products with a combination of visual elements, while people try to identify it according to their personal experience and habits [6]. The visual elements of packaging design influence consumers’ decision and choice as it has become an advantage in competition. Packaging can attract consumers’ attention, transform the message of the product, impress consumers with the image of the product, and distinguish one product from another [7].

This study aims to find out how people comprehend product packaging, and focuses on the comprehension modes of visual elements. The purposes of this study are as follows:

- (a) To understand by means of focus group interview how people comprehend the visual messages communicated by product packaging.
- (b) To make summary and analysis of what visual elements are easier for the focus group to interpret and comprehend.
- (c) To find out the advantageous design factors that prompt the focus group to interpret and comprehend the visual elements.

2. LITERATURE REVIEW

2.1 Visual Elements of Packaging

Packaging is the communication interface between the producer and the consumer, and it is composed of two parts: shape and structure design (structure and shape) and exterior graphic design (color, typography, and decoration) [8]. According to the differentiation in design elements, they can be divided into visual and functional [6, 9], as shown in Table 1 and Figure 1:

- (a) Aesthetic design element: Shape (form), color, illustration (lines, symbols, graphics, patterns, and pictures), logo and brand, typography (company name, product name), pattern design (lines, patterns, illustrations, photos), brand name and address, product facts and usage instructions, ingredients, volume (or weight) and decoration to form a layout (Figure 2).
- (b) Functional design element: Structure design (protection, storage, transportation, opening and resealing functions), material design (emotional appeal and window presence value), and volume design (economic function).

Visually aesthetic design element		Functional design element	
·Shape	(a) Shape design	·Material	(f) Auxiliary packaging material design
·Typography	(b) Brand name design	·Texture	(g) Texture design
·Illustration (including graphics, patterns, and illustrations)	(c) Pattern design (including lines, patterns, illustrations, photos, etc.)	·Structure	(h) Structure design
·Color	(d) Color design	·Volume	(i) Volume design

(e) Attached product information design

TABLE 1: Visual Elements of Package Design

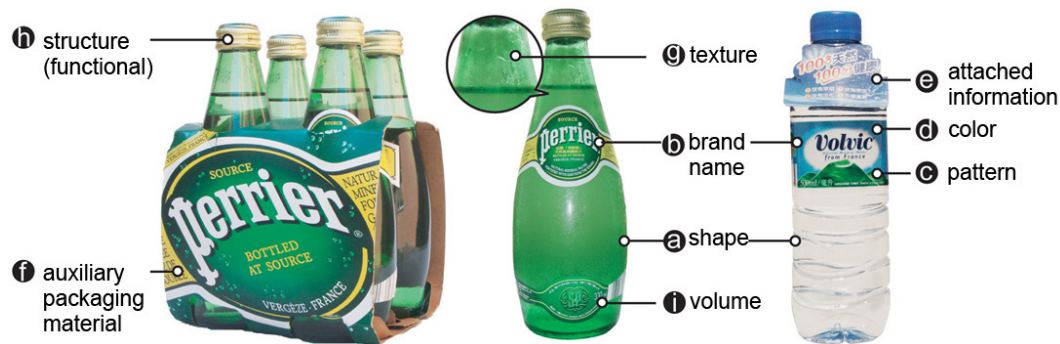


FIGURE 1: Visual Element in Product Packaging Design

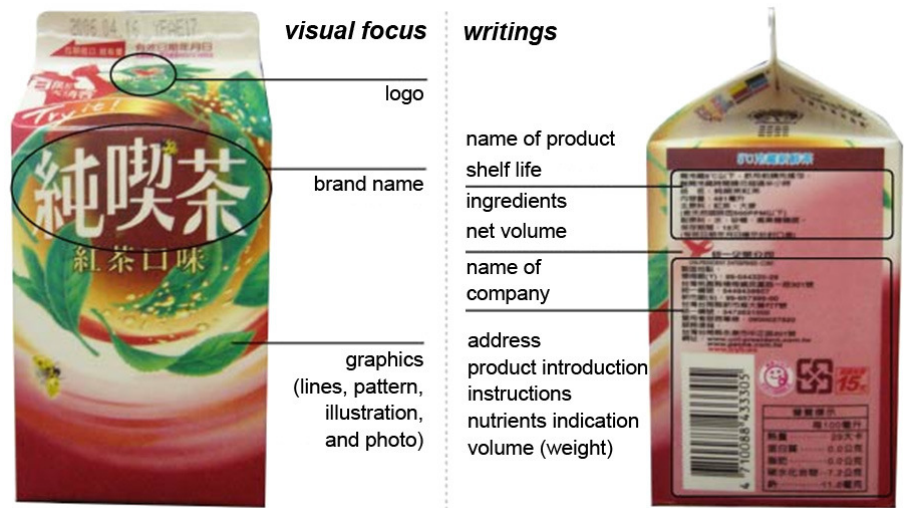


FIGURE 2: Focus of Visual Design in Packaging

2.2 Consumer's Perceptual Process

Most consumers make a visual search and interpret a product through some perceivable messages. Easily understandable package design is preferred by them. In general, consumers will actively search for the information beneficial for their interpretation of the product. They have their own preference for the types of information and way of exposure on the package—some focus on the price, some emphasize product appearance, and some care about after-service, guarantee, and useful information [10, 11].

Brand identity and package design are connected with personal experience [12]. Design and marketing personnel have their own preference for package design [13]. They create differentiation in packaging with the visual elements mentioned above to attract consumers [14]. Hence, Design and marketing personnel should take advantage of some easily-understandable visual elements to attract prospective customers when designing the packaging.

Consumer's Perceptual Process can be divided into three stages: exposure, attention, and comprehension. Design and marketing personnel expose the product using visual elements that

attract consumers' attention. The visual stimuli created by these elements help consumers comprehend the product contents. Once consumers notice the stimulative information on the package, they can start to interpret it by organizing, comparing, and inferring it, and then comprehend the product [15, 16].

2.3 Information Processing

Psychologically speaking, the uniqueness and scenario of package design will affect consumers' acceptance of a product, so a response model of consumers to products was proposed [17]. Product design stimulates consumers' attention, and they interpret the information created by the visual elements on the package to comprehend the product. The interpretation includes three steps: organization, comparison, and inference. Only through the three steps will the interpretation be completed [15].

After product packaging (a) is exposed (b) and noticed (c), consumers organize and categorize some specific visual elements or their combination. Next, they infer the features of some stimuli according to their own subjective experience, and produce meaningful information stimuli (d). Furthermore, memory will affect our information and the way we interpret it; meanwhile the information we have received will create memory (e) [11]. After consumers accept messages and keep them as impressions, they can be used to interpret information or for purchase and consumption decision-making (f) [16]. The procedure of information processing when consumers perceive product packaging is used as the theoretical basis of comprehension modes of visual elements in future studies (Figure 3-4).

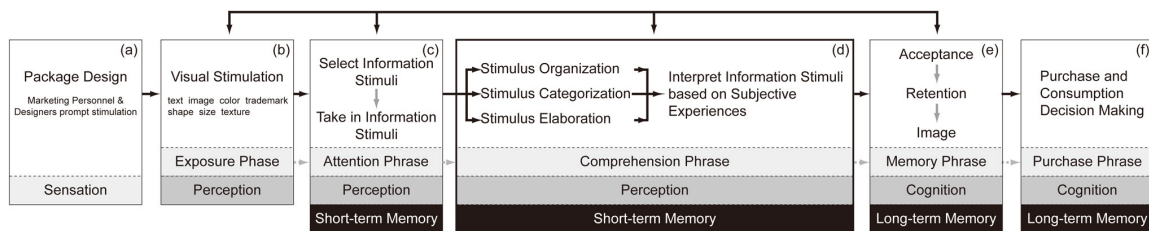


FIGURE 3: The procedure of information processing for consumers perceiving product packaging
(Drawn as per literature)

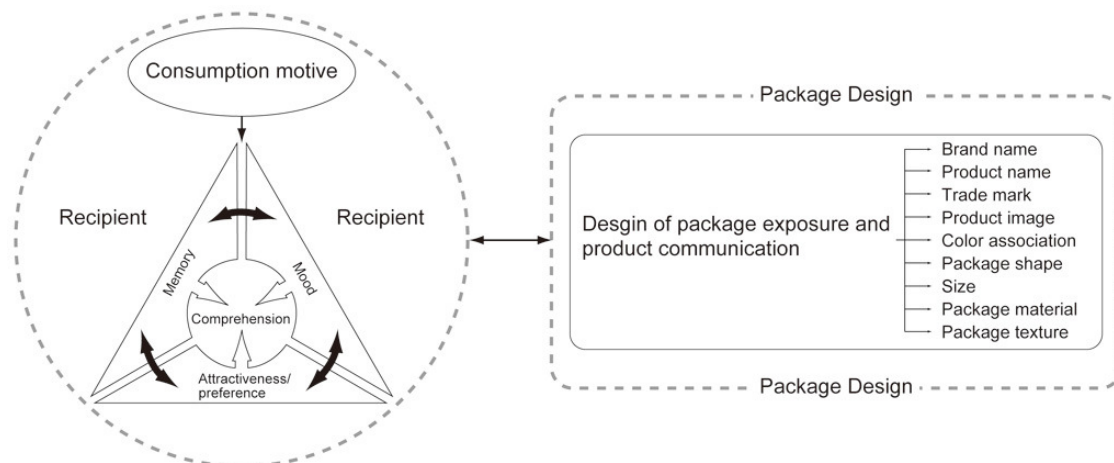


FIGURE 4: Cognition model for comprehension of product packaging

2.4 Differentiation in Package Design

Package design is the "salesman on the shelf" [18, 19], which requires logo typography to stand out to be easily found and identified, and to be included in the list of commodities consumers

want to buy [20]. Most busy shoppers will not stop to look carefully at a certain product. The best way to determine the quality of package design is understanding of product information, which will help consumers learn about the brand name and brand properties, and thus form a brand association. This is also helpful in building brand identity and image [21]. Thus, we can well understand why visual design of packaging is so important.

Effective package design will help consumers easily find their desired products or tell the difference by visual search [22, 23]. For example, highlighting brand or packaging features (distinctive color, unique figure, individualized font, convenient structure) for communication of design messages will improve package findability as well as draw short-term attention and boost sales [24]. Colors, figures, volume, texture, material and typesetting are all design elements used to build brand images and personality [4]. Package design expresses distinguishing features of a product in a visual manner, and help specific group of consumers conduct expected behavior of purchase [25].


Product packaging is truly an important factor in affecting buying decisions [26]. In this study, we assumed that design elements will vary with beverage packaging, including shape, brand name, pattern, color, and attached product information [27]. Some other studies indicate that containers like cans and bottles are representative of packaging containers [28]; we can recognize the difference between brands by the color of the packaging; typography is one of the most important factors of package design in differentiating the brand and making a buying decision [29, 30]. Most of the studies on package design have focused on definite and controllable variables without conducting complete investigation. Hence, their research results are limited to some aspects. Therefore, knowledge on the correlation between the differences in design elements and findability resulting from past studies on trade dress is fragmented and incomplete. Through a literature review, this study attempts to explore how the participants perceive and tell the difference in product packaging, and is further investigating what forms of visual elements consumers prefer and can use to find the packaging.

3. RESEARCH METHOD


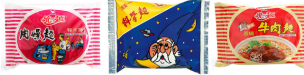













For any new product packaging, focus groups are usually used to both gather information on consumer demand and maintain objectivity in identifying the good and the bad in package design elements [31, 32]. This research takes food package design as an example to explore comprehension modes of visual elements for package design through focus group interviews. This research is conducted in three phases: Phase One involves collecting food package samples; Phase Two consists of conducting focus group interviews. Phase Three includes a summary and analysis of the interview result.

3.1 Collecting Food Package Samples

Samples were collected from foodstuffs sold in RT-MART, a retail chain store in Taiwan owned by the 5th biggest retailer in Europe---Auchan Trading Co. Due to the fact that retail stores sell vast number of foodstuffs, this research adopted a stratified sampling method of collecting the actual samples by identify 90 samples from a pool of 2,867 products in the "Top Eighty Percent Best Selling Normal Products Chart". The steps were: (a) Samples were divided into 30 product categories and the sub-category with most items was selected from each category as the sampling representative for that particular category (see Table 1). (b) From the sampling representatives, then, the top 3 best sellers were selected as the actual samples of this research, totaling 90 food packages.

Each sampling representative group is selected from 30 commodity classifications			The top three sales articles are selected from each group
Category	Sub-categories [Number of Item]		
	Sampling Representative		
01	Vegetarian food [22]	Bean Products [16]	
Refrigerated Foodstuffs	Refrigerated Seasoning [13]	Rice Products [9]	

	Vegetable Products [5]	
	Wheat Products [25]	
02 Fresh Juice	Tea & Coffee [18] Soy/Rice & Peanut Milk [12] Jelly [8] Pudding [6] Fresh Juice [36]	
03 Milk	UHT Milk [13] Fresh Milk [22]	
04 Yoghurt	Yoghurt Jelly [18] lactic acid drinks [9] Fermented Milk [21]	
05 Cheese & Dairy Products	Blocked Cheese [12] Normal Butter/Paste [12] Processed Cheese [7] Others [5] Fresh Cream [4] Sliced Cheese [16]	
06 Egg	Egg [3] Processed Egg [10]	
07 Processed Meat Products	Ham/Bacon [10] Gift Box [1] Sausage & hot dog [15]	
08 Frozen Foodstuff	Meat Bun, Steamed bun [29] Snack [22] Pots [20] Processed Meat [19] Dumpling [16] pastry [15] Wheat Products [14] Vegetarian Food [14] Meat Ball [14] Processed Seafood [14] Flavor Pak [13] Sticky Rice Ball [10] Pot [29]	
09 Ice	Ice Stick [9] Ice Snack [8] Other Ice Products [5] Gift Box [3] Ice Cream [29]	
10 Tea & Coffee	Milk Tea [12] Flavored Tea [12] Coffee [9] Oolong Tea [8] Jasmine Tea [8] Black Tea [6] Lemon Tea [5] Tea [5] Green Tea [15]	
11 Juice	Fruit & Vegetable Juice [12] Pure Juice [7] Juice [31]	
12 Longer Lasting Products	Soy Milk [12] lactic acid drinks [8] UHT Milk [7] Instant Sweets [5] Gift Box [2] Nutritional Milk Products [1] Flavored UHT Milk [17]	
13 Beverage	Mineral Water [20] Vinegar drinks [12] Sports Drinks [9] Cola [8] Functional Drinks [8] Soda [25]	
14 Candy	Candy [42] Chewy Candy [26] Chewing Gum [19] Gift Box [7] Counter [1] Chocolate [72]	
15 Cookie	Corn & Potato Snacks [80] Waffle [73] Rice Cookies [21] Gift Box [5] Multigrain Cookie [94]	

16 Oriental Snacks	Jelly [26] Bean Curd [21] Preserved Fruits [20] Nuts [20] Western Nuts [16] Meat [14] Gift Box [4] Fish [28]	
17 Wheat Products	Noodles [42] Flavor Pak [22] Instant Soup [16] Rice Noodles or Green Bean Noodles [14] Instant Rice Noodles or Green Bean Noodles [3] Instant Congee [3] Instant Noodles [96]	
18 Alcohol	Whisky [44] Sweet Wine/Base Wine [32] White Wine [29] Gift Box [24] Brandy [14] Chinese White Wine [11] Beer [9] Sake [6] Medicated wine [3] Red Wine [69]	
19 Soy Sauce Seasoning	Chili Sauce [25] Seasoning [20] Noodle Sauce [17] Mayonnaise [11] Tomato Sauce [3] Soy Sauce [44]	
20 Flavor Seasoning	Monosodium Glutamate [18] Sugar [16] Vinegar [12] Honey [11] Sesame Oil [10] Fructose [5] Salt [4] Seasoning [55]	
21 Oil	Olive Oil [7] Sunflower Oil [5] Grape Seed Oil [5] Salad Oil [4] Vegetable Oil [3] Peanut Oil [3] Animal Oil [1] Others [1] Oil [17]	
22 Canned Foodstuff	Pickles [25] Fruits [13] Soup [12] Others [12] Gluten [11] Vegetable [11] Meat [8] Dried Meat Flakes [10] Fish [41]	
23 Rice	Others [22] Flour [6] Rice [29]	
24 Milk Powder for Adults	Non-/No Fat Milk Powder [8] Whole Milk Powder [7] Functional Milk Powder [25]	
25 Baby Food	Baby Flour [13] Follow-Up Milk Powder [10] Baby Milk Powder [9] Infant Milk Powder [8] Nutritional Supplements [6] Baby Foodstuff [14]	
26 Flour	Rolled Oats [22] Paste [27]	
27 Tea Leaf	Canned Tea [42] Bagged Tea [51]	
28 Nutritional Foodstuff	Chicken Essence [19] Vitamins [11] Four Herbs Drinks [9] Biochemical [1] Healthcare [33]	
29 Coffee	Coffee Beans [15] Instant Coffee [12] Cream [8] 3-in-1 Coffee [36]	
30	Instant Drinks [10] Gift Box [9]	

Other Flavored Foodstuff	Multigrain Powdered Drink [44]
--------------------------	---------------------------------------

Source: Products in **Bold** are sample representatives.**TABLE 2:** Summary of Food Package Samples**3.2 Conducting Focus Group Interview**

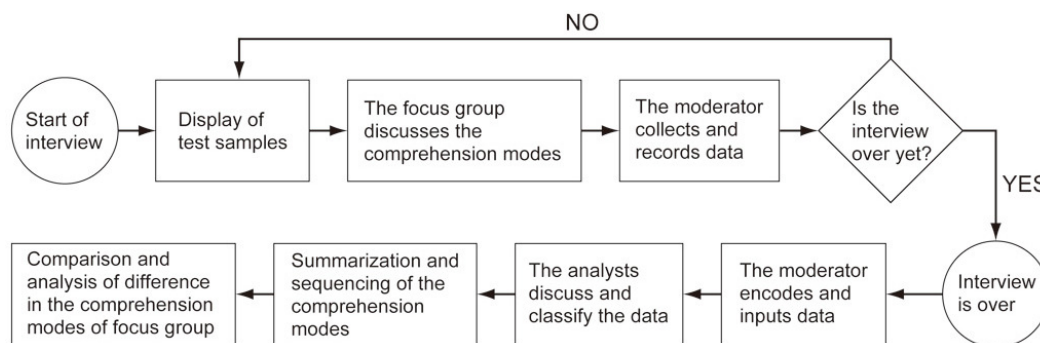
This research adopts the “focus group interview” method to gather personal experiences and perception of group members on the types of comprehension for product packaging. Focus group members discussed among themselves on what types of visual elements would influence their comprehension. Through categorizing and analyzing research data, the relationship between product package design and consumers’ comprehension was thus identified.

3.2.1 Selection of Focus Group Members

The focus group members were selected based on their shopping frequency (those who shop at retail stores at least once a week were chosen). Six members aged 20-25 volunteered to participate in the focus group. Before the focus group interview was conducted, ensure that group members are able to distinguish among different types of products, and indicate the visual elements that help them know about the contents.

3.2.2 Implementation of Focus Group Interview

The interview with the focus group was conducted in a closed, quiet meeting room to keep free from interruptions. During the interview, the package samples were shown in real size, with their fronts facing forward as goods are commonly displayed in a store. Fluorescent lamps were used in the room, where the lighting level was set at 350lx, bright enough for participants to clearly see the samples on the screen. In this paper, the researcher served as the moderator, and guided the members of focus group to discuss the comprehension modes that help them know about the contents. The interview lasted nearly 120 minutes, and in order to prevent fatigue, caused by long hours, from affecting the quality of the interview, we took a 5-minute break every 30 minutes. The outlines and procedure of interview with the focus group are shown in Figure 5 and Table 3.

**FIGURE 5:** Procedure of the Focus Group Interview

- | | | | |
|---|---|--------------------|------------------|
| (i) What visual elements will affect your comprehension of packaging when you see a food package? (If the group fails to engage in a discussion, ask about the importance of each of the following elements): | | | |
| (a) shape design | (b) brand name design | (c) pattern design | (d) color design |
| (e) attached product information design | (f) auxiliary packaging material design | | |
| (g) texture design | (h) structure design | (i) volume design | |
| (ii) Let's discuss with pictures about how you comprehend package contents? (Focus group members had a discussion to summarize the comprehension modes of visual elements.) | | | |
| (iii) Do you need to add any other personal comprehension experience? | | | |

TABLE 3: Interview Outlines on Comprehension Modes of Visual Elements

3.2.3 Interview Data Analysis

The proceedings of this interview had been documented by the researcher. After the focus group interview, the group members' comprehension modes were coded and entered into the computer. Two data analysts then proceeded with the categorization of data, who then discussed after they had each finished their own categorization to make sure of the categories.

4. RESEARCH RESULTS AND ANALYSIS

Focus group started their discussion from factors that affect their comprehension of packaging contents. In the event that group members did not voluntarily share other design element factors, the moderator had to name a few elements accordingly and prompted for discussion, so as to provide a more complete selection of choices for the group members on the subject of comprehension modes of visual elements. Group members all had a chance to voluntarily discuss the most important factor for them in comprehending products. Focus group members provided their personal cognition of the 90 food package samples. As to what visual elements will achieve viewer comprehension, the answer varies from category to category. The research results and analysis are based on the majority of opinions gathered from the focus group interview. There are seven modes of comprehension obtained from the food package samples, as categorized in Table 4.










No.	Comprehension Mode	Visual elements (design elements)	Number of samples/90 (proportion)	Representatives
1	Typography + Illustration	(a) Brand Name + Product Image	15/90(17%)	 (a)  (b)
		(b) Product Name + Actual Product Appearance	13/90(14%)	
		(c) Brand Name + Actual Product Appearance	11/90(12%)	
		(d) Product Name + Product Image	10/90(11%)	
		(e) Brand Name + Product Name + Product Image	8/90(9%)	
		(f) Renowned Brand	6/90(7%)	
2	Typography	(f) Renowned Brand	6/90(7%)	 (g)  (h)
3	Typography + Product Shape	(g) Package Shape + Brand Name	6/90(7%)	
4	Product Shape + Illustration	(h) Product Name + Package Shape	2/90(2%)	 (i)  (j)
		(i) Package Shape + Actual Product Appearance	6/90(7%)	
5	Illustration	(j) Package Shape + Product Image	2/90(2%)	 (k)  (l)
		(k) Actual Product Appearance	5/90(6%)	
6	Product Shape + Color	(l) Package Shape + Color Association	3/90(3%)	 (m)
7	Product Shape	(m) Package Shape	3/90(3%)	

TABLE 4: Modes of comprehension by focus group for visual elements of packaging

Several findings can be drawn from Table 4: In the process of comprehending food packages, the majority of group members would rely on the visual message formed by more than two visual elements of packaging in order to comprehend a product. Apart from the cases where food packages have easy-to-understand visual elements (e.g.: renowned brand, actual product appearance, shape of package...etc.), group members were unable to comprehend sufficiently based on any single visual element. We learned from Table 4 that “typography + illustration” is the best mode for group members to comprehend products. That is, if design and marketing personnel use typography as the major visual element and illustration as minor in communicating the information about package contents, they will be able to promote comprehension of products to a greater extent.

In addition, “typography + product shape” and “product shape + illustration” are secondary modes of comprehension. As can be seen in Table 4, brand name and product name are regarded as the first choice by focus group members in comprehending product contents (72%). Furthermore, if the food package has a certain “shape”, it will be an element easier for focus group members to comprehend. This research also shows that package shape has become the second choice in comprehending product contents (22%). We should also note that among the comprehension modes of visual elements, group members are used to seeing actual product appearance to ensure the package contents.

Among the different modes of comprehension, focus group members found visual elements such as typography (brand name, product name), product shape (package shape), illustration (product image, actual product appearance) and color (color association) all contributed to the comprehension of products; while visual elements such as attached product information design, auxiliary packaging material design, texture design, structure design, and volume design would not make such comprehension easier. The findings above can be used as reference for related industries when formulating product marketing plans and designing packages.

5. CONCLUSION AND SUGGESTION

From the literature, it is learned that typography, shape, color, and pattern will influence consumers' buying decisions; however, their comprehension modes are scarcely mentioned. This study also showed how people comprehend the contents of products. They mostly need more than two visual elements to comprehend the messages of packaging. Among them, “typography + illustration” is the best mode for group members to comprehend products. These results are different from past studies that believed a single design element is more advantageous. In fact, the study results have shown that consumers' comprehension modes include “typography”, “typography + product shape”, “product shape + illustration”, “illustration”, “product shape + color”, and “product shape”. That proves the design elements such as brand name, product name, package shape, product image, and color association all greatly contribute to the comprehension of products and help with consumers' buying decisions. As the packaging of the food with wide publicity is well-known, all the results are applicable only to the research or applications of package design for new products or ones fewer consumer have heard about.

Through conducting the focus group interview, it is learned that the messages formed by combination of design elements will influence the comprehension of focus group members. Different types of comprehension also illustrated the percentage adopted by the samples in this research. When marketing personnel and designers are using packaging as a marketing tool to arouse consumers' buying desire, it will be advisable to take into consideration how design elements were to be combined in order to attract consumers' attention and to enhance their comprehension. In this study some products may need only one visual element for consumers to comprehend all because their brand names have been well-known. Moreover, the tendency to transparent package containers has instead provided designers another opportunity of design in

giving texture treatment on the surface of package materials, or adding light colors on the transparent package to create novelty.

Although the procedures, method and analytic strategy of this research can be used as a reference for marketing and package design, there are a few issues this research has neglected to consider, stated here as reference for future researches: (a) In view of the vast number of food packages, this research adopts the stratified sampling method and selected 90 samples for discussion; even though seven modes of comprehension have been identified through focus group discussions, it is possible that when taking into account more samples, other modes of comprehension will also emerge. This should be further thought out in future studies. (b) This research identified package design elements such as typography, image, shape and color as helpful to the comprehension of products by focus group members; however it failed to further identify which combination of design elements can be comprehended in the shortest period of time. This would provide a further area of study for fellow researchers to conduct a more in-depth experiment.

6. REFERENCES

- [1] R. Sara. *"Packaging as a retail marketing tool"*. International Journal of Physical Distribution & Logistics Management, 20(8): 29-30, 1990
- [2] S. Godin. *"Purple cow: Transform your business by being remarkable"*, New York: Penguin Group (2003)
- [3] S. Young and J. Asher. (2009). Designing for retail realities: brand marketers can no longer afford to ignore the way packaging appears in the 'real world'. Available at: http://www.brandpackaging.com/Articles/Feature_Articles/BNP_GUID_9-5_2006_A_1000000000000652475 [Accessed 24 April,2010]
- [4] J. R. DiFranza, D.M. Clark, R. W. Pollay. *"Cigarette package design: opportunities for disease prevention"*. Tobacco Induced Diseases, 1(2):97-109, 2002
- [5] Y. C. Chen. *"A study on comprehensibility and interestingness of design from visual trope"*. Taiwan Journal of Arts, 77:1-11, 2005
- [6] R. W. Y. Wang and M. C. Chou. *"Consumer comprehension of the communication designs for food packaging"*. International Conference on Research into Design (ICoRD'09), Bangalore, India, 2009
- [7] V. Butkevičienė, J. Stravinskienė, A. Rūteliūnė. *"Impact of consumer package communication on consumer decision making process"*. Inžinerine Ekonomika-Engineering Economics, 1:57-65, 2008
- [8] C. L. Teng. *"New packaging design with practicality"*, 2nd ed, ed., Taipei: North Star Culture, (1991)
- [9] M. L. Kang and C. H. Chen. *"The study of the planning and evaluation of the packaging visual design of local agricultural speciality products: A case study of "Chen-Shuan-Mei organic products" in Hsin-I cuntry of Nantou county"*. The Conference of Package Design: Creative, Marketing, & Culture, Taichung: Taiwan, 2005
- [10] P. J. McClure, J. K. Ryans, Jr. *"Differences between retailers' and consumers' perceptions"*. Journal of Marketing Research, 5(1): 35-40, 1968
- [11] D. I. Hawkins, R. J. Best and K. A. Coney. *"Consumer behavior: building marketing strategy"*, 9th ed., Boston: McGraw Hill (2004)

- [12] B. H. Schmitt. *"Experiential marketing: how to get customers to sense, feel, think, act, and relate to your company and brands"*, New York: Simon & Schuster (1999)
- [13] M. Antioco, et al. *"Integrating service and design: the influences of organizational and communication factors on relative product and service characteristics"*. Journal of the Academy of Marketing Science, 36:501-521, 2008
- [14] B. H. Schmitt and A. Simonson. *"Marketing aesthetics: the strategic management of brands, identity, and image"*, New York: The Free Press (1997)
- [15] W. L. Wilkie. *"Consumer behavior"*, 3rd ed., New York: John Wiley & Sons, Inc. (1994)
- [16] J. F. Engel, R. D. Blackwell and P.W. Miniard. *"Consumer behavior"*, 8th ed., New York: Dryden Press (1995)
- [17] P. H. Bloch. *"Seeking the ideal form: product design and consumer response"*. Journal of Marketing, 59(3):16-29, 1995
- [18] M. Gershman. *"Packaging: Positioning tool of the 1980's"*. Management Review, 76(8): 33-42, 1987
- [19] J. Pilditch. *"The silent salesman: how to develop packaging that sells"*, 2nd ed., London: Business Books Ltd. (1973)
- [20] A. Connolly and L. Davidson. *"How design affect decision at point of sale"?* Journal of Brand Management, 4(2):100-107, 1996
- [21] M. Gobé. *"Emotional branding: The new paradigm for connecting brands to people"*, New York: Allworth Press (2001)
- [22] P. Gold. *"Assessing what consumers see"*. Brand Packaging, 4: 40-42, 2004
- [23] D. Palmer. (2008) Brand marketers looking to virtual shopping to gauge likely consumer behaviour. Available at: <http://www.ausfoodnews.com.au/2008/11/19/brand-marketers-looking-to-virtual-shopping-to-gauge-likely-consumer-behaviour.html> [Accessed 4 June, 2009]
- [24] J. Asher. (2005). Let's go bust some clutter. Available at: http://www.shelfimpact.com/archives/2005/11/lets_go_bust_some_clutter.php [Accessed 12 March, 2009]
- [25] M. R. Klimchuk and S. A. Krasovec. *"Packaging design: Successful product branding from concept to shelf"*, Hoboken, New Jersey: John Wiley & Sons Inc. (2006)
- [26] D. A. Aaker. *"Managing brand equity: Capitalizing on the value of a brand name"*, New York: TheFree Press (1991)
- [27] R. W. Y. Wang, M. C. Chou, P. W. Lan. *"Research into the elements of design differentiation in the findability of beverage packaging"*. The International Journal of Interdisciplinary Social Sciences, 5(2):221-244, 2010
- [28] C. T. Yang. *"A study of the optical illusion of the packaging containers' volume: A comparison between the prismatic bottles and cylinder bottles"*. Taiwan Journal of Arts, 67:17-32, 2001

- [29] L. L. Garber Jr. "*The package appearance in choice*". *Advances in Consumer Research*, 22(1):653-660, 1995
- [30] E. P. Yuan. "*Investigation of consumption psychology and packaging design*". *Packaging Engineering*, 25(1):105-108, 123, 2004
- [31] D. W. Stewart, P. N. Shamdasani and D. W. Rook. "*Focus groups: theory and practice*", 2nd ed., Thousand Oaks: Sage Publications, Inc. (2007)
- [32] T. L. Greenbaum. "*The handbook for focus group research*", 2nd ed., London: Sage Publications, Inc. (1998)

CALL FOR PAPERS

Journal: International Journal of Business Research and Management (IJBRM)

Volume: 1 **Issue:** 2

ISSN: 2180-2165

URL: <http://www.cscjournals.org/csc/description.php?JCode=IJBRM>

About IJBRM

As a peer-reviewed journal, The International Journal of Business Research and Management (IJBRM) invite papers with theoretical research/conceptual work or applied research/applications on topics related to research, practice, and teaching in all subject areas of Business, Management, Business research, Marketing, MIS-CIS, HRM, Business studies, Operations Management, Business Accounting, Economics, E-Business/E-Commerce, and related subjects. IJBRM is intended to be an outlet for theoretical and empirical research contributions for scholars and practitioners in the business field.

IJBRM establishes an effective communication channel between decision- and policy-makers in business, government agencies, and academic and research institutions to recognise the implementation of important role effective systems in organisations. IJBRM aims to be an outlet for creative, innovative concepts, as well as effective research methodologies and emerging technologies for effective business management

To build its International reputation, we are disseminating the publication information through Google Books, Google Scholar, Directory of Open Access Journals (DOAJ), Open J Gate, ScientificCommons, Docstoc and many more. Our International Editors are working on establishing ISI listing and a good impact factor for IJBRM.

IJBRM List of Topics

The realm of International Journal of Business Research and Management (IJBRM) extends, but not limited, to the following:

- Interdisciplinary Research Relevant to Business,
- Business Accounting
- Business Model and Strategy
- Case Studies
- Customer Relationship Management
- E-commerce, Collaborative Commerce and Net-
- Business & Economics Education
- Business Law
- Business Processes
- Cross-Culture Issues in Business
- Decision Support and Knowledge-based Systems
- Economics Business and Economic Systems

- enhancement
- Finance & Investment
- General Management
- Globalisation, Business and Systems
- Labor Relations & Human Resource Management
- Management Systems and Sustainable Business
- Marketing Theory and Applications
- Organizational Behavior & Theory
- Production/Operations Management
- Public Responsibility and Ethics
- Strategic Management Policy
- Technologies and Standards for Improving Business
- Technopreneurship Management
- Value Chain Modelling Analysis Simulation and Management
- General Business Research
- Global Business
- Knowledge Management and Organisational Learning
- Management Information Systems
- Managing Systems
- Modelling Simulation and Analysis of Business Process
- Production and Operations Systems
- Public Administration and Small Business Entrepreneurship
- Strategic Management and Systems
- Supply Chain and Demand Chain Management
- Technology & Innovation in Business Systems
- Trust Issues in Business and Systems
- Value-based Management and Systems

Important Dates

Volume: 1

Issue: 2

Paper Submission: September 30 2010

Author Notification: November 01, 2010

Issue Publication: November / December 2010

CALL FOR EDITORS/REVIEWERS

CSC Journals is in process of appointing Editorial Board Members for ***International Journal of Business Research and Management (IJBRM)***. CSC Journals would like to invite interested candidates to join **IJBRM** network of professionals/researchers for the positions of Editor-in-Chief, Associate Editor-in-Chief, Editorial Board Members and Reviewers.

The invitation encourages interested professionals to contribute into CSC research network by joining as a part of editorial board members and reviewers for scientific peer-reviewed journals. All journals use an online, electronic submission process. The Editor is responsible for the timely and substantive output of the journal, including the solicitation of manuscripts, supervision of the peer review process and the final selection of articles for publication. Responsibilities also include implementing the journal's editorial policies, maintaining high professional standards for published content, ensuring the integrity of the journal, guiding manuscripts through the review process, overseeing revisions, and planning special issues along with the editorial team.

A complete list of journals can be found at <http://www.cscjournals.org/csc/byjournal.php>. Interested candidates may apply for the following positions through <http://www.cscjournals.org/csc/login.php>.

Please remember that it is through the effort of volunteers such as yourself that CSC Journals continues to grow and flourish. Your help with reviewing the issues written by prospective authors would be very much appreciated.

Feel free to contact us at coordinator@cscjournals.org if you have any queries.

Contact Information

Computer Science Journals Sdn Bhd

M-3-19, Plaza Damas Sri Hartamas
50480, Kuala Lumpur MALAYSIA

Phone: +603 6207 1607

+603 2782 6991

Fax: +603 6207 1697

BRANCH OFFICE 1

Suite 5.04 Level 5, 365 Little Collins Street,
MELBOURNE 3000, Victoria, AUSTRALIA

Fax: +613 8677 1132

BRANCH OFFICE 2

Office no. 8, Saad Arcad, DHA Main Bulevard
Lahore, PAKISTAN

EMAIL SUPPORT

Head CSC Press: coordinator@cscjournals.org

CSC Press: cscpress@cscjournals.org

Info: info@cscjournals.org

COMPUTER SCIENCE JOURNALS SDN BHD
M-3-19, PLAZA DAMAS
SRI HARTAMAS
50480, KUALA LUMPUR
MALAYSIA