# RESEARCH INTO THE DESIGN TREND OF EMOTIONAL PRINT ADVERTISING AND ITS RELATION TO EMOTION

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#### **ABSTRACT**

In this study, "product categories for living demand" and "emotional degrees of image and text" were proposed as important design properties of print advertising. We also made a survey on what the recipients' emotional cognition categories would be under alternate influence of the two design properties. After observing and analyzing the existing design samples, we had three findings: (a) According to our market survey of "product categories for living demand", the number of samples of the three categories in terms of "emotional degrees of image and text" has the following relation: high emotion > medium emotion > low emotion.(b) According to the emotional cognition of "product categories for living demand", the valence of samples of the three categories in terms of "emotional degrees of image and text" has the following relation: high emotion > medium emotion > low emotion; in "product categories for living demand", the arousal extent of "emotional degrees of image and text" for each category does not show obvious difference in sequence. (c) In the comparison of the number in practical situation and the result of emotion survey, the present design of print advertising is positively correlated to consumer's emotional reaction.

In terms of visual design for different products in print advertising, this paper is expected to provide with its results a useful reference for workers engaged in advertising.

**Keywords:** emotional print advertising, design of print advertising

#### 1. INTRODUCTION

In the past, print advertising aimed to sell products; however, consuming behavior these days is increasingly complex. Consumers do not concentrate on the practical interests brought by product functions when doing the shopping; they tend to consider the emotional appeal. Some evidence reveals that an analysis of the winners of Effie Award in 1995, based on objective evaluation, shows most of the winners were emotion-based advertisements (Robert Heath, 2005). In addition, the BBH (Bartle Bogle Hegarty)

Advertising Agency brings emotions into marketing process. They remove the rational, practical "Unique Selling Proposition" (USP) and use "Emotional Selling Proposition" (ESP) instead, which they believe can make advertising more persuasive.

Product category is a design property that makes consumers have different impressions of print advertising. Products can be simply divided into "consumer goods" and "industrial goods". The life-relevant consumer goods are closely related to consumers and affect the designer in referring to living demand property when designing a print advertisement.

As for visual design of print advertising, images and text are major elements of print advertising. They can help consumers both catch on to the information of an advertisement and have an impression of it (Ho, 1986; Hsiao, 2005).

This study aims to explore the actual applications of both "product categories for living demand" and "emotional degrees of image and text" in print advertising and consumer emotions toward them. The purpose of this study is threefold: 1. by observing the market and referring to related literature, to present "product categories for living demand" and "emotional degrees of image and text" as important principles in the design of print advertising, 2. to observe in a yearbook for representative print advertising in Taiwan, and accordingly conclude the actual applications of "product categories for living demand" and "emotional degrees of image and text" in print advertising, and 3. to survey the relation of the two above-mentioned factors to arousal of consumer emotions.

#### 2. DISCUSSION IN RELATED LITERATURE

## 2.1. "Product categories for living demand" in print advertising

We usually divide products into "consumer goods" and "industrial goods"; the former are products consumed by the consumer after they were bought; the latter are products for resale or other services after being purchased (William M. Prid & O. C. Ferrell, 2003).

Consumer goods related to daily activities are more often seen and applied in print advertising; therefore, we explore print advertising through the habitually used classification of consumer goods.

For "product categories for living demand" presented in this study, consumer goods are subdivided into convenience products, shopping products, and specialty products, according to the degrees of living demand, from low to high. Convenience products usually refer to less expensive, easily purchasable products. Even though the buyer prefers a certain brand, he or she will quickly choose other substitutes if the brand is unavailable at the moment. Shopping products refer to the products the buyer will spend a lot of time planning to buy. The buyer spends much time comparing the stores and brands. The comparisons include product price, specialty, quality, and service. Specialty products indicate the products with more than one distinguishing characteristic. Usually the buyer will devote more energies to the effort to possess these products. The buyer plans ahead to buy specialty products, definitely knows about their own likes and will not accept substitutes.

## 2.2. "Emotional degrees of image and text" in print advertising

Behavioral experts headed by Watzlawick found that emotional views are adopted in human communication instead of rational ones. In 1990's, a noted expert on neurology, named AR Damasio, also proved that human's decisions are not made based on rational thinking, but on emotional communication.

In this study, "image" and "text" as two major components of print advertising were proposed to further define "emotional degrees of image and text". Based on the combination of "image" and "text" in print advertising, "emotional degrees of image and text" include low emotion-rational image plus rational text (Fig. 1), medium emotion-emotional image plus rational text or rational image plus emotional text (Fig. 2 & 3), and high emotion-emotional image plus emotional text (Fig. 4).



Figure 1

Rational image: Appearance of product image.

Rational text: P535 cell phone embedded with GPS (relevant to practical interests of the product).



Figure 2

Rational image: The image is relevant to the product.

**Emotional text**: Even the angel is humanly motivated (irrelevant to practical interests of the product).



Figure 3

Emotional image: The image is irrelevant to the product.

Rational text: Anxious about your debt? Loan me more. Super-low interest rate at 1.88% will settle your debt (relevant to practical interests of the product).



Figure 4

Emotional image: The image is irrelevant to the product.

**Emotional text:** Mr. President, which new film of Director Hou do you know the French invested in, please? (irrelevant to practical interests of the product).

#### 2.3. Emotion dimension

In the theory of emotion dimension, emotional intensity, continuity and stressfulness are divided into different emotional states through multidimensional depiction. The emotions aroused by sensation and perception of the individual self are closely related to the nature and strength of objective matters, and subjective consciousness of the person concerned. The emotions may be pleasant or unpleasant; the strength of stimulus may be mild or strong; the target pointed may be active and positive or passive and negative.

Russell (1980) presented the Circumplex Model of Affect (see Fig. 5), in which emotions are divided into two dimensions: degrees of pleasure and degrees of arousal. Degrees of pleasure are subdivided into pleasure and displeasure; degrees of arousal are subdivided into medium arousal and high arousal. They thus form four categories: pleasure with high arousal is "excited", pleasure with medium arousal is "relaxed", displeasure with medium arousal is "upset", and displeasure with high arousal is "frightened". Distributed in circle around this crossing structure of pleasure and arousal are 28 types of emotions, all of which represent degrees of the two dimensions.

International Affective Picture System (IAPS) (see Fig. 6), developed by Lang et al. (2005), is generally used in the present studies on emotion. Valence levels in this system go from "repulsive (-)" at low valence to "attractive (+)" at high valence; for arousal levels, from relaxing (R) at low arousal to activating (A) at high arousal, with neutral (N) in the middle; for the degrees of "valence" and "arousal": A+ (positive valence, high arousal), A-(negative valence, high arousal), N (neutral), R+ (positive valence, low arousal), and R-(negative valence, low arousal). A large number of adults (male and female) as test recipients will mark on the 9 degrees of "valence" and "arousal", according to how they feel about each picture, and the test results will be drawn on the coordinate axes.

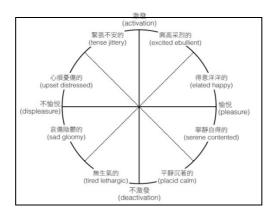


Figure 1: Core affect (Russell, J. A., 2003)

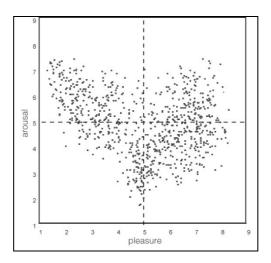


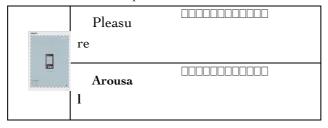
Figure 2: Coordinate chart for emotion dimensions in IAPS (Lang et al., 2005)

## 3. METHOD AND ANALYSIS

# 3.1. Questionnaire

In the questionnaire of emotion dimensions for visual design of print advertising in this study, degrees of pleasure and arousal are divided into 9 numerical scales for test recipients. After viewing the samples of print advertising, they have to mark on the degrees of "pleasure" and "arousal", as shown in Table 1, for the locations of valence and arousal.

Table 1: Scales in the questionnaire for emotion dimensions



#### 3.2. Selecting print advertising samples

By means of natural observation, we sampled purposively the officially approved print advertising published in Taiwan. In this study, we took part of the award-winning pieces for Advertising Golden Award, the longest in history and most prestigious advertising event in Taiwan (Juan, B. J. & Jao, T. C., 2004), as our samples for analysis. The source is "The album of award-winning pieces for Advertising Golden Award" published by executive committee of the award. The scope covers the award-winning pieces graded above excellent in commodity class for print category of Advertising Golden Award in 2005~2007. The selecting duration is March 19 to April 24 of 2009. When taking the pictures, we scanned and put them into Adobe Photoshop, a computer-aided drawing software, for cutting, filing, and numbering. We got a total of 288 print advertisements as our samples.

For the 288 emotional print advertisements, we produced 9 (3×3) collocations from the Latin squares design according to "product categories for living demand" and "emotional degrees of image and text", and picked a representative sample for each collocation by focus group's discussion. Next, we conducted a survey on the emotion dimensions for the visual design of print advertising.

# 3.2.1. Categorization of print advertising properties

The focus group method is employed for categorization of the above properties, with an advantage of group members offering fresh, thought-inducing, and highly valued information. The focus group is an expert panel including 6 professionals with a background and 4 years of practical experience in design. They had a panel discussion and made categorization of the 288 print advertising samples according to "product categories for living demand" and definition of the three degrees in "emotional degrees of image and text".

 Table 2: Focus group roster

Appellation	Years of	Specialty	
	experience in		
	design		
A	8	Graphic design & project management	
В	5	Graphic & art design	
С	5	Graphic & product design	
D	4	Graphic & product design	
Е	4	Art design & project management	
F	4	Graphic & product design	

#### 4. RESULTS

## 4.1. Market-based analysis of the visual design of print advertising

The categorization of "consumer goods for living demand" and "emotional degrees of image and text" has shown that "convenience products" (42.1%) is in the majority among the categories of consumer goods, "shopping products" (39.7%) in the second, and "specialty products" (18.2%) in the rear. Among the categories of emotional degrees of image and text, "high emotion" (69.2%) is at the top, "medium emotion" (28%) in the second, and "low emotion" (2.8%) in the rear, as shown in Table 3.

A further exploration into "consumer goods for living demand" combined with "emotional degrees of image and text" in the properties of print advertising design has shown its statistical results that in convenience products category, high emotion design is the largest in proportion (33.4%); medium emotion (7.7%) in the second, and low emotion (1%) in the rear; in shopping products, high emotion design is the largest in proportion (21.9%); medium emotion (16.4%) in the second, and low emotion (1.4%) in the rear; in specialty products, high emotion design is also in the first (13.9%), medium emotion (4%) in the second, and low emotion (0.3%) is the smallest. See Fig. 4 for details.

**Table 3:** Visual design details of emotional print advertising

	Emotional degrees of image and				
		text			
		Low	Mediu	High	
Visual design of	Visual design of emotional		m	5	
print advertising		Number	Numbe	Number	
		(%)	r (%)	(%)	
		(%)	81	199	
		(2.8%)	(28%)	(69.2%)	
Consumer goods	Conve	(2.8%) a	(28%) b	(09.270) C	
for living demand	Conve	a		C	
for fiving demand	nience			<b>.9</b> ).	
	mence				
			98		
	Numbe	Number	Numbe	Number	
	r (%)	(%)	r (%)	(%)	
	121	3	22	96	
	(42.1%)	(1%)	(7.7%)	(33.4%)	
	Shopp	d	e	f	
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	D		AND	VXX185X1686	
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	Numbe	Number	Numbe	Number	
	r (%)	(%)	r (%)	(%)	
	114	4	47	63	
	(39.7%	(1.4%)	(16.4%)	(21.9%)	
	)	,		, ,	
	6 .	g	h	i	
	Specia				

lty	Tree last October 17 s.T	i P	CONTRACTOR OF THE PROPERTY OF
Numbe	Number	Numbe	Number
r (%)	(%)	r (%)	(%)
53	1	12	40
(18.2%)	(0.3%)	(4%)	(13.9%)

# 4.2. (2) Analysis of emotion dimensions by questionnaire

Referring to the emotion dimensions of "valence" and "arousal" in Circumplex Model of Affect (Russell, 2003) and IAPS (Lang et al., 2005), we made an evaluation of emotion dimensions for the 9 representative samples (a~i) in this paper, and then a statistical analysis of their data, as shown in Table 4.

Table 4: Statistics of emotion dimensions for emotional print advertising

Visual design of emotional — print advertising		Valence		Arousal	
		Mean	Standard Deviation	Mean	Standard Deviation
a	Convenience products +  Low emotion	5.33	1.52	5.59	1.62
ь	Convenience products +  Medium emotion	5.40	1.84	6.81	1.44
c	Convenience products + High emotion	6.14	1.40	5.07	1.59
d	Shopping products + Low emotion	4.81	1.00	4.14	1.72
e	Shopping products + Medium emotion	5.81	1.14	5.22	1.45
f	Shopping products +High emotion	6.07	1.59	6.18	1.88
g	Specialty products + Low emotion	5.85	1.51	4.88	1.78
h	Specialty products + Medium emotion	6.74	1.22	6.96	1.45
i	Specialty products + High emotion	6.78	1.48	5.96	2.01

For "convenience products" in consumer goods for living demand, sample a is N (neutral emotion), b & c are A+ (positive valence, high arousal); for "shopping products", sample d is N, e & f are A+; for "specialty products", sample g is N, h & i are A+. These results show that samples being "convenience products", "shopping products", and "specialty products" all aroused neutral emotion and produced positive valence, high arousal. A comparison of the three categories in arousing positive valence shows "specialty products>convenience products>shopping products".

For those with "low emotion" in "emotional degrees of image and text", samples a, d, g are N (neutral emotion); for "medium emotion", samples b, e, h are A+ (positive valence, high arousal); for "high emotion", samples c, f, i are A+. These results show that "low

emotion" produced neutral emotion; "medium emotion" and "high emotion" both produced positive valence, high arousal. A comparison of the three categories in arousing positive valence shows "high emotion>medium emotion>low emotion".

In further analysis of "consumer goods for living demand" with "emotional degrees of image and text", samples a, d, g with low emotion in consumer goods for living demand all produced medium emotion for test recipients. This result shows the design of image and test with "low emotion" did not have a significant influence on the test recipient's emotion, while samples c, f, i with "high emotion" are the combinations that brought positive emotions to the test recipient.

It is learned from the above that changes in both "consumer goods for living demand" and "emotional degrees of image and text" will make differences in the recipient's emotional reaction. Viewed from the characteristics of consumer goods for living demand, specialty products indicate the ones with more than one distinguishing characteristic, which link the meaning of themselves to consumers with a unique interpretation. They show some variations and can better produce a pleasant emotion. And viewed from emotional degrees of image and text, "high emotion", combining with touching images and text, can better create a direct visual, associative stimulus to the recipient and arouse positive emotions.

In the comparison of the number of samples obtained from market-based analysis, consumer goods with "high emotion" design of image and text are most often seen and this way of design in emotion dimension survey can also best arouse the recipient's positive emotion. Therefore, there exists a positive correlation between the analysis and the survey.

## 5. CONCLUSION AND SUGGESTION

After discussion by related literature, "consumer goods for living demand" and "emotional degrees of image and text" act as important design properties of print advertising and affect the viewer's perception for them. The application of both in the market shows the difference in the design of print advertising. The difference in number between the categories of emotional degrees of image and text is huge, and the design with "high emotion" is in the majority (69.2%). This type of design that highlights full emotions and encourages consumers to buy the products in the advertisement by only their likes, feeling, mood or fantasy is the mainstream for the moment. In this mainstream design, "specialty products" produce the most pleasure for the test recipient in terms of cognitive emotion. This suggests that the designer should not only take into account the preference of the public, but make use of the combination of "consumer goods for living demand" and "emotional degrees of image and text". This will create more changes in print advertising and highlight the difference between products and rival commodities.

This study is an investigation into consumer's emotion dimensions with the two variables of management (consumer goods for living demand) and design (emotional degrees of image and text). The survey results of present situation and emotions demonstrate that both "product categories for living demand" and "emotional degrees of image and text" have brought some dissimilarity to consumer's emotional valence.

Therefore, we suggest replacement of the management variable with other variables for future studies, in order not to make print advertising simply focus its presentation on products. The attempt to add in the technique of design will enable print advertising to become more design-orientated.

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