

A Study of Relationship Between Personality and Product Identity

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Abstract. There are many researches show that product have personified personality, in recently years, the cultural & creative products has emphasize the direction of personalized merchandise to cater demand from consumer and thereby satisfied the maverick consumer which have distinctive psychological needs. The purpose of this study is investigated the cognition of cultural & creative products are identical between the consumer who have different personality traits and learn more about the consumer preferences and purchase intentions. The research process of this paper is divided into four phases. First, according to the literature reviews define the correspondence between “Personality”, “Personalized Product” and “Consumer Perception” as first phase. In second phase, this paper collected the winner’s works of cultural & creative award during 2010 to 2015 as test sample to implement expert pre-questionnaire. Researcher reconstructed next phase questionnaire through comparison the “Personalized Product” awareness from expert into formal survey. During the third phase, each examinee will answer Professional DynaMetric Programs and finish “Personalized Product and Purchase Intention questionnaire”. The fourth phase will be data analysis and result. This study is going to verify the relationship between “Personality of Cultural & Creative Product” and “Consumer Perception”, and discuss the correlation of “Consumer Perception” and “Personality”. Above factor will be affected the consumer purchase intention or not. This result would be provided to product planner, designer or marketing for reference.

Keywords: Products personality · Personality traits · Consumer perception · Purchase intentions

1 Introduction

The Cultural and Creative Industries Development Act was passed in 2010. The Council for Cultural Affairs of the Executive Yuan was elevated to become the Ministry of Culture in May 2012. Thus, Taiwan has advanced toward the development stage of cultural and creative industries. During this stage, the design of cultural and creative products was catered to consumer requirement. Thereby, products of personality were adhered to in order to satisfy consumer’s unique and different psychological requirement. Consequently, a host of research found that consumers have added

personal traits to products, including positive and negative ones, that is, personification of products (Sirgy 1982). The literature of emotion research for product design assessment also underscores product identity. The ergonomics designers also explore how different consumers correlate personality with product identity, and made products become unique and interesting, for instance, hinting the gender of products (McDonagh and Weightman 2003). Whether product identity matches with the designer concept eventually hinges on the cognitive foundation of consumers and further generates purchasing willingness. Kotler and Kotler (2000) thinks that “cognition” refers to the process of generating internal significance from outside information of personal selection, organization and interpretation. “Cognition” is being given environmental significance, a process of gaining impression through sensing and organizational interpretation (Robbins 2000). This shows cognition is being influenced by external situations in different environments and also influenced by the personal traits and internal factors of the consumer.

In developing a new product, the creative designer shall focus on aesthetics and emotional factors (Jordan 2000). Concomitantly, it is essential to further the relation between product identity and consumer cognition, and act as reference for creations by future designers. Cognitive research of product identity involves too many uncontrollable external environmental cognitive factors and made the interference variable to research too complicated. Henceforth, this study uses the controllable personality of consumers as the variable for product identity and consumer cognition, and hopes to comprehend the extent of influence between the two. This is planned for next stage research foundation.

2 Literature Review

2.1 Cultural and Creative Product and Product Identity Study

The rise of global cultural and creative industries is the result of highlighting the culture industry. Under this mindset, as well as under the influence of the consumption process of modern culture, more importance is attached to developing the spiritual value of products, thereby developing toward artistic creations of a fine culture (Chen 2009). Thus, product design no longer stresses on function, rather it diversifies toward attraction of consumers with feeling for the product. Moreover, each product is formed by a set of attributes such as outward appearance, brand, function and after-sales service and so on, which formed a part of the product attributes (Wenxian and Qinfu 2000). In the current consumer society, the aesthetical experience of cultural and creative products will play a considerable role.

Norman (2004) thinks that utilizing emotion for product design allows stirring up the positive emotions of people with its attraction, therefore, such products will be more useful. Rahman (2012) also mentions that the generation of aesthetics may be defined as physical stimulus, that is, experience obtained through vision or feeling. It is thus understood that study of aforementioned literary documents, the cultural and creative products attach more importance to aesthetics and emotion than other products.

- H1: Different cultural and creative products have different product identity.
 H1a: Item 1 cultural and creative product has personal traits.
 H1b: Item 2 cultural and creative product has personal traits.
 H1c: Item 3 cultural and creative product has personal traits.
 H1d: Item 4 cultural and creative product has personal traits.
 H1e: Item 5 cultural and creative product has personal traits.

2.2 A Study of Relationship Between Personality and Product Identity

Regarding study of cognitive influence from consumption behavior, scholars have found that personality can have significant direct influence if the product type has a high level of linking symbolically, and the product brand personality matches with consumer personality (Aaker 1997). Study points out that in using certain brand product, consumer personality would engage in dialogue and communication with certain brand, share and co-construct its symbolic value and extend its self-conception. A study by Zang (2008) found that throughout the process of system recommendation by consumer, latter's degree of acceptance for system recommended products differs from personality. Henceforth, a host of studies show that different personality can have significant correlation with consumer cognitive judgment. This study hopes to comprehend the degree of correlation between product identity and consumer cognition.

H2: Significant correlation between cultural and creative product identity and consumer cognition.

2.3 Study of Consumer Personality and Product Purchasing Willingness

In purchasing a product the consumer chooses a product and image matching his or her personality. Sometimes, the consumer chooses not to buy a product even though he or she likes the shape of the product but dislikes its symbolic significance. (Creusen and Schoormans 2005). Henceforth, prior to purchasing the consumer would try to know the outward appearance or content of the product, and the decisive factors in cognitive psychology are as follows: (1) Past experience, (2) Personal need and wish, (3) Current personal physiological and psychological situation, (4) Personal situation, (5) Characteristics of the observed object, (Zhong 1990). (Norman and Ortony 2006) also proposed that the human information processing system may be divided into the "cognitive" system and the "emotional" system. Both differ in function: The emotion system controls judgment and swiftly makes efficient positive and negative appraisal toward the environment while the cognitive system interprets and endows meanings to external happenings. A host of studies by scholars show that consumers have comparatively positive appraisal for products similar to his or her personality.

H3: Significant correlation between consumer cognition and purchasing willingness.

H4: The extent of matching the product and consumer personality will positively affect his or her purchasing willingness.

3 Methodologies

3.1 Study Flow

This study uses the award-winning articles of 2010–2015 Creative Expo Taiwan as specimen. First, two experts carried out classification of personality for all articles, and then picked out articles of similar classification and used as specimens for expert questionnaire of the first stage. After analysis, a stage 2 questionnaire will be carried out on consumer personality and consumer cognition, and find out the correlation between product identity and consumer cognition, as well as the influence on product identity and consumer cognition from five major personalities. Eventually, survey will be carried out on consumer purchasing willingness. The study flow is shown in Fig. 1:

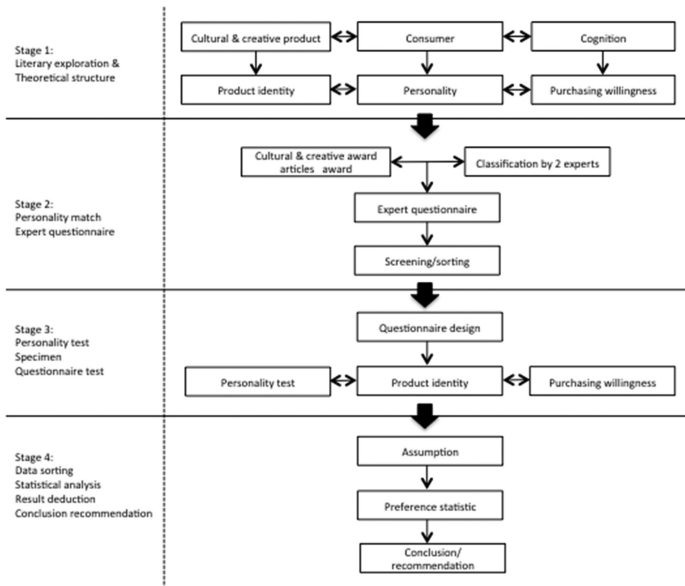


Fig. 1. Study flow

The study flow and steps are described below in four stages:































1. First stage: Find out the structure and special characteristics of cultural and creative products, consumer personality, and relevant theories of consumer cognition through collection and exploration of relevant literary data, and consequently find out whether such would affect consumer purchasing willingness.
2. Second stage: Take the award-winning articles for 2010–2015 as testing specimens, and prepare questionnaire by two experts matching the specimen personality, then carry out a preliminary expert questionnaire, and eventually compare expert’s cognition for product identity, and again screen out, sort and design the questionnaire for the next stage.

3. Third stage: Questionnaire design and actual survey. Those receiving test of the study are primarily college juniors, including students of the day and evening sections, a total of 101 students participating. Age distribution is from 19–21 years old and those receiving test are primarily students of the broadcasting and design departments and business administration departments.
4. Fourth stage: Questionnaire data analysis.

3.2 Products Winning Cultural and Creative Products Award: <https://creativexpo.tw/>

To enhance the synergy of Taiwan cultural and creative industries, promote the outstanding creative talents, and encourage enterprises emphasizing research and development and innovation, the Council for Cultural Affairs of the Executive Yuan planned the Taiwan Excellence Award starting from the year 2010. The Award aims to build quality living for the Chinese people, accumulate innovative synergy for Taiwan industry through contest, construct quality living in Taiwan, and made it the highest honor for Taiwan’s literary and creative industry. The researcher will carry out preliminary product identity screening of the shortlisted products, then carry out first stage questionnaire, and pick out a product with comparatively higher scores, and eventually usher in the final consumer cognition questionnaire stage. Refer to Table 1 for correlation of product identity, creative product and personality (Table 2).

Table 1. Product identity & personality sorting

Product identity	Product identity preliminary screening					First stage Questionnaire result	Personality
Lively							Peacock
Steady							Tiger
Peaceful							Koala
Elegant							Owl
Kind							Chameleon

4 Result and Discussion

A total of 115 people took part in the PDP aptitude test during the consumer questionnaire stage. Valid questionnaires are 102 and the final statistics are: Koala (32 people), Owl (21 people), Peacock (25 people), Tiger (13 people), Chameleon (11 people), and the gender distribution is shown in the Figure below:

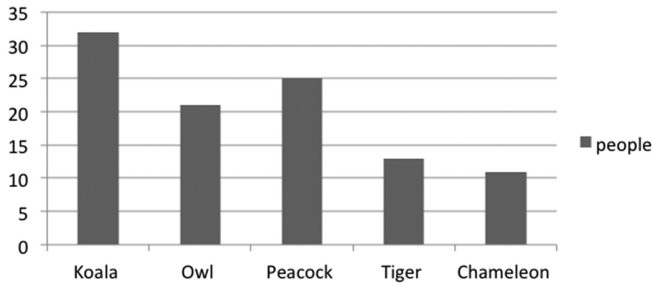


Fig. 2. Personality distribution

In the five sub-assumptions of H1, we found that t-values are greater than 2. Under 95 % of confidence level, product identity of the five creative products are significantly higher than the median value. In other words, these five creative products have personality traits (Fig. 2).

Table 2. Creative product personality test

	T-value	Degree of freedom	Significance (dual tail)	Median difference	95 % of difference within trust zone	
					Lower limit	Upper limit
com1	14.700	101	0.000	0.971	0.840	1.102
com2	13.061	101	0.000	0.912	0.773	1.050
com3	7.935	101	0.000	0.598	0.449	0.748
com4	22.740	101	0.000	0.941	0.859	1.023
com5	15.000	101	0.000	0.863	0.749	0.977

H2: Significant correlation between creative product identity and consumer cognition.

Testing result shown in Table 3 shows that comparing to other low profile creative products with stable, peaceful, elegant and kind quality, only the lively creative product can comparatively highlight personality with ease (Table 4).

Table 3. Correlation Testing between Product Identity and Consumer Cognition

Product identity < - > Cognition	Relative coefficient
com1 < - > con1	0.258 ^b
com2 < - > con2	0.060
com3 < - > con3	-0.185
com4 < - > con4	0.007
com5 < - > con5	0.001

^a p-value < 0.05;

^b p-value < 0.01;

^c p-value < 0.005

H3: Significant correlation between consumer cognition and purchasing willingness.

From testing in Table 3, only the creative product with lively personality can stimulate consumer purchasing willingness while the remaining peaceful and elegant creative product also can enhance consumer purchasing willingness (Table 5).

Table 4. Correlation Testing of Product Identity and Purchasing Willingness

Product identity < - > purchasing willingness	Relative coefficient
com1 < - > pur1	0.305 ^b
com2 < - > pur2	0.122
com3 < - > pur3	0.145 ^a
com4 < - > pur4	0.131 ^a
com5 < - > pur5	0.109

^a p-value < 0.05;

^b p-value < 0.01;

^c p-value < 0.005

H4: Matching of product and consumer personality can positively affect his or her purchasing willingness.

Table 5. Correlation testing of product identity matching with purchasing willingness

Product identity < - > purchasing willingness	Relative coefficient
con1 < - > pur1	0.381 ^b
con2 < - > pur2	0.222 ^a
con3 < - > pur3	0.329 ^a
con4 < - > pur4	0.402 ^b
con5 < - > pur5	0.287 ^b

^a p-value < 0.05;

^b p-value < 0.01;

^c p-value < 0.005

Compared to testing of H2 and H3, matching of creative product and consumer personality can stimulate consumer purchasing willingness.

5 Conclusion and Recommendation

The questionnaire analysis shows that the four assumptions of this study have significant correlation and testifies to the personality of creative products and general merchandise, and different personalities stimulate purchasing willingness if different personalities match with product identity. This study draws following conclusions:

1. Experts have screened out classified creative products using personality traits, and picked out five representative products with different identities. Such products will form the next stage questionnaire. Consequently, through questionnaire analysis statistics, we can see that the five creative products boast different identities and testify to the personality of creative products with general merchandise.
2. Judged by analysis of the five products with different identities, those creative products with “lively” personality are more pronounced in personality trait, comparing to the comparatively low-profile creative products which are stable, peaceful, elegant and kind.
3. Apparently, the degree of matching between creative products and consumer personality is an important factor in consumer purchasing willingness. It is a critical and vital factor in knowing consumer personality and designing products with identity for the market.
4. This study only uses pictures of creative products and personality traits for description in a bid to testify the correlation between creative product and personality with purchasing willingness. Despite progress in preliminary study, there is a plethora of factors to consider throughout the entire purchasing process of creative products. This will be the future direction of study.

In recent years, creative products sprouted up on the market. Nevertheless, only very few products have become popular. How to satisfy consumer psychology will be an issue for most designers aspiring to comprehend. Conclusions of this study found close correlation between different consumer personalities and identities of creative products and purchasing willingness. This is worth for further study. In the future, this study will further explore how the intrinsic emotion of creative products, outward appearance and function could affect personalities of different consumers. This will benefit future product planning by designers and provide reference to consumer in buying products with matching identities.

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