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A study of brand attributes: Cross-industries and implications

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This study examined the model of brand attributes proposed by Keller (1993). Higher-order confirmatory factor analysis (HCFA) was utilized to confirm each dimension of brand attributes and examine measurement properties. A survey was conducted by both paper-based and online questionnaire. Levi jeans and Nokia cell phones are the two product categories. Reliability and factor analyses show that brand attributes can be differentiated based on intrinsic attributes and extrinsic attributes. Additionally, extrinsic attributes can be divided into the following four hierarchical measurement indexes: price, user imagery, usage imagery, and brand personality. Furthermore, the explanation powers of both extrinsic and intrinsic attributes are different from Levi and Nokia.

Key words: Brand attributes, confirmatory factor analysis, brand personality, brand image.

INTRODUCTION

In the current knowledge-based economy, industry in Taiwan must reform and promote to a higher grade. Thus, brand construction is a major task enterprises now take seriously. Since 2006, Taiwan's Ministry of Economic Affairs has been promoting "The Taiwan Brand Development Plan." The aim of this plan is to promote brand development and improve the competitiveness of enterprises and the nation. Branding has become an intangible asset for enterprises. This study attempts to determine which brand characteristics trigger consumer purchase intention. Is purchase intention induced by brand function, product price, or user characteristics? This study primarily focuses on product brand attributes. This study examined brand attribute literature published since 1993. After the reorganization process, this study proposes a revised brand attribute model. This study conducts an empirical analysis using HCFA to examine the relationship between observed variables and latent variables. In this research model, first-order factors are

price, user imagery, use image, brand personality and intrinsic brand attributes; the second-order factors are external brand attributes; the third-order factors are brand attributes. This research principally focuses on the clothing and cell phone industries. Based on the brand attribute theory developed by Keller (1993, 1998), the research goals are as follows.

1. Discuss brand attribute development.
2. Confirm the applicability of Keller's brand attribute model via empirical research.
3. Compare the brand attributes of Levi jeans and Nokia cell phones.

CONCEPTUAL FRAMEWORK

The conceptual framework in this study is based on the brand attribute models developed by Keller (1993, 1998) and Li (2004). First, this study divides brand attributes into intrinsic and external brand attributes. Intrinsic brand attributes are product or service attributes, which are directly related to product physicality. Sweeney and Soutar (2001) measured intrinsic brand attributes by assessing products in terms of their quality whether they were well made and show good workmanship. Thus, no scale exists for measuring product quality. Extrinsic brand attributes are external characteristics derived for a

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Abbreviations: HCFA, Higher-order confirmatory factor analysis; GFI, goodness-of-fit; RMSEA, root mean square error of approximation; SRMR, standardized root mean residual.

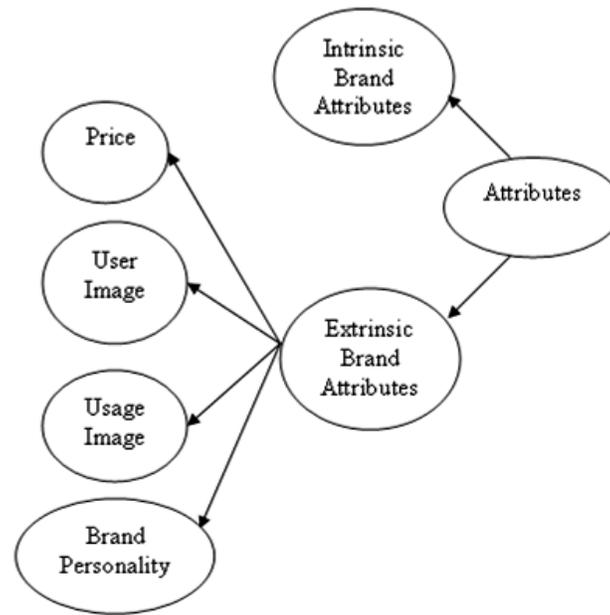


Figure 1. Conceptual framework of this study.

product or service. This study uses four constructs price, user imagery, use image and brand personality to measure external brand attributes. Figure 1 shows this study's conceptual framework.

Definition and development of brand attributes

According to Keller (1993, 1998), brand association is a set of functions that are composed of attributes, benefits, and attitudes. Attributes are descriptive characteristics that characterize a product or service what a consumer thinks about a product or service is or has and what is involved in its purchase or consumption (Keller, 1993). Attributes can be categorized in various ways (Myers and Shocker 1981). In Keller's study (1993, 1998), attributes comprise both intrinsic and extrinsic brand attributes, they are differentiated based on how directly they relate to product or service performance (Table 1).

Intrinsic brand attribute

Intrinsic brand attributes are product-related attributes. They are related to a product's physical composition and service request. For consumers, intrinsic brand attributes are requisite, they vary by product or service category (Keller, 1993). These attributes are distinguished by branded product's essential ingredients and features, which determine the nature and level of product performance (Keller, 1998). Intrinsic brand attributes refer to measurable and verifiable superiority on some

predetermined ideal standard or standards, thus serving as a measure of quality. Intrinsic brand attributes simplify the consumer choice process (Zeithaml, 1988). It echoes the view of Chang and Wildt (1994), intrinsic brand attributes may be adopted by sales personnel, to influence potential consumers' product measurement and purchase behavior.

Extrinsic brand attribute

Extrinsic brand attributes, namely non-product related attributes, are defined as external aspects of the product or service that related to its purchase or consumption (Keller, 1993). They are related to brand's symbolic attributes and may also serve as a measure of product quality. Extrinsic brand attributes satisfy consumers' underlying needs for social approval or self-esteem. They allow consumers to experience positive emotions and to help them communicate to others their values and personal features (Li, 2004). In the classification of, Keller (1993) distinguished them to price information, packaging or product appearance information, user imagery, and usage imagery. Although package is considered part of the purchase and consumption process, it does not directly relate to the necessary ingredients for product performance in most cases. Later, Keller (1998) renamed non-product related attributes to extrinsic brand attributes, and replaced the package factor with brand personality and feeling experience factors. However, feeling experience was not considered a part of brand attributes but a part of brand attitude by Li (2004). The classification

Table 1. Sample descriptive statistics.

Customer characteristic	Classification	Levi jeans		Nokia cell phone	
		Number	Percent	Number	Percent
Gender	Male	161	49.5	174	44.7
	Female	164	50.5	215	55.3
Age	≤20	38	11.7	37	9.5
	21-30	212	65.2	219	56.3
	31-40	50	15.4	69	17.7
	41-50	20	6.2	47	12.1
	≥51	5	1.5	17	4.4
Occupation	Specialist	25	7.7	35	9.0
	Service or sales personnel	82	25.2	98	25.2
	Technique or operation personnel	38	11.7	63	16.2
	Administration or business personnel	20	6.2	28	7.2
	Student	140	43.1	22	31.4
	Others	20	6.2	43	11.1
Education	Junior high school	4	1.2	2	0.5
	Senior high school	36	11.1	60	15.4
	University	229	70.5	278	71.5
	Graduate school	56	17.2	49	12.6
Disposable income per month (NT\$)	≤10,000	165	50.8	185	47.6
	10,000-30,000	111	34.2	137	35.2
	30,000-50,000	40	12.3	55	14.1
	50,000-10,000	7	2.2	12	3.1
	≥100,000	2	0.6	0	0

of extrinsic brand attributes is based on Li (2004). Four main types of extrinsic brand attributes (price, user imagery, usage imagery, and personality) are introduced as follows.

Price

The price of the product or service is considered a non-product-related attribute because it represents a necessary step in the purchase process but typically does not relate directly to the product performance or service function. Price is a particularly important attribute association because consumers often have strong beliefs about the price and value of a brand and may organize their product category knowledge in terms of the price tiers of different brands (Keller, 1998; Blattberg and Wisnicwski, 1989). In many product categories, consumers may perceive the quality of a product on basis of its price. Consumers may also combine their inference of the quality of the product with the price of the product to form perceptions of its value (Keller, 1998). The

perception of a brand's price helps determine whether or not a brand is included in a consumer's consideration set (Dyson et al., 1996). Dodds et al. (1991) explained the link between consumer's perceived value and brand choice in part by the acceptable price range concept. Buyers generally have a set of prices that are acceptable to pay for a purchase in their consideration set, rather than a single price (Monroe, 1979; Monroe and Petroschius, 1981). Therefore, consumers place a value on the unique aspects of a brand that justifies a higher price in their minds, and are willing to pay a premium for that brand (Keller, 1998).

User imagery and usage imagery

User and usage imagery can be formed directly from a consumer's own experiences and contact with brand users. It can also be formed indirectly through brand advertising or by some other source of information, such as word of mouth (Keller, 1993, 1998). User imagery is the brand imagery associations related to the type of

person who uses the brand. Perceptions of a brand's users may be based on demographic factors (for example, sex, age, race and income), or psychographic factors (for example, attitudes toward career, possessions and social issues) (Keller, 1993, 1998). Associations of a typical usage situation may be based on time of day, week, or type of activity (formal or informal), among other aspects. User imagery may result in a profile or mental image by consumers of actual users or more aspirational, idealized users (Keller, 2003) often prefer brands with images consistent with or closest to their own self-image (Sirgy, 1982, 1985). Consumers' self-image can be inferred from the brands they use, their attitudes toward different brands and the meanings brands have for them. The perceptions consumers have of themselves influences their brand decisions. Consumers form favorable attitudes toward those products which possess images most similar to the images they either prefer or wish of themselves. Consequently, they buy those products which match their desired self-image, because those products help consumers express themselves (Zinkham and Hong, 1991). Solomon and Douglas (1987) also noted that consumers often purchase products that maintain and enhance their self-image. Consumers make purchase decisions based on a product's symbolic meanings and images, which can be used to create and enhance self-image. Brands' associated images let consumers express who they are, what they are, where they are and how they want to be viewed (Graeff, 1997). A person expects positive reactions from his significant referents, and brand image becomes a symbolic tool for goal accomplishment (Grubb and Hupp, 1968; Grubb and Stern, 1971) (Table 2).

A person attempts to communicate to his significant references certain things about himself by using symbolic products. Consumers' purchase decisions are significantly influenced by social value in that consumers perceive various brand images as either congruent or incongruent with the norms of the reference groups to which they belong or aspire (Grubb and Stern, 1971; Solomon, 1983).

Usage imagery relates to the brand imagery associations that indicate under what conditions or situations the brand could or should be used (Keller, 2003). Usage imagery may be based on the time of the day, week, or year, the location (inside or outside the home), or type of activity (formal or informal) (Keller, 1998). For example, Miller High Life has been advertised in terms of "Miller Time," a relaxing, rewarding part of the day (Keller, 1998). Usage imagery attributes of Timberland is conveyed through "casual versatility for everyday outdoor living," "traveling" and "adventure."

Brand personality

Plummer (1985) asserts that one component of brand image is the personality or character of the brand itself. In

Aaker's (1997) research, brand personality is defined as "the set of human characteristics or traits that consumers attribute to a brand". It includes associations with particular characters, symbols, life-styles, and types of users. In contrast to a product's intrinsic attributes, which serve as utilitarian functions for consumers, brand personality tends to serve a symbolic or self-expressive function (Keller, 1993) and taps the emotional aspects of a brand, and augments the personal meaning of a brand to the consumer (Crask and Laskey, 1990). Besides, brand personality enables a consumer to express his or her own self or ideal self (Belk, 1988; Malhotra, 1988). These meanings are constructed by a consumer based on behaviors exhibited by personified brands or brand characters (Aaker and Fournier, 1995). Five dimensions of brand personality have been identified as sincerity, excitement, competence, sophistication, and ruggedness (Aaker, 1992; 1997).

A brand with the right personality can result in a consumer feeling that the brand is relevant and the consumer may be more willing to invest in a relationship or even develop a "friendship" with the brand (Aaker and Fournier, 1995; Keller, 1998). For example, the single-brand clothing retailer Abercrombie and Fitch has developed a personality that is fun-loving and independent, winning popularity among teenagers and college students. Therefore, personality characteristics associated with a brand tend to be relatively enduring and distinct (Aaker, 1997). Brand personality also creates an association of that brand with certain important life values, such as the pursuit of an exciting life, the search for self-respect, the need to be intellectual, and the desire for self-expression (Aaker, 1992).

Brands convey human-type personalities that allow consumers to express themselves through the purchase of particular products (Keller, 1998). Brand personality is used to provide self-expressive and emotional benefits for consumers (Aaker, 1998). Consumers prefer brands associated with a set of personality traits congruent with their own (Kassarjian, 1971; Sirgy, 1982). Therefore, brand preference increases when a consumer's personality is congruent with that of a brand (Aaker, 1998). The brands with strong personalities are associated with high levels of usage and preference. The correlations between self-concept and brands used are higher than those between self-concept and brands not used (Aaker, 1997).

METHODOLOGY

Sample description

To obtain appropriate measurable variables, this study first collected questions for each construct from brand literature, and then eliminated repeat questions and questions that do not fit the brand survey. Finally, this study extracted 3 to 4 questions for each construct, except for use image.

Table 2. Brand product involvement.

Use experience	Levi jeans			Nokia cell phone		
	Classification	Number	Percent	Classification	Number	Percent
Quantity of jeans/cell phone you own now	0		2.8	0		0.8
	1-3		39.1	1		69.9
	4-6		40.0	2		25.2
	7-10		12.6	3		2.6
	≥10		5.5	≥4		1.5
The price you usually spend on the brand (\$NT)	≤1000		33.8	\$0 or \$1		6.7
	1000-3000		56.9	≤3000		21.6
	3000-5000		8.9	3000-8000		44.4
	5000-8000		0.3	8000-15000		20.4
	≥8000		--	≥15000		6.7
How long do you purchase a new one	Within 3 months		8.9	Within half –a-year		2.1
	Half a year		43.4	1 year		18.8
	1 year		28.9	2 years		44.5
	2 years		13.2	3 years		21.3
	Over 3 years		3.1	Over 4 years		7.7
	Never renew		2.5	Never renew		5.4
Have you ever use this brand	Yes		67.4	Yes		84.8
	No		32.6	No		14.9
Monthly expenditure you spend on jeans (\$NT) (Levi brand only)	≤500		20.0			
	500-2000		51.7			
	2000-5000		21.8			
	5000-8000		4.6			
	≥8000		1.8			
The place you often purchase jeans (Levi brand only)	Department store		33.5			
	Jeans store		30.2			
	General clothing store		27.4			
	Vendor		4.3			
	Internet		2.8			
	Others		1.8			
Quantity of cell phone you have owned (Nokia brand only)				1-2		23.4
				3-4		42.7
				≥ 5		33.7
				Never own		0.3
Reasons you purchases this brand (Multiple answer question)	Brand	183	56.3	Brand	199	51.2
	Type	172	52.9	Type	180	46.3
	Popularity	120	36.9	Volume	67	17.2
	Price	75	23.1	Price	161	41.4
	Durable	122	37.5	Function	214	55.0
	Comfortable	151	46.5	Durable	170	43.7
	Routine purchase	25	7.7	Others	18	4.6

Statistical analysis

The sample/subject of this research questionnaire is a random population. This study collected 331 Levi questionnaires (62% on-line and 38% on paper) and 396 Nokia questionnaires (48% on-line and 52% on paper) between June and July 2008. After eliminating invalid questionnaires that have missing data, the total number of valid questionnaires for the Levi brand was 325 and that for Nokia was 389. The response rate was 98%.

Measures development

Table 3 shows the items for all variables. Most measures represent a combination and synthesis of existing items that have acceptable reliability scores. The exogenous latent variables in this study are attributes, endogenous latent variables are intrinsic brand attributes, extrinsic brand attributes and items of extrinsic brand attributes (price, user imagery, usage imagery and brand personality); (Figure 1). A five-point Likert-type scale was used for all measures.

Overall model evaluation

Table 4 shows the fit statistics. The chi square values are significant ($p < 0.05$) for the two brands (Bollen, 1989), a typical finding for large samples (Doney and Cannon, 1997). A comparison of the overall models for Levi, and Nokia indicates that Nokia has superior goodness-of-fit (GFI), but the two values of GFI are above 0.80, corresponding to Bagozzi and Yi (1988) minimum values of 0.80. The chi square values of the two brands are significant ($p < 0.05$); (Bollen, 1989), a finding not unusual for large samples (Doney and Cannon, 1997). For the Levi brand, the values for CFI and NNFI are acceptable; however, the root mean square error of approximation (RMSEA), and standardized root mean residual (SRMR) do not meet the standards suggested by Hu and Bentler (1995, 1999). For the Nokia brand, the values for CFI, NNFI, and SRMR are good, the RMSEA is acceptable (< 0.1); (Bollen, 1986; Bentler, 1990). Thus, this study can proceed to evaluating measurement and structural models.

Measurement model evaluation

This study assessed the quality and adequacy of the proposed measurement models by examining unidimensionality, convergent validity, reliability, discriminant validity, and metric equivalence. First, unidimensionality was assessed based on the performance of principal component analyses on all items. As all items were given a loading of 0.5 for the hypothesized factor and a maximum loading of 0.30 for the other factors, and thus it can be concluded that unidimensionality was obtained for each construct. Second, convergent validity was supported owing to the overall model fit being good, and all loadings being highly statistically significant ($p < 0.05$) (Hildebrandt, 1987; Steenkamp and Van Trijp, 1991). Third, since all Cronbach's alpha values exceeded 0.70, indicating acceptable reliability (Nunnally, 1978). Furthermore, as shown in Table 3, most of the composite reliability measures above 0.60, corresponding to the minimum identified by Bagozzi and Yi (1988). Consequently, it can be concluded that all constructs yield satisfactory reliability. Finally, CFAs were used to test the adequacy of the measurement model. This study used separate CFAs to indicate intrinsic brand attributes and extrinsic brand attributes (price, user imagery, usage imagery and brand personality). The proposed measurement model was estimated using LISREL 8.52 (Joreskog and Sorbom, 1989, 1993). The estimation results indicate reasonable overall fit between the model and the observed data. From Table 4, two brand models have GFI exceeding 0.8 (Bagozzi and

Yi, 1988). Additionally, NNFI and CFI considerably exceeded the recommended .90 threshold level (Bollen, 1989; Hoyle and Panter, 1995; Hu and Bentler, 1995), demonstrating reasonable data fit to the model.

RESULTS AND DISCUSSION

The study is based on a conceptual framework for brand attributes. Via higher-order confirmatory factor analysis, this study proposed a three-order confirmatory factor analysis model for brand attributes. Discoveries and major conclusions are as follows.

The HCFA result is consistent with the proposed model

Higher-order confirmatory factor analysis by LISREL indicates good model fitness. The product brand attributes can be divided into intrinsic and extrinsic brand attributes. Thus, the features that characterize a product are differentiated into features associated with product usage and external characteristics. Conversely, extrinsic brand attributes can be differentiated into price, user imagery, use image and brand personality after factor analysis. Moreover, each set of items in the questionnaire has an appropriate explanatory ability. Therefore, the HCFA result is consistent with the proposed model.

The two brand analyses are significant/suitable

The study discusses common product-brand characteristics that increase consumer purchase intention. Therefore, this study chose two common brands in Taiwan for analysis. Analytical results can explain the proposed model. Analytical results demonstrate that brand-product attributes positively affect intrinsic brand attributes and extrinsic brand attributes. Extrinsic brand attributes positively affect price, user imagery, use image, and brand personality. This suggests that brand-product characteristics and out of product (price, user imagery, use image and brand personality) impact consumer purchase intention. This analytical result met Keller's conceptual framework.

Managerial implication

In path analysis, the influence of both brand intrinsic attributes ($\gamma_L=1.00$; $\gamma_N=1.00$) is higher than that of their extrinsic brand attributes ($\gamma_L=0.97$; $\gamma_N=0.71$), meaning that consumers respect product function more than a brand's abstract meaning. Unlike extrinsic brand attributes, intrinsic brand attributes generally have no indexes. This is because intrinsic attributes are distinguished by a branded product's essential ingredients and features (Keller, 1998). This study merely compares

Table 3. Measurement model and confirmatory factor analysis.

Item	Levi brand				Nokia brand			
	Estimated coefficient	t-value	Cronbach 's alpha	Average variation extract	Estimated coefficient	t-value	Cronbach 's alpha	Average variation extract
First order								
Intrinsic brand attributes			0.950	0.92			0.775	0.56
This branded product has consistent quality.	0.56	--			0.55	--		
This branded product is well made.	0.64	39.63			0.57	13.52		
This branded product has good workmanship.	0.72	35.33			0.51	11.79		
Price			0.704	0.73			0.756	0.41
This branded product is reasonably priced.	0.24	--			0.43	--		
This branded product is a good product for its price.	1.00	3.82			0.63	7.93		
This branded product would be economical.	0.23	11.87			0.53	10.43		
User imagery			0.757	0.56			0.793	0.48
This user of this brand possesses the characteristics that I would like to have.	0.77	14.69			0.52	--		
It would be nice to be like this person which advertisements show using this brand.	0.44	12.07			0.70	10.96		
The people who purchase this brand are admired or respected by others.	0.53	--						
People who use this brand portray status and style that I admire					0.58	9.43		
Usage imagery			--	--			--	--
I have a clear image of the specific situation where people are most likely to wear this branded product.	0.86	--			0.79	--		
First order								
Brand personality			0.744	0.57			0.773	0.48
This brand has a personality.	0.60	--			0.50	--		
This brand is interesting.	0.67	18.48			0.67	12.46		
I have a clear image of the type of person who would use the brand.	0.40	10.25			0.60	11.11		
Second order								
Extrinsic brand attributes								
Price	0.59	3.28			0.78	7.47		
User imagery	0.91	7.61			0.86	10.26		
Use image	0.64	7.45				0.70	12.77	
Brand personality	0.98	8.27				1.00	11.69	

Table 3. Contd

Third order Attributes				
Intrinsic brand attributes	1.00	21.97	1.00	15.00
Extrinsic brand attributes	0.97	7.82	0.71	9.52

Table 4. Goodness of fit statistics.

Model	X ² /df	GFI	RMSEA	NNFI	SRMR	AGFI	CFI
Levi brand (N=325) overall model	8.06	0.83	0.15	0.93	0.09	0.71	0.95
Nokia brand (N=389) overall model	4.14	0.91	0.09	0.95	0.06	0.86	0.95

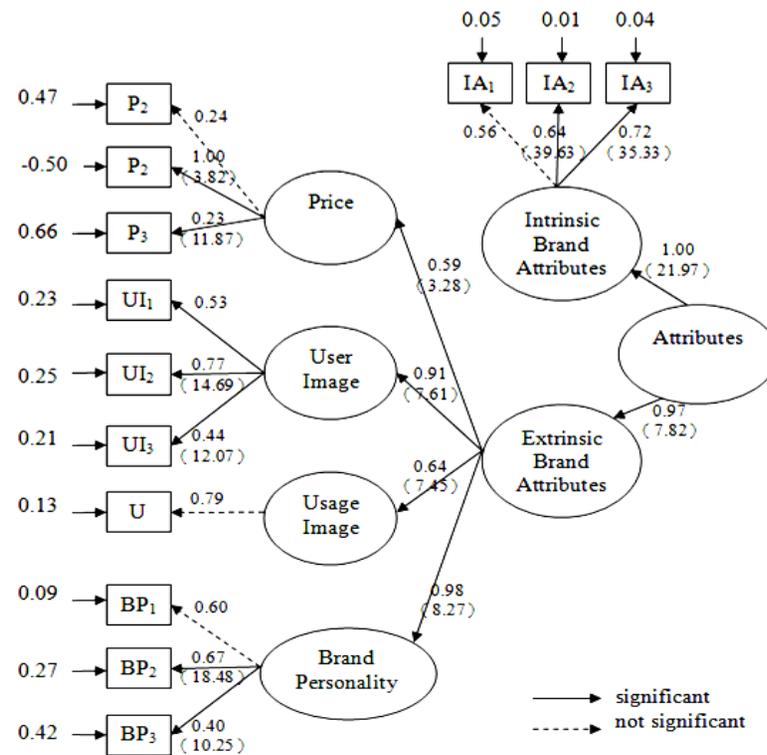


Figure 2. Higher order confirmatory factor analysis model Levi.

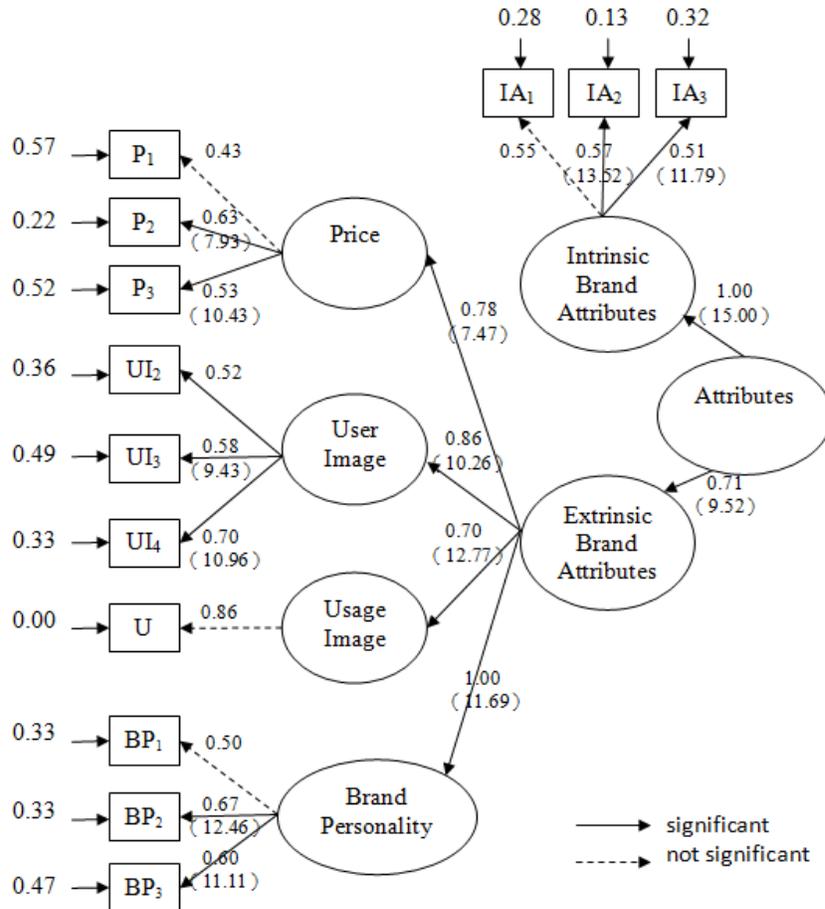


Figure 3. Higher order confirmatory factor analysis model Nokia brand.

the three variables' factor loadings belonging to intrinsic brand attributes.

Comparison of the influences of each intrinsic brand attribute index

As for the three variables of Levi's intrinsic brand attributes, the highest factor loading is "good workmanship" ($\lambda_L=0.72$), followed by "well made" ($\lambda_L=0.64$) and "consistent quality" ($\lambda_L=0.56$). This finding may be attributed to consumer's appreciation of Levi's tough sewing, particular trimming, and fashionable wrinkle wash. Therefore, the "good workmanship" attribute has the best explanation ability. However, the loading of Nokia's "good workmanship" is the lowest attribute ($\lambda_N= 0.51$) even if other two factor loadings are about 0.5 ($\lambda_N= 0.55$ for "consistent quality" and $\lambda_N= 0.57$ for "well made"). This result implies that Nokia's intrinsic brand attributes consist of not only the product's external manufacture, but also built-in communication functions and other additional features such as photos, games, MP3s and others. These cell-phone related functions affect Nokia consumers' subjective quality cognition and make the loading of the "well made" highest.

Comparison of the representatives of each extrinsic brand attribute index

In terms of the four extrinsic brand attributes, the most influential attributes are brand personality ($\beta_L=0.98$; $\beta_N=1.00$), user imagery ($\beta_L=0.91$; $\beta_N=0.86$), and symbolic functions beyond a brand (such as mental desire). However, the path coefficient of price for the Levi brand is extremely low ($\beta_L= 0.59$), the lowest of the four factors. This finding may be attributed to elevated status Levi jeans in Taiwan. Due to their quality and style, people purchasing Levi jeans may not focus on price. Conversely, the path coefficient of price for the Nokia brand ($\beta_L= 0.78$) is higher than use image ($\beta_L= 0.70$). This is expected as the popularity of Nokia cell phones render price an unimportant consideration.

Product quality is the most important component of brand attributes

According to the analytic result, intrinsic brand attributes of both Levi and Nokia brand have higher influence than their extrinsic brand attributes. In the meanwhile, brand personality has the highest effects on extrinsic brand

Table 5. Covariance matrix.

	Levi brand / Nokia brand													
	Extrinsic, brand and attribute		Intrinsic, brand and attribute		Price		User imagery		Brand Personality		Usage imagery		Attribute	
Extrinsic, brand and attributes	1.00	1.00												
Intrinsic, brand and attributes	0.97	0.71	1.00	1.00										
Price	0.59	0.78	0.57	0.55	1.00	1.00								
User imagery	0.91	0.86	0.87	0.61	0.54	0.67	1.00	1.00						
Brand, personality	0.98	1.00	0.95	0.71	0.58	0.78	0.89	0.86	1.00	1.00				
Usage imagery	0.64	0.70	0.62	0.49	0.38	0.54	0.58	0.60	0.63	0.70	1.00	1.00		
Attributes	0.97	0.71	1.00	1.00	0.57	0.55	0.87	0.61	0.95	0.71	0.62	0.49	1.00	1.00

Levi brand: N=325, $\alpha = 0.05$, Nokia brand: N=389, $\alpha = 0.05$.

attributes, and the next is user imagery (Table 5). These analytic results may indicate that product quality remains the first consideration for consumers while choosing brand or product. Therefore, research and development department of corporate should tailor-made their product design and quality according to the demand of each segment. In the next, corporate should focus on remarkable brand personality and user imagery when marketing their brand. For example, Levi jeans highlighting its modern and fashion personality by advertising star's speaking on Levi's behalf, which attracting many young fashion chasing groups. As to Nokia brand, which branding on handy operation and user-friendly, making it close together interpersonally and more convenient in information acquiring. In Taiwan, the design and style of jeans are more than diversification, selling price are higher and higher, which is quite different from that in the United State. The selling price of Levi jeans in Taiwan are among \$3000 to \$4000 NTD (roughly \$100USD to \$140USD), which is much higher than \$30 to \$40 USD in the United State. This showed that the segmentation of Levi Taiwan is over stressed on

fashion and highend imagery. Thus, the consumption group in Taiwan could not as popularized as that in the United State, Therefore, Levi Taiwan should provide different products for various segments, this can not only popularize their products, but also attract more and more new customers from different segments. Unlike Levi brand, Nokia provide various products for each consumer groups. And this is why Nokia Taiwan could have large market share in Taiwan.

Limitations and suggestions for further research

The goodness of fit results for the Levi brand is not as good as expected. This may be for the following two reasons. First, in the process of distributing questionnaires, we found that Taiwanese familiarity with the Levi brand is somewhat limited.

Many workers and students never wear Levi jeans, which prevents them from forming strong opinions on Levi jeans. Compared to apparel products, communication products such as cell

phone are quite popular in Taiwan. For example, Nokia's market share in Taiwan is about 32.6%. This means that more people can become familiar with Nokia through exchanging and testing it although they may never own a Nokia cell phone. Therefore, the different levels of involvement between the two brands made it easy to answer Nokia questionnaire but difficult to answer the Levi questionnaire. Besides, the reception ratio for repeated filling two brand questionnaires is about half of the total survey respondents. This situation made survey respondents diminish their marginal utility. If respondents also have little brand cognition as mentioned above, items improperly answered or missing answered would frequently emerge. This is another reason for Levi's unexpected goodness of fit results. In current brand classification methods, features and characteristics in different brand classifications may not be the same. This research only focused on product and brand attributes. We suggest that future brand research address other brand categories such as store brand, retailer brand, and channel brand to respond quickly to the developing market.

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