

Role of Gender Identity on Consumer's Perception and Behaviors related to Consumption

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Gender identity, a combination of an individual's gender psychological traits, social gender roles, and gender orientations, has a dramatic impact on one's perceptions and behaviors related to consumption. However, the influence of gender identity has been oversimplified in the recent marketing literature by using sex as the sole gender-related descriptor. As a result, the marketing literature has been hampered in its ability to predict gender-related consumer behaviors. This study focuses on how gender identity manifests in itself in the consumers' product consumption and brand relationship. The focal population of interest was the Generation-Y aged consumers in the U.S. and their relationships with personal care products. Results generated from structural equation modeling indicate that multiple constructs of gender identity have significant and unique impacts on product involvement and brand loyalty and, further, that product involvement serves as a mediator that linking gender identity with brand loyalty.

INTRODUCTION

Given the increasing desire of firms to build long-term consumer/brand relationships, understanding the factors that influence them has become crucial. Fournier (1998) applied the metaphor of an interpersonal relationship to study consumer/brand relationships and suggested that a dyadic personal relationship exists between a consumer and a brand. One primary facet of this relationship is the self/concept connection: the degree to which a brand delivers important identity-concerns and -tasks (Fournier, 1998). Similarly, self-congruency theorists suggest that consumers tend to purchase products and brands consistent with their self-images (Rosenburg, 1979; Ross, 1971; Sirgy, 1982/1986). Perhaps the most important and central part of self-image is one's gender identity (Kates, 2002; Palan, 2001), and this gender-self generates strong congruency effects with regard to one's brand perceptions and choices (Sirgy, 1982/1986).

The gender-self is solicited across a wide variety of marketing practices. Marketers not only use sex as an important segmentation variable but also develop implicit meanings by factoring gender-related cues into a brand. Furthermore, consumers' gender identity and sexual orientation have been used to target consumers in emerging gender-market segmentations such as "Metrosexual:" males who are heterosexual, hip, concerned with their appearance, and in touch with their feminine side. However, the marketing literature is replete with studies that only report biological sex and treat this as the sole determinant of gender-related behavior. Gender is often used interchangeably with sex because such a dichotomous variable provides a comfort zone for researchers when measuring and interpreting the consumerist implications of gender. This approach overlooks the important differences between sex and gender and leads to biased research and distorted representations of complex gender-related marketing phenomena (Hirschman, 1993; Palan, 2001).

Since the 1960s some researchers have begun to investigate how gender identity (which includes a combination of sex, psychological gender, and gender attitudes) would contribute to a consumer's product- and brand-consumption (Gould and Stern, 1989; Fischer and Arnold, 1990/1994; Palan, 2001). However, research results have been mixed. For example, individuals with a higher masculine-gender identity exhibit stronger information processing (Kempf, Palan, and Laczniak, 1997; Palan, 2001), while individuals with a higher feminine-gender identity develop more positive attitudes toward and get more personally engaged with products and brands (Gainer, 1993; Jaffe and Berger, 1988; Worth, Smith, and Mackie, 1992). As such, a critical question becomes whether or not gender identity can consistently predict any of the many facets of consumer-based brand equity. It has been suggested that consumer involvement may be an important link between gender and consumer perception (Fischer and Arnold, 1994; McCabe, 2001; Sirgy, 1982), so this study addresses the research gap between gender identity and brand loyalty through the lens of a consumer's level of product involvement.

LITERATURE REVIEW

Two important theoretical underpinnings of this paper relate to Gender Identity Theory and the link between Gender Identity and Consumer Perception.

Gender Identity Theory

As already noted, the marketing literature tends to treat biological sex as the sole determinant of gender-related behaviors: an essentialist view. Essentialism is based on the belief that there exists fixed characteristics, given attributes, and historical functions, and thus "male" is equivalent to "masculine" and "female" is equivalent to "feminine" (Grosz, 1994). Meanwhile, non-essentialists argue that not all masculinity and femininity traits are related to the biological features of people's bodies:

individuals are also shaped by their history and surrounding social environments (Dickson, 1982). This non-essentialism view has been widely accepted as central to the fields of sociology and psychology.

Two gender-identity theories – Gender Schema theory and Multifactorial Gender Identity theory – have dominated the social psychology literature. Both theories provide conceptual frameworks for exploring the impact of gender on culture, society, and consumers and deliver promising and understudied areas for marketing research (McCabe, 2001; Palan, 2001). Gender Schema theory explains how individuals construct their gender identities by learning to be masculine or feminine and use their gender identities to interpret their own experiences and the experiences of others (Markus, Crane, Bernstein, and Siladi, 1982). This theory posits a cognitive structure that allows individuals to manage a mass of gender-related information by assigning meaning to social events occurring in their environments (Payne, Connor, and Colletti, 1987). Individuals will take differing approaches to address their gender concerns and present themselves as sex-typed, cross-sex-typed, or non-sex-typed. Under this theory, sex-typed and cross-sex-typed males and females are more gender schematic and are therefore more likely to be influenced by their gender identity (Bem 1974a, 1974b, 1981).

Multifactorial Gender Identity theory challenges the validity of the all-encompassing nature of gender schematization. The underlying assumption of Multifactorial Gender Identity theory is that "gender identity is a combination of gender related phenomena, associated in varying degrees with each other, such as gender-related attitudes, interests, and role behaviors and gendered personality traits" (Palan, 2001: p. 6). Multifactorial Gender Identity acknowledges that Gender Schema theory captures an important aspect of gender psychology but denies that any observable gender difference in any given society is unifactorial (Spence, 1993; Spence and Helmreich, 1978). Multifactorial Gender Identity theory expands beyond the cognitive aspects of gender schema and provides a more dynamic view of gender that includes psychological traits, role attitudes, and role orientations (Palan, 2001; Spence, 1993).

Gender Identity and Consumers' Perceptions

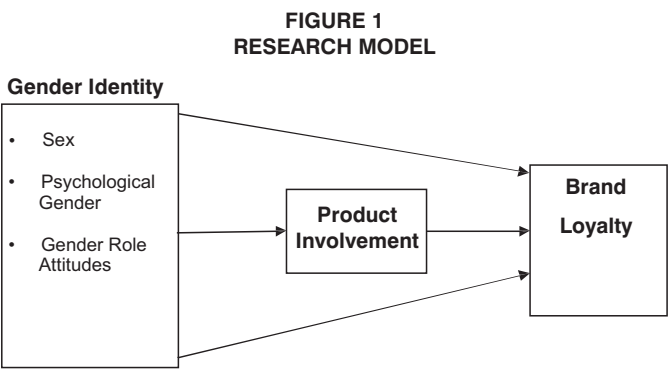
Earlier gender identity and consumer behavior research suggests that gender identity plays an important role in consumer behavior, varying from assisting in information processing to connecting individuals to the rest of the world to orchestrating an individual's perceptions to developing one's attitudes about appropriate social behaviors (Bem, 1981; Fischer and Arnold, 1990/1994; Palan, 2001; Spence, 1993). Regarding consumers' brand perceptions, Sirgy (1982, 1986) explained that consumer brand consumption is congruent with consumer gender-image and stated that the gender-self

can generate strong gender-congruency effects with regards to brand loyalty. For example, consumers prefer goods or spokespersons that match their sense of masculinity and femininity (Fry, 1971; Worth et al., 1992). Consumers also seek gender cues from products and brands: Debevec and Iyer (1986) suggested that consumers label some products as either masculine or feminine, but not both at the same time, and that these determinations tended to be influenced by the gender of the spokesperson.

Therefore, gender identity influences consumer brand perceptions through creating brand meanings for consumers. McCracken's (1988) Model of Meaning Transfer asserts that meaning originates in the culturally-constituted word, moves into goods through fashion systems, word of mouth, reference groups, and the media, and finally moves from the goods to the consumers. The meaning embedded in the consumers' gender identities can become built into a product or brand as the product or brand allows consumers to build congruency between their gendered self-images and the product's or brand's image. The ability of a brand to express a consumer's self-image then leads to a stronger consumer/brand relationship (McCracken, 1988). In the meaning transfer process, consumer involvement serves as a motivation factor in the consumers' attitude-making: Gainer (1993) proposed that a consumer's product involvement is an intermediate step between the consumer's characteristics related to gender and the consumer's behavior toward a product or brand.

RESEARCH FRAMEWORK AND HYPOTHESIS

Based on the literature review, the research model in Figure 1 is presented. This model illustrates the predicted relationship among gender identity, product involvement, and brand loyalty. It is also important to reiterate that gender identity is viewed herein as a multi-dimensional construct that include sex, psychological gender, and gender role attitudes.



This model was tested with Generation-Y consumers. Generation-Y has become the largest consumer group in the U.S. history and its members are actively involved in negotiating their gender identity and pursuing their

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desired sexuality via their favorite products or brands (Alden, Steenkamp, and Batra, 1999; Backwell and Mitchell, 2003). For this generation of consumers, product and brand consumption is not just a simple purchase but also a method of self-expression. Furthermore, this model was tested in the personal-care-product sector. Personal care products are fairly ubiquitous in the sense that virtually all young consumers use them and young consumers – whether combating the challenges of skin problems or emulating pop star appearances – are traditional-targeted segments for personal care products. By definition, personal care products may facilitate self-expression without permanence and provide young consumers with the flexibility to select brand offerings that can change their image or be aligned with popular trends (Coulter, Price, and Feick, 2003). In the marketplace, personal care products are becoming more gender specific, making these products the perfect choice for gender identity construction. To fully test this model, four sets of hypotheses are proposed.

Sex Differences

Although gender theories suggest that sex alone cannot explain complex gender phenomena, sex is the most-used variable to explain gender differences in consumer research. For example, women are traditionally considered responsible for household shopping: “Women are trained to shop – to shop around a lot. Men find the browsing aspect of buying boring.” (Fischer and Arnold, 1990: p. 336).

Women are generally viewed as more likely to regard shopping as an important task and become more involved with product and brand choices (Fischer and Arnold, 1994; Kempf et al., 1997). Furthermore, men and women are also viewed as differing in certain cognitive abilities and social behaviors: Meyers- Levey (1989) examined sex differences in the elaboration of message cues and suggested that men tend to use a selective and heuristic mode of information processing and make judgments on the basis of single cues while women are more likely to use a comprehensive processing mode on the basis of all available cues. It is likely that women and men emphasize different product and brand attributes, involve themselves with products and brands in differing ways, and carry differing brand perceptions. Thus:

H1 (a): There is a difference between a man’s and a woman’s product involvement.

H1 (b): There is a difference between a man’s and a woman’s brand loyalty.

The Impact of Psychological Gender

Although much of marketing literature has used sex as the sole gender difference based upon the assumption that men are masculine and women are feminine, there is considerable evidence that an individual’s psychological gender identity is not necessarily consistent with one’s biological sex (Bem, 1981; Palan, 2001; Spence, 1993).

According to Gender Schema theory and Multifactorial Gender Identity theory, masculinity and femininity are orthogonal psychological traits and individuals will identify with each trait to varying degrees (Bem, 1974b; Spence, 1993).

Psychological gender, including masculinity and femininity, can affect consumers’ product and brand choices (Fry, 1971; Jaffe, 1994; Vitz and Johnston, 1965; Worth et al., 1992). Under certain situation, such as gift shopping and art attendance, psychological gender may well explain more differences in consumer behavior than sex. Generally speaking, feminine gender identity is guided by a communal orientation whereas masculine is guided by an agency orientation (Bem, 1974a). Previous research suggests that femininity serves as a strong predictor of art involvement (Gainer, 1993), fashion consciousness (Gould and Stern, 1989), and Christmas gift shopping (Fischer and Arnold, 1990/1994). Similarly, masculine individuals are actively involved with the congruency between self-image and product/brand image: masculine individuals tend to choose a product or brand that presents a congruent masculine image and show preferences toward such a product or brand (Vitz and Johnston, 1965; Worth et al., 1992).

H2 (a): There exists a positive relationship between femininity and product involvement

H2 (b): There exists a positive relationship between masculinity and product involvement

H2 (c): There exists a positive relationship between femininity and brand loyalty

H2 (d): There exists a positive relationship between masculinity and brand loyalty

The Impact of Gender Role Attitudes

In addition to sex and psychological gender, gender role attitude can independently explain gender- related consumer behaviors (Fischer and Arnold, 1990/1994; Palan, 2001). Gender role attitude refers to one’s belief about socially-desirable roles for men and women (Spence, 1993), ranging from egalitarian to traditional. Egalitarian individuals believe that the same roles are acceptable for both women and men while traditional individuals believe that differing roles are appropriate for men (e.g. breadwinner) and women (e.g. child-care giver).

Spence (1993) suggested that role identity (i.e. gender-role attitudes) consists of self-images associated with an individual’s position and how the individual would act in a social structure. As such, gender role attitudes would serve as motivational factors related to self-concept and self-esteem and would point to rewards and punishments earned through the enactment of roles. As such, egalitarian women are more likely to have careers in high-paying fields that require positive personal images and they are more likely to psychologically involve themselves with specific products for the purpose of self- expression (Fischer and Arnold, 1990; Schaninger and Buss, 1985).

Similarly, men with egalitarian attitudes consider shopping for themselves for grooming products to be acceptable behavior: such men purchase and use grooming products and would spend time and money shopping for a product or brand that struck the right self-image. Different from psychological gender, gender role attitudes might affect consumers’ brand loyalty indirectly. Gender role attitudes is rooted in consumers’ cognitions toward their social surroundings, and when consumers are conscious about their consumptions, product nature and type normally come first (e.g. perfume for men and for women). Previous studies suggest that psychological involvement is a necessary link between gender role attitudes and consumer perceptions (Gainer, 1993; McCabe, 2001), so it is hypothesized that there is a direct relationship between gender role attitudes and product involvement and an indirect relationship between gender role attitudes and brand loyalty:

H3(a): There is a positive (inverse) relationship between egalitarian gender role attitudes and product involvement.

H3(b): Product involvement mediates the relationship between egalitarian gender role attitudes and brand loyalty.

Product Involvement and Brand Loyalty

Product involvement is an important construct in consumer behavior and it is viewed as a “cognitive state of activation” (Cohen, 1983). Zaichknowsky (1985) proposed that involvement is about personal relevance: if a product is highly personally relevant, this will result in a high level of involvement. It should be noted that the term product involvement is used throughout the paper for the sake of simplicity. In fact, consumers’ enduring involvement or personal relevance with personal care product is discussed in the study.

Previous marketing literature suggests that a consumer’s self-view leads to different levels of product involvement and that a consumer’s product involvement influences his or her brand perception (Bloch and Richins, 1983; Ng and Houston, 2006). Gainer (1993) similarly proposed that consumer motivation for product involvement is an intermediate step between consumer gender related characteristics and loyalty behavior toward a product. Therefore:

H4: There is a positive relationship between consumers’ product involvement and brand loyalty.

METHODOLOGY

Sample and Data Collection

The population of interest for this study is Generation-Y men and women (ages 18-30) who use personal care products in their daily life. A survey study was conducted to collect data from a sample drawn from this population. Survey respondents were asked answer a series of questions that mapped onto the dependent and independent variables used in the study. Since the

study points to brand perceptions, respondents were also asked to indicate their attitudes toward a personal care brand they have used most in the past 12 months. A total of 258 questionnaires were distributed to generation Y-aged consumers who enrolled in a southwestern metropolitan university. Invalid samples were eliminated, leading to a final sample size of 238 useful responses.

All respondents were between the age 18 and 30: 54.2% of the respondents were men and 45.8% were women. This sex ratio represents a relatively balanced participation.

Measurement

Measurement scales for all variables in this study have been adapted from extant literature. The scales had been used in differing response formats, so to maintain consistency across anchor scales all scale items were converted into six-point Likert-type scale ranging from (1) “Strongly Disagree” to (6) “Strongly Agree.” The six-point format can ensure better reliability and force respondents to make directed choices rather than remain neutral (Oaster, 1989). It can also reduce the bias of response style (Baumgartner and Steemkamp, 2001).

Gender Identity: (a) Sex was measured as a demographic variable: specifically, as a nominal variable with the categories of male and female. (b) Psychological gender was assessed using the Barak and Stern (1986) scale. This scale was developed in the context of consumer behavior and has been shown to be more reliable than other scales for consumer research (Palan, 2001). The Barak and Stern (1986) scale was an abridged version of the Bem Sex Role Inventory (Bem, 1981). There were 10 masculine-scale items and 10 feminine-scale items and the two scales represented orthogonal constructs. Reliability for the femininity scale was 0.88 in the source study and 0.87 in this study, while reliability for the masculinity scale was 0.94 in the source study and 0.80 in this study. (c) The 15-item brief version of the gender role attitudes scale used was the one developed by Spence and Helmreich (1972). Reliability for this scale was 0.87 in the source study. Due to scale purification, 3 items were deducted from the current study and the reliability remained the same: 0.87.

Product Involvement and Brand Loyalty: (a) The product involvement measure was composed of 9 scales adapted from Higie and Feick (1989). The Cronbach’s Alpha in the original study was 0.92 and it was 0.93 in the current study. (b) The scale used to measure brand loyalty was the three-item scale developed by Yoo and Donthu (2001). The Cronbach’s Alpha pertaining to this scale was 0.88 in the source study and 0.79 in the current study.

TABLE 1 DISCRIMINANT VALIDITY OF CONSTRUCTS					
Construct	1	2	3	4	5
1. Femininity	0.87				
2. Masculinity	0.16	0.80			
3. Gender Role Attitudes	-0.39	-0.06	0.88		
4. Product Involvement	0.13	-0.11	0.12	0.93	
5. Brand Loyalty	0.13	0.13	-0.03	0.36	0.79

As a test of the convergent validity of constructs, item-total correlations were examined. All item- total correlations exceeded the recommended criterion of 0.40 (Jayanti and Becker, 1984), indicating acceptable convergent validity in this study. Furthermore, discriminant validity of the constructs was examined by checking whether the correlation between two scales is lower than the reliability of each of the scales independently (Gaski and Nevin, 1985). The results indicated in Table 1 suggest an adequate level of discriminant validity.

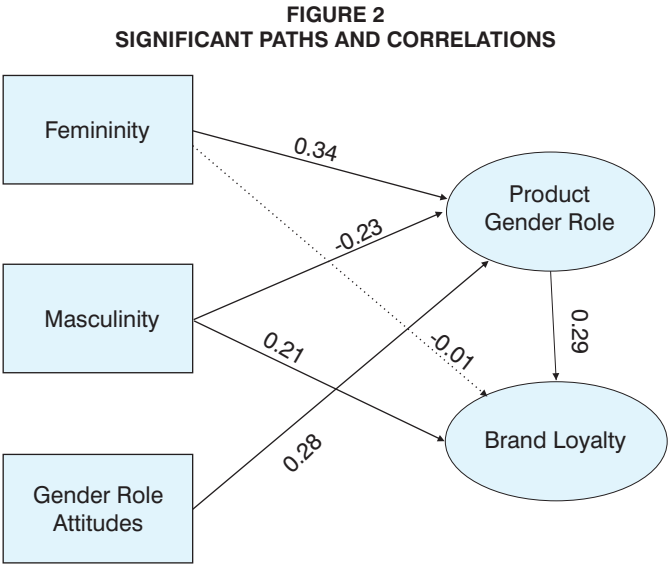
RESULTS

Hypotheses 1 was examined using an ANOVA analysis. The results suggested that males and females are significantly different in both product involvement (p<0.01) and brand loyalty (p<0.03). Female consumers were rated higher than male consumers in terms of both product involvement and brand loyalty. H1(a) and H1(b) were supported.

Path Analysis was used for testing hypothesis sets 2, 3, and 4. The path relationships are shown in Figure 2. In the path analysis, multiple indicators were summed together for each construct and the summated score was used to represent the construct in the model. This approach has become common in marketing literature when a small sample size restricts the use of full structural equation model (i.e. Chaudhuri and Holbrook, 2001; Li and Calantone, 1998). LISREL 8.14 was used to estimate the path model. The analysis resulted in the following fit statistics: X2(1)=1.49, p=0.22, RMSEA=0.046, Goodness-of-fit index (GFI)=0.99, Adjusted goodness-of-fit index (AGFI)=0.96, normed fit index (NFI)=0.98, non-normed fit index (NNFI)=0.93, and Comparative fit Index (CFI)=0.99. Thus, the model overall represents a good fit to the collected data.

Standardized path coefficients for the model appear in Table 2. Except for the path between femininity and brand loyalty, all other paths were statistically significant (a t-value greater than 2.0 indicates significance at the 0.05 level). Another departure from expectations is that the relationship between masculinity and product

involvement is significant but negative (coefficient=-0.23). As diagrammed in Figure 2, these results indicate that femininity and gender role attitudes have an indirect impact on brand loyalty through product involvement, and masculinity has a negative relationship with product involvement but a positive relationship with brand loyalty. Thus, H2(a), H2(d), H3(a), H3(b) and H4 were supported, while H2(b) and H2(c) were not supported.



DISCUSSION

The empirical findings support the research proposition that sex, psychological gender, and gender role attitudes do have unique relationships with product involvement and brand loyalty. As hypothesized, individuals with stronger feminine identities tend to have greater psychological involvement with personal care products and this, in turn, can further lead to greater brand loyalty. In other words, femininity might influence brand loyalty through its positive impact on product involvement. Unexpectedly, individuals with stronger masculine dispositions are less likely to involve themselves with personal care products but they are more likely to remain a strong loyalty to a particular brand. There are two possible explanations for this finding. First, masculine individuals may consider personal care products to be traditionally women’s territory and their involvement with such products would diminish a masculine self-image. Second, masculine individuals tend to build a strong relationship with a brand if the brand provides them a mirror for reflecting a desirable masculine self-image: this brand relationship may be especially important to them when they are using “women’s territory” products. There has been some debate as to whether femininity or masculinity, or both, should be studied for consumer behavior (Jaffe and Berger, 1988). This study contributes to the literature by confirming that both constructs should be included in gender-related consumer behavior studies as they appear to have unique and independent associations with consumer behavior.

This study also finds that individuals with more egalitarian gender role attitudes are more psychologically involved with personal care products. Consistent with Multifactorial Gender Identity theory, gender role attitudes play an important role in predicting consumer behavior. This study confirms that future studies related to gender perceptions and behaviors should include gender role attitudes as a measure.

There are deeper theoretical implications of this study. By examining gender from multiple perspectives, this study challenges sex/gender as an unambiguous construct. At a conceptual level, this study argues that sex and other gender-related constructs are unique and that it would be logical fallacy to assume sex alone can adequately measure all gender-related phenomena. At the empirical level, this study supports the assertion that both psychological gender and gender role attitudes have explanatory value in addition to sex.

To address managerial implications, this study points to the role of one’s gendered-self in behavioral predictions. Self-expression is increasingly become a motivating factor leading to product and brand choices. A product or a brand that can help consumers express their gender identities and sexual orientations may have a more positive impact than those less clearly related to consumers’ core gender- related traits. Furthermore, it may be important to have different positioning strategies for differing products and brands. Because feminine males and females tend to be more profitable targets for personal care products, managers should consider positioning personal care products as an expressive, emotional, and nurturing experience for the consumer. On the other hand, masculine consumers may emphasis brand images that are closely linked with masculine gender identity: a personal care product targeted at masculine males should likely focus on building a masculine brand image rather than on product features. Such a brand positioning may be achieved by emphasizing cerebral experiences with the brand.

Finally, this study indicates that increased consumer product involvement may lead to increased brand loyalty. Brand managers may take greater care to control “causal” variables that lead to increased product involvement. By modifying product features to relate differently to sub-groups of male and female consumers, brand managers can build a favorable brand image for differing consumer profiles and further build multiple loyal consumer groups.

LIMITATIONS AND FUTURE RESEARCH

Although this study does provide some valuable insight, several potential limitations should be noted. First, this study focused on a single industry – the personal care sector – and thus the generalization of findings is limited. Second, some important variables associated with consumer brand perception, such as brand awareness and brand loyalty, were not included in the study. Third, because only one questionnaire was used to measure all constructs the study may have a common-method bias as one root cause of the discovered relationships (Chang and Chieng, 2006). Finally, the study involved a convenient student sample. However, college students are targeted Generation-Y consumers and, for theory-testing purpose, a student sample is deemed acceptable, as a homogenous sample has important advantages for theory- validation research (Calder, Phillips, and Tybout, 1981).

Despite these limitations, the findings of the study suggest some useful research directions. First, researchers can generalize the results by applying the research framework to a cross-product set of categories. Second, some moderating variables and some outcome brand perceptions variables could be added in future studies. Third, an experimental design might be conducted in the future to control certain variables, such as gender consciousness and product or brand experience. Finally, a cross-cultural study might provide more insight on the tested relationships.

REFERENCES

Alden, Dana L., Jan-Benedict E.M. Steenkamp, and Rajeev Batra (1999), “Brand Positioning Through Advertising in Asia, North America, And Europe: The Role of Global Consumer Culture,” *Journal of Marketing*, 63(January), 75-87.

Backwell, Cathy and Vincent-Wayne Mitchell (2003), “Generation Y Female Consumer Decision Making Styles,” *International Journal of Retail and Distribution Management*, 31(2), 95-106.

Barak, Benny and Barbara Stern (1986), “Sex-Linked Trait Indexes Among Baby-Boomers and Pre- Boomers: A Research Note,” *Advances in Consumer Research*, 14, 204-209.

Baumgartner, Hans and Jan-Benedict E.M. Steenkamp (2001), “Response Styles in Marketing Research: a Cross-Cultural Investigation,” *Journal of Marketing Research*, 143-56.

Bem, Sandra, L. (1974a), “Sex Role Adaptability: One Consequence of Psychological Androgyny,” *Journal of Personality and Social Psychology*, 31, 634-43.

Bem, Sandra, L. (1974b), “The Measurement of Psychological Androgyny,” *Journal of Consulting Clinical Psychology*, 42, 155-62.

Bem, Sandra, L. (1981), “Gender Schema Theory: A Cognitive Account of Sex Typing,” *Psychological Review*, 88, 354-64.

Bloch, Peter H. and Marsha L. Richins (1983), “A Theoretical Model for the Product Importance Perceptions,” *Journal of Marketing*, 47, 69-81.

TABLE 2
ESTIMATED STRUCTURAL PARAMETERS

Relationship	Hypothesis	Coefficient	T Value
Femininity → Product Involvement	H2 (a)	0.34	3.16*
Masculinity → Product Involvement	H2 (b)	(-0.23)	(-2*)
Femininity → Brand Loyalty	H2 (c)	(-0.01)	(-0.11)
Masculinity → Brand Loyalty	H2 (d)	0.21	2.09*
Gender Role Attitudes → Product Involvement	H3	0.28	2.82*
Product Involvement → Brand Loyalty	H4	0.29	5.2*

*denotes a significant relationship (t value >2)

- Calder, Bobby J., Lynn W. Phillips, and Alice M. Tybout (1981), "Designing Research for Application," *Journal of Consumer Research*, 8 (September), 197-208.
- Chang, Pao-Long and Ming-Hua Chieng (2006), "Building Consumer-Brand Relationship: A Cross- Cultural Experiential View," *Psychology and Marketing*, 23 (11), 927-59.
- Chaudhuri, Arjun and Morris Holbrook (2001), "The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: the Role of Brand Loyalty," *Journal of Marketing*, 65(April), 81-93.
- Cohen, J. (1983), "Involvement and You: 1000 Great Ideas," *Advances in Consumer Research*, 10, 325- 28.
- Coulter, Robin A., Linda L. Price and Lawrence Feick (2003), "Rethinking the Origins of Involvement and Brand Commitment: Insights from Postsocialist Central Europe," *Journal of Consumer Research*, 30 (September), 151-69.
- Debevec, Kathleen and Easwar Iyer (1986), "Gender Stereotyping of Products: are Products like People?" *Development in Marketing Science*, 1986, Atlanta GA: Academy of Marketing Science.
- Dickson, Peter (1982), "Person-Situation: Segmentation's Missing Link," *Journal of Marketing*, 46, 56- 64.
- Fischer, Eileen and Stephen Arnold J. (1990), "More Than a Labor of Love: Gender Roles and Christmas Gift Shopping," *Journal of Consumer Research*, 17 (30), 333-45.
- Fischer, Eileen and Stephen Arnold J. (1994), "Sex, Gender Identity, Gender Role Attitudes and Consumer Behavior," *Psychology and Marketing*, 11(2), 163-82.
- Fournier, Susan (1998), "Consumers and Their Brands: Developing Relationship Theory in Consumer Research," *Journal of Consumer Research*, 24(4), 343-73.
- Fry, Joseph N. (1971), "Personality Variables and Cigarette Brand Choice," *Journal of Marketing Research*, 8, 298-304.
- Gainer, Brenda (1993), "An Empirical Investigation of the Role of Involvement with a Gendered Product," *Psychology & Marketing*, 10(4), 265-83.
- Gaski, John F. and John R. Nevin (1985), "The Differential Effects of Exercised and Unexercised Power Sources in a Marketing Channel," *Journal of Marketing Research*, 22(May), 130-42.
- Gould, Stephen J. and Barbara B. Stern (1989), "Gender Schema and Fashion Consciousness," *Psychology and Marketing*, 6(2), 129-45.
- Grosz, Elizabeth (1994), *the Essential Difference*, Indianapolis: Indiana University Press.
- Higie, R.A. and L.F. Feick (1989), "Enduring Involvement: Conceptual and Measurement Issues," *Advances in Consumer Research*, 16, 690-96.
- Hirschman, Elizabeth (1993), "Ideology in Consumer Research, 1980 and 1990: A Marxist And Feminist Critique," *Journal of Consumer Research*, 19(4), 537-55.
- Jaffe, Lynn (1994), "The Unique Predictive Ability of Sex-Role Identity in Explaining Women's Response to Advertising," *Psychology and Marketing*, 11 (5), 467-82.
- Jaffe, Lynn and Paul Berger D. (1988), "Impact of Purchase Intent of Sex Role Identity and Product Positioning," *Psychology and Marketing*, 5(3), 259-271.
- Jayanti, Rama K. and Marshall H. Becker (1984), "The Health Belief Model: A Decade Later," *Health Education Quarterly*, 11 (Nov.), 1-47.
- Kates, Steven M. (2002), "The Protean Quality of Subcultural Consumption: An Ethnographic Account of Gay Consumers," *Journal of Consumer Research*, 29(3), 383-98.
- Kempf, DeAnna S., Kay M. Palan, and Russell N. Lacznia (1997), "Gender Differences in Information Processing Confidence in an Advertising Context: A Preliminary Study," *Advances in Consumer Research*, 24, 443-49.
- Li, Tiger and Roger J. Calantone (1998), "The Impact of Market Knowledge Competence on New Product Advantage: Conceptualization and Empirical Examination," *Journal of Marketing*, 62 (Oct.), 13- 29.
- Markus, Hazel R., Marie Crane, Stan Bernstein and Michaeland Siladi (1982), "Self Schemas and Gender," *Journal of Personality and Social Psychology*, 42, 38-50.
- McCabe, Catherine A. (2001)., "Gender Effects on Attitude toward Sports Consumption," Doctorial Dissertation, University of Kentucky Press.
- McCracken, Grant (1988), *Culture and Consumption*, Bloomington, IN: Indiana University Press.
- Meyers-Levy, Joan (1989), "The Influence of A Brand Name's Association Set Size and Word Frequency on Brand Memory," *Journal of Consumer Research*, 16 (2), 197-207.
- Ng, Sharon and Michael Houston (2006), "Exemplars or Beliefs? The Impact of Self-View on the Nature and Relative Influence of Brand Associations," *Journal of Consumer Research*, 32(4), 519-29.

- Oaster, T.R. (1989), "Number of Alternative per Choice Point and Stability of Likert-type Scales," *Perceptual and Motor Skills*, 68, 549-50.
- Palan, Kay M. (2001), "Gender Identity in Consumer Behavior Research: A literature Review and Research Agenda," *Academy of Marketing Science Review*, 2001 (01), 1-25.
- Payne, Thomas J., Jane M. Connor and Gep Colletti (1987), "Gender based Schematic Processing: An Empirical Investigation and Reevaluation," *Journal of Personality and Social Psychology*, 52, 937-45.
- Rosenburg, Morris (1979), *Conceiving the Self*, New York: Basic Books.
- Ross, Ivan (1971), "Self-Concept and Brand Preference," *Journal of Business of the University of Chicago*, 44, 38-50.
- Schaninger C. and C. Buss (1985), "The Relationship of Sex Role Norms to Household Task Allocation," *Psychology and Marketing*, 2(2), 93-104.
- Sirgy, Joseph M. (1982), "Self-Concept in Consumer Behavior: A Critical Review," *Journal of Consumer Research*, 9 (3), 287-99.
- Sirgy, Joseph M. (1986), *Self Congruity: Toward a Theory of Personality and Cybernetics*, New York: Praeger Publishers.
- Spence, Janet T. (1993), "Gender Related Traits and Gender Ideology: Evidence for a Multifactorial Theory," *Journal of Personality and Social Psychology*, *Journal of Personality and Social Psychology*, 64, 624-35.
- Spence, Janet. T. and Robert Helmreich (1972), "Who Likes Competent Women? Competence, Sex Role Congruence of Interests, and Subjects' Attitudes toward Women as Determinants of Interpersonal Attraction," *Journal of Applied Social Psychology*, 2, 197-213.
- Spence, Janet T. and Robert L. Helmreich (1978), *Masculinity & Femininity*, Austin, TX: University of Texas Press.
- Vitz, Paul C. and Donald Johnston (1965), "Masculinity of Smokers and the Masculinity of Cigarette Images," *Journal of Applied Psychology*, 49(3), 155-59.
- Worth, Leila T., Jeanne Smith, and Diane M. Mackie (1992), "Gender Schematicity and Preference for Gender-Typed Products," *Psychology and Marketing*, 9 (1), 17-30.
- Yoo, Boonghee and Naveen Donthu (2001), "Developing and Validating a Multidimensional Consumer- Based Brand Equity Scale," *Journal of Business Research*, 52, 1-14.
- Zaichkowsky, J. L. (1985), "Measuring the Involvement Construct," *Journal of Consumer Research*, 12, 341-52.