

WILL CONSUMERS' LEVEL OF KNOWLEDGE INFLUENCE THEIR ATTITUDES  
TOWARD CELEBRITY-ENDORSED PRODCUTS?

By

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To my family

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Abstract of Thesis Presented to the Graduate School  
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The main purpose of this study was to examine whether consumers' knowledge influences their attitudes and purchase intentions when they confront advertisements with different degrees of congruity of celebrity-endorsed products.

The hypotheses were based on schema incongruity theory, a subject that has enjoyed popularity among researchers. Lee and Thorson (2008) stated that consumers evaluate celebrity endorsements more positively in terms of purchase intention when there is moderate incongruity between the endorser and endorsed product. In addition, three knowledge measures, subjective knowledge, familiarity, and brand association, were used to measure participants' knowledge of a specific endorsed product.

One hundred thirty-four students participated in the experiment. The students were randomly assigned to participate under three different conditions. The questionnaire employed contained two sections; the first measured participants' knowledge levels and the second measured their attitudes toward the endorsed product.

Although the results of this research did not support the hypotheses, the study provided evidence that all participants behave favorably under high-congruence

conditions. In addition, it indirectly supported the schema congruity theory used in most previous studies. The results also supported evidence from previous studies that “knowledge plays an important role in consumer behavior” (Brucks, 1985; Moore & Lehmann, 1980; Punji & Staelin, 1983).

## CHAPTER 1 INTRODUCTION

Researchers have become increasingly interested in examining the effects of knowledge on consumer behaviors (Brucks, 1985; Moore & Lehmann, 1980; Punji & Staelin, 1983). Brand knowledge, which interacts with internal and external factors, indeed plays an important role in consumers' purchasing behaviors. Researchers believe that "consumer knowledge is important both to theoretical models of consumers and to marketing practice" (Flynn & Goldsmith, 1999, p. 57).

Brand knowledge is conceptualized and measured in different ways; that is, researchers have addressed brand knowledge using different dimensions. For example, Bettman and Park (1980) measured familiarity and past experience, while Keller (1993) developed a custom-based brand equity model that contained two different types of brand knowledge: brand awareness and brand image. Park et al. (1992) defined consumer knowledge via two dimensions: actual knowledge (AK) and self-assessed knowledge (SAK). Philippe and Ngobo's (1999) two dimensions (familiarity and product knowledge) of consumer knowledge tested the differences between consumers with high versus low levels of brand knowledge.

This researcher used Brucks' (1985) measurements for objective knowledge, subjective knowledge, and prior experience. These measurements have been widely adopted and are highly regarded among researchers who study consumer decision making. The measurements have also been used to examine the effects of information search, perceived decision outcomes, and attribute importance (Raju et al., 1995). Additionally, Brucks' (1985) product class knowledge classification is more detailed than other measurements.

Subjective knowledge is defined as an “individual’s perception of how much s/he knows,” while objective knowledge is defined as “the amount, type, or organization of what an individual actually has stored in memory” (Brucks, 1985, p. 1). Brucks (1985) also stated that “experience-based measure gauges the amount of purchasing or user experience with the product” (p. 1). In addition to Brucks’ measurements, this research used concepts of Keller’s (1993) brand equity to measure consumers’ brand awareness because Brucks’ measurement does not assess whether consumers’ brand knowledge influences their attitudes and purchase intentions toward endorsed products and celebrity endorsers. Keller (1993) considered attributes, benefits, and brand attitudes as important determinants of consumers’ purchase decisions; he said that “brand associations can be influenced when a brand becomes linked with a celebrity through an endorsement or when it is linked with a sporting event through sponsorship activities” (Keller, 1993, p. 10). To sum up, this study used two researchers’ measurements to gauge consumers’ brand knowledge.

Though brand knowledge is considered important to the marketplace, some marketers are unsure how brand knowledge fits into different marketing plans. To draw consumers’ attention amid all the advertising clutter, marketers try to differentiate their product from those of their competitors. Celebrity endorsement is considered effective in achieving this goal. Marketing practitioners spend a lot of money each year on endorsers for advertising campaigns (Mittelstaedt et al., 2000). In the past, researchers applied different theories to evaluate the effectiveness of celebrity endorsement, including image transfer (McCracken, 1989), schema theory (Misra & Beatty, 1990; Lynch & Schuler, 1994), associative network (Martindale, 1991), and the filtering model

(Taylor & Crocker, 1981). These theories address the connection between celebrity endorsers and their endorsed products. Moreover, most researchers have primarily focused on the physical attractiveness and expertise of celebrity endorsers, in addition to congruity issues. For example, the congruity between celebrity endorser and endorsed product has been widely studied to examine whether the level of credibility increases when endorsers and their endorsed products are congruent. However, few studies have considered such factors as consumers' knowledge.

This thesis is an examination of the relationships between consumers' brand/product knowledge and celebrity endorsements. Do consumers with different levels of knowledge respond differently to celebrity endorsements? Will consumers' brand/product knowledge influence their responses to different levels of product congruity and celebrity endorser? Answering these questions could help marketers decide whether an endorsement is appropriate for situations with different levels of consumer involvement.

This research used a high technology-oriented product to serve as an experimental object. Chang and Mendonca (2004) studied how different product types may affect consumer cognition and browsing behavior. They categorized a digital camera in the high-price/high-involvement section because consumers perform research, including reading customer reviews, product descriptions, and product features and exploring the product category based on their schema, before making purchase decisions (Chang & Mendonca, 2004). Additionally, Roehm and Sternthal said that "highly knowledgeable consumers may exhibit a tendency to delve into the details of the message, especially for high technology-oriented products" (2000, p. 261)

## CHAPTER 2 LITERATURE REVIEW

### **Endorsement**

During past years, “millions of dollars have been spent annually on celebrity endorsement contracts on the premise that source effects play an important role in persuasive communications” (Tripp et al., 1994, p. 535). Many researchers have studied the effectiveness of these endorsements (Biswas et al., 2006; Friedman & Friedman, 1979; Goldsmith et al., 2000; Gwinner & Eaton, 1999; Kim & Na, 2007; Lee & Thorson, 2008; Lynch & Schuler, 1994; McCracken, 1989; Misra & Beatty, 1990; Till & Shimp, 1998b). Some have stated that endorsement is an effective marketing tool, while others have argued that it is risky, especially celebrity endorsement (Till & Shimp, 1998b). Tellis (2004) categorized endorsements into three categories: expert, celebrity, and lay endorsers. Biswas and Das (2006) also broke down endorsement into three types: expert endorsement, celebrity endorsement, and non-celebrity non-expert endorsement. Tellis (2004) and Biswas and Das (2006) defined these three categories similarly: Experts are “individuals or organizations that the target population perceives as having specialized knowledge in a particular area,” celebrities are “individuals who are well-known to the population because of the publicity associated with their lives,” and lay endorsers are defined as “initially unknown or fictitious individuals or characters used as a spokesperson in an ad” (Tellis, 2004, p. 180).

### **How Do Endorsements Work?**

The process of endorsement is complex and involves the interaction of source, product, message, and situational factors (Mittelstaedt et al., 2000). Endorsement has been widely considered an effective marketing tool to enhance consumers’ awareness,

improve consumers' memory, and reinforce the image of endorsed products. When it comes to what makes endorsement work effectively, researchers have developed different theories: image transfer (McCracken, 1989), source credibility model (Hovland & Weiss, 1951-1952), and source attractiveness model (McGuire, 1985).

Image transfer "takes place as a result of a number of marketing related activities" (Smith, 2004, p. 458). The image transfer model illustrates the process of how meanings are passed from celebrity to product and then from product to consumer (Smith, 2004). McCracken (1989) suggested that "the effectiveness of an endorser depends, in part, on the meanings he or she brings to the endorsement process" (p. 315). Gwinner (1997) noted that when celebrity endorser and endorsed product are paired in an advertisement, the meaning of the celebrity moves to the product; that is, "meanings associated with the celebrity would become associated with the product in the mind of the consumer" (as cited in McCracken, 1989, p. 147). "The transfer process is completed when a consumer acquires/consumes the product, thus transferring the meaning to the user" (Gwinner & Eaton, 1999, p. 48).

The source credibility model (Hovland model) suggested that "the effectiveness of message depended on the 'expertness' and 'trustworthiness' of the source" (McCracken, 1989, p. 310). Goldsmith et al. (2000) stated that credibility is defined as "the extent to which the source is perceived as possessing expertise relevant to the topic of the communication and can be trusted to give an objective opinion on the subject" (as cited in Belch & Belch, 1994; Ohanian, 1990, p. 43). These two dimensions, expertise and trustworthiness, of the source credibility model have been considered crucial in conceptualizing credibility and persuading consumers (Goldsmith et al., 2000).

Tellis (2004) argued that the “central premise of Source Credibility theory was that the acceptance of a message depends on the source’s quality. Expertness and trustworthiness are two key qualities that, if present to a sufficient degree, will lead the audience to accept and internalize the message communicated” (Tellis, 2004, p. 181). McCracken (1989) defined expertness as “the perceived ability of the source to make valid assertions and trustworthiness as the perceived willingness of the source to make valid assertions” (p. 311).

The source attractiveness model (McGuire model) asserts that “the effectiveness of a message depends on the similarity, familiarity and liking of an endorser” (Kim & Na, 2007, p. 311). McCracken (1989) defined familiarity as “knowledge of the source through exposure, likability as affection for the source as a result of the source’s physical appearance and behavior and similarity as the resemblance between the source and receiver of the message” (p. 311). Kahle and Homer (1985) found that physically attractive celebrity endorsers, when endorsing beauty-enhancing products, generate a positive effect on consumers’ brand attitudes, purchase intentions, brand recall, and recall of advertisement-related issues. Tellis (2004) posited that the reason the source attractiveness model (McGuire model) is effective is conditioning. He defined conditioning as “a process by which effect or response to a particular source is transferred to a target by the regular association of the two stimuli” (Tellis, 2000, p.183).

Each of the theories has been expanded upon by many researchers with different perspectives and from different fields. Most researchers have focused on one type of endorsement (expert, celebrity, or lay) and evaluated its effectiveness. The majority believes that celebrity endorsement is “effective in dimensions such as trustworthiness,

believability, persuasiveness, and likability” (Biswas et al., 2006; Freiden, 1984; Friedman & Friedman, 1979; Till & Shimp, 1998b). “If the goal is to elicit awareness of the product, then a celebrity would probably work best” (Freiden, 1984, p. 40).

### **Celebrity Endorsement**

Celebrity endorsement is widely used in advertisements to improve the effects of persuasive communication (Heerden et al., 2008). McCracken (1989, p. 310) classified celebrity advertisements into four types: explicit, implicit, imperative, and copresent modes. “I endorse the product” is an example of the explicit mode, “I use this product” is an example of the implicit mode, “You should use this product” is an example of the imperative mode, and the copresent mode is exemplified by ads “in which the celebrity merely appears with the product.” McCracken (1989) further defined a celebrity endorser as “any individual who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement” (p. 310). Seno and Lukas (2007) defined the image of a celebrity as “the perceptions about an individual who enjoys public recognition as reflected by the celebrity associations held in consumer memory” (p. 122).

### **How Does Celebrity Endorsement Work Effectively?**

As discussed above, celebrity endorsement is considered the most effective endorsement among all types of endorsements; it is commonly used in advertisements to improve the effectiveness of persuasive communication (Kim & Na, 2007). For example, compared to non-celebrity endorsements, the use of celebrity endorsement is considered “more interesting,” “stronger,” and “more effective” in beer commercials. Additionally, the use of celebrity endorsers is believed to improve the endorsed brands’ reception (Heerden et al., 2008).

Researchers have developed different theories to evaluate the effectiveness of celebrity endorsement, including the associative network model (Craik & Lockhart, 1972), the match-up hypothesis (Kahle & Hommer, 1985), and the schema congruity theory (Lynch & Schuler, 1994; Kamins, 1990). These theories have been widely used in celebrity endorsement-related studies in the past.

The associative network model has been used to support the conceptualization of transfer in celebrity endorsements (Till & Shimp, 1998b) and explains “how the memory of brands is activated when allied together to produce transfer” (Smith, 2004, p. 460). Misra and Beaty (1990) stated that “information not consistent with an individual’s schema may be quite significant and informative and, therefore, be attended to more closely and be processed more deeply” (p. 162). Till (1998a) stated that the “key aspects of this model include a set of processing units (nodes), a state of activity, a pattern of connectivity among units, and a learning rule that allows patterns of connectivity to be modified based on experience” (as cited in Rumelhart et al., 1986, p. 401). In the marketplace, consumers may possess a greater association set for a certain celebrity than for a certain brand; “in that case thinking of the brand is more likely to activate the celebrity node than thinking about the celebrity is to activate the brand node” (Till & Shimp, 1998b, p. 69).

The match-up hypothesis implies that “highly relevant characteristics of the spokesperson are consistent with the highly relevant attributes of the brand” (Misra & Beaty, 1990, p. 161). Kamins (1990, p. 4) suggested that the match-up hypothesis implies that “the physical attractiveness of a celebrity endorser may only enhance both product and ad-based evaluations if the product’s characteristics ‘match up’ with the

image conveyed by the celebrity.” The results of match-up experiments suggest that this hypothesis is likely to generate better recall and brand information (Misra & Beaty, 1990). Additionally, “if consumers perceive a strong relationship between the persona of the endorser and the brand name of the product, the endorsers are effective” (Misra & Beaty, 1990, p. 160).

### **Schema (Congruity/ Incongruity) Theory**

One explanation that supports the effectiveness of the match-up theory is the schema theory (Lynch & Schuler, 1994; Gwinner & Eaton, 1999; Misra & Beaty, 1990). Gwinner and Eaton (1999) noted that “schema theory is based on research which found that memory is not a verbatim account of past experiences, but rather a blend of both specific memories and general abstractions about types of people, activities, and objects” (as cited in Bartlett, 1932; Runelhart & Ortony, 1977, p. 49). Schema theory implies that “consumers have preconceived opinions of both the brands involved in the sponsorship and the categories to which these brands belong” (Smith, 2004, p. 460). In addition, consumers use these schemas to judge the brands’ “match-up” (Smith, 2004, P.460). Smith (2004) further suggested that schema theory is used to explain “how the categories from which the brands come affects the way memory is activated and match-up occurs” (p. 460). It represents a system that lets people function in a complicated environment (Gwinner & Eaton, 1999). Kim and Na (2007) conducted two experiments to evaluate the fit between endorsers and endorsed products and how it influenced attitudes toward the endorsed products. They demonstrated that when a celebrity endorser and endorsed product have a good fit, consumers evaluate an endorsed product more favorably. Schema theory is a useful framework to examine why the match and mismatch conditions illustrated in the literature might have influenced

consumers' reactions toward brands, spokespersons, and an attractiveness-related product (Lynch & Schuler, 1994). Misra and Beatty (1990) concluded that when a congruent relationship exists between spokesperson and brand, consumers recall information about the brand more easily.

Lynch and Schuler (1994) used schema theory to interpret previous inquiries into the match-up hypothesis. They examined the match-up hypothesis and found that the congruence in advertisements between celebrity endorsers' characteristics and endorsed product attributes was connected to observed variations in source credibility and other advertising measures. Moreover, they used schema theory to develop experiments to demonstrate how the spokesperson/product match could change the schema.

It has been stated that the integration between the matched or credibility concept with the spokesperson schema is related to Kamins' (1990) conclusion that an attractive endorser and attractiveness-related product match may enhance the credibility of the endorser (Lynch & Schuler, 1994). Additionally, the results of the match-up may generate a new schema and new information. Lynch and Schuler (1994) found that "there was no change occurring between the product schema at the time of exposure and the subsequent schema of the product/brand as affected by that exposure" (p. 425). This is because the concept of "attractive" already exists in the product schema, and the attractiveness-attractiveness match develops no new information. Kamins' (1990) findings were also consistent with Lynch and Schuler's (1994) interpretation, which found that "no significant differences in brand evaluations related to the match/no-match

treatments. This is not to say that the brand schema in this instance is likely to be entirely unchanged” (Lynch & Schuler, 1994, p. 425).

Even though many researchers have stated that congruence between endorser and endorsed product will lead to more favorable attitudes toward the product, some researchers think that moderate incongruity may draw more of the consumers’ attention to the product than extreme congruity or extreme incongruity. Meyers-Levy and Tybout (1989, p. 51) concluded that “moderate schema incongruity resulted in more favorable evaluations than schema congruity or extreme schema incongruity.” Lee and Thorson’s (2008) research revealed that consumers evaluate celebrity endorsements more positively in terms of purchase intention when there is moderate incongruity between the endorser and endorsed product. Dimofte et al. (2003, p. 9) explained that consumers would generate favorable attitudes toward inconsistent information because a “clear distinction must be made between information that is incongruent with extant product attitudes versus extant advertisement schema.” Schema incongruity was thought to be important to marketers because “the degree to which information is discrepant from schema expectations can affect a number of consumer judgments such as product evaluation and product ratings” (Desai & Gencturk, 1995, p. 39).

Lee (1995) concluded that when consumers evaluate products, they engage in different types of information processing because the procedure depends on product-schema congruity and involvement. Lee (1995) further explained that when consumers think the information is congruent, they make less effort to evaluate it. Even if they think the information does not match, they do not use a piecemeal process unless something/someone requires them to do so. According to Lee (1995, p. 214), “[i]t is only

when the information is incongruent with the category schema and they are highly involved with the evaluation situation that they engage in attribute-based piecemeal processing.” Peracchio and Tybout (1996, p. 179) stated that consumers with elaborated knowledge will “moderate how an activated schema affects product evaluations.”

Prior research has focused on the relationships between a brand and a product category. This study took it a step further to address the relationships between celebrity endorser and endorsed products and hypothesized that a similar process occurs between them. Therefore, this study suggested that the congruity that exists between celebrity endorsers and their endorsed products will influence attitude and purchase intention (Priester et al., 2004).

This study was intended to measure participants’ knowledge, purchase intention, and attitudes to examine whether consumers with high brand knowledge influence the effectiveness of celebrity endorsement; we also investigated whether consumers with different levels of knowledge involved in different levels of congruity between celebrity endorsers and endorsed products generate different attitudes and purchase intentions toward the endorsed products.

### **Knowledge**

Consumer knowledge has been investigated by many researchers (Baker et al., 2002; Brucks, 1985; Flynn & Goldsmith, 1999; Gronhaug et al., 2002; Keller, 1993; Pappu et al., 2005; Park et al., 1992; Philippe & Ngobo, 1999; Raju et al., 1995; Schmitt & Geus, 2006). Some researchers (Gronhaug et al., 2002; Brucks, 1985) measured consumers’ knowledge to examine the influence of their abilities to search information,

and some discussed the roles of knowledge and involvement (Baker et al., 2002) or extended the previous measurement (Philippe & Ngobo, 1999).

The definitions and measurements of knowledge vary; Keller (1993) defined brand knowledge as having two dimensions, brand awareness and brand image; Philippe and Ngobo (1999) pointed out two major dimensions of knowledge: familiarity and product knowledge; Brucks (1985) described three categories of consumer knowledge (subject knowledge, object knowledge, and prior experience); Park et al. (1992) defined knowledge as having two dimensions: actual knowledge (AK) and self-assessed knowledge (SAK). Philippe and Ngobo (1999) said that “knowledge is a multidimensional construct because there are different types of knowledge (e.g., objective vs. subjective, brand vs. product type knowledge)” (p. 569).

Philippe and Ngobo (1999) reexamined the previous knowledge assessment issues and used wine as an experimental object to measure consumers’ familiarity and product knowledge. They concluded that there are four elements of knowledge: familiarity, objective product category information, objective expertise, and subjective expertise. The conclusions were consistent with previous studies that suggested knowledge is a multidimensional construct. Familiarity was defined as behavioral content of knowledge with two dimensions: depth and breadth. Product knowledge is composed of two components: product class information and expertise (Philippe & Ngobo, 1999).

Park et al. (1992) examined how product expertise and knowledge of brands, attributes, and features affected consumers’ thoughts. They discussed the relationships between the two constructs of knowledge: actual knowledge and self-assessed

knowledge. AK was considered “an objective measure of factual memory content” and SAK was considered “a perceptual measure of memory content.” “AK may provide raw material for problem solving, and lead to increased efficiency in search, and, hence better accuracy in problem solving; SAK may provide the motivation to search for and process task-relevant information” (Park et al., 1992, p. 193).

### **Brand Knowledge—Keller’s Customer-Brand Equity Model**

It is crucial to “understand the content and structure of brand knowledge because they affect what comes to mind when a consumer thinks about a brand” (Keller, 1993, p. 2). Schmitt and Geus (2006) created a conceptual model that indicated how three variables—perception, cognition, and relationship—are consistent and how they mutually affect current and future purchase intentions. They said “brand knowledge variables assess how customers perceive and evaluate brands” (Schmitt & Geus, 2006, p. 98). Keller (1993) conceptualized brand knowledge “according to an associative network memory model in terms of two components, brand awareness and brand image” (p. 1). Brand awareness is considered consistent with brand recall and consumers’ recognition performance; it is defined as “how easy it is for the consumer to remember the brand” (Schmitt & Geus, 2006, p. 99). Pappu et al. (2005) also said that brand awareness “consisted of both brand recognition and brand recall” (as cited in Keller, 1993, p. 145).

Aaker (1996) suggested different brand equity based on Keller’s (1993) customer-brand equity. He structured brand equity in four dimensions: loyalty, perceived quality, associations, and awareness. Loyalty was defined as “the attachment that a customer has to a brand”; perceived quality was defined as quality that “provided value to consumers by giving them a reason to buy and by differentiating the brand from

competing brands” (Pappu et al., 2005, p. 145). Associations were defined as “involving image dimensions that are unique to a product class or brand” (as cited in Aaker, 1991). Aaker (1996) stated that brand awareness can influence perceptions and attitudes. Additionally, it also “reflects the salience of the brand in the customer’s mind” (Aaker, 1996, p. 144). Six levels of awareness have been identified: recognition, “recall, top-of-mind, brand dominance, brand knowledge, and brand opinion” (Aaker, 1996, p. 144).

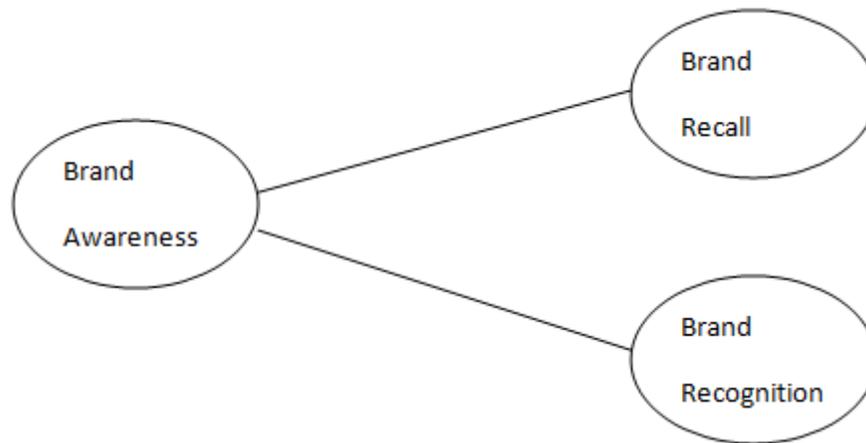


Figure 2-1. Dimensions of brand awareness

Figure 2.1 was modified based on Keller’s (1993) summary of dimensions brand knowledge. Brand awareness includes two primary components, “brand recall and brand recognition” (p. 3). Brand recognition involves consumers’ abilities to recall previous experience with the brand when the brand is presented. Consumers need to accurately indicate whether they have seen or heard of the brands presented. In contrast, brand recall involves customers’ abilities to relate to the brand when presented with a product category. Customers need to accurately identify the brand from their memory (Keller, 1993).

Brand image is considered a set of associations connected to the brand that consumers store in memory (Keller, 1993). Brand associations fall into four categories:

“types of brand association, favorability of brand associations, strength of brand association, and uniqueness of brand association” (p. 3). Types of brand association are further classified into three categories: attributes, benefits, and attitudes. Attributes are “descriptive features that characterize a product or service” (Keller, 1993, p. 4). Thus, attributes are related to what consumers think about the product or service. Brand attribute consists of two components: product-related attributes and non-product-related attributes. Benefits are “the personal value consumers attach to the product or service” (Keller, 1993, p. 4); they are related to what consumers believe the product or service can do for them. Benefits consist of functional, experiential, and symbolic benefits. Attitudes are considered the basis of consumerism and are defined as “consumers’ overall evaluations of a brand” (Keller, 1993, p. 4).

According to Keller (1993, p. 8), “high levels of brand awareness and a positive brand image should increase the probability of a brand choice, and lead to greater consumer loyalty and decrease vulnerability.” In addition, perceptual and cognitive models suggest that brand knowledge influences consumers’ responses to the brand (Schmitt & Geus, 2006). Schmitt and Geus (2006) further stated that current behavior refers to the brand purchase and its usage; future behavior refers to purchase intention toward a brand.

This research used concepts from Keller’s customer-brand equity model, that is, the measure of brand awareness and brand image.

### **Product Knowledge**

As mentioned before, Philippe and Ngobo (2006) classified consumer knowledge into product (class) knowledge and product familiarity. Baker et al. (2002) stated that “product knowledge is a complex, multidimensional construct that is characterized by

the structure and the content of information stored in memory” (as cited in Alba & Hutchinson, 1987, p. 47). Product knowledge is considered an important factor in the research on consumer decision making (Raju et al., 1995). Flynn and Goldsmith (1999, p. 57) stated that “there are three distinct but related ways in which consumer knowledge is conceptualized and measured: objective knowledge, subjective knowledge, and experience.” Researchers have divided product class knowledge into three categories. “The first measures an individual’s perception of how much s/he knows. The second measures the amount, type, or organization of what an individual actually has stored in memory. The third category measures the amount of purchasing or user experience with the product” (Brucks, 1985, p. 1); product knowledge plays an important role in the consumer decision-making process (Raju et al., 1995, p. 155).

Biswas and Sherrell (1993) stated that product knowledge includes information about the functional attributes of the product class and how such attributes contribute to brand differences. They further defined an expert as “an individual whose perception of his overall product knowledge is high” and a novice as “an individual whose perception of his overall product knowledge is low” (Biswas & Sherrell, 1993, p. 34). Maheswaran and Sternthal (1990) noted that “a technical attribute focus is likely to be effective because experts are able to infer all of the related benefits and find technical description to be more convincing” (as cited in Alba & Hutchinson, 1987, p. 67). “The consumers with high levels of objective knowledge may be more discriminating about certain attributes” (Raju et al., 1995, p. 158). Novices tend to focus on consistent information while experts tend to infer, recall, and describe the inconsistent situation (Fiske et al., 1983). Fiske et al. (1983) further stated that experts may consider more inconsistent

information than novices when they are deciding among materials that contain both inconsistent and consistent information. Expert consumers are also thought to be more easily influenced by the match or mismatch of information to category knowledge than novice consumers (Sujan, 1985).

Petty et al. (1997, p. 632) stated that “prior knowledge can both foster thinking about a message and help people bolster initial opinions.” Low-familiar consumers tend to use extrinsic cues, such as price, to evaluate a product because there is little intrinsic product information stored in their memories; this causes consumers to develop incomplete schema, which makes processing intrinsic information more difficult (Rao & Monroe, 1988).

### **Attitude**

Attitude has been defined in a variety of ways, but can generally be considered as an evaluation or judgment of an object in question as positive, negative or somewhere in between (Petty et al, 1997). Petty et al (1997) stated that “conceptualizing attitudes as having affective (emotional) and cognitive (belied) bases has been one of the most popular means of classifying the different types of information upon which attitudes are based” (Petty et al, 1997, p.613). “The main issue of attitude theory is the relation between attitudes and the experience that underlies them” (Eagly et al, 1994, p.113). One commonly discussed hypothesis states that attitudes are referred to the evaluations of attitude objects, develop from people’s cognitions, that is, from the ideas that people form about the attitude objects (Eagly et al, 1994). Past researchers usually used close-ended questionnaires to measure subjects’ cognitions and affection. While some researchers (Eagly et al, 1994) chose a different way (open-ended), there is no confirmation whether this is an improvement over the traditional close-ended measures.

In addition, Debono and Omoto (2001) and Allport (1935) noted that the concept of attitude was believed to influence behaviors. Petty et al (1997) stated that “one’s history of choosing attitude-relevant situations predicted willingness to engage in future behavior more for low than high self-monitors” (as cited in Debono and Snyder’s 1995, p.635). Fabrigar et al (2006) stated that conceptualization of knowledge shows that the greater knowledge will enhance attitude-behavior consistency. “The present experimental demonstrations of effects for knowledge provide some of the strongest evidence to date that knowledge plays an important role in attitude-behavior consistency” (Fabrigar et al, 2006, p.574).

## CHAPTER 3 CONCEPTUALIZATION

Extending from previous theories, this study proposes a hypothesized model that incorporates the variables of expert/novice and high, medium and low levels of congruity. Constructs in this model are the subjects' level of knowledge, levels of congruity, attitude toward the endorsed product, and purchase intention.

### **Different Levels of Knowledge: Expert/Novice**

Alba and Hutchinson (1987) described experts as those who “have base knowledge structures that is richly endowed with attribute information as well as abstract information about structural relations,” and novices as being “likely to have knowledge structure that may include some attribute information but relatively little abstract information about underlying concepts ” (p. 259) (as cited in Roehm & Sternthal, 1997).

Consumers will compare their perceptions of the characteristics of a celebrity endorser with the perceived advertised benefits of the endorsed products to determine the “fit” between the celebrity and the product (Misra & Beaty, 1990). Novices tend to focus on consistent information, while experts tend to infer, recall, and describe inconsistent conditions (Fiske et al., 1983). According to Fiske et al., experts may also consider inconsistent information more than novices do when they are making a decision involving a product with a match that is either highly inconsistent or highly consistent. Consumer experts are more likely to be influenced by a marked match or mismatch than are novice consumers (Sujan, 1985).

## Knowledge Measures

Philippe and Ngobo (2006) stated that consumer knowledge includes two dimensions—product knowledge and familiarity —where product knowledge is measured in terms of subjective knowledge, objective knowledge and experience, and familiarity is described as a “behavior component of knowledge” (p.569). Brucks (1985) observed that “the ‘subjective knowledge’ measures an individual’s perception of how much s/he knows, ‘objective knowledge’ measures the amount, type, or organization of what an individual actually stores in memory, and ‘experience’ measures the amount of purchasing or usage experience with the product” (p.1).

Keller (1993) conceptualized brand knowledge “according to an associative network memory model which consists of two components, brand awareness and brand image” (p.1). Brand awareness is consistent with brand recall and consumers’ recognition performance such that brand awareness can be measured by “how easy it is for the consumer to remember the brand” (Schmitt & Geus, 2006, p. 99). Keller (1993) defined brand image as the set of associations connected to a brand that consumers store in memory. Aaker (1996) measured this association on four different levels—perceived value, personality, organization and differentiation—and suggested that “brand associations could provide value to the consumers by providing a reason for consumers to buy a product and by creating positive attitudes/feelings among consumers” (Aaker, 1991, p.145).

The current study used three knowledge measures—familiarity, subjective knowledge and brand association—to measure subjects’ knowledge. Objective knowledge is excluded because of the difficulty in measuring it; previous studies have

focused on the product category instead of a specific brand, resulting in the absence of accurate and proven criteria usable for measuring objective knowledge.

### **Congruity**

Meyers-Levy and Tybout (1989) defined congruity as “a match between the attributes of an object/product and a relevant schema, whereas incongruity involves some form of mismatch” (p. 41). Lee and Thorson (2008) suggested that incongruity occurs when the image of celebrity is inconsistent with the endorsed product such that a clear link between them is absent.

Lee (1995) contended that consumers engage in processing different types of information when they evaluate products because the procedure depends on product-schema congruity and involvement. When the information is considered congruent, consumers make less effort to go through the information. Lee and Thorson (2008) revealed that consumers evaluated celebrity endorsements more positively in terms of purchase intention when there was a moderate incongruity between the endorser and endorsed product and concluded that participants with higher degrees of product involvement were more likely to be influenced by the impact of celebrity-product congruence. In other words, compared to participants with low product involvement, those with higher product involvement tend to exert more cognitive efforts to understand the association between celebrity endorsers and their endorsed products.

In addition, Alba et al. (1987) found that schema-inconsistent facts are recalled more accurately than schema-consistent ones. As a result, if a product's features are inconsistent with a consumer's expectations for the product or its class, the consumer should easily recall those features, especially if the consumer is an expert.

## Hypotheses

Meyers-Levy and Tybout (1989) and Lee and Thorson (2008) found that consumers evaluated celebrity endorsements more positively in terms of purchase intention when there was a moderate incongruity between the endorsers and their endorsed products. However, Fiske et al. (1983) found that novices tend to focus on consistent information, while experts are able to infer, recall, and describe inconsistent situations to a larger extent than consistent situations. Therefore, we form the following hypotheses:

H1. Experts generate more positive attitudes toward moderately incongruous endorsed products than toward highly congruous or highly incongruous endorsed products.

H2. Experts generate greater purchase intentions toward moderately incongruous endorsed products than toward highly congruous or highly incongruous endorsed products.

H3. Novices generate more positive attitudes toward highly congruous endorsed products than toward moderately incongruous or highly incongruous endorsed products.

H4. Novices generate greater purchase intentions toward highly congruous endorsed products than toward moderately incongruous or highly incongruous endorsed products.

## CHAPTER 4 METHODOLOGY

### **Experimental Design**

The purpose of this study was to understand whether consumers' different levels of knowledge influence their attitudes toward celebrity-endorsed products; therefore, 2 (expert, novice) X 3 (high congruity, moderate incongruity, high incongruity) factorial experiments were applied in the study.

### **Pretest**

The purpose of this pretest was to establish the celebrity endorsers for the experiment. Thirty students took the pretest at the University of Florida during the spring semester of 2010. They were asked to evaluate their familiarity with the endorsed product, a Canon branded digital camera, and then to rate each celebrity according to how appropriate they thought the endorser was for the specific endorsed product. Some celebrities from Lee and Thorson's (2008) pretest were used. Ten celebrities were selected based on "five criteria: high ratings on the match-up factor, salience, high familiarity, little recall of the prior endorsement, and overall favorableness" (p. 437). Because this pretest focused on college students, two celebrities were removed from the list and then eight additional celebrities were added based on their popularity. The participants were simultaneously presented with a picture of Canon's digital camera and pictures of the celebrities. Assuming the celebrities endorsed Canon's digital camera, the participants then evaluated the level of congruity between the camera and the celebrities. This study used the scales from Lee and Thorson's (2008) pretest, which include six 7-point bipolar items: "very appropriate/very inappropriate, very consistent/inconsistent, very likely/very unlikely, very relevant/irrelevant, matches very

well/does not match, and goes together/does not go together” (Lee & Thorson, 2008, p. 438). The results of this pretest were used to classify the three celebrity endorsers into high congruity, moderate incongruity, and high incongruity, depending on the total scores. Following the pretest, the print ads were simulated featuring the celebrity subjects chosen from the pretest.

Celebrity Jessica Alba received the highest scores in this pretest, while Bob Dole received the lowest (see Figure 4.1).

The SPSS system was used to examine the reliability of the scale. The alpha score was 0.96; this indicated that the scale had high internal consistency (reliability).

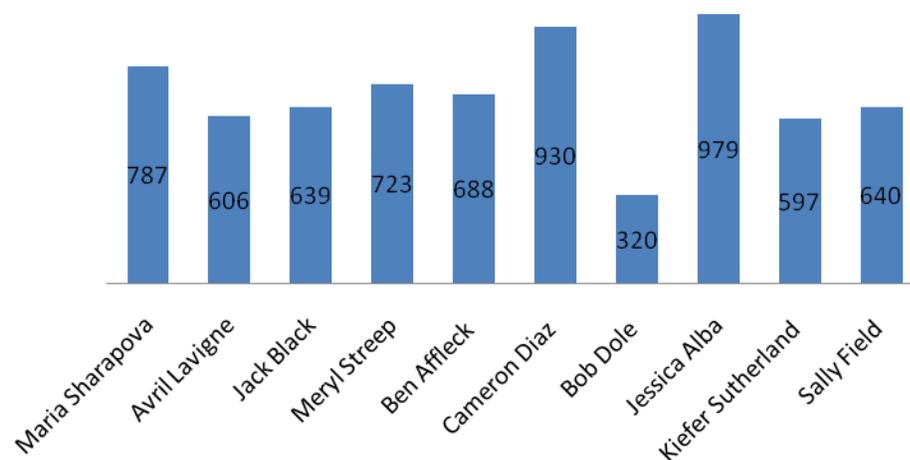


Figure 4-1. Total scores each celebrity received.

### Second Pretest

The purpose of the second pretest was to make sure that participants were familiar with the celebrities presented in the first pretest. Fifteen students participated in the second pretest. They were asked to write down the name of each celebrity they could recall. They were told to write “DK,” which stands for “don’t know,” for celebrities whose name they did not know. The results of the pretest showed the level of familiarity

by celebrity. The level of familiarity of Sally Field, Bob Dole, Maria Sharapova, and Kiefer Sutherland was below 80%; therefore, these four celebrities were eliminated from the celebrity list. The remaining celebrities were Jessica Alba, Cameron Diaz, Merryll Streep, Jack Black, Ben Affleck, and Avril Lavigne. Jessica Alba, Ben Affleck, and Avril Lavigne were then classified into high congruity, moderate incongruity, and high incongruity, respectively, based on the scores they received in the first pretest.

### **Stimuli Materials**

The stimuli were simulated print advertisements. The advertisements featured a Canon digital camera (SD 980 IS Digital ELPH) paired with different celebrity endorsers selected from the pretest. This study used similar content for all three advertisements to minimize the influence of factors other than the endorsers. Each advertisement included one slogan and a brief description of the Canon digital camera.

### **Sample and Procedure**

The participants were students from the University of Florida. Gender was not considered and participants' ages ranged from 18 years old to 34 years old. At the beginning of the experiment, the researcher assured participants that their personal information and responses would be confidential and anonymous. They received a questionnaire and were asked to read the first page of the instructions.

The questionnaire contained two sections; the first measured the participants' levels of knowledge, and the second measured their attitudes toward the endorsed product (see Appendix B). One hundred thirty-four students participated in the experiment. They were randomly assigned to different situations (high congruity, moderate congruity, high incongruity). After participants answered the knowledge-measuring questions in the first section, they were presented with different print ads.

A total of 18 questions (association: 10; subjective knowledge: 7; familiarity: 1) were used to measure participants' knowledge.

### **Measures of Knowledge**

This research relied on Brucks' (1985) product class knowledge and part of Aaker's (1996) awareness and association to measure participants' recall, recognition, perceived value, personality, differentiation, and organizational associations of the brand.

### **Subjective Knowledge**

This study used a format based on Flynn and Goldsmith's (1999) definition to measure subjective knowledge. They defined subjective knowledge as "a consumer's perception of the amount of information they have stored in their memory" (Flynn & Goldsmith, 1999, p. 59). They further developed seven statements based on self-assessments of the product and used a 7-point Likert scale to record answers. Some of questions were reversed or shared the same meanings; therefore, this research used the seven original questions.

### **Usage Experience**

This researcher applied Bettman and Park's (1980) measurements, asking participants whether they had ever searched for information on, used, or owned a digital camera.

### **Brand Awareness/Association**

This part involved a modification of Aaker's (1996) measurement to examine how well participants recalled and recognized a specific brand (top-of-mind awareness and brand-opinion awareness). Participants answered two open-ended questions:

List all brands of digital camera which you can recall.

What is your favorite digital camera?

Moreover, they were provided with 10 questions modified from Aaker's measurement. These questions included four dimensions: perceived value, personality, organization, and differentiation.

### **Measures of Brand Attitude and Purchase Intention**

This study used Westover and Randle's (2009) measurements to measure participants' brand attitudes and purchase intentions. Participants answered three attitude-relevant questions using a 7-point semantic differential scale (strongly like/strongly dislike, positive/negative, favorable/unfavorable) and three questions related to purchase intention using a 7-point semantic differential scale (unlikely/likely, definitely would not/definitely would, improbable/probable).

CHAPTER 5  
RESULTS

**Descriptive Analysis**

Among the 134 survey participants, 49 (36.6%) were male, and 85 (63.4%) were female. Their ages ranged from 18 to 34; the mean age was 22.6 (see Table1). Of the participants, 73 (54.5%) were Caucasian, 11 (8.2%) were African American, 33 (24.6%) were Asian, 13 (9.7%) were Latino, 4 (3%) were another ethnicity (see Table 5-1).

Table 5-1. Sample demographic characteristics

Characteristic		N
Gender	Male	49
	Female	85
Age	18-25	108
	26-30	19
	31-36	7
Ethnicity	Caucasian	73
	African American	11
	Asian	33
	Latino	13
	Other	4

80.6% of all subjects were able to recall the brand “Canon” when asked, “List all brands of digital camera that you can recall”; 33.6% of all subjects considered Canon as their favorite brand of digital camera brand when asked, “What is your favorite digital brand?”; 62.7 % of all participants had searched for information about Canon’s digital camera when asked, “Have you ever searched for information about Canon’s digital camera?” and 38.8% of subjects owned Canon digital cameras when asked, “Do you own a Canon digital camera?”.

## Measures

Mean scores for each measurement item and scale were computed and provided in Table 5-2. The results showed that the mean score of brand association was 4.81 (SD = 0.96), subjective knowledge was 3.66 (SD = 1.22), and familiarity was 4.47 (SD = 1.56).

The three knowledge measures, subjective knowledge, familiarity, and brand association, were summed to create an expertise measure. The 134 respondents had a mean of 9.96 (SD = 2.26) on the expertise measures, with the maximum and minimum score being 15.49 and 4.70 respectively.

The mean scores of respondents for brand association (10 items), subjective knowledge (7 items), and familiarity (1 item) averaged and then summed to create the expertise scale. The median of the mean scores was 10.319.

A median split (median = 10.319) was used to create the expert and novice groups. As a result, a total of 134 participants were included in the following analysis: 68 subjects (25 were male and 43 were female) were categorized in the expert group and 66 subjects (24 were male and 42 were female) were classified as the novice group. The results showed that the mean scores of expert and novice groups were 11.77 (SD = 1.24) and 8.10 (SD = 1.40), respectively (see Table 5-2).

### Dependent Measures

The dependent variables of attitude ( $\alpha = .90$ ) and purchase intention ( $\alpha = .93$ ) were operationalized using 7-point semantic differential scales. Appendix C shows the items used for these two variables. The results showed that the mean score of attitude was 4.65 (SD = 1.08); purchase intention was 3.56 (SD = 1.62) (see Table 5-2).

The three construct (brand association, subjective knowledge, familiarity) were expected to positively correlate with one other. A correlation analysis was conducted,

Table 5-2. Summary of variables

Variables	M	SD	$\alpha$
Brand association	4.81	0.96	0.90
Subjective knowledge	3,66	1.23	0.90
Familiarity (single item)	4.47	1.56	
Expert/Novice (N=134)	9.96	2,26	
Expert (N=68)	11.77	1.24	
Novice (N=66)	8.10	1.40	
Attitude toward to endorsed product	4.65	1.08	0.90
Purchase intention	3.57	1.62	0.94

and a measure of each construct was obtained by averaging items.

The results revealed significant correlations among all three measures. The correlation coefficient between brand association and subjective knowledge was 0.44 ( $p < 0.01$ ); the correlation coefficient between brand association and familiarity was 0.50 ( $p < 0.01$ ), and the correlation coefficient between familiarity and subjective knowledge was 0.69 ( $p < 0.01$ ) (see Table 5-3).

Table 5-3. Simple correlation among association index score, subjective knowledge index score, and familiarity index score

Variables	Brand association	Subjective knowledge
Brand association		
Subjective knowledge	.44**	
Familiarity	.50**	.69**

Note: all tests were two-tailed. \*\*  $p < .01$ .

To further examine the relations among three constructs and dependent variables, correlations were used.

### **Brand Association**

The correlation coefficient between attitude and brand association was 0.31, this suggested that subjects who had high brand association also had a more positive

attitude toward the endorsed product ( $p < 0.01$ ). Moreover, the result also revealed that the correlation coefficient between purchase intention and brand association was 0.38. This indicated that subjects with high brand association were more interested in purchasing the camera; the result was also statistically significant ( $p < 0.01$ ) (see Table 5-4).

Table 5-4. Simple correlation among brand association index score, attitude index score, and purchase intention index score.

Variables	Brand association	Attitude
Brand association		
Attitude	.31**	
Purchase intention	.38**	.37**

Note: all tests were two-tailed. \*\*  $p < .01$ .

### Subjective Knowledge

Seven statements employing a 7-point likert scale were given to the subjects to examine their self-assessment about the product. A correlation analysis was used to examine the relations between consumers' subjective knowledge and their attitude and purchase intention. The correlation coefficient between purchase intention and subjective knowledge was 0.25 ( $p < 0.01$ ). However, the correlation between attitude and subjective knowledge was not statistically significant (see Table 5-5).

Table 5-5. Simple correlation among subjective knowledge index score, attitude index score and purchase intention index score.

Variables	Subjective knowledge	Attitude
Subjective Knowledge		
Attitude	-.01	
Purchase intention	.25**	.37**

Note: all tests were two-tailed. \*\*  $p < .01$ .

### Familiarity

Correlation analysis was used to assess how familiar the subjects were with Canon digital camera. The correlation coefficient between purchase intention and

familiarity was 0.31 ( $p < 0.01$ ); however, the correlation between attitude and familiarity was not statistically significant (see Table 5-6).

Table 5-6. Simple correlation among familiarity index score, attitude index score, and purchase intention index score.

Variables	Familiarity	Attitude
Familiarity		
Attitude	.04	
Purchase intention	.31**	.37**

Note: all tests were two-tailed. \*\*  $p < .01$ .

### Test of the Hypotheses

A 2 (expert versus novice) X 3 (congruent versus moderately incongruent versus highly incongruent) experimental design was used first. A univariate analysis of variance was conducted to identify the relationships among these variables.

In the first ANOVA test, expertise and congruence were treated as the independent variables and attitude was the dependent variable. A significant main effect of expertise emerged in the test ( $F(1, 128) = 4.19, p < 0.05$ ), the expert group (Mean = 4.83, SD = 0.13, N = 68) had more positive attitudes than did the novice group (Mean = 4.36, SD = 0.13, N = 66) (see Table 5-7).

The main effect of congruence on attitude was also significant ( $F(2, 128) = 3.06, p \leq 0.05$ ) (see Table 5-7). The results indicated that mean score of congruity was 4.94; moderate incongruity was 4.61; high incongruity was 4.39. Post hoc analysis using the Scheffe post hoc criterion indicated the three congruities were not significantly different from each other. No two-way interaction effect was observed.

For the second ANOVA test, expertise and congruence were also treated as independent variables and purchase intention was the dependent variable. The main

effect of expertise on purchase intention was significant ( $F(1,128) = 6.21, p < 0.05$ ) (see Table 5-8).

Table 5-7. Between-subject effects, dependent variable: Attitude.

		Sum of Squares	df	F-test	P
Level of knowledge	Between groups	4.71	1	4.19*	0.04
	Within groups	143.82	128		
Degree of congruence	Between groups	6.87	2	3.06*	0.050
	Within groups	143.82	128		

Note.1. \* $p < .05$

The result also revealed that the expert group (Mean= 3.91, SD= .19, N= 68) generated greater purchase intention than the novice group (Mean= 3.22, SD= .20, N= 66). However, the main effect of congruence on purchase intention was not statistically significant, this suggested that different degrees of congruence instead of purchase intentions, influence consumers' attitude toward the endorsed product. No two-way interaction was observed.

Table 5-8. Between-subject effects, dependent variable: Purchase intention.

		Sum of Squares	df	F-test	P
Level of knowledge	Between groups	15.63	1	6.21*	0.01
	Within groups	322.11	128		

Note.1. \* $p < .05$

## Experts

Although the absence of two-way interactions for purchase intention and attitude suggested problems for the main hypotheses, simple effects tests were still performed to check on the validity of the productions these were reported in the sections that follow.

Hypothesis 1 predicted that experts would show more positive attitudes toward moderately incongruous endorsed products than congruence endorsed products and highly incongruous endorsed products.

Among experts only, the effect of congruence on attitude was not statistically significant,  $F(2, 65) = 2.05, p = 0.14$ .

Hypothesis 2 predicted that experts would show greater purchase intention toward moderately incongruous endorsed products than congruous endorsed products and highly incongruous endorsed products.

The result revealed that the effect of congruence on purchase intention was not statistically significant,  $F(2, 65) = 0.86, p = 0.43$ .

### **Novices**

Hypothesis 3 predicted that novices would show positive attitude toward congruously endorsed product than moderately incongruously and highly incongruous endorsed products.

Among novices only, the result revealed that the effect of congruence on attitude was not statistically significant,  $F(2, 63) = 1.29, p = 0.28$ .

Hypothesis 4 predicted that novices would show greater purchase intentions toward congruously endorsed product than moderately incongruous and highly incongruous endorsed products. The result indicated that the effect of congruence on purchase intention was not statistically significant,  $F(2, 63) = 1.14, p = 0.33$ .

### **Additional Findings**

The Brand awareness section included questions that asked respondents to list all digital camera brands that they could recall as well as indicate their favorite brand of digital camera.

The correlation coefficient between purchase intention and awareness was 0.24 ( $p < 0.01$ ); however, the correlation between attitude and awareness was not significant (see Table 5-9).

Table 5-9. Simple Correlation among awareness index score, attitude index score, and purchase intention index score.

Variables	Awareness	Attitude
Awareness		
Attitude	.13	
Purchase intention	.24**	.37**

Note: all tests were two-tailed. \*\*  $p < .01$ .

Usage experience section included three questions that asked whether respondents had ever searched for information about a Canon digital camera, whether they owned one, and the frequency of usage if they owned a Canon digital camera.

The correlation coefficient between attitude and experience was 0.27, which suggested that subjects who were experienced had a more positive attitude toward the endorsed product ( $p < 0.01$ ). Moreover, the results further indicated that correlation between experience and purchase intention was 0.37 ( $p < 0.01$ ) (see Table 5-10).

Table 5-10. Simple Correlation among experience index score, attitude index score, and purchase intention index score.

Variables	Experience	Attitude
Experience		
Attitude	.27**	
Purchase intention	.37**	.37**

Note: all tests were two-tailed. \*\*  $p < .01$

## CHAPTER 6 DISCUSSION AND CONCLUSION

### Summary

In this study, three knowledge measures—familiarity, subjective knowledge, and brand association—were used to create an expertise scale to measure consumers' knowledge. This research corresponds with Fiske et al.'s (1994) observation “that both brand knowledge and product category knowledge are acquired through experience with the product category, and are thus integrally related in most circumstances” (p. 43).

The three measures were derived from brand knowledge and product category knowledge and were empirically highly correlated with one another. Although no interaction of expertise and congruence was observed, the research showed that experts engender more positive attitudes and greater purchase intentions toward the endorsed product among consumers than novices do. The results correspond with Mita and Sujana's (1985) statement that “expert consumers would produce more total response to communications” (p. 34).

In addition, there is a significant effect of congruence on attitude, despite post hoc analysis that indicated that the congruence among print ads was not statistically significantly different. Participants showed a more positive attitude toward highly congruent ( $M = 4.95$ ) endorsed products than moderately incongruent ( $M = 4.60$ ) or highly incongruent endorsed products ( $M = 4.39$ ). This result is consistent with Kim and Na's (2007) findings which demonstrated that when a celebrity endorser and an endorsed product have a good fit, consumers evaluate the endorsed product more favorably.

Moreover, participants' answers to two open-ended questions ("list all brands of digital cameras you can recall" and "what is your favorite digital camera") reveal that participants with high brand awareness have greater purchase intentions than those with lower brand awareness. This result partly supports Hoyer and Brown's (1990) conclusion that "brand awareness may have considerable effect on consumer choice" (p. 147). This result also indicated that experienced participants have more positive attitudes and greater purchase intentions than those who are less experienced.

## **Discussion**

### **Experts**

The study proposed that experts have a more positive attitude and greater purchase intentions toward moderately congruent endorsed products than toward highly congruent or highly incongruent endorsed products based on previous research (Hypotheses 1 and 2). Lee and Thorson's (2008) research suggested that, in evaluating celebrity endorsements, consumers have greater purchase intentions when moderate incongruity exists between the endorsers and their endorsed products and that participants with higher product involvement are more likely to be influenced by celebrity-product congruence (p. 9).

However, the results of the current research did not reveal a more positive attitude or greater purchase intentions toward moderately incongruent endorsed products. This result can be attributed to several causes. First, a digital camera is a high-price/high-involvement product for which consumers perform research, including reading customer reviews, product descriptions, and product features and exploring the product category based on their schemas before making purchase decisions (Chang & Mendonca, 2004). In addition, a study by Roehm and Sternthal (2001) reported that "highly

knowledgeable consumers may exhibit a tendency to delve into the details of the message, especially for high technology-oriented products” (p. 261). In other words, experts are likely to conduct research before they purchase a technology-oriented product, so celebrity endorsements may not play a significant role in experts’ product evaluation. This point of view is in keeping with Biswas et al.’s (2006) finding that expert consumers are not easily influenced in their decision-making by a celebrity endorser.

Additionally, because participants had a one-week window in which to complete the survey, they may not have taken the survey seriously. If the participants felt that the survey was not important, their concentration when answering the questions and reviewing the simulated print advertisements could have been affected. It is also possible that the participants discussed the survey with other participants who received the survey.

### **Novices**

In measuring purchase intention and attitude, the current study found that the novice group did not behave as expected under different degrees of congruence. The study hypothesized that novices would generate greater purchase intentions and more positive attitudes toward highly congruent endorsed products than moderately incongruent or highly incongruent endorsed products (Hypotheses 3 and 4). Several reasons explain why novices exhibited behaviors different from those expected. First, some participants failed to recall digital cameras in the first section of the survey; for example, 29% of the novice participants were not able to recall the Canon brand versus 10% of expert participants. Second, novices were less familiar with Canon’s digital camera ( $M = 3.44$ ) than experts were ( $M = 5.44$ ). Since some novices were not familiar with the endorsed brand, the degrees of congruity between celebrity endorsers and

endorsement may not have been a factor in moderating their attitudes and purchase intentions toward the endorsed product.

Furthermore, Rao and Monroe (1988) stated that consumers with low familiarity tend to use extrinsic cues such as price to evaluate a product. However, the simulated print ads did not provide price information, which could potentially impact the purchase intentions of novice participants. Overall, novices generated fewer purchase intentions in all three congruity situations.

### **Congruence**

The study found that different degrees of congruence could influence participants' attitudes toward the endorsed product. The mean suggested that, when their attitude is measured, participants score higher under high-congruence conditions ( $M = 4.95$ ) than moderate-incongruence ( $M = 4.60$ ) or high-incongruence conditions ( $M = 4.39$ ). This result was consistent with previous studies that found that "schema congruity leads to a favorable response because other things being equal, people like objects that conform to their expectations and allow predictability" (Meyers-Levy & Tybout, 1989).

To sum up, although the results of this research did not support the hypotheses, it still provides evidence that all participants behave favorably under high-congruence conditions. In addition, it indirectly supports the schema congruity theory used in most previous studies. The results also support evidence from previous studies that knowledge plays an important role in consumer behavior.

### **Implications**

The results indicated that both novice and expert participants responded to endorsed products based on their levels of congruity. The participants had a more positive attitude toward highly congruent endorsed products than toward moderately

incongruent or highly incongruent endorsed products. Therefore, the findings suggest that, when marketers consider using celebrity endorsements, a high level of congruence between a high-tech product that requires consumer knowledge and an endorser with a matching image will better motivate consumers. Through marketing pretests, marketers can evaluate the congruity between celebrity endorsers and endorsed products before they run advertisements.

Moreover, the results indicated that consumers who are familiar with the products or more experienced with the products had higher purchase intentions than those who were not familiar with them or who were less experienced. Therefore, it is recommended that companies focus more on current consumers than potential consumers by, for example, improving the quality of consumer service after each purchase. This approach could increase consumers' satisfaction with a company as well as with its products. Since current consumers are likely to be more familiar and experienced with the product, the possibility of re-purchase increases when they receive high-quality, post-purchase service.

Furthermore, the results derived from the questions in the brand association section suggested that brand association correlates with participants' attitudes and purchase intentions. Therefore, marketers should consider differentiating their products by reinforcing their brand.

The results also showed that consumers who received high scores in the brand awareness section (recognition task) were more likely to purchase the product than those who scored low in this section. The result implied that if consumers can recall a specific brand the first time they're asked, they are more inclined to purchase products

of that brand. Therefore, the amount of exposure to a product plays an important role in consumers' purchase intention. Consumers who receive more information and high levels of exposure to a product demonstrate greater purchase intentions because they store the image of the product in their consideration set, which is critical when developing purchase intentions. Thus, marketers can hold events and use public relations strategies to reach consumers and increase exposure of their products, as well as their company.

The last section of the questionnaire consisted of self-assessment questions through which participants were asked to measure their knowledge regarding Canon. The results indicated that consumers who consider themselves experts in the field exhibit greater purchase intention than those who do not. The correlation between subjective knowledge and consumers' purchase intention was statistically significant. Therefore, high-tech product manufacturers should give consumers more opportunities to gain knowledge about their products, thereby reducing consumers' fear of high-tech products. This study suggests that marketers can build an informative Web site that not only provides up-to-date information about a product, but also interacts with consumers. This approach could provide consumers with a more thorough understanding of the product.

### **Limitations of the Research and Directions for Future Research**

Several limitations of this study may affect the research results. First, the sample size (134 students) was not large and did not result in statistical significance in the interaction test.

Second, previous studies focused on product categories instead of a specific brand and did not provide an objective knowledge scale for a specific brand; therefore,

this study did not use objective knowledge, which may have influenced the validity of the expertise scale used.

Third, this study used only one specific product instead of a broad range of digital cameras. This limitation could decrease the resulting purchase intention and influence consumers' positive attitudes because some consumers may consider themselves experts in digital cameras instead of loyal consumers of Canon.

Fourth, consumers who already owned a digital camera or who had recently purchased one may be reluctant to buy another in the next year, which may have influenced their reporting of purchase intention.

Finally, the participants in this study were primarily college students, so they may not have enough money to purchase high-priced products, which may have influenced their reporting of purchase intention.

This research has potential for future expansion. Although this research did not generate statistically significant evidence of a connection between expertise and congruence in terms of purchase intention and attitude, the hypotheses proposed, while unsupported, may not be false. Future researchers who build a complete experimental design and collect more data may obtain results that support these hypotheses. In addition, because of the absence of an appropriate criterion, this research did not use objective-knowledge questions to measure participants' knowledge, which could have decreased the validity of the expertise scale created for this study. Future research could adopt more types of knowledge measures, such as knowledge of product categories, brand knowledge, and prior knowledge, to evaluate participants' expertise,

attitudes, and purchase intentions. This approach could create a different perspective in the research into celebrity endorsement.

Although considerable research has already been devoted to this topic, these studies have focused primarily on the relationship between endorser-product congruity and attitude, instead of on the consumers' level of knowledge. Future research could measure the effect of endorser-product congruity in terms of product attributes, price, content, and similar factors.

Another opportunity for future research is to expand upon the two dependent variables of attitude and purchase intention used in this study to include, for example, product evaluation, intention to recommend endorsed products to friends, and length of time between purchases of the same product.

To sum up, future research should explore more variables to assist marketers in choosing endorsers appropriate for various marketing scenarios. Knowledge in this area is particularly critical for high-tech product manufacturers, which need consumers to become heavily involved in their marketing campaigns.

APPENDIX A  
SURVEY QUESTIONNAIRE

Part A. Please read the following question carefully, and circle one choice from the scale that most accurately reflects your opinion.

---

1. How familiar are you with Canon's line of digital cameras?

Not very familiar    (1)    (2)    (3)    (4)    (5)    (6)    (7)    Very familiar

---

Part B. Please read the following question carefully, and circle one choice from the scale that most accurately reflects your opinion.

---

1. Imagine tennis star Maria Sharapova was being considered as a celebrity endorser for this canon camera. In your opinion, this would be....




---

Very Inappropriate	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Appropriate
Very Inconsistent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Consistent
Very Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Likely
Highly Irrelevant	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Highly Relevant
Does not match	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Matches very well
Does not go together	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Goes together

---

2. Imagine Avril Lavigne was being considered as a celebrity endorser for this canon camera. In your opinion, this would be....



Very Inappropriate	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Appropriate
Very Inconsistent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Consistent
Very Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Likely
Highly Irrelevant	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Highly Relevant
Does not match	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Matches very well
Does not go together	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Goes together

3. Imagine Jack Black was being considered as a celebrity endorser for this canon camera. In your opinion, this would be....




---

Very Inappropriate	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Appropriate
Very Inconsistent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Consistent
Very Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Likely
Highly Irrelevant	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Highly Relevant
Does not match	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Matches very well
Does not go together	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Goes together

---

4. Imagine Meryl Streep was being considered as a celebrity endorser for this canon camera. In your opinion, this would be....

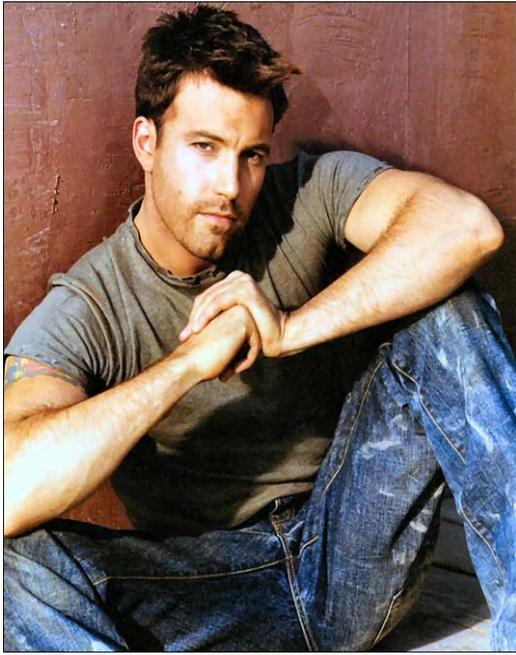



---

Very Inappropriate	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Appropriate
Very Inconsistent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Consistent
Very Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Likely
Highly Irrelevant	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Highly Relevant
Does not match	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Matches very well
Does not go together	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Goes together

---

5. Imagine Ben Affleck was being considered as a celebrity endorser for this canon camera. In your opinion, this would be....

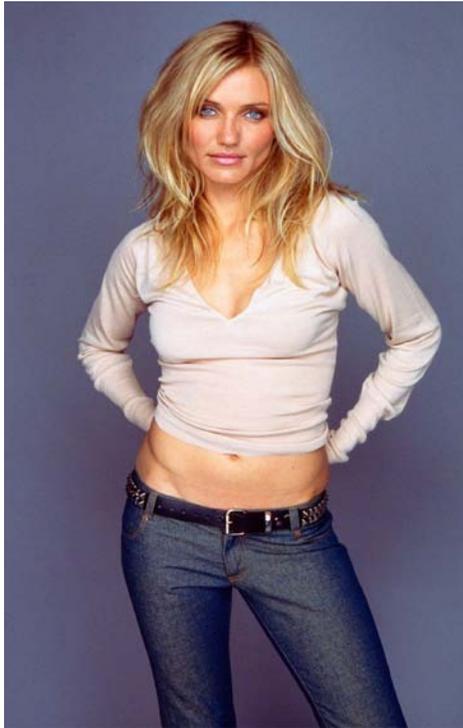



---

Very Inappropriate	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Appropriate
Very Inconsistent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Consistent
Very Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Likely
Highly Irrelevant	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Highly Relevant
Does not match	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Matches very well
Does not go together	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Goes together

---

6. Imagine Cameron Diaz was being considered as a celebrity endorser for this canon camera. In your opinion, this would be....




---

Very Inappropriate	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Appropriate
Very Inconsistent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Consistent
Very Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Likely
Highly Irrelevant	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Highly Relevant
Does not match	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Matches very well
Does not go together	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Goes together

---

7. Imagine Bob Dole was being considered as a celebrity endorser for this canon camera. In your opinion, this would be....



Very Inappropriate	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Appropriate
Very Inconsistent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Consistent
Very Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Likely
Highly Irrelevant	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Highly Relevant
Does not match	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Matches very well
Does not go together	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Goes together

8. Imagine Jessica Alba was being considered as a celebrity endorser for this canon camera. In your opinion, this would be....



Very Inappropriate	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Appropriate
Very Inconsistent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Consistent
Very Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Likely
Highly Irrelevant	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Highly Relevant
Does not match	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Matches very well
Does not go together	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Goes together

9. Imagine Kiefer Sutherland was being considered as a celebrity endorser for this canon camera. In your opinion, this would be....



Very Inappropriate	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Appropriate
Very Inconsistent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Consistent
Very Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Likely
Highly Irrelevant	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Highly Relevant
Does not match	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Matches very well
Does not go together	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Goes together

10. Imagine Sally Field was being considered as a celebrity endorser for this canon camera. In your opinion, this would be....




---

Very Inappropriate	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Appropriate
Very Inconsistent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Consistent
Very Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Very Likely
Highly Irrelevant	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Highly Relevant
Does not match	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Matches very well
Does not go together	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Goes together

---

Part C. The following are demographic questions and will only be used for statistical analyses.

1. What is your name \_\_\_\_\_ 2. UF ID \_\_\_\_\_

3. What is your gender?

Male

Female

4. How old are you? \_\_\_\_\_ years old.

5. What is your major? \_\_\_\_\_

6. Year in school?

Graduate

Senior

Junior

Sophomore

Freshman

Other \_\_\_\_\_

7. Ethnicity

White

African American

Asian

Latin

Other \_\_\_\_\_

Thank you for your participation!

APPENDIX B  
SECOND PRE-TEST

Please write down the name of each celebrity if you can. If you do not know put DK for don't know.

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APPENDIX C  
SURVEY QUESTIONNAIRE

Part A. Please read the following question carefully, and circle one choice from the scale that most accurately reflects your opinion.

---

1. Brand Awareness

- (1) List all brands of digital camera which you can recall? \_\_\_\_\_
- (2) What is your favorite digital camera? \_\_\_\_\_

## 2. Association

Indicate that you agree/disagree the following statements regarding “Canon”, the camera brand?

### **Perceived value**

(3) Canon digital camera provides good value for the money.

Strongly Disagree (1) (2) (3) (4) (5) (6) (7) Strongly Agree

---

(4) There are good reasons to buy Canon digital camera versus competing brand.

Strongly Disagree (1) (2) (3) (4) (5) (6) (7) Strongly Agree

---

### **Personality**

(5) The brand, Canon has a personality.

Strongly Disagree (1) (2) (3) (4) (5) (6) (7) Strongly Agree

---

(6) The brand, Canon is interesting.

Strongly Disagree (1) (2) (3) (4) (5) (6) (7) Strongly Agree

---

(7) I have a clear image of the type of person who would use a Canon camera.

Strongly Disagree (1) (2) (3) (4) (5) (6) (7) Strongly Agree

---

### **Organization**

(8) I trust the Canon Company.

Strongly Disagree (1) (2) (3) (4) (5) (6) (7) Strongly Agree

---

(9) I admire the Canon Company.

Strongly Disagree (1) (2) (3) (4) (5) (6) (7) Strongly Agree

---

(10) I believe Canon has established its credibility among many consumers

Strongly Disagree (1) (2) (3) (4) (5) (6) (7) Strongly Agree

---

**Differentiation**

(11) Canon digital cameras are different from competing brands.

Strongly Disagree (1) (2) (3) (4) (5) (6) (7) Strongly Agree

---

(12) Canon digital cameras are basically the same as competing brands.

Strongly Disagree (1) (2) (3) (4) (5) (6) (7) Strongly Agree

---

**3. User Experience**

(13) Have you ever searched for information about Canon digital camera?

Yes\_\_\_\_ No\_\_\_\_

(14) Do you own a Canon digital camera? Yes\_\_\_\_\_ No \_\_\_\_\_

If yes, how frequently do you use it?

Not very frequently (1) (2) (3) (4) (5) (6) (7) Very frequently

---

(15) How familiar are you with Canon digital cameras?

Not very familiar (1) (2) (3) (4) (5) (6) (7) Very Familiar

---

### 3. Subjective Knowledge

Indicate that you agree/disagree the following statements regarding Canon, the camera brand.

(16) I know a lot about Canon.

Strongly Disagree	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Strongly Agree
----------------------	-----	-----	-----	-----	-----	-----	-----	----------------

---

(17) I know how to evaluate Canon digital camera.

Strongly Disagree	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Strongly Agree
----------------------	-----	-----	-----	-----	-----	-----	-----	----------------

---

(18) I think I know enough about Canon digital camera so that I am fairly confident when making a purchase.

Strongly Disagree	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Strongly Agree
----------------------	-----	-----	-----	-----	-----	-----	-----	----------------

---

(19) Among my friends, I am considered the “experts” on Canon digital camera.

Strongly Disagree	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Strongly Agree
----------------------	-----	-----	-----	-----	-----	-----	-----	----------------

---

(20) I can tell if the price of a Canon digital camera is justified.

Strongly Disagree	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Strongly Agree
----------------------	-----	-----	-----	-----	-----	-----	-----	----------------

---

(21) I can perform problem shooting on Canon digital camera when it is broken.

Strongly Disagree	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Strongly Agree
----------------------	-----	-----	-----	-----	-----	-----	-----	----------------

---

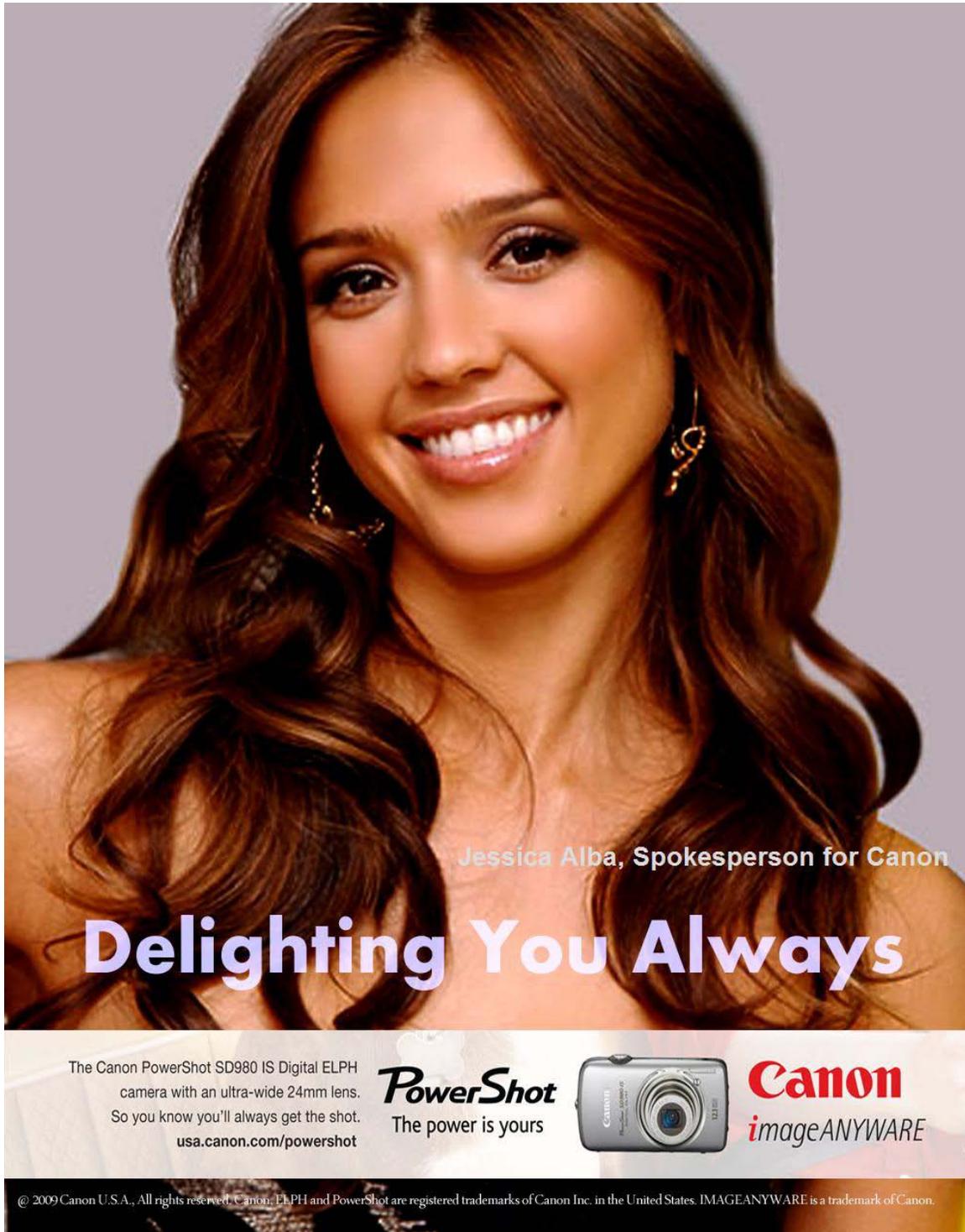
(22) I know where to purchase a good quality Canon digital camera.

Strongly Disagree	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Strongly Agree
----------------------	-----	-----	-----	-----	-----	-----	-----	----------------

---

**Part B. Attitude and Purchase intention**

Please view the advertisement, and carefully answer the following questions



Jessica Alba, Spokesperson for Canon

# Delighting You Always

The Canon PowerShot SD980 IS Digital ELPH camera with an ultra-wide 24mm lens.  
So you know you'll always get the shot.  
[usa.canon.com/powershot](http://usa.canon.com/powershot)

**PowerShot**  
The power is yours



**Canon**  
*image*ANYWARE

© 2009 Canon U.S.A., All rights reserved. Canon, ELPH and PowerShot are registered trademarks of Canon Inc. in the United States. IMAGEANYWARE is a trademark of Canon.

(A) Please circle the appropriate number that describes your attitude toward the Canon digital camera closely after you view the print Ad.

---

Strongly Dislike	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Strongly Like
Unfavorable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Favorable
Negative	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Positive

---

(B) Please circle the number that best can represents your purchase intentions for a Canon digital camera closely in the next year.

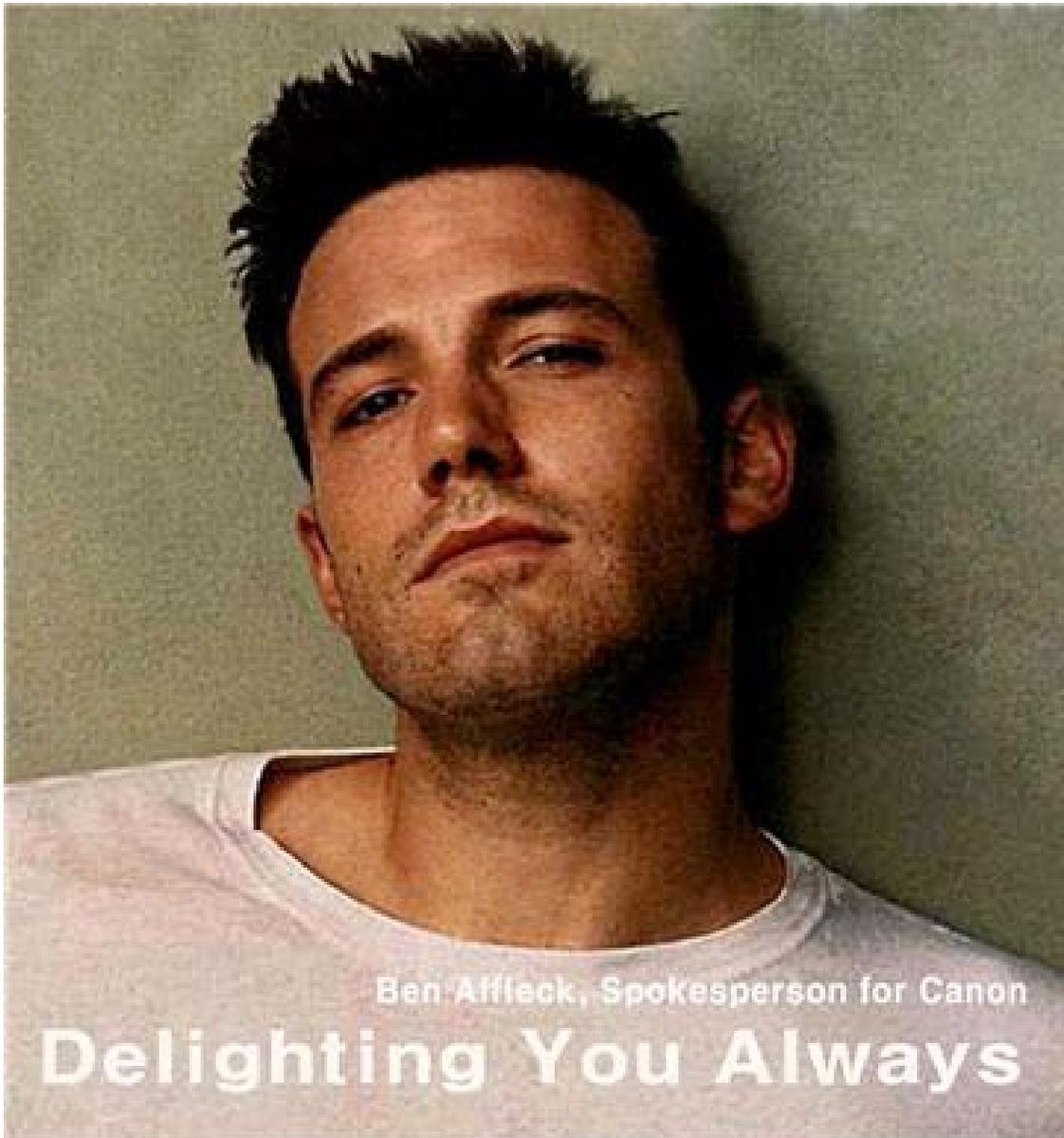
---

Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Likely
Definitely would not	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Definitely would
Improbable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Probable

---

**Part B. Attitude and Purchase intention**

Please view the advertisement, and carefully answer the following questions



Ben Affleck, Spokesperson for Canon

# Delighting You Always

The Canon PowerShot SD980 IS Digital ELPH camera with an ultra-wide 24mm lens.  
So you know you'll always get the shot.  
[usa.canon.com/powershot](http://usa.canon.com/powershot)

**PowerShot**  
The power is yours



**Canon**  
*image*ANYWARE

© 2008 Canon U.S.A., all rights reserved. Canon, ELPH and PowerShot are registered trademarks of Canon Inc. in the United States. imageANYWARE is a trademark of Canon.

(A) Please circle the appropriate number that describes your attitude toward the Canon digital camera closely after you view the print Ad.

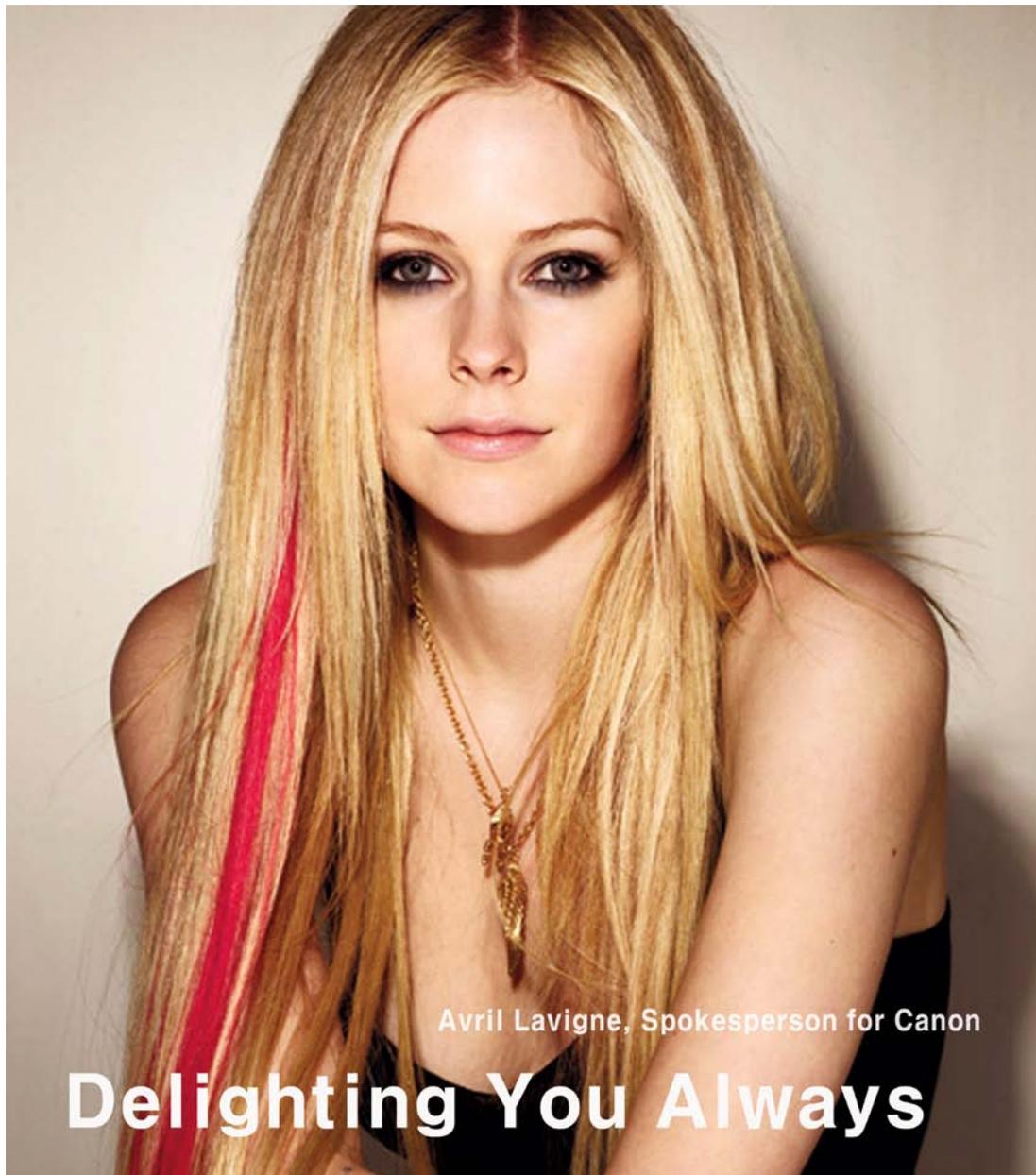
Strongly Dislike	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Strongly Like
Unfavorable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Favorable
Negative	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Positive

(B) Please circle the number that best can represents your purchase intentions for a Canon digital camera closely in the next year.

Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Likely
Definitely would not	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Definitely would
Improbable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Probable

**Part B. Attitude and Purchase intention**

Please view the advertisement, and carefully answer the following questions.



Avril Lavigne, Spokesperson for Canon

# Delighting You Always

The Canon PowerShot SD980 IS Digital ELPH camera with an ultra-wide 24mm lens. So you know you'll always get the shot. [usa.canon.com/powershot](http://usa.canon.com/powershot)

**PowerShot**  
The power is yours



**Canon**  
*image*ANYWARE

© 2009 Canon U.S.A., all rights reserved. Canon, ELPH and powerShot are registered trademarks of Cannon Inc. in the United

(A) Please circle the appropriate number that describes your attitude toward the Canon digital camera closely after you view the print Ad.

---

Strongly Dislike	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Strongly Like
Unfavorable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Favorable
Negative	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Positive

---

(B) Please circle the number that best can represents your purchase intentions for a Canon digital camera closely in the next year.

---

Unlikely	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Likely
Definitely would not	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Definitely would
Improbable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Probable

---

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