

BRAND EQUITY: DOES THE BRAND NAME AND/OR PRICE AFFECT PERCEPTIONS
OF QUALITY?

by

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Abstract

This project included two studies that looked at how the brand name and price of consumer products can affect intended purchasing decisions. In Study 1, 30 undergraduate students tested products from three different product categories (crayons, tissues, and tortilla chips). Each product category consisted of three different brands; one with high brand value, one with medium, and one with low brand value (generic). The brands for each product were as follows: Crayons (Crayola, Roseart, and Dollartree); Tissues (Puffs, Kleenex, and Wal-Mart); Chips (Tostitos, Mission, and Kroger). The design for this study was a 3x3+3+3 matrix. For each brand, there were five conditions: 1) the product in the correct brand name; 2) the product in a switched brand name; 3) the product in the other switched brand name; 4) the product alone, no brand name; and 5) the brand name alone, no product. The product alone and brand name alone conditions acted as controls. Participants were unaware that the products had been switched. After trying each product, participants rated their likelihood to purchase that product on a 9-point Likert scale; 1 being “definitely would not buy” and 9 being “definitely would buy.” In Study 2, 47 participants completed an online survey assessing their likelihood to purchase three different products (a bicycle, a watch, and a T.V.) based on the price alone. The brand names were removed so as to not create an interactive effect. This study had the same design as Study 1.

After a within-subjects Repeated Measures ANOVA, it was found in Study 1, that the two brands with higher brand value were rated as higher quality than the generic. Study 2 found that when just looking at price, subjects were more likely to purchase the cheapest product. In conclusion, it seems that the brand name associated with a product can cause people to rate the quality of that product as either higher or lower depending on the strength of the brand, even if the product itself is lower quality. Also, when looking at the prices of products without the brand names, people want to purchase the lowest priced product.

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CHAPTER 1 - INTRODUCTION

Brand Equity is defined as “the marketing and financial value associated with a brand’s strength in the market, including actual proprietary brand assets, brand name awareness, brand loyalty, perceived brand quality, and brand associations” (Pride & Ferrell, 2003, p 299). This definition includes many different variables that impact brand equity, but they are not easily measured nor are there operational definitions. Brand Equity has been studied many times through the years, but there has never been a clear consensus as to how the variables that define it interact.

Consumer research has been integrated into many areas of psychology including cognitive, social, neuroscience, etc (Grewal, et al., 1998; Chakrapani, 1974; & McClure, et al., 2004). Although the current study involves judgment and decision making, it is helpful to look at previous research in other realms as well. This will hopefully help better understand the aspects of brand equity in its entirety. There has not been much independent research on the brand equity variables. Much of the research that has been performed has been completed by businesses studying their own products (in-house). Therefore, this research is not openly available and the reliability of these studies could be an issue. A hypothesized model of brand equity has been created that will not be directly tested in this paper, but will be in future research (Appendix A 1). The studies involving the brand equity variables will be discussed in the following order: brand name, price, and store name; brand loyalty; brand knowledge/learning; and expectations.

BRAND NAME, PRICE, AND STORE NAME

Rao and Monroe (1989) performed a meta-analysis to see how price, brand names, and store names affect perceptions of quality. They found that the effects of price and brand name on

perceived quality were both statistically significant. However, the store name effect was not. Brand name had the largest effect on perceived quality than did the other variables (price and store name). The authors also concluded that when consumers infer quality from price, they compare the price of the current product to the price of either another product or a price in memory. If the current product's price is higher than the comparison price, then the current product is perceived as higher quality.

Grewal, Krishnan, Baker, & Borin (1998) looked at how store name, brand name, and price discounts affect the brand equity of a retail store. The authors created a model of purchase intent (see Figure 1) and found that 41% of the variance was explained by the variables of brand name, price discounts, and store name. They also found that there was a "positive relationship between perceived brand quality and perceived value" and "internal reference price strongly influenced perceived value" (Grewal, et al., 1998, p 343). This increased perceived value was then found to lead to a positive willingness to buy. Unlike Rao and Monroe, Grewal, et al. found that the store name affected the purchase intent. An example from their study is as follows: if you are going to buy a bike of a certain brand, you have options on which store to get it from. If the store has a higher store image, you will perceive that bike as having a higher quality than if you got the same bike from a store with a lower store image. Grewal, et al. also found that if a store carried products that were perceived as higher quality, then that store would be perceived as higher quality. Therefore, it matters to the store what products they agree to sell.

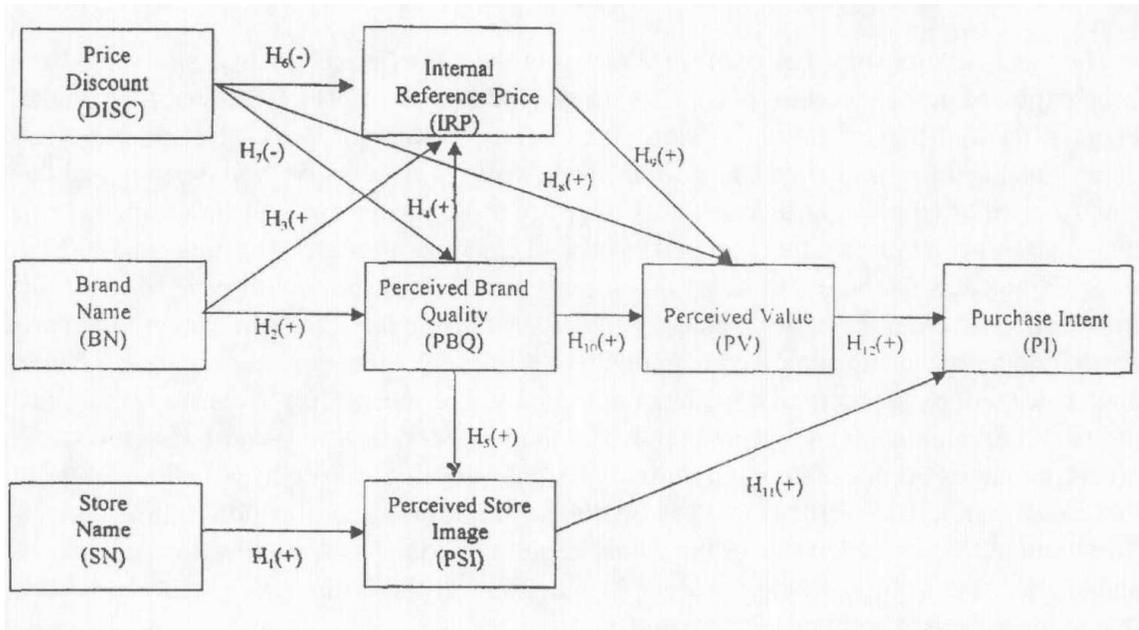


Figure 1. Grewal, et al.'s, Integrative Model

Both Rao, et al. and Grewal, et al. agree that brand name and price affect perceptions of quality. Is this a universal trait? Dawar and Parker (1994) decided to study that. They found that brand name was the largest determinant of product quality across cultures. Their sample was MBA students from 38 countries, most of whom were from Western industrialized countries and Japan. Participants were asked about their purchase intentions and ownership of several electronic products as well as their product familiarity, information search, and judgment of quality. Based on this research, the inference between brand name and quality may be universal.

BRAND LOYALTY

The effect of brand name on perceived quality has been shown to be a positive relationship. However, what makes people consistently purchase one brand over another? McConnell (1968) looked at the effect of brand loyalty and price on purchase intent. Participants were offered three beers (Brand M, L, or P) and were asked to pick one. They were told how

much a six-pack of each brand would cost as well as shown the approximate price difference per bottle by placing pennies or nickels on the products (see Table 1).

Table 1. Price of each beer presented by McConnell

Brand	Price per six-pack	Money taped to bottle
M	\$1.30	None
L	\$1.20	2 cents
P	\$0.99	5 cents

Participants were given 24 trials, three per week for eight weeks, in which they were offered these beers. Brand preferences were observed for most participants. “Of the sample, 93 percent selected one of the three brands for at least half of the trials. Almost half of the subjects (47 percent) selected one brand for three-quarters or more of the trials” (McConnell, 1968, p 16). After trial 13 or 18, participants were given a monetary incentive to choose the beer chosen the least in the trials up to this. Participants were more likely to switch early after being offered this incentive to the least chosen beer, but then would switch back to their preferred beer. McConnell also found that participants became loyal to the more expensive beer faster than to the lower priced beer. Apparently, quality was being inferred from price.

This same idea has also been supported by Kardes, et al. (2004). It appears that a shopping product that is the least expensive is looked at as having lower quality than a product of a higher price. For example, when purchasing a television, most consumers would consider a Sony TV as having higher quality than the Wal-Mart equivalent because Sony TVs are usually more expensive. This is not only due to inferring quality from price, but by also looking at brand names. However, this has not been extensively researched.

It seems that not only brand name and price have an effect on brand loyalty. A few studies have shown that the personality of a consumer also has an effect. Chakrapani (1974) looked at brand loyalty and repeat purchases. Participants completed Eysenck's Maudsley Personality Inventory and kept track of their next 10 purchases of the following products: bread, butter/margarine, coffee/tea, and cigarettes. They were asked to record which brand they had purchased. From this record, a brand loyalty score was computed and compared to the participants' personality score. Chakrapani found differences in brand loyalty between people with varying personalities. For example, consumers lower in extraversion and neuroticism were more brand loyal whereas extraverts were more likely to try different brands. It was also found that participants were more brand loyal to coffee/tea and cigarettes compared to bread and butter/margarine. Therefore, it can be concluded that the effect of brand loyalty is also dependent on personality and product type.

Another part of a person's personality is their self-concept, or how they view themselves. Dolich (1969) performed a study involving a person's self-concept and its congruence with their preferred brands' concept. The four products used in this study were beer, cigarettes, bar soap, and toothpaste. A semantic differential scale was used to measure participants' real-self image, ideal-self image, and brand image. These adjectives were chosen based on descriptions from advertisements of the four products. Participants were asked to choose where on that scale they felt fit best for either themselves or a preferred or non-preferred brand. Dolich found that when a participant prefers a certain brand, its image coincides with both their real- and ideal-self image. Therefore, people tend to like/purchase brands that are correlated with their self-concept.

Landon (1974) similarly found that purchase intentions of a list of products were positively correlated with self- and ideal self-images. Hence, when the brand image positively

correlated with a person's self-image, they were more likely to purchase that product. It was also found that, depending on the product, purchase intentions were correlated better with either self- or ideal self-images. Again, this shows that consumer preference is dependent on product type, which is why products are broken into several categories (consumable, shopping, etc). It also seems that the congruence of self-concept and the brand is important for brand loyalty.

Knowing that specific variables, such as brand name and price, can cause consumers to infer product quality. If a company knows that their consumers are brand loyal and perceive their products as high quality, it is easier to introduce another product and it be successful. This is what would be called a "brand extension." A brand extension is "the deployment of an existing brand to launch a new product that is not part of the original product family or category" (Bless & Greifeneder, 2009). Aaker and Keller (1990) found that when the original brand was perceived as higher quality and the extension was a good fit, but not too easy a transition, the extension was looked at in a positive light. However, Erdem (1998) stated that "a strong parent brand and a good fit do not ensure success if the quality of the extension does not match consumer expectations." From these two studies, it can be seen that strong brand names and their perceived quality can help create more successful products if done correctly.

Many times, there are two brands that are always going head-to-head against one another. One of the biggest brand rivalries has definitely been Coca Cola vs. Pepsi. What makes people brand loyal to one or the other? McClure, et al. (2004) studied the long-debated Coke vs. Pepsi dispute using fMRI scans. When subjects were blind to which product they were tasting, the ventromedial prefrontal cortex was activated which could in turn predict preference for Coke or Pepsi. However, when subjects were told they were tasting Coke, whether they were or not, the hippocampus, dorsolateral prefrontal cortex, and midbrain were activated, leading to the

conclusion that “brand knowledge biases preference decisions” (McClure, et al., 2004). People’s brand preferences are therefore shown by differences in brain activation. This could be again an emotional, rather than logical, response. Similar results were found by Deppe, et al. (2005) and Paulus, et al. (2003) that when making preference judgments, the medial prefrontal cortex is activated.

BRAND KNOWLEDGE AND LEARNING

With the McClure, et al. study, knowledge of the brand made a difference on what brain area was activated. It appears that with increased knowledge, brand preferences and inferences of quality are made. To go along with this idea, Jacoby, et al. (1971) discovered that previous knowledge of an “ultrapremium beer” brand name caused a higher quality perception than for an “inexpensive regional beer”. If the previous knowledge is positive, then brand name has more of an effect. For example, Dodds, et al. (1991) concluded that “favorable brand and store information positively influenced perceptions of quality and value, and subjects’ willingness to buy.” Therefore, knowledge of the brand name only helps in increasing perceptions of quality when it’s a brand with a higher brand value.

Along with effects of knowledge, learning can also affect purchase intentions. Van Osselaer and Alba (2000) found that learning the product’s brand name alone predicted subjects’ quality judgments but when learning both the brand name and attributes at the same time, subjects based their quality judgments on the attributes. This makes sense if put into personal terms. If you are at the store and are looking for chips, for example, you might base your purchase decision completely on brand name. However, if you are purchasing a television, you can also base that purchase decision on brand name, but if comparing all the attributes of all the televisions, you may also base your decision on which has the attributes you want most. Of

course, this is when the product category may come into play. Consumable vs. shopping goods could make a difference in how you make your purchasing decision.

Expectations

A major difference between consumable vs. shopping goods is our expectations of durability of those products. Consumable goods are not expected to last long, but shopping goods are. So when a product fails in a short amount of time, our expectations are met if it is a consumable good, but being a shopping product, it would have not met our expectations and we would be disappointed. One product that some consider a consumable product and others a shopping product is wine. Yes, you consume wine, however, wine connoisseurs take more of time in deciding which wine to purchase either at a store or at a restaurant, like shopping products. They do not consider the wine to be a simple consumable good. So how do the expectations of wine consumers hold up? A study performed by Wansink, et al. (2007) measured the expectations of wine novices to see whether wine from California was viewed differently than wine from North Dakota. The authors' study was held during a dinner party. As guests arrived, they were taken, randomly, to one of two tables. There was a bottle of wine at each table, one stating it was from California and the other from North Dakota. In reality, the wine was the exact same, but the bottles were given different labels. Guests drinking the wine from California rated it as higher quality than the guests drinking the North Dakota wine. Therefore, their expectations lead to different perceptions of quality.

Another study where perceptions of quality were altered due to expectations was conducted by Wheatley (1973). The author studied taste expectations by changing the color of traditional food. Participants sat in a specially lit room and ate what looked like normal colored steak, peas, and fries. During the middle of their meal, the special lights were turned off to reveal

that the steak was blue, peas were red, and their fries were green. Many participants refused to eat anymore and some became ill. They had associated these colors with spoiled food which changed their taste perception. The reason this color change shocked participants is because we are not used to these foods being these colors. Koch and Koch (2003) found that the colors blue, purple, and gray are not positively associated with any tastes. This could be because these colors are not usually found in the natural environment unless the food has become moldy or old. Therefore, when we see a food that is blue, for example, we might assume that it is moldy and could make us sick.

Another study that looked at expectations was one by Dougherty and Shanteau (1999). They showed how expectations can affect quality perceptions. Subjects in their study tested consumer products and rated them on overall quality. There were no product names given; only labels stating whether Consumer Reports magazine rated the product as high, medium, or low quality. The point of this experiment was to see whether people's perceptions of quality were affected by the quality ratings of a credible source. They found that subjects were influenced by quality ratings and their "evaluations of consumer products are modified by their expectations" (Dougherty & Shanteau, 1999, p 58). The methodology to be used for the current study is based on this experiment.

Research involving brand names and price has crossed many fields, but there is still a lot to be learned. Much of the previous literature has had a hard time measuring the effects of brand name and price on perceptions of quality. More controls are needed to better gauge the brand equity variables. In order to accomplish this, the current studies used a within-subjects design and assessed brand name and price separately. The studies also looked at varying levels of

quality by including products from several categories as well as products with different rated values.

The current studies aim to learn what effect brand name and price have on perceptions of quality. Based on previous research, the first hypothesis (Study 1) is that participants will be more likely to buy the product with the higher brand value, even when it is a lower quality. This will be based on participants' quality ratings after testing the products first-hand. The product with the highest brand value is one that has the best combination of "brand profitability, brand awareness, brand loyalty, perceived brand quality, and the strength of positive brand associations" (Pride & Ferrell, 2003, p 300). For example, if consumers are favorable to Tostitos chips, then they will rate that product as higher quality even if the actual chips are of lower quality.

The second hypothesis (Study 2) is that participants will be less likely to purchase the lowest priced products when they are comparing "shopping products," such as watches. Shopping products are "items for which buyers are willing to expend considerable effort in planning making purchases" (Pride & Ferrell, 2003, p 252). Consumers will compare brands, prices, features, etc for a considerable amount of time before purchasing shopping products because they are purchased infrequently and are expected to last a fairly long time. More specific to Study 2, it is hypothesized that participants will be more likely to purchase the products at the \$100 price level than at the other prices (\$75 and \$150).

There are differences between Study 1 and Study 2. The biggest difference is the products used. In Study 1, consumable products were used and Study 2 looked at shopping products. The main reason for this is because previous research has shown that the product type affects perceptions of quality and purchase intent. Therefore, different categories of products

would allow for more valuable information to be found. Also, Study 1 had participants actually try/test each product, whereas, in Study 2, participants only saw pictures of products. The reason Study 2 was online rather than in person was due to the availability of the products and lack of funds. It was easier to purchase several consumable products for testing since they were cheaper than shopping products. Also, removing the brand name was more feasible using the computer than on actual products. This difference between Study 1 and Study 2 also allows for distinctions between in-store vs. online purchasing.

The variations between Study 1 and Study 2 are also important for testing the proposed model of brand equity (Appendix A 1). The research discussed above has shown that several factors, such as brand name, price, and recommendations, affect perceptions of quality which in turn leads to purchase intent and brand equity. This project aims at assessing two of these factors, brand name and price.

CHAPTER 2 - STUDY 1

Method

Participants

Thirty Kansas State University undergraduate students were given class credit in General Psychology for participating in this study. The mean age was 19.5 with 21 females.

Materials

Three brands from three different product categories were used: tortilla chips (Tostitos, Mission, and Kroger), crayons (Crayola, Roseart, and Dollartree), and tissues (Kleenex, Puffs, and Wal-Mart). These product categories were chosen to account for three of the five senses; taste, sight, and touch. The differences between the three products in each product category were controlled for: the crayons were all orange in color because this was the color that was most

similar across brands; the tissues used were basic tissues with no aloe or lotion and all were white in color; also the tissue boxes were all neutral colors and basic designs so participants would not be tempted to rate a certain tissue as higher quality because they simply liked the box design. The tortilla chips were all triangular chips and were, by sight, indistinguishable from each other. The products were chosen because most, if not all, college students have had interactions with these products and can afford them. They are all consumable products in that they are inexpensive and are meant to be used in a short period of time. Pride and Ferrell (2003) listed the world's most valuable brands, which is how the high and medium values from each product category were chosen. The low value products were generic brands found at local grocery stores.

There were 12 “stations” for each product in which order was quasi-randomized. Stations were the positions in the room where the products were placed. An example of this is shown in Figure 2. A 9-point Likert scale was used to assess quality ratings. Note: Three brands of headphones were used as practice.



Figure 2. Example of Stations.

Design

The design used for this study is a within subjects 3 x 3 + 3 + 3 matrix (see Table 2). This is the design because it most resembles a 4x4 matrix, however there is a missing cell; there cannot be a condition where there is no product and no brand name label presented. For each product, there were five conditions: (1) the product had its correct brand name; (2) the product was given one of the other (switched) brand names; (3) the product was given the remaining (switched) brand name; (4) there was no brand name on the product (product alone); and (5) the brand name alone was shown (with no product provided). For example, first, the Tostitos chips were in their own bag, second in the Mission bag, third in the Kroger brand, fourth in a plain bowl without the label, and last, there was an empty Tostitos bag without any chips. This occurred for each product in the three product categories. The stations were quasi-randomized so that no product was located next to a product in the same product category. The starting station and direction for each participant was randomized. As this was a within subjects design, each participant had 45 data points for analysis, one for each station.

Table 2. 3x3+3+3 Matrix Design

		Label			
		Low	Medium	High	
Product	Low	1	2	3	10
	Medium	4	5	6	11
	High	7	8	9	12
	None	13	14	15	

Procedure

Participants entered the room and completed the informed consent form and demographic questionnaire. They then started at the first station, which was always practice using an unrelated product—iPod headphones. Three sets of headphones were used for stations 1, 2, and 3 for every participant. The brand names on these practice stations were not altered.

They were then instructed to “try” each product. If it was a crayon, they were asked to color with it. If it was a tissue, they felt it. If it was the tortilla chip, they ate it. The participants were required to try the product at each station (except the brand name alone control). After they tried the product, they rated how likely they were to purchase that product on a 1 to 9 Likert scale, 1 being “definitely will not purchase” and 9 being “definitely will purchase” (see Table 3 for an example). Participants then continued around the room and did the same for each station. For the stations where only the label was presented, the participant was asked to rate how likely they were to purchase that product based on their previous knowledge of that brand. Once participants completed rating all of the products, they were asked for feedback about the task. Feedback included questions about which product they felt was the easiest and hardest to rate and why, as well as whether any one station stood out to them and for what reason.

Table 3. Rating sheet for Study 1.

For each station, rate HOW LIKELY YOU ARE TO BUY THIS PRODUCT based on a 1 to 9 scale, 1 being definitely would not buy and 9 being definitely would buy.

	Definitely would not buy		Neutral					Definitely would buy	
Station	1	2	3	4	5	6	7	8	9
Station 1	1	2	3	4	5	6	7	8	9
Station 2	1	2	3	4	5	6	7	8	9
Station 3	1	2	3	4	5	6	7	8	9

Results

A repeated measures ANOVA was performed to analyze the data. All of the main effects and interactions were significant at $p < .001$ except for the main effect of product for chips (Table 4).

Table 4. Results of the analysis of variance.

Results of the analysis of variance. Overall F ratios (df) [effect size] shown for product effects, brand effects, and product by brand interactions. ($df = 2$ for main effects because there are three brands per product category. $df = 8$ for the interaction because there are three brands per product category and three product categories.)

Modality	Product	Brand	Product x Brand
Visual (Crayons)	14.80 (2) [.39]*	29.97 (2) [.29]*	11.47 (8) [.31]*
Tactile (Tissues)	12.03 (2) [.34]*	19.76 (2) [.23]*	8.59 (8) [.27]*
Taste (Chips)	1.12 (2) [.13]	12.09 (2) [.15]*	4.36 (8) [.14]*

*= significant $p < .001$.

Crayons

Both main effects of product and brand for crayons were significant, as was the interaction. As can be seen in Figure 3, the Crayola label yielded higher ratings than the other labels. Also, the Crayola product was rated as high quality no matter what label it was given. There was also a clear trend from the brand with the highest brand value to the lowest brand value (Dollartree). The “Brand Name Alone” condition showed that participants viewed Crayola as the “top” brand, followed by Roseart, and the generic Dollartree was seen as having the lowest brand value. The “Product Alone” category showed the actual quality ratings for Crayola, followed by Roseart, and Dollartree.

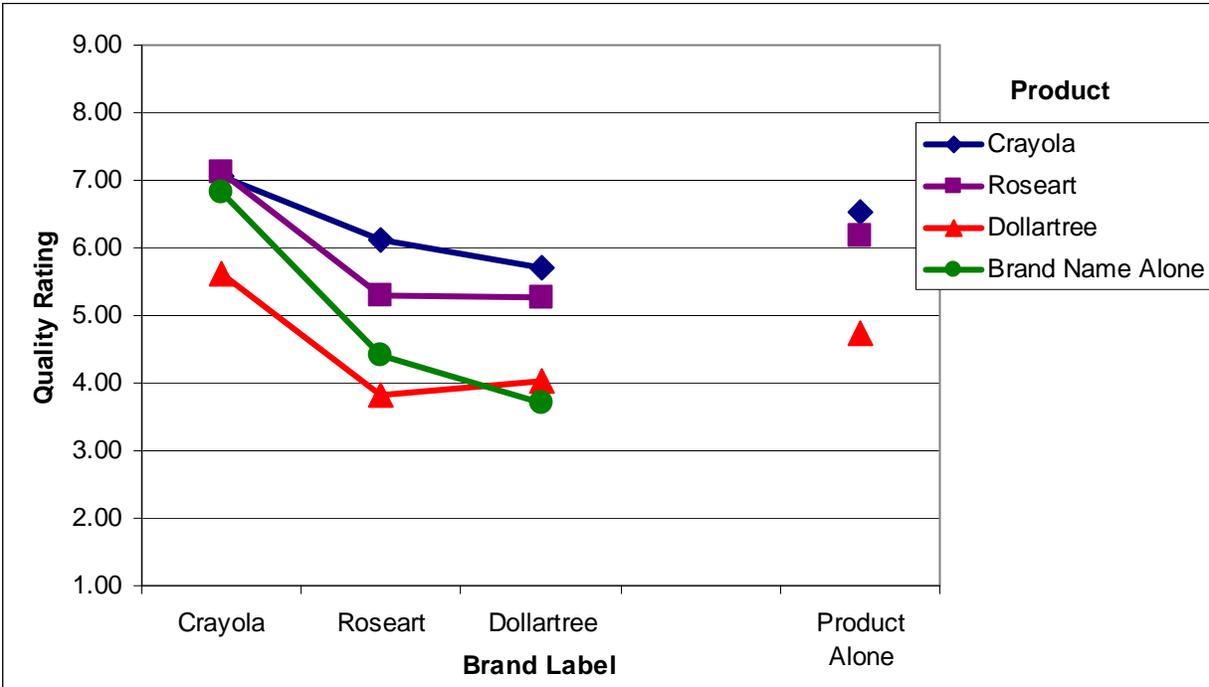


Figure 3. Mean Quality Ratings for Crayons.

Tissues

Similar to the crayon results, the main effects of product and brand name for tissues were significant, as was the interaction. Participants viewed the best brand/product to be Puffs, followed by Kleenex, with Wal-Mart brand as the worst (see Figure 4). When the Puffs and Wal-Mart tissues were presented with the Kleenex brand name, they were rated as higher than when presented with the Puffs brand name. This was unexpected because both control conditions found that Puffs was the brand with the highest brand value. Therefore, it could be predicted that any tissue presented as the Puffs brand would be rated as the highest quality. There was a clear decrease in quality ratings from the top two brands to the generic.

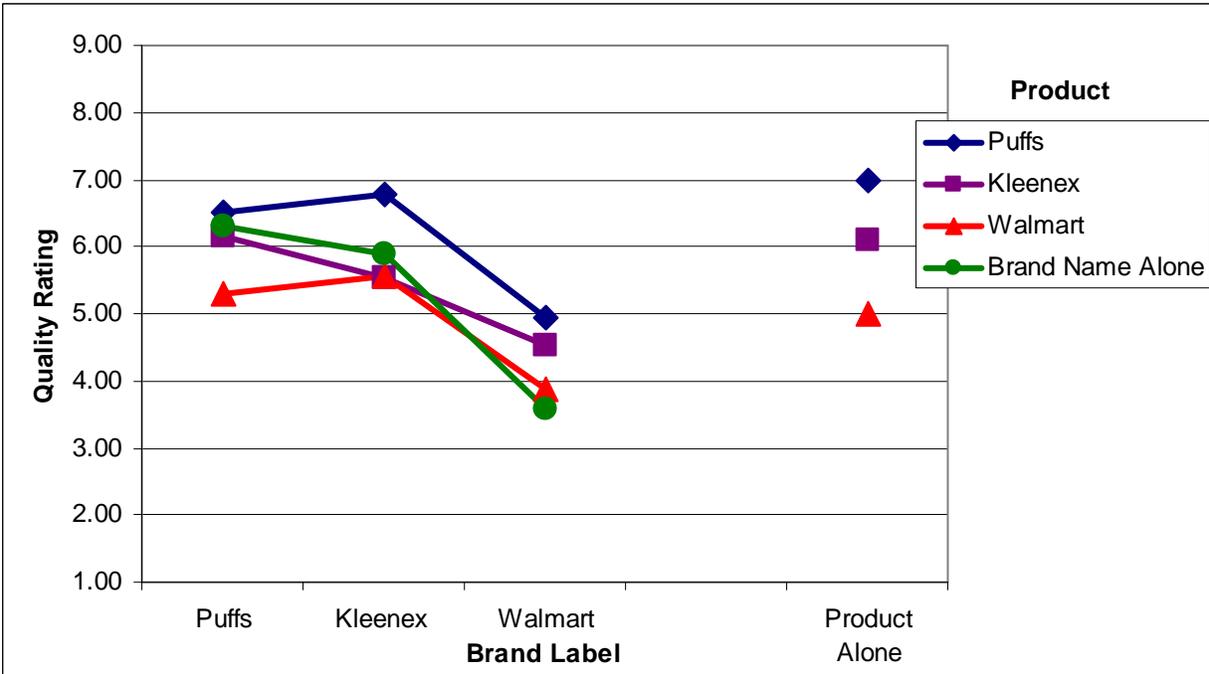


Figure 4. Mean Quality Ratings for Tissues.

Chips

The main effect of brand name for chips was significant, although the product main effect was not; the interaction was significant. As can be seen in Figure 5, the progression of brand value was that of Tostitos, Mission, and lastly, Kroger. There again was the clear trend from highest brand value to lowest in mean quality ratings. There was one point that was unexpected, the Tostitos chips in the Kroger brand label. When you look across the Tostitos product condition, all points were rated equally high. Therefore, participants must like the taste of Tostitos chips.

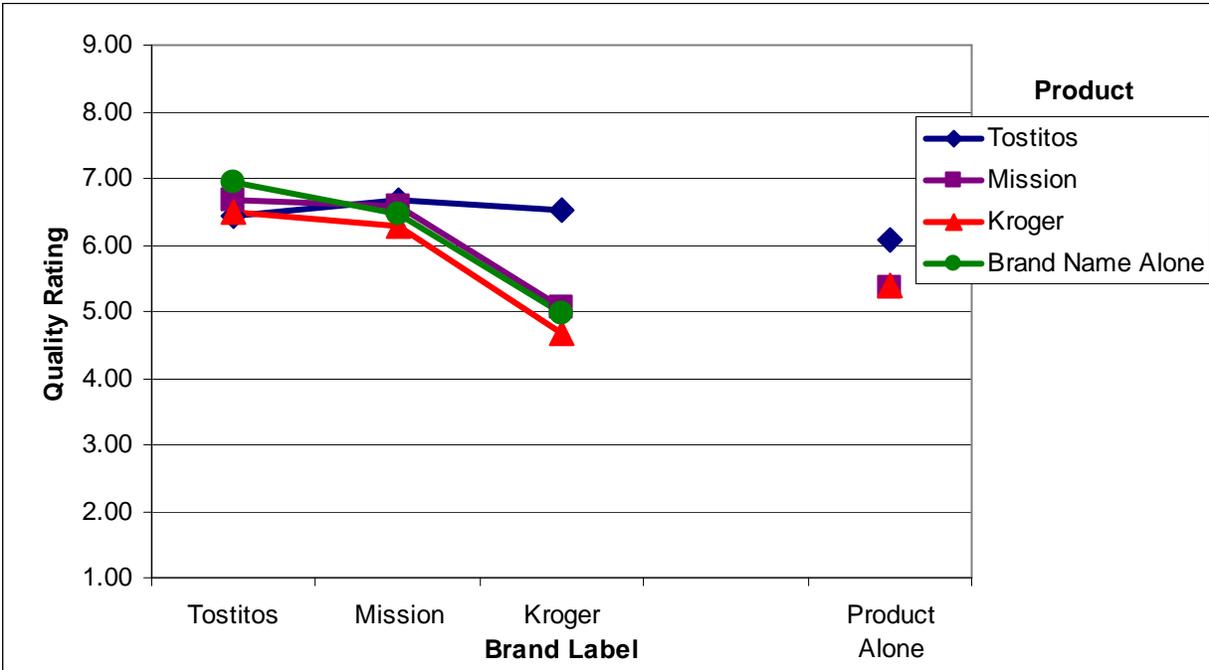


Figure 5. Mean Quality Ratings for Chips.

There is another possible explanation of this occurrence: when asked if one particular station stood out for any reason to the participants, five chose the station where the Tostitos chips were in the Kroger brand label. They said that there weren't expecting the chips to taste so good, but were pleasantly surprised so they rated these chips as higher than any of the other Kroger labeled chips.

Study 1 Discussion

Overall, the results showed that consumers are influenced by the brand name as much as, or even more than, the product itself. For example, consumers viewed all of the chips as basically the same. Therefore, their purchasing decisions were affected most by the brand name on the bag, i.e., perceptions of quality are independent of actual quality. But it is also important to note that the brand equity effect of brand name on perceptions of quality is different across product types. This can be seen in the different patterns for the three product categories. This is

an important effect to know because it can determine whether a product will succeed or fail in the market.

One pattern that remained the same throughout products was a bias against generic brand labels. For all product categories, the generic brand label yielded the lowest mean quality ratings. However, in the case of the “Product Alone” condition, the generic Kroger product was rated almost identically to the Mission product, probably because the participants were unaware that it was the generic product. This indicates that even though the generic products were considered similar quality to the other brands, consumers were less likely to purchase them. In terms of the brand equity effect, the generic brands are less well known so therefore have a negative equity effect.

The methodology of Study 1 did have a couple issues that should be addressed. Although deception was used in this study, it had minimal impact. Specifically, three participants figured out that the products had been switched. A t-test revealed that these participants were not statistically significantly different from the other participants in their mean quality ratings; they were therefore kept in the analyses.

A possible limitation is that only a few different product categories, all consumable goods, were examined. Another limitation is that participants were not actually purchasing the products; they were giving likelihood-to-purchase ratings. However, previous literature has found that purchase intent ratings are highly correlated with actual purchases (Ferber & Piskie, 1965; Clawson, 1971; Pickering & Isherwood, 1974; and Granbois & Summers, 1975).

Study 1 showed that brand name does affect consumers’ perceptions of quality, but what about price? That is what Study 2 will try to assess. Both brand name and price are typical factors of brand equity for any given product. The reason that Study 1 looked at brand name and

Study 2 looked at price was to ascertain the affect both of these factors had on purchase intentions separate from one another. Future studies will look at their interactive affect.

CHAPTER 3 - STUDY 2

Method

Participants

Forty-seven people completed an online survey. Those who were undergraduates in General Psychology at Kansas State University received class credit for participating. The others volunteered to complete the survey without compensation. The group that volunteered did not know the researchers and were emailed through different listservs, including the KSU international student listserv (N= 9 for international students). The mean age was 22.9; however 4 people did not report age. There were 20 females, 23 males, and 4 not reported.

Materials

The online survey used included pictures of three different products: a bicycle, watch, and television. There were three different prices associated with each of these products: \$75, \$100, and \$150. The prices used in this study were chosen because they are typical prices for these products (based on comparison shopping from several stores), but not so expensive that college students would be unable to afford them. All three of the products pictured in this study had actual prices within \$25 of one another. The products were chosen because these are widely used in the population, especially among college students. The products were also used by both genders and the pictures associated with the products were gender neutral (the watch was metal and could be worn by either gender; the bike was black in color and the middle bar was half-way between the men's stance and women's stance). These products and prices were also consistent with the definition of "shopping products."

Procedure

Participants were informed that by completing the survey, they were giving their informed consent. They then went through the survey one product at a time. Each page described the 1-9 scale (1 being “definitely would not buy” and 9 being “definitely would buy”) and depending upon the condition, presented either the price, picture, or both, for each product (see Figure 6). Participants were asked to rate how likely they were to purchase that product. Brand names were not included on any of the product pictures. Brand equity does mainly deal with brand names, however in this situation, price was the only variable of interest.

After completing each rating, participants were asked demographic information: age, gender, ethnicity, major, year in school (if applicable for the last two). Participants were also asked how often they use each of the three products and when their last purchase was. This was to assess their familiarity with the products. They were then thanked and debriefed.

AXIO SURVEY

Perceptions of Consumer Research

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Question 14 **** required ****

Rate HOW LIKELY YOU ARE TO BUY THIS PRODUCT based on a 1 to 9 scale, 1 being definitely would not buy and 9 being definitely would buy.

The price for this T.V. is \$100.



1 - Definitely would not buy | 2 -- | 3 -- | 4 -- | 5 - Neutral
6 -- | 7 -- | 8 -- | 9 - Definitely would buy

14.1 How likely are you to buy this product?

1	2	3	4	5	6	7	8	9
<input type="radio"/>								

Next

Figure 6. Screenshot of the Online Survey.

Design

The design used for this study was a within subjects 3 x 3 + 3 + 3 matrix (see Table 5). The basic design is the same as in Study 1, however, instead of there being one matrix per product category, there was only one matrix total. This was because of time limitations of the online study. The online survey would have been too long if a different matrix was presented for each product category. There were four conditions for each product: (1) the product, with picture, was given the lowest price; (2) the product was given the medium price; (3) the product was given the highest price; and (4) there was no price given for the product (product alone). For example, for one condition, the bike was shown with a price of \$75, second it cost \$100, third it cost \$150, and last, the picture of the bike was provided with no price. There was also the price alone condition where each price was given, however no product was provided. This condition was an odd task, in that participants were asked to rate how likely they were to buy an undefined product at each given price. This was to see whether they would buy anything at these prices and which price they felt most comfortable spending. The order of the conditions was quasi-randomized so that the same products and prices were not in consecutive order. The brand name on each product picture was covered/deleted.

Table 5. Matrix Design.

		Product			Price Alone
		Bike	T.V.	Watch	
Price	\$75	1	2	3	10
	\$100	4	5	6	11
	\$150	7	8	9	12
Product Alone		13	14	15	

Results

Five one-way ANOVAs were performed to analyze the data. The three product effects (Bike, Watch, and T.V.) were significant at $p < 0.001$, however the effects of price alone and product alone were not. (see Table 6). As can be seen in Figure 7, the product that was rated as the most likely to be purchased was the bike for \$75 with a mean of 4.79. Participants were least likely to buy the watch for \$150 with a mean of 2.26. The full range of 1 to 9 for the measure was used for all of the products except for the \$75 watch which had a range of 1 to 8. For the most part, the trend was that the low-priced products were rated as more likely to be purchased than the medium-priced products followed by the high-priced products. The “Price Alone” condition showed that participants were more likely to purchase the medium-priced product (\$100), the low-priced product (\$75), and lastly the high-priced product (\$150). The “Product Alone” condition revealed that participants were most likely to purchase the bike, followed by the watch, and last of all the T.V.

Table 6. Results of the analysis of variance.

Results of the analysis of variance. Overall degrees of freedom, *F* ratios, significance, and effect sizes are shown below for each product type.

Modality	df	F	Sig.	Effect Size
Bike	2	19.79	$p < .001$.30
Watch	2	13.46	$p < .001$.13
T.V.	2	6.41	$p < .001$.12
Price Alone	2	2.03	$p = .14$.04
Product Alone	2	1.61	$p = .21$.03

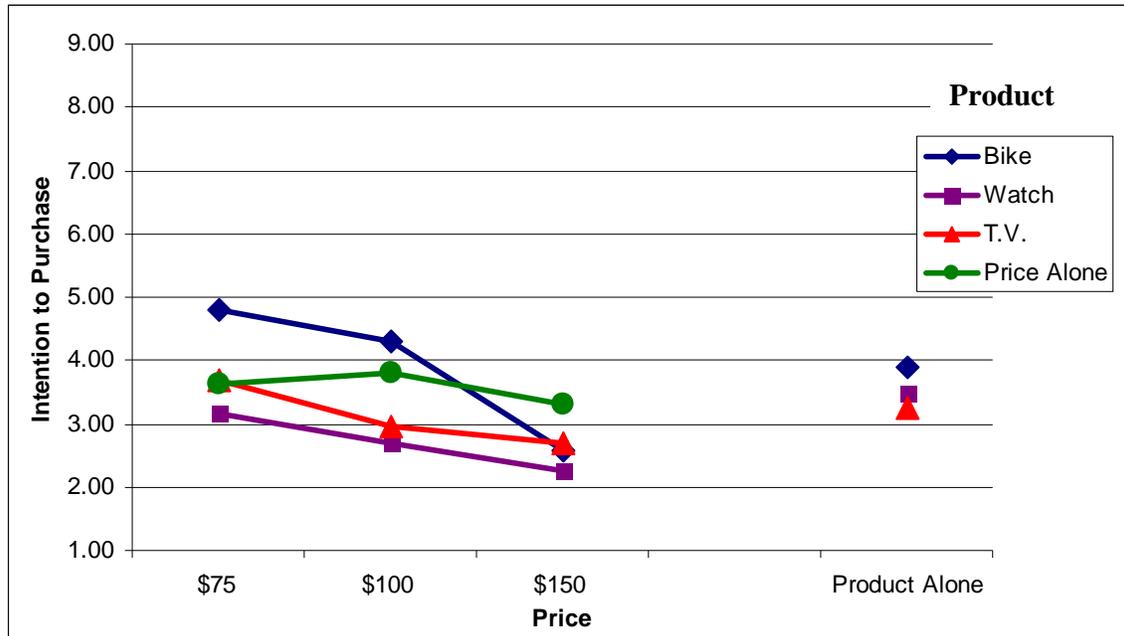


Figure 7. Mean Quality Rating for Study 2.

Study 2 Discussion

The hypothesis that people would tend to purchase the \$100 product more in regards to shopping products was not upheld. Without brand names, people want the cheapest product (\$75). This could be due to the fact that students do not have the means to buy expensive things so they tend to purchase the cheapest product.

Study 2 showed that the bike was most likely to be purchased, followed by the T.V., and lastly the watch. To look further into this result, the self-report measures of use and previous purchases were assessed. Participants rated that they used a T.V. (mean of 3.91 out of 5) much more often than they do a bike (mean= 2.37) and watch (mean= 2.40). Participants also stated that they purchased a T.V. more recently (mean= 3.49 out of 6) than they had a bike (mean= 2.47) and watch (mean= 2.86). The bike was most likely to be purchased probably because participants have not, on average, bought a bike in the last three years and therefore are in need of one.

One limitation of this study is that all ratings were low (highest mean was 4.79). Therefore, participants were not willing to buy these products. It could be that they already own them (only 6 people have never bought a bike, 6 never bought a watch, and 8 never bought a T.V.) and therefore, do not wish to buy another one. Another possibility is that students again, do not have the means to purchase shopping products as do other consumers. It may be possible to achieve different results using other products, such as consumable products, which is an idea for future research.

CHAPTER 4 - General Discussion

Consumers do not buy products without being given a price or brand name. Therefore, the next study to be performed will be one that includes both the brand name and price in order to assess the interaction of the two variables.

Future research should involve other components of brand equity. Advertisements, word of mouth/recommendations, packaging, etc will be studied to assess their role in brand equity. A hypothesized model of brand equity has been created (Appendix A 1) that will be tested. More research will be conducted in order to perform regression analyses that will actually test the model. This model is based on Grewal, et al.'s model as well as the previous literature on brand equity that has been presented in the beginning of this paper. This model will look at the variables individually as well as how they interact to lead to perceived quality and purchase intent. The model is a rough estimate as of now and more research will help refine it more.

Advertisements can lead us to purchase products we normally wouldn't buy. They can also create an illusion of better or worse quality than the product really is. If there is a T.V. commercial that has been poorly produced, for example, we might assume that the product being advertised is of poor quality as well.

Word of mouth/recommendations can also affect perceived quality. This seems to be a variable based on what we learn from the experience of others. For example, if we need to purchase a vacuum cleaner and our good friend tells us not to buy a certain brand because he/she had a bad experience with it, we are less likely to buy that brand. Another form of recommendations is ones by experts, like those of Consumer Reports. Dougherty and Shanteau's study found that expert recommendations can affect participant's perceptions of product quality.

Marketers know that the packaging of a product is an important variable in creating a successful product. Different colors, shapes, etc can have an effect on perceived quality of that product. Combining these variables, and more, will hopefully allow for an overarching theory to be created.

CHAPTER 5 - Conclusions

This study has shown the effects that brand name and price have on people's perceptions of quality and purchase intentions. Although we did not directly measure quality, participants' purchase intentions were based on their perceived quality for consumable products. Students want the cheapest product available for shopping products when brand names are not present. Overall, people tend to buy products based on their perceptions of a brand name and the price of the product itself, as well as other variables that we will look at in the future.

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Appendix A - Proposed Model of Brand Equity

This is only a hypothesized model, meaning there could be more or less variables than what is presented here. Some of the variables could be linked to perceived quality or have a direct path to purchase intent, or both.

