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THE EFFECTS OF PRODUCT FIT AND BRAND FIT ON MEMORY RETENTION FOR BRAND ALLIANCES: WHEN LESS IS MORE

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ABSTRACT

The literature on brand alliances establishes the significance of the "fit" concept. Specifically, it has been shown that consumers evaluate the extent to which the brands and products in a brand alliance are congruent. Various articles have studied the effects of brand and product fit on attitude toward the brand alliance suggesting that stronger degrees of fit result in the most favorable outcomes. However, there is a lack of research on the effects of brand and product fit on memory retention. This research is based on concepts in cognitive psychology, leading to hypotheses that suggest that stronger fit is not always better. A 2 x 2 experiment provides support for those hypotheses.

INTRODUCTION

The practice of cooperative brand activities is as prevalent as ever. According to Mastercard, co-branded cardholders outspend holders of standard bank credit cards by approximately $4,900 every year and account for approximately 50 percent of all credit card spending. Additionally, co-branded card spend is growing at a faster rate than that of standard credit cards (Mastercard, 2012). It is that kind of promise that has the likes of Saks Fifth Avenue, Exxon Mobil, Frontier Airlines, Best Buy, and hundreds of other companies teaming up with credit card providers.

Beyond the co-branding of credit cards, cooperative brand activities vary in nature. Other recent examples include Dairy Queen's Girl Scout cookie Blizzard add-ins, the Ford F-150 Harley-Davidson Edition, Benjamin Moore's Pottery Barn paint colors, and T.G.I. Friday's Jack Daniel's menu selections. In practice as well as in academic research, such cooperative brand activities have gone by various terms, including brand alliances, co-branding, co-marketing, cross-promotion, joint branding, and joint sales promotion. While subtle characteristics distinguish these cooperative marketing tactics from one another, this research focuses specifically brand alliances. Brand alliances involve the association or combination of two or more individual brands and products in a single context and are commonly represented through some means of promotion (Rao and Ruekert, 1994, and Simonin and Ruth, 1998).

Key empirical studies have contributed to the knowledge of the effects of brand alliances on consumer evaluations and cognitive processing. Specifically, it has been shown that brand alliances have an impact on the attitude toward partnering brands (Bendik *et al*, 2015, Beth *et al*, 2013, Gammoh *et al*, 2006, Simonin and Ruth, 1998, and Walchli, 2007), exhibit effects on brand awareness, accessibility, beliefs, and attitudes for newly introduced brands (Samu *et al*, 1999), affect shopping and purchase intentions (Arnett *et al*, 2010), and create a link whereby attribute and quality information transfers from one brand to another (Rao *et al*, 1999, Levin and Levin, 2000, and Voss *et al*, 2012). Many of these brand alliance studies address the

issue of "fit" between the entities involved. While the concept of brand alliance fit has most often been operationalized very simply as product complementarity, congruity between brand partners has also been explored (Walchli, 2007). Simonin and Ruth (1998) clearly define two separate dimensions of brand alliance fit establishing that as consumers process a brand alliance, they simultaneously evaluate the extent to which the product categories involved in a brand alliance are related or compatible (product fit) as well as the degree to which the images of both brands are consistent with or complementary to each other (brand fit). More recently, brand alliance fit has been defined as a two-dimensional construct based on the expectancy and relevancy of the partner brand (Hao, 2015).

The most common outcome of brand alliance studies that test for the effects of fit is that "more is better." Specifically, studies find that higher levels of brand alliance fit result in more positive attitudes toward the alliance as well as partner brands involved in the alliance (Arnet *et al*, 2010, Bigné *et al*, 2012, James, 2005, Lanseng and Olsen, 2008, and Simonin and Ruth, 1998). While developing more positive attitudes toward brands is certainly something that brand managers should find appealing, the comprehensive management of these complex entities begs for a greater understanding of the cognitive processes that ultimately affect the attitudes and behaviors of customers. Thus, the effects of combining different product types and different brands on memory In moving towards a more complete understanding of the effects of brand alliances, one factor that should be investigated more extensively is memory.

It has been shown that the ability to remember brand names and attributes is a significant factor in the processing of consumer information (Alba *et al*, 1991). While memory is one of many inputs affecting consumer behavior, it has been shown that the likelihood that some input (brand name, attribute, relevant piece of information) will be used in a judgment (attitude formation, belief, buying decision) is both a positive function of the accessibility of that input in memory and a negative function of the accessibility of alternative inputs in memory (Lynch *et al*, 1988). The purpose of this research is to investigate the effects of product and brand fit on memory retention for brand alliance advertisements. A review of the literature on congruency, categorization, and elaboration will establish a theoretical basis for hypothesizing the relationships between the two dimensions of brand alliance fit and consumers' ability to remember promotional information. Based on the social cognition and cognitive psychology research for these concepts, this approach will establish that in some cases, lower levels of fit can actually enhance memory.

LITERATURE REVIEW

Based on the definitions of brand fit and product fit that have been given, brand alliance fit, in the most basic sense, is a process of determining the degree to which two branded products can be grouped together in a logical manner. The concept of congruency is explored in order to accomplish the purposes of this manuscript and gain a better understanding of the effects of brand alliance fit on cognitive processing. Congruency has been examined in various marketing contexts (Lee and Mason, 1999, Meyers-Levy, 1991, Meyers-Levy and Tybout, 1989, Salgado-Montejo *et al*, 2014, Subhadip *et al*, 2015, Sujan *et al*, 1986, and Walchli, 2007) based on work in social cognition (Hastie, 1980, Hastie, 1981, Srull, 1981, and Srull *et al*, 1985) and other areas of cognitive psychology (Fiske and Pavelchak, 1986, Friedman 1979, Goodman 1980, and Thorndyke, 1977). Overall, this research examines the role of elaboration in determining the degree to which two or more items or pieces of information are congruent with some previously developed schema. Because the brands and products contained in brand alliances are essentially complex pieces of information, each can be evaluated with respect to congruency with a particular schema the elaboration processes required for making such evaluations.

From a synthesis of the congruency literature emerge two distinct dimensions of congruency (Heckler and Childers, 1992). The first of these, relevancy, is defined as the degree to which information pertains directly to or contributes to the identification of a central theme or primary message. As the name implies, it is the degree to which information is relevant to some main idea. Within any given episode or any evoked

schema, there will be a certain variables (i.e., people or other agents, objects, settings, and even goals) that combine to develop the theme (Goodman, 1980). If two pieces of information are considered to reflect the same theme, then a high level of relevancy between those two elements results.

The second dimension of congruency is expectancy. Formally defined, expectancy is "the degree to which information elicits or falls into some predetermined pattern or structure evoked by the theme" (Heckler and Childers 1992, p. 477). Expectancy is related to relevancy as the variables that combine to develop a theme can be instantiated in a variety of different ways. These instantiations vary in their degree of expectancy. An individual develops certain expectancies associated with how such thematic elements should be manifested based on their world knowledge such as personal experience, information from other people or sources, or even general appearances of objects. Thus, any given item (be it relevant or irrelevant) can vary as to whether it is expected or unexpected. While the thematic elements of any given combination vary on the dimension of relevancy, the instantiations of those elements vary on the dimension of expectancy. This takes on an important application in brand alliances as this cooperative marketing tactic not only brings together multiple brands and products, but the success of the promotional effort rests on the notion of establishing some common purpose – or theme – for the combination.

The significance of the duel congruency dimensions of relevancy and expectancy to brand alliances extends to the generally accepted positive relationship between congruency and elaboration. More important still is the recognition that two types of elaboration play a role in the evaluation of products (Meyers-Levy, 1991). Relational elaboration is a facilitative process that takes place when distinct pieces of information presented in the same context can be grouped based on a shared theme (Bransford and Franks, 1971, and Hayes-Roth, 1977). If two distinct items can be associated with each other through relational elaboration, then it can be said that each can be associated with a central theme. Once this association has taken place, each item then benefits from an instantaneous network of associated items. Not only does this help to encode each item more deeply, but this also provides more cues by which either item can be retrieved.

Item-specific elaboration is a discriminative process that occurs when obvious distinctions are present between different items (Eysenck, 1979). This type of elaboration generally takes place when an item or piece of information is given that appears to be discrepant or unique from any and all other items in the given context. While item-specific elaboration does not benefit from the same associative processes that occur through relational elaboration, it prompts greater effort during encoding. This greater effort occurs as an attempt to associate the new information with pre-existing information. Any given brand alliance varies as to the extent that a solid theme is apparent. A theme may be established based on the combination of brands or the combination of products represented in a brand alliance. Consider a brand alliance with the product combination of peanut butter and jelly. These products prompt a common theme of "sandwich foods". Consider also a second brand alliance between the brands Gucci and Rolex. These two brands prompt a common theme of "high status". These examples both involve pairs that could easily be argued to have a high level of fit. While it is apparent that either the product or brand combination in a brand alliance could establish a theme, literature on categorization processes establishes that product combinations frequently provide a more direct cognitive path for establishing brand alliance theme.

A category is "two or more distinguishable objects that are treated equivalently" (Mervis and Rosch, 1981). In evaluating brand alliances, the components may not seem to share any common attributes on the basis of comparing the lower order product or brand categories to which they belong. However, when a higher order category to which both categories can be considered members is considered, this perception can change. This hierarchical approach to categorization has been used in various contexts (Rosch, 1978, and Turner, 1987). In the processing of information according to a hierarchy or categories, attributes vary according to degrees of abstraction. The higher a person has to search on such a hierarchy, the higher the degree of abstraction. Members of a concrete category are viewed as having a greater degree of category membership as opposed to members of an abstract category, which have a less binding degree of

membership. The concept of higher-order categorization is relevant to the inclusion of product and brand combinations in brand alliances as products are more concrete than brands by nature. Products are comprised of features and attributes. Brands, on the other hand, are defined more abstractly by concepts, ideas, and images that reflect consumer associations including physical attributes, psychological benefits, and attitudes (Keller, 1993).

Thus, the principles of relevancy and expectancy can be applied to the practice of brand alliances. A central theme can be thought of in terms of a category with different bits of information being potential members of that category. Two pieces of information considered to reflect the same theme can be thought of as members belonging to the same category. Because product categories are more concrete, there is a far greater likelihood that the products involved in a brand alliance will serve as the bases for establishing (or failing to establish) a theme. In this respect, product fit is representative of the relevancy of a brand alliance. If there is a strong degree of product fit, then both products will also be relevant to the central theme. If there is a weak degree of product fit, then one or both products will be irrelevant to the central theme. As the relevancy of brand alliance components is established by product fit, brand fit is representative of the expectancy of a brand alliance. Because brand fit is the degree to which the images of each brand are complementary to each other, the level of brand fit also represents the level of expectancy for both brands in relation to each other. Each branded product is a thematic variable. If each product is an element that varies in relation to the theme of the promotion, the brand is an instantiation of that product.

As a means of demonstrating relevancy and expectancy in a cross-promotional context, consider an advertisement promoting the combination of Windex glass cleaner and Scott paper towels. The context of this ad definitely contains an overall theme. It could be said that the theme is that of "window cleaning". Both products, glass cleaner and paper towels, are very relevant to this theme. In fact, it can be said that the reason this theme is so easily identifiable is not only because both products are relevant to the theme, but that they actually comprise the theme. It follows then that both products are very complementary to each other. Therefore, this product combination, by definition, has a high level of product fit. There are various brands of glass cleaner and various brands of paper towels. The fact that the Windex brand is all but synonymous (it should be noted this will not generally be the case for other branded products) with the product of glass cleaner leaves little argument that the Windex brand is, therefore, highly expected in the context of "window cleaning".

The Scott brand is well-known for various paper products, particularly towels. Because paper towels are the most common household item used to clean glass and other hard surfaces makes it logical that the Scott brand is also highly expected in the context of "window cleaning". Because both brands have a high level of expectancy in the same context, it can be said that the union of the two is also expected. In addition, both brands represent a quality standard for their categories and are top sellers. Because the images of these two brands are complementary, it follows that a high level of brand fit exists. The assertion that the processes of evaluating relevancy and expectancy are indeed involved in evaluating product fit and brand fit is crucial to hypothesizing the relationship between product fit and brand fit in brand alliances and cognitive processes which affect memory retention. As noted in the previous section, the congruency literature identifies the effects of relevancy and expectancy on elaboration and associative processes. This is particularly significant in light of the fact that the extant brand alliance literature has not revealed the underlying dimensions of brand and product fit. This literature, therefore, has left gaps in the understanding of brand alliance effects. If, in fact, the fit dimensions of product fit and brand fit are measuring similar constructs as the congruency dimensions of relevancy and expectancy, then product fit and brand fit should have similar effects on elaboration and associative processes. The congruency literature, therefore, provides a theoretical foundation for an examination of the effects of product fit and brand fit and a basis upon which to hypothesize the various relationships.

The literature on congruency (Hastie, 1980, 1981, and Srull, 1981) gives insight as to the effects of relevancy on memory. When an object is relevant to a theme, it enhances or actually helps to create that theme. As described in the literature review, the product categories in a brand alliance have the potential to create a theme. When a central, higher-order category is prompted by the two product categories as a grouping mechanism, that higher-order category can be considered as a theme created by the combination of the products. According to Meyers-Levy (1991), a situation in which items can be grouped according to a shared theme prompts relational elaboration. Additionally, when information is relevant to a central theme, this information becomes more strongly linked within the associative network based on the established nature of that theme and prior knowledge structures already present. Thus, retrieving this information from memory requires little effort due to the increase in the number and strength of linkages with those knowledge structures. In the same manner, information that is irrelevant to a theme is not processed with the facilitation of relational elaboration. Information that is irrelevant suffers from a lack of notability. While this information may still be processed, the elaborative effort exerted is much weaker. Because the information is not be linked through a central theme, the items are not associated with each other nor with other linkages in memory. Thus, the resulting retrievability is weak.

In a brand alliance context, a product pair with a high level of relevancy to a central theme (i.e., product categories are complementary resulting in strong product fit) should also facilitate this formation of associative linkages within the memory network. This causes deeper encoding of the products themselves as well as other information in the ad that pertains to the theme. The deeper encoding takes places via relational elaboration and then facilitates information retrieval. Consider a promotion involving a computer chip and software designed to be used with that chip. The central theme of using personal computers naturally invokes certain items that are strongly associated with it. Computer chips and software would likely be two such items. Therefore, not only would they be considered relevant to the theme, but should be strongly associated to each other as well as to theme related information. The following hypothesis then results:

H_1: In a brand alliance, a product pair with a high level of product fit will lead to greater recall, and enhanced overall recognition of ad information compared to a product pair with a low level of product fit.

According to social cognition frameworks (Hastie 1980, Hastie 1981, and Srull 1981), unexpected information requires more processing effort in the form of elaboration than expected information during encoding. This is due to the fact that, particularly in the processing of complex information, the reason for the presence of an unexpected object or piece of information is not readily clear and does not fit within some pre-determined schema. Thus, the individual must exert more effort in an attempt to understand why that information is presented in the given context. While the social cognition literature does not distinguish this effort as a specific type of elaboration, the type of elaboration prompted by distinctive properties of information fits the Meyers-Levy (1991) description of item-specific elaboration.

Consider an example of a cross-promotion involving Intel and Lego. The images of these two brands would initially seem to have little in common. Additionally, the two brand images are composed of elements so distinctive from each other that the combination of two such brands is likely to be unexpected or have a low level of brand fit. The distinctive characteristics of these two brands would then result in a "surprise effect", invoking high levels of item-specific elaboration in an attempt to make sense out of the combination. This increased level of item-specific elaboration leads to more vivid encoding and increased memory retention. Thus,

H_2: In a brand alliance, a brand pair with a low level of brand fit will lead to greater recall and enhanced overall recognition of ad information compare to a brand pair with a high level of brand fit.

As discussed previously, while there is support for two distinct dimensions of incongruency, these dimensions do not exist in isolation. Thus, while the main effects of both product fit and brand fit on memory retention can be hypothesized and examined separately, more important to understanding the relation of these dimensions to memory are the dynamics of the simultaneous effects of these fit dimensions.

Based on the two previous hypotheses, the conditions leading to memory enhancement are those of low brand fit and high product fit. Such a combination of the fit dimensions should provide the benefits of increasing both relational elaboration and item-specific elaboration. Prior research on these two types of elaboration resulting from a single dimension of congruency does not examine the possibility that a given item of information could prompt both types of elaboration.

However, when congruency is considered as a two-dimensional construct (Heckler and Childers, 1992), it is evident that it is possible for a particular object to have different levels of each dimension of congruency, prompting both types of elaboration. A cross-promotion satisfying the low brand fit/high product fit condition should produce this situation and, thus, result in the highest level of memory performance. A brand alliance combining the Intel Pentium processor and Lego Creator software states that Lego's new software for children to create images on a computer was designed to specifically use the capabilities of the Intel processor. As mentioned before, the two brands would prompt an increase in both relational and item-specific elaboration. Both of these processes would facilitate memory retention. In a similar manner, a condition in which brand fit is high and product fit is high (such as Intel processor and Adobe Photoshop) would benefit from increased relational elaboration, but not item-specific elaboration. Likewise, a condition in which brand fit is low and product fit is low (such as an Intel processor and Lego building blocks) would not benefit from relational elaboration, but would benefit from increased item-specific elaboration. Thus, a product pair satisfying either conditions of high brand fit/high product fit or low brand fit/low product fit should produce a relatively moderate level of memory performance. Ultimately, a brand alliance defined by a high brand fit/low product fit condition would not achieve the benefits of either type of elaboration. On the basis of this discussion, the following effects are hypothesized:

H₃: A brand alliance with a low brand fit/high product fit will lead to greater recall and overall recognition of ad information compared to a brand alliance with either a low brand fit/low product fit or a high brand fit/high product fit.

H₄: A brand alliance with either a low brand fit/low product fit or a high brand fit/high product fit will lead to greater recall and overall recognition of ad information compared to brand alliance with a high brand fit/low product fit.

It is important to note here that while Hypotheses 3 and 4 predict memory effects based on the simultaneous consideration of both fit dimensions, the effect is not hypothesized to be interactive. This is not meant to imply that an interaction effect does not exist. The conditions resulting in the highest (low brand fit/high product fit) and the lowest (high brand fit/low product fit) memory performance are easily distinguishable. However, because the conditions of both low product fit/low brand fit and high product fit/high brand fit each benefit from one type of elaboration, the predicted levels of memory retention fall between the other two conditions. While it is possible that a significant difference could exist between the memory results for the low product fit/low brand fit and high product fit/high brand fit conditions, there is no theoretical basis to predict one. Thus, while an interaction between brand fit and product fit could result, it is quite possible that Hypotheses 3 and 4 could be supported while the slopes for the effects of both fit dimensions remain parallel. It should be mentioned that a cross-over interaction could only result if the direction of the cell means were to not support H_3 and H_4. However, a "fan" interaction could result with the hypotheses being supported.

DATA AND METHODOLOGY

A 2 (product fit: high-low) x 2 (brand fit: high-low) factorial experiment was conducted to test the hypotheses. In developing and conducting these studies real products made by real brands were used. Subjects for this study were supplied by a student subject pool at a large southwestern university in 2003 (see Table 1 for summary statistics of this sample).

Table 1: Sample Summary Statistics

N	105
Age range	19-48
Ages 20-22	70%
Female	49%
Male	51%
Caucasian	71%
African-American	2%
Asian	5%
Hispanic	22%
Native American	1%

This table shows summary statistics for the composition of the sample.

In order to conduct a reliable experiment, cell conditions were created that consisted of four print ads each. The print ads depicted a brand alliance based on some kind of offer involving the branded products in each ad. Because the variables of interest were brand fit and product fit, the objective was to create ad conditions that adequately represented each cell in the 2 x 2 (i.e., high product fit/high brand fit, high product fit/low brand fit, low product fit/high brand fit, low product fit/low brand fit). In addition, the ad conditions needed to control for factors other than brand fit and product fit. Pretests accomplished these objectives.   Based on the results from pretesting, advertisements were created for each of the resulting 16 pairs of branded products, four ads in each of the four conditions. Each advertisement was designed according to a specific format. This format included brand logos and marks at the top of each ad with a pictorial representation of the two products. Each ad then contained a verbal description of the promotion. All ads were consistent with respect to the number of words (approximately 85) and statements (five) made. Complex visual images and ad copy were not included in order to reduce any effects of the ads, resulting in more precise brand and product fit conditions.

Nine sessions of the experiment were conducted. Within each session, subjects were randomly assigned to one of four groups representing the four different cell conditions (high product fit/high brand fit, high product fit/low brand fit, low product fit/high brand fit, low product fit/low brand fit).   Subjects   were presented with survey packets. Because the advertisements in this packet were not commercially produced, subjects were instructed to consider that the ads they would see were ads in early stages of development. The first section of the packets contained four brand alliance ads reach representing the same cell conditions. Fit conditions were not mixed within subjects so that the evaluation of one ad would not skew subsequent ad evaluations. All ads were counterbalanced resulting in two different orders of the same ads in each cell condition. Subjects were given 35 seconds to view each advertisement. This duration of exposure was determined a priori as an adequate length of time for an average student to consider the ad and read the information. Following exposure to the advertisements, an unrelated distracter task was given to subjects for the purpose of clearing information from short-term memory. Subjects then responded to measures for the dependent variables. The hypotheses require various measures of memory. Unaided recall was assessed by asking subjects to respond to the single open statement, "In the space below, please list all the brands that you can remember from the advertisements that you viewed previously" (total of eight brands possible, two per condition).

Aided recall was measured via two different tasks. In the first task, subjects were given the product combination for each of the four cross-promotions that they viewed. Subjects were then asked to recall as much detail as possible from that ad. Key items to be remembered included the brand names, the promotional offer, and any of four key facts included in the advertisement. Coding forms were created a priori by the experimenter in order to identify the presence of these items in the memory protocols. Identifying the presence of the brands' names and the promotional offer was a very objective task and could be accomplished by the experimenter. However, identifying whether or not the memory protocols correctly contained each of the four key facts was more subjective. Therefore, two independent coders were used for this task. The second measure of aided recall was taken by providing the combination of brands and products for each advertisement and asking subjects to recall the promotional offer for that ad.

RESULTS AND DISCUSSION

105 participants completed the experiment. Cell sizes for each of the four cell conditions ranged from 25 to 28. Both unaided and aided recall measures were described previously. These measures look at memory for the brands (0-2 possibility), memory for the offer (0-1 possibility), cued memory for the offer (0-1 possibility), and memory for four main facts in each ad (0-4 possibility). Because these measures had very small ranges (and therefore provide little variance), a variable for total memory (MEMTOT) was created by adding all memory variables together. The hypotheses were first examined by analyzing the MEMTOT variable. Throughout the analyses, ceiling effects were apparent in memory for the brand names. It was thought that a few factors could have contributed to this phenomenon. First, subjects were allowed 35 seconds to view each ad. While this length of time was thought to be an appropriate interval for average readers, it was evident throughout the distribution of the experiment that 35 seconds was more than sufficient for most participants. Because the brands were mentioned more than any other single item in each ad, subjects may have been able to rehearse the brand names. However, more than likely, the ceiling effects were brought on by the high familiarity of all brands involved.

Because ceiling effects were evident in the memory of brands, both the total memory variable (MEMTOT) and the memory for additional facts in each ad (FACTS) were used in the testing of memory hypotheses. Additionally, the analyses included a variable identifying each ad in order to account ad effects. The analysis of MEMTOT revealed the lack of a significant main effect for product fit ($F = 1.79$, $p = 0.1835$; see Table 2 for ANOVA results). While product fit is not significant, contrast analysis shows that there is some indication of support for this hypothesis. A comparison of cell means shows that MEMTOT was greater ($F = 2.89$, $p = 0.09$) for cross-promotions with a high level of product fit (Mean = 4.03) than for cross-promotions with a low level of product fit (Mean = 3.81; see Table 2). However, as mentioned previously, effects of the MEMTOT variable were likely affected by ceiling effects for memory of the brand names in all conditions.

Table 2: ANOVA Results for Product and Brand Fit on Dependent Measures

Independent Variable	Type I Sum Of Squares	F	P
Panel A: Dependent Variable MEMTOT (Model R-Square = .5173)			
Product Fit	4.22	1.79	0.1835
Brand Fit	9.81	4.17	0.0439**
Product Fit x Brand Fit	35.38	15.03	0.0002***
Panel B: Dependent Variable Facts (Model R-Square = .5683)			
Product Fit	19.66	22.26	<0.0001***
Brand Fit	4.66	5.28	0.0237**
Product Fit x Brand Fit	3.12	3.54	0.0631*

*This table shows the Type I sum of squares, F-values, and P-values for a full-factorial analysis of variance model of the independent variables product fit and brand fit on the dependent variables MEMTOT and FACTS. ***, **, and * indicate significance at the 1, 5, and 10 percent levels, respectively.*

By examining the effects of product fit on the more specific variable of FACTS, support for the hypothesis emerges. The impact of product fit on FACTS in a much stronger effect ($F = 22.26$, $p<0.0001$). In addition, the number of FACTS remembered for each ad was greater ($F = 31.54$, $p<0.0001$) in a condition of high product fit (Mean = 0.99) than low product fit (Mean = 0.54). The effect of brand fit on subjects' ability to retain information in memory was also significant. Analysis reveals that brand fit has a strong main effect on both MEMTOT ($F = 4.17$, $p = 0.0439$) and FACTS ($F = 5.28$, $p = 0.0237$). In addition, the contrast of cell means shows support in the hypothesized direction (see Table 3). Specifically, MEMTOT was greater ($F = 6.45$, $p = 0.0115$) for ads in the low brand fit condition (Mean = 4.08) than for ads in the high brand fit condition (Mean = 3.76). In a similar manner, FACTS was greater ($F = 9.02$, $p = 0.0028$) for ads in the low brand fit condition (Mean = 0.88) than for ads in the high brand fit condition (Means = 0.64). Thus, H_2 is supported.
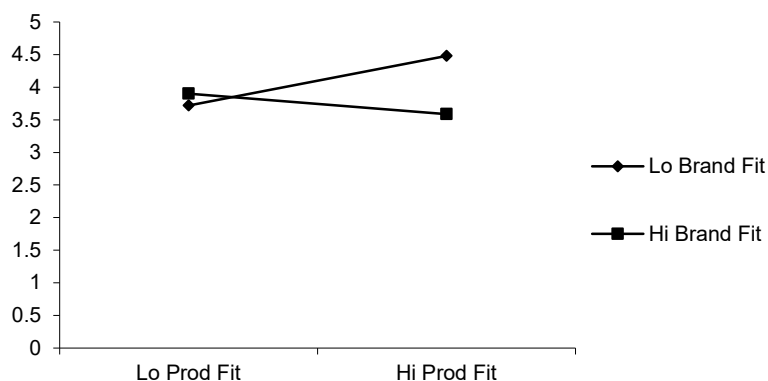
Table 3: Means for Product Fit and Brand Fit Conditions

Dependent Variable	High Fit	Low Fit
Panel A: Product Fit Cell Means and Standard Deviations		
MEMTOT	4.03 (1.34)	3.81 (1.15)
FACTS	0.99 (.85)	0.54 (.69)
Panel B: Brand Fit Cell Means and Standard Deviations		
MEMTOT	3.76 (1.25)	4.08 (1.22)
FACTS	0.64 (.74)	0.88 (.85)

This table shows the means and standard deviations for the experimental conditions. Panel A shows the cell means for the high product fit and the low product fit conditions. Panel B shows the cell means for the high brand fit and the low brand fit conditions. Standard deviations are shown in parentheses.

The analysis of memory retention shows a significant interaction effect between product fit and brand fit on both MEMTOT ($F = 15.03$, $p<0.0002$) and FACTS ($F = 3.54$, $p = 0.0631$; see Figure 1 and Figure 2). As noted previously, H_3 and H_4 could be supported with or without a significant interaction. The resulting interaction effect on both dependent measures is strong. Yet, the interaction present in MEMTOT is a cross-over. As previously mentioned, this type of interaction is not supportive of the hypotheses.

Figure 1: Effects of Product Fit and Brand Fit on MEMTOT

This figure plots the cell means for the dependent variable MEMTOT across each of the four experimental conditions: high product fit/high brand fit, high product fit/low brand fit, low product fit/high brand fit, and low product fit/low brand fit. While an interaction exists and the cross-over pattern is unique, this pattern does not support the hypotheses.

A comparison of the cell means confirms this. Contrast analysis of MEMTOT shows that the mean (see Table 4) for the low brand fit/high product fit cell (4.48) is higher than all others cells ($t = 4.15$, $p<0.0001$)

as hypothesized. However, while the high brand fit/low product fit cell is hypothesized to have the lowest level of memory retention, the MEMTOT mean (3.90) is significantly higher (see Table 5) than the mean for the high brand fit/high product fit cell (3.59).

Table 4: Means for MEMTOT - Product Fit X Brand Fit

	High Product Fit Mean (SD)	Low Product Fit Mean (SD)
High Brand Fit	A 3.59 (1.31)	B 3.90 (1.19)
Low Brand Fit	C 4.48 (1.21)	D 3.72 (1.10)

This table summarizes the cell means for the dependent variable MEMTOT across the four experimental conditions as illustrated in Figure 1. Also included are standard deviations in parentheses. The hypothesized outcome for the condition means (C > A/D > B) is not supported by these results.
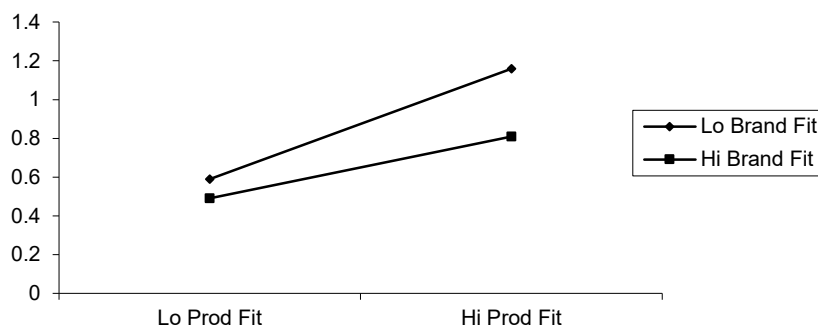
Table 5: Contrasts for MEMTOT - Product Fit X Brand Fit

Contrast	F	P
High Brand Fit/High Product Fit vs High Brand Fit/Low Product Fit	3.06	0.0812*
High Brand Fit/High Product Fit vs Low Brand Fit/High Product Fit	22.93	<0.0001***
High Brand Fit/Low Product Fit vs Low Brand Fit/Low Product Fit	1.00	0.3174
Low Brand Fit/High Product Fit vs Low Brand Fit/Low Product Fit	17.18	<0.0001***

*This table summarizes the contrast tests of significance on the means for MEMTOT across the four experimental conditions. As hypothesized, the mean for the low/brand fit/high product fit condition is higher than all other conditions. However, while the mean for the high brand fit/low product fit cell is hypothesized to have the lowest level of memory retention, this table shows that the MEMTOT mean for the high brand fit/high product fit condition is the lowest. ***, **, and * indicate significance at the 1, 5, and 10 percent levels, respectively.*

Yet when memory for ad details (FACTS) is examined, the resulting interaction is in the form of a fan (see Figure 2). Contrasts confirm full directional support for the H_3 and H_4 (see Table 6). In addition, all relations are statistically significant with the exception of the contrast between the high brand fit/low product fit and the low brand fit/low product fit (see Table 7). This is due to the fact that the memory scores for both the low product fit conditions are not significantly different from one another suggesting that brand fit does not affect memory when product fit is low.

Figure 2: Effects of Product Fit and Brand Fit on FACTS

This figure plots the cell means for the dependent variable FACTS across each of the four experimental conditions: high product fit/high brand fit, high product fit/low brand fit, low product fit/high brand fit, and low product fit/low brand fit. While an interaction exists and the cross-over pattern is unique, this pattern does not support the hypotheses.

Table 6: Means for Facts - Product Fit X Brand Fit

	High Product Fit Mean (SD)	Low Product Fit Mean (SD)
High Brand Fit	A 0.81 (0.81)	B 0.49 (0.64)
Low Brand Fit	C 1.16 (0.85)	D 0.59 (0.75)

This table summarizes the cell means for the dependent variable FACTS across the four experimental conditions as illustrated in Figure 2. Also included are standard deviations in parentheses. The hypothesized outcome for the condition means is (C > A/D > B) is supported by these results.

Table 7: Contrasts for Facts - Product Fit X Brand Fit

Contrast	**F**	**P**
High Brand Fit/High Product Fit vs High Brand Fit/Low Product Fit	8.77	0.0032***
High Brand Fit/High Product Fit vs Low Brand Fit/High Product Fit	8.91	0.0030***
High Brand Fit/Low Product Fit vs Low Brand Fit/Low Product Fit	1.23	0.2676
Low Brand Fit/High Product Fit vs Low Brand Fit/Low Product Fit	23.83	<0.0001***

This table summarizes the contrast tests of significance on the means for FACTS across the four experimental conditions. All contrasts are statistically significant except for that between the high brand fit/low product fit and the low brand fit/low product fit conditions. While the means do provide directional support for the hypotheses, the contrast tests provide only partial support. ***, **, and * indicate significance at the 1, 5, and 10 percent levels, respectively.

A potential reason for results of the tests on the FACTS variable is considered. Hunt and McDaniel (1993) provide a thorough review of literature that examines the effects of similarity and distinctiveness on memory. This review supports the development and logic behind the memory hypotheses of this study. However, a condition is revealed that explains why variance in brand fit might not have a significant effect on memory when product fit is low. Based on a condition known as the isolation effect, when a distinct item is placed in a context of organized items that reflect a "code" or category, the distinctiveness results in clear item-specific elaboration and memory effects are present. However, when that same distinct item is placed in a context of unorganized items that are not clearly similar as a group, then the target item is no more distinct as each item is from all the others. This results in no apparent item-specific or relational memory benefits. Considered in this context, when product fit is low, the cross-promotion does not display a clear theme or unifying category as is the case when product fit is high. Thus, any distinctiveness of the brand image (low brand fit) would provide no memory benefit over brand images that are not distinct (high brand fit). While Heckler and Childers (1992) do find support for memory effects of expectancy (brand fit) in a condition of low relevancy (product fit), those findings are not contradictory to this discussion. The stimuli tested in their studies were all placed in an organized context with a well-defined theme. This current study of cross-promotion differs in that the theme is developed by the product combinations. Thus, when product fit is low, no theme (and thus no organization) is apparent.

The importance of studying memory as an effect of promotion in general has been identified based on the fact that the likelihood that some piece of information will be used in making judgments is a positive function of the accessibility of that information in memory (Lynch *et al*, 1988). In addition, while there may be many possible objectives for utilizing brand alliances (Varadarajan, 1986), it is apparent that achieving most managerial objectives relies on consumer memory. The results of this study indeed show that the product and brand combinations in brand alliances have a significant effect on consumer memory.

Perhaps more importantly, this research identifies the psychological processes involved in the cognitive processing of cross-promotion. Specifically, the dimensions of product fit and brand fit can each be shown to affect elaboration in different ways. As previously noted, elaboration has been shown to exist in two-distinct forms based on incongruities in information (Meyers-Levy, 1991). The results of this research have shown that high levels of product fit result in greater memory performance. This can be linked to the involvement of relational elaboration. Low levels of brand fit also result in greater memory performance. This can be linked to the involvement of item-specific elaboration. The current research creates a previously unidentified link between two types of elaboration and the two dimensions of congruency. This link essentially establishes that relational elaboration and item-specific elaboration do not occur at opposite ends of the same dimension of congruency as previously thought (Meyers-Levy, 1991). Viewed as a two-dimensional construct, the results of this research show that each type of elaboration occurs in a specific dimension of congruency present in the evaluation of each type of brand alliance fit. Significantly, the results of this study establish differential effects of product fit and brand fit on memory retention in brand alliances. That is, where memory retention is concerned, the most favorable type of brand alliance is one with a high degree of product fit, but a low degree of brand fit.

CONCLUDING COMMENTS

It is the purpose of this manuscript to provide an investigation of the effects of product fit and brand fit in brand alliances on memory retention as this has not been previously studied. To accomplish this, hypotheses were developed based on the theoretical roots of the literature on congruency, categorization, and elaboration. As a general hypothesis, the purpose of this paper was to also demonstrate that stronger levels of fit do not always provide the most desirable outcome. A between-subjects design was employed for this work based on data gathered from university student participants. While the homogeneity of a student sample does present limitations associated with generalizability to a broader population, it also provides the benefit of stronger internal validity (Calder, *et al,* 1981). The between-subjects design was also chosen for certain advantages gained in spite of limitations. Specifically, a between-subjects design reduces carry-over effects, practice effects, and the likelihood that demand artifacts will result. However, this comes at the cost of the benefit of reducing variance due to individual differences that a within-subjects design provides. In spite of the controls taken in this experiment, individual differences may still exist. A within-subjects design would rule out individual differences by having each subject serve as his/her own control group. These limitations are generally recognized tradeoffs inherent in the research design. While they do represent shortcomings, this research was conducted in such a manner as to minimize the effects. However, additional exploration of the variables employed in this research through within-subjects experimentation would provide greater insight and validation.

This research presents four hypothesized relationships between the independent variables of product fit and brand fit on memory retention. The study operationalizes memory retention by the variables MEMTOT and FACTS. Overall, there is support for these hypotheses. Specifically, a brand alliance with a high degree of product fit will prompt greater memory retention than one with a low degree of product fit (H_1) based on the theory that the product categories are relevant to a central theme which makes deeper encoding possible. But in a counter-intuitive manner, higher levels of brand fit do not exhibit stronger effects on memory than low levels (H_2). This is due to the deeper levels of elaborative processing brought on by the unexpected nature of a low-fit brand combination. The results of the study provide support for both of these hypotheses. Yet, only partial support is given for the interactive effects of the product fit and brand fit conditions on the memory variables as noted in the previous section.

Similar to key published research on cooperative promotions (Samu *et al*, 1999, Simonin and Ruth, 1998, and Varadarajan, 1986), this research examines brand alliances composed of two-items, each representing distinct brands and product categories. Future research should expanding the study of this promotional strategy to include multiple elements in order to reveal new knowledge. It is specifically thought that the

number of brands included in a single promotion alone would create differences in the establishment of a promotional theme and the relation of each brand to that theme. In addition, the number of items in a promotion may affect the significance of establishing a theme.

Finally, the knowledge gained from this research in the context of multi-brand cooperative promotions can be expanded to other contexts. Future research should explore non-profit involvement in event sponsorships or the use of branded products as part of a service. One area that would provide a rich field of study is online and mobile promotions. With developments of advertising in these media, there are extensive examples of the crossing over of brands and products. Apps and commercial sites contain various types of ads, including links to other sites. In such instances, the distinction between standard advertising space and cooperative advertising is blurry. This medium, therefore, provides a unique context in which to study multi-brand promotions.

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