

A survey on the impacts of brand extension strategy on consumers' attitude for new products development

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ABSTRACT

Marketing planning has been one of the most important components of production planning. A good marketing strategy can increase sales of products, which leads to higher profitability. The proposed study of this paper investigates how consumer's mental capability reacts when a new product is introduced along with a well known brand. The proposed study of this paper selects 196 people who choose 12 hypothetical new product. Dependent variable is consumer perception towards new product development. Independent variables include customers consider newly offered product as replacement or supplement one. They surveyed people are also asked whether they think the new technological characteristics can incorporate older ones' or not. Finally, participants are asked about their perception on product. Correlation ratio between technology transfer capabilities and perception towards the new product is calculated as 0.454, which is much more than other variables and P-value is significant when the level of significance is one percent. The other observation is that there is a positive and meaningful relationship between potential for product substitution and perception towards the new product, which has been calculated as 0.227.

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1. Introduction

One of the most important methods for expanding businesses is to introduce a new product with a well known brand. When people have good memory about a good brand and its older products, they may carry their mental impression into newly introduced product. In such a case, a new product can penetrate into market very easily and people may accept it along with older ones (Aaker, 1990). There are many evidences to believe that marketing planning must be accomplished more carefully since the expenses in such planning are significant (Aaker, 1991). A good marketing planning may result in an immediate increase in sales figures while an unsuitable marketing planning could result

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some undesirable consequences (Aaker & Keller, 1990; Andrews & Kim, 2007; Völckner & Sattler, 2007). Martinez et al. (2009) in an assignment surveyed the impact of market extension on new product development.

During the past few years, there have been tremendous efforts to study the effect of introducing new products on people's mental reactions. Market extension can save marketing expenditures and increase sales, significantly. Barone (2005) investigated the interactive impacts of mood and involvement on evaluations of product extensions, which are different in their similarity to the core brand. The results from an initial experiment demonstrated that, under conditions of high involvement, participants' mood impacted their evaluations of extensions, which were moderately similar to the core brand, but did not impact evaluations of either very similar or dissimilar extensions. Barone also reported that under low-involvement circumstances the impact of positive mood was independent from core brand-extension similarity.

Barone (2005) also showed that mood's impact on extension evaluations may further depend on the measurement procedures used to elicit product appraisals. The study focused on important contingencies associated with mood's impact on extension evaluations and, as such, provided some insights on consumers' appraisals of brand extensions. According to Brodie et al. (2009) there is a direct impact of all the aspects of the brand on customers' perceptions of value and brand image, company image and employee trust have a mediated impact on customer value through customers' perceptions of service quality. A service brand may not have a direct impact on customer loyalty but rather its impact is mediated through customer value.

Fransen et al. (2008) investigated whether brands can automatically activate mortality-related thoughts and, in turn, influence consumer behavior. They reported that explicit exposure to an insurance brand could increase the accessibility of death-related thoughts, which, in turn, increases personal spending intentions. They also demonstrated that insurance brand exposure positively influences charity donations.

Milberg and Sinn (2008) investigated the effect of competitor brand familiarity on the quality perceptions of global brands in Chile when the brand extends into new product developments. The results showed that there was a negative influence on the quality perceptions of brand extensions when an extension competed with well-known and well-liked competitor brands. However, brand extension quality beliefs appeared to produce negative feedback impacts on parent brand quality beliefs only for narrowly extended parent brands but not for broadly extended ones. Olavarrieta et al. (2008) investigated the importance of target market influences on the evaluation of both brand extension strategies. Their findings supported the idea that derived brand names leverage parent brand evaluations and protected parent brand from extension failures.

Salinas and Pina Pérez (2009) analyzed how brand-extension evaluation could impact the current brand image and proposed a theoretical model formed by five main factors associated with brand associations, extension congruency and extension attitude. The model estimation included structural equation analysis and the results verified that extension attitude affects brand image, whereas initial brand associations and perceived fit between the new product and either the remaining products were able to strengthen consumer attitude. The study also explained the impact of consumer innovativeness as a moderating factor, suggesting that the characteristics of consumer personality could play an essential role.

Ruyter and Wetzels (2000) investigated the impact of corporate image in extending service brands to new and traditional markets in the telecommunications sector. Based on corporate image, service brand extensions were primarily related to innovation-related attributes, such as order of entry. Increasingly, firms were extending their services to markets, which were beyond the markets that they traditionally had been active in.

2. The proposed model

The proposed model of this paper considers the following two hypotheses,

1. There is a relationship on quality perception between an existing brand and a hypothetical new product.
2. There is a relationship on the effects of quality perception between an existing brand and a hypothetical new product.

The proposed study of this paper considers four different brands, which produce various products. Table 1 shows characteristics of these products.

Table 1

Four selected brands along with their products

Brand	Hypothetical new product		
Siv	Dish washing detergent	Shampoo	Fiscal tissue
Cheshmak	Towel	Tile glass	Booklet
Tak	Tomato paste	Coke	Soap powder
Sanich	Soft drink	Biscuit	Canned fruit

The questionnaire of this survey consists of four sections including personal characteristics, different perceptions from various brands, proposed hypotheses in Likert scale and the effect of purchasing products on brand. In order to validate the content of the survey, we have used the feedback from seven experts. Cronbach alpha was more than 0.65 for all brands and for each selected brand, Cronbach alpha was 0.75, 0.68, 0.79 and 0.75 for Siv, Cheshmak, Tak and Sanich, respectively. As we can observe these figures are well above the minimum acceptable level of 0.7.

3. The results

Statistical society has been considered from the people whose average income was well above the average and they definitely care about the brand. The proposed study of this paper selects 196 people who choose 12 various products. Dependent variable is consumer perception towards new product development. Independent variables include customers consider newly offered product as replacement or supplement one. They surveyed people were also asked whether they think the new technological characteristics can incorporate older ones' or not. Finally, participants are asked about their perception on product.

In terms of 196 surveyed people's personal characteristics, 152(77.6%) were female and 44(22.4%) were male. In our survey, 64(32.7%) were single and 132(67.3%) were married, 64(32.7%) were housekeeper, 65(33.2%) were regular employee, 17(8.7%) with no job, 19(9.7%) were executive and 17(33.2%) were retired. In terms of educational background, 103(52.6%) finished high school, 79(40.3%) maintained bachelor degree of science and 14(7.1%) had master to higher degrees. In terms of age, 103(52.6%) were less than 30 years old, 50(25.5%) were between 30 to 40 years of age, 39(19.9%) were between 40 to 50 and 4(2%) people were between 50 to 60 years of age.

The first question of this survey is associated with the factors, which are associated with consumers' perception on brands. Our findings indicate that quality and functional benefits are primary mental association respondents. Table 2 shows details of our survey results.

Table 2

Most important factors influencing mental association respondents on the first brand, Siv

	Mental characteristics	Frequency	Percentage	Mental association
1	Scented oils	79	38.3	Functional
2	Siv is apple	37	18.0	Non-functional
3	Containing softeners	29	14.1	Functional
4	Various colors and oils	27	13.1	Functional
5	Resembles the smell of apples	19	9.2	Non-functional
6	Durable and economical	15	7.2	Functional
	Total	206	100	

Note that since surveyed people specified more than one mental factor, the number of responses is more than the people who took part in survey. Next, we have repeated the same survey for facial tissue, which is a product for another brand, Cheshmak. Table 3 shows details of our findings,

Table 3

Most important factors influencing mental association respondents on the second brand, Chechmak

	Mental characteristics	Frequency	Percentage	Mental association
1	Soft	114	45.1	Functional
2	Beautiful boxes	69	27.3	Functional
3	Prize	27	10.7	Non-functional
4	Different sizes	19	7.5	Functional
5	Facial tissue for Cars	12	4.7	Non-functional
6	High price	12	4.7	Non-functional
	Total	253	100	

Again, since surveyed people specified more than one mental factor, the number of responses is more than the people who participated in survey. As we can observe from the results of Table 3, being soft is number one on mental factor, followed by beautiful boxes and these two are functional items. Next, we have repeated the same survey for macaroni, which is a food product for another brand, Tak and the results are given in Table 4 as follows,

Table 4

Most important factors influencing mental association respondents on the third brand, Tak

	Mental characteristics	Frequency	Percentage	Mental association
1	Delicious	67	29.3	Functional
2	Cooked well	61	26.6	Functional
3	The best macaroni	59	25.8	Functional
4	Different shapes	24	10.5	Functional
5	Beautiful and green packaging	18	7.9	Functional
	Total	229	100	

According to Table 4, being delicious is number one functional mental association stated by respondents followed by capability to cook well. Finally, Table 5 demonstrates details of functional characteristics of a juice product from a Sanich brand.

Table 5

Most important factors influencing mental association respondents on the third brand, Tak

	Mental characteristics	Frequency	Percentage	Mental association
1	Delicious	52	33.1	Functional
2	Taste delicious Portuguese	44	28.0	Functional
3	Different colors and flavors	26	16.6	Functional
4	Dense	21	13.4	Functional
5	Advantageous	14	8.9	Functional
	Total	157	100	

It is obvious from the results of Table 5 that being delicious is number one priority for selecting of a juice followed by good taste of Portuguese.

The second question of the survey is whether consumers' mental perception from a particular brand can be transferred into a new product or not. This question is asked from the participants and the responses are as follows,

1. New product for brand Siv, Dish soap: Scented oils (35%), Good cleansing power (33%), Similarity to dish soap (5%) are accounted for 62% of the mental product transferable characterizations. Baby Shampoo: Good quality (33.6%), Different colors and oils (21.5%), Scented oils (18.7%), Being Soft (11.2%), More adds (11.2%), Having more vitamin (3.7%) are accounted for 51.4% of the product mental transferable characterizations. Fiscal tissue: Being soft (54%), lack of good quality (25%), Scented oils (18%), Being healthy (3%) are accounted for 72% of the product transferable characterizations.
2. New product for brand Tak, Soup powder: Good quality (58.9%), delicious (21%), disagrees with soup powder (20.1%) are accounted for 79.9% of the product transferable characterizations. Cokie: Good quality (75%), good packaging (13.6%), is not with Tak's specialty (11.4%) are accounted for 88.6% of the product transferable characterizations. Tomato paste: Good quality (73.4%), is not with Tak's specialty (26.6%) are accounted for 73.4% of the product transferable mental characterizations.
3. New product for brand Chechmak, Towel: Being smooth (67.9%), Expensive (16.7%), High absorption (15.4%) and they accounted for no mental transferable characterizations. Chinaware: lack of a good quality (76.9%), is not with Cheshmak's specialty (15.4%), Package is not complete (7.7%) and they accounted for no mental transferable characterizations. Booklet: Beautiful coverage (52.6%), high quality paper (28.9%), Essential oil paper (10.5%), expensive price (7.9%) are accounted for 60.5% of the product transferable characterizations.
4. New product for brand Sanich, Carbonated soft drinks: Good taste (77.6%), diversity of packaging (13.1%), very sweat (9.3%) are accounted for 77.6% of the product transferable mental characterizations. Biscuite: is not with Sanich's specialty (60.2%), good quality (39.8%) and they accounted for no mental transferable characterizations. Canned fruit: Good quality (84.3%), is not with Sanich's specialty (15.7%) and they accounted for no mental transferable characterizations.

In summary, the average mental characterizations, which can be transferred to a new product for four brands of Siv, Tak, Cheshmak and Sanich are 61.8%, 80.6%, 48.4% and 25.9%, respectively.

The third question of the survey investigates whether consumers' perception from quality of a particular brand has any influence with consumers' mental perception on new product or not. To answer this question we first have to look at the first hypothesis and looking at the Pearson correlation ratio in terms of quality perception between old and new products. The result of Pearson

correlation is 0.257 and P-value is less than 0.01, which means the ratio is statistically meaningful and the first hypothesis is confirmed. We have also measured consumers' insight in terms of ability to substitute and complementary capabilities of both types of products and Table 6 shows details of our findings,

Table 6
Descriptive characteristics for the first brand, Siv

Product	Perception quality	Ability to substitute	Complementary capabilities	Technology transfer capability
1 Dish soap	4.06	2.39	2.69	4.24
2 Baby Shampoo	3.89	2.94	3.85	4.21
3 Facial tissue	3.35	2.71	3.74	2.64
4 Soap	4.11			

Based on the results of Table 6, the average perception of quality perception for this brand for three products of dish soap, baby shampoo and facial tissue are 4.06, 3.89 and 3.35, respectively. In other words, the participants had high ratio of perception towards dish soap, a good perception towards baby shampoo and finally they had some perception towards facial tissue.

Table 7 shows details of our findings for another brand, Chechmak. As we can observe from the results, three proposed new products of Towel, Chinaware and Booklet maintain an average of 3.92, 2.76 and 3.47, respectively. Again, Towel is number one priority followed by booklet and chinaware comes in the last position.

Table 7
Descriptive characteristics for the second brand, Cheshmak

Product	Perception quality	ability to substitute	to complementary capabilities	Technology transfer capability
1 Towel	3.92	3.77	2.95	3.62
2 Chinaware	2.76	1.34	2.83	1.66
3 Booklet	3.47	1.71	2.04	3.30
4 Facial tissue	4.20			

Similarly, we have performed the same survey for another brand, Tak and Table 8 shows details of our findings,

Table 8
Descriptive characteristics for the third brand, Tak

Product	Perception quality	ability to substitute	complementary capabilities	Technology transfer capability
1 Soap powder	3.82	2.65	2.37	3.49
2 Cookie	3.79	2.13	2.21	3.08
3 Tomato past	3.83	1.73	4.46	2.84
4 Macaroni	4.52			

The results of Table 8 show that soup powder, Cookie and tomato paste represent means of 3.82, 3.79 and 3.83 for quality perception and the level of mental perception is almost the same for all these products. Finally, Table 9 summarizes the results of our survey for the last brand in our survey.

According to the results of Table 9, customers have had the most quality perception on carbonated soft drinks followed by canned fruits and biscuit. The last question of this survey considers the relationship between the new and old product and consumer's perception towards the effects on new

products. To test the last hypothesis, we have used Pearson correlation ratios among different components.

Table 9
Descriptive characteristics for the third brand, Sanich

Product	Perception quality	Ability to substitute	Complementary capabilities	Technology transfer capability
1 Carbonated soft drinks	3.98	3.94	2.45	4.12
2 Biscuit	3.19	2.52	4.19	2.62
3 Canned fruits	3.76	3.59	2.64	4.06
4 Concentrated juice	4.07			

Table 10
Pearson correlation ratios between independent variable and dependent variables

Title	Perception towards the main product	Perception towards the new product	Potential for product substitution	Potential for Complementary capabilities	Technology transfer capabilities
1 Perception towards the main product	1				
2 Perception towards the new product	**0.257	1			
3 Potential for product substitution	-0.018	**0.227	1		
4 Potential for Complementary capabilities	0.028	*0.043	0.026	1	
5 Technology transfer capabilities	0.008	**0.454	**0.299	-0.002	1

*P<0.05, **P<0.01

As we can observe from the results of Table 10, correlation ratio between technology transfer capabilities and perception towards the new product is calculated as 0.454, which is much more than other variables and P-value is significant when the level of significance is one percent. The other observation is that there is a positive and meaningful relationship between potential for product substitution and perception towards the new product, which has been calculated as 0.227. Therefore, we can fit a regression model as follows,

$$A = 0.676 + 0.35 Q + 0.086 S + 0.029 C + 0.34 T,$$

where dependent variable is mental perception towards to new proposed product (A) and dependent variables are quality of perception product (Q), capability of transferring existing mental perception to new product (T), ability to substitute (S) and complementary capabilities (C). All coefficients are valid when the level of significance is five percent and we can conclude that an increase of one unit in quality perception can increase 0.35 in mental perception to new proposed product.

4. Conclusion

In this paper, we have investigated how consumer's mental capability could react when a new product is introduced along with a well known brand. The proposed study of this paper selected 196 people who chose 12 various products. They surveyed people were also asked whether they think the new technological characteristics could incorporate older ones' or not. Finally, participants have been asked about their perception on product. Correlation ratio between technology transfer capabilities and perception towards the new product was calculated as 0.454, which was much more than other variables and P-value was significant when the level of significance was one percent. The other

observation was that there was a positive and meaningful relationship between potential for product substitution and perception towards the new product, which has been calculated as 0.227. The survey also performed a regression analysis to find the relationship between mental perception towards to new proposed product as dependent variable and quality of perception product, capability of transferring existing mental perception to new product, ability to substitute and complementary capabilities. The results showed that an increase of one unit in quality perception could increase 0.35 in mental perception to new proposed product.

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