How does Brand Extension Affect Brand Image?

A study of Iran Market

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Abstract—**The present article seeks to scrutinize the impact of brand extension on its current image and gives us a synopsis of an empirical model consist of five main parameters influencing brand association, extension congruency and brand attitudes in terms of FMCG and services sectors. Using random categorical-sampling, 391 observations have been made and the model has been appraised through path analysis method. The results substantiate the effect of extension attitude upon brand image, whereas initial brand associations and perceived fit between new products and other goods (category fit) or brand image (image fit) can improve consumer's attitudes. Furthermore, the article explicates that initial image is the single vital parameter influencing the final image when extension process is accomplished.**

Keywords: Brand extension; Brand image; Perceived fit; Consumer behavior.

I. INTRODUCTION

In today's market, having a well thought through brand strategy is a key contribution to corporate success. Brands enable consumers to efficiently encode their functional and emotional values in their minds (Franzen and Bouwman, 2001) [1].

Owing to the high costs of launching new products, brand extensions have been the basis of national and international strategic growth for many firms over the past few decades. Brand extension strategy consists of using an established brand name to launch new products (Keller, 2007) [2]. Keller (1993) [3] defines brand image as the "perceptions about a brand as reflected by the brand associations held in consumer memory". These associations refer to any aspect that link the brand with the consumer's memory (Aaker, 1996) [4].

So as to acquire enough knowledge on the process through which consumer attitude toward brand extension changes in accordance with its image, this study takes a complementary approach compared with the previous researches. Firstly, it assesses the correlation between brand attitude and brand extension, thereby tries to perceive whether successful extensions dilute the current associations.

Second, the most important part of the article is to test a theoretical model in which it first explains the initial image and then elucidates extension attitude structure and the effect its image has on market in Iran.

Eventually and regarding the brand image role in brand equity and success in products extension and profitability issue, the present survey endeavors to clearly elucidate the effective factors on brand image via its extension and therefore averts the probable time and budgetary problems in different organizations and also failure of brand extension programs as well as its negative impacts on mother brand. Aligned with the aforementioned aim and taking ever-increasing growth of brand extension in dairy industries into account, this research intends to evaluate the effects of such extensions on brand image in related areas in Iran. In fact, this article tests the presented model by Pina and Martinez (2009) [5] with deletion of consumer innovativeness as a moderating factor in two aforesaid areas. The reason for elimination of this concept is the low value for Chronbach's alpha (α=0.4) in testing final questionnaire.

In the first part of the article, a prolegomenon on brand image will be presented. Then, a brief discussion on conceptual issues and definitions is highlighted. Followed by, steps taken in the research and the methodology of obtaining information are clarified and procedures and data analysis are reviewed. Subsequently, results are evaluated and consequences are suggested to help deepen the research target throughout the study.

## II. CONCEPTUAL BACKGROUND AND HYPOTHESES

Not all companies have the same opportunities to extend their brands, as it is conditional on their historical brand strategies (Mihailovic and de Chernatony, 1994[6]; Milberg et al., 1997[7]; Aaker and Joachimsthaler, 2000[8]; Desai and Keller, 2002[9]). Nevertheless, if they decide to launch a new product, as part of a brand extension strategy, a change of brand image will occur with new associations created in consumers' minds. This may dilute feelings and beliefs consumers hold about the parent brand (Sharp, 1993) [10]. Even though the associations for the new product may be positive, negative associations might be creates that adversely affect the brand image (Pitta and Katsanis, 1995[11]; Chen and Chen, 2000) [12].

A brief review on the related literature reveals that extended brand attitude directly depends upon its level of fitness with extension process (Grim2002) [13].

The distance concerns on one hand the brand "product category" and/or the brand "image", and on the other hand, the extension (Seltene and Brunel, 2007) [14].

Irrelevant extensions will engender the loss of brand credit while extension of pertinent markets will prevent potential losses (Aaker, 2002) [15]. Researchers such as Milberg (1997)[7] indicate that irrelevant extensions have negative feedback in relation to brand image and/or brand features. Similarly, Lee and Ulgado (1993) [16] realize that fitness or congruency leaves a positive impact on company service image while Martinez and Chernatony (2004) [17] test the same procedure for extension of visible products.

Figure1. Tested model in the research
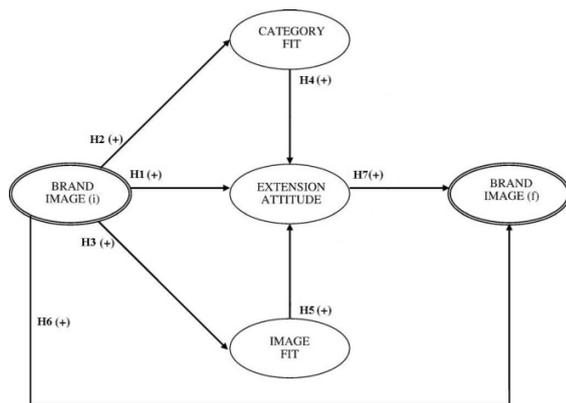
The presented model in figure 1 seeks to acquire information about how brand extension affects brand image. This incorporates variables with more impact upon brand extension attitude (Aaker and Keller 1990[18] and Volckner and Sattler 2006[19]).

This model is emanated from initial image and tries to elaborate the relations and interactions which occur pending the creation of new image based on brand extension. Hence, the first variable to consider is initial brand image which, in turn, include brand knowledge before the acquisition of knowledge on brand extension. Considering new category and its linkage with the mother brand, the model clarifies the perceived category fit and perceived brand image fit. The first parameter the article endeavors to explicate is brand extension attitude. Based on the model, initial brand image, category fit and image fit are of most important determining factors in consumer's total assessment of brand.

Brand image is an intricate structure incorporating various aspects. As many scholars verify, extension attitude is more appropriate for brands with high quality (Van Riel *et al.* [20], 2001; Volckner and Sattler, 2006[19]), prestige (Park *et al.*, 1991) [21], and attraction (Sheinin and Schmitt, 1994) [22]. It is true for company and services field such that positive image creates approving realizations of the new products (Brown and Dacin, 1997[23]). In reality, the concept of extension strategies influences brand image through using the same brand. Therefore, the following hypostasis is offered for testing:

H1: initial brand image has a positive and direct influence on brand extension attitude.

Categorization research suggests that when consumers first encounter a brand extension, they think of ways in which the extension fits with their idea of the parent brand

"category" (Boush and Loken, 1991) [24]. Such elaboration by consumers results in new associations with the brand (Loken and John, 1993) [25] and, in turn, that can alter consumers' overall evaluation of or attitude toward the brand.

Many researchers have found impacts of brand image fit and interaction (Aaker and Keller, 1990[18] and Boush 1987 [26]). Brand image affects level of congruency and therefore will have direct influence on consumer's evaluation of new products and services. For a better assessment some researchers distinguish category fit and brand image fit (Bhat and Reddy 2001[27] and Grim 2002[13], Czellar 2003) [28]. Category fit reflects the similarity between new category and other products of extended brand, while brand image fit defines the extent to which extension shares affections and associations related to conception of global brand such as prestige or function (Grim *et al.*2002[13] and Czellar 2003). As perceptions of brand improve, the extension prestige increases (di Ruyter and Wetzels 2000 [29]) and it is also true of extended product fit from the parent brand (Czellar 2003) [28]. Consequently:

H2: initial brand image has a positive and direct impact upon perceived category fit.

H3: initial brand image has a positive and direct impact upon perceived image fit.

Perceived fit also directly affects the ideas surrounding extended category. Consumers cast the belief that extension of irrelevant categories is unreliable and that it creates a sort of negative opinion (Kirmani 1999) [30].

The desirable effect of congruency would emerge in studies that evaluate the issue from both category and image perspectives (Boush 1987 [26] and Lucken 1993[25]). In any case, consumers with more perceived fit had a better evaluation of brand extension irrespective of their ideas. Empirical evidences corroborate the following hypotheses.

H4: the more perceived fit in the category, the better the attitude toward brand extension will be.

H5: the more perceived fit in the brand image, the better the attitude toward brand extension will be.

The following hypotheses view final brand image as a dependant variable. Both theories indicate that most of brand associations will remain whilst the brand is competing in the market so initial brand image will affect the final evaluation of the brand (Lee and Ulgado 1993[16] and Martinez and Pina 2003[31]).

The initial affections upon brand can be altered based on formed attitude toward brand extension. Extensions with low quality or those negatively assessed by the consumers will affect brand image unconstructively (Martinez and Pina 2003[31]) and attenuate specific and general beliefs (Martinez and De Chernatony 2004) [17]. Subsequently:

H6: initial brand image has a positive and direct influence on final brand image,

H7: extension attitude has a positive and direct influence on final brand image.

III. RESEARCH METHODOLOGY

In this article, all the data regarding different variables were gathered using questionnaire. In order to increase the

accuracy of questionnaires in pretesting, all the questions were filled using in-person interview with the help of interviewers. The research methodology is elaborated in the subsequent section.

A. Pretests

To verify brands and extensions evaluated by the main questionnaire pretesting was done in 4 stages. In first and second pretesting, 8 brands in fields of FMCGs and services were introduced taking advantage of marketing specialists, industrial experts and a panel consisted of 8 consultants. The sampling made up of 4 brands in FMCGs field (dairy industry) and other 4 in banking services. Introduced brands in the first pretesting which aimed at measuring the extent to which people were familiar with the brands were as follows:
Field of dairy products: Pak, Mihan, Choopan and Damdaran.
Field of banking services: Pasargad, Sepah, Mellat and Keshavarzi.

All questionnaires were designed using 5-point Likert scales. Based on information obtained from first pretesting replied by 49 persons, the level of familiarity with all introduced brands was specified at a level well beyond the desirable point (3.5). In second pretesting, the wilcoxon test was used to test out the meaningful discrepancy between images of introduced brands. Following results were obtained for each product category.

TABLE I.   WILLCOKSON TEST RESULTS FOR BRAND IMAGE

Brand names selected in each field	Z
Pasargad bank and Sepah bank	-5.650a
Choopan and Pak corporates	-3.787a

In another word, 4 out of 8 introduced brands were selected using following criteria:

- Participants must be familiar with the brands.
- There is a meaningful discrepancy between images of the selected brands in each category.

Based on the results obtained from pretesting 1 and 2, the brands were chosen to be tested in the model. Pasargad bank and Choopan corporate were placed in the model as brands with good image and Sepah bank and Pak corporate as brands with bad image.

Because in the next step the present model measures the brand image before extension and compares it with that of post-extension stage, there was not the possibility of using real extensions in the market condition. Hence, for each field of product 4 virtual extensions were chosen such that they were for the intended industry and product category (food industries) or services (financial services). For such reasons, extension fit was measured in the related industry for each case. As a result, extensions for juice, mineral water, fruits yoghurt, and honey-made butter in the field of dairy products and financial-legal consultation, banking science institute, online currency exchange and accounting services in the field of financial services were evaluated in third and fourth pretesting. Results of these two pretesting were also measured against wilcoxon test and a meaningful discrepancy between category fit and image fit of two

extended products in each group was observed. Consequently, juice and financial-legal consultation services were regarded as extensions with low fit and those of honey-made butter and online currency exchange as extensions with high fit.

TABLE II.   WILCOXON TEST RESULTS ON IMAGE AND CATEGORY FIT

Z_{IF}	Z_{CF}	Presented extensions
-3.229a	-4.532a	*Banking services (Sepah and Pasargad)* online currency exchange and financial-legal consultation services
-3.493a	-4.711a	*Diaries (Choopan and Damdaran0* Honey-made butter and juice

IV. SAMPLE AND PROCEDURE

To calculate the sample volume in this research we use unlimited community formula with standard loading error of 0.05. Considering brand, extension and fit level and with the knowledge that there were 8 questionnaires in the present research, each questionnaire was distributed to 50 respondents with a total number of 400 participants and eventually 384 valid observations were made.

V. MEASURES

In the questionnaire, first we asked some questions about personal information and their level of familiarity with the brand (to measure validity of responses) and then there were some questions about brands such as initial brand image. Shortly afterward, respondents knew that brand decided to begin a potential extension and that they should evaluate new products from various perspectives (such as perceived fit and so forth).
Questionnaire ended with the same question about brand image and accordantly considered category of new products.

TABLE III.   SCALES USED IN THE QUESTIONNAIRES[5]

Scale	Measured concept
Brand Image(BI)	*Functional image (FUIM) (initial/final)* FUIM1i/FUIM1f: The products have a high quality FUIM2i/FUIM2f: The products have better characteristics than competitors' FUIM3i/FUIM3f: The products of the competitors are usually cheaper *Affective image (AFIM) (initial/final)* AFIM1i/AFIM1f: The brand is nice AFIM2i/AFIM2f: The brand has a personality that distinguishes itself from competitors AFIM3i/AFIM3f: It's a brand that doesn't disappoint its customers *Reputation (REIM) (initial/final)* REIM1i/REIM1f: It's one of the best brands in the sector REIM2i/REIM2f: The brand is very consolidated in the Market
Perceived fit(FI)	*Category fit (CAFI)* CAFI1: The extension is similar to the brand's products CAFI2: The firm's resources are helpful to make the

	product extension
	Image fit (IMFI) IMFI1: The product extension fits with the brand image IMFI2: Launching the extension is logical for the company IMFI3: Launching the extension is appropriate for the Company
Extension attitude (EXAT)	EXAT1: Favorability of the extension EXAT2: Perceived quality of the extension EXAT3: Likelihood of trying the extension

IT SHOULD ALSO BE MENTIONED THAT ALL QUESTIONS ARE DESIGNED BASED ON CONCEPTIONS AND SCALES PRESENTED IN THE PINA AND MARTINS ARTICLE (2009). MANY QUESTIONS WERE MEASURED USING 5-PIONT LIKERT SCALES BASED ON THE REVIEW OF THE RELATED LITERATURE.

VI. RELIABILITY

31 questionnaires were handed to respondents and responses were analyzed using SPSS software and showed a Cronbach's higher than 0.8 (Cronbach, 1951) [32]. It shows that questionnaire is reliable and so as to test the reliability of related questions measured concepts in table 3 were evaluated. Results are shown in table 4.

TABLE IV.   values of concept of Cronbach alpha

Measured concepts	**Cronbach's alpha**
Brand image	0.774
Perceived fit	0.659
Extension attitude	0.599

VII. DATA ANALYSIS

Path analysis method by SPSS 17.0 software was used to analyze the research hypotheses.

VIII. RESULTS

A. Analyzing statistic in the field of banking services

Results obtained from 4 questionnaires on banking services (210 observations) were integrated and through path analysis and linear regression the value of standard β and following parameters were computed.

TABLE V.   Regression analysis result, banking services

Path	**Standard value of beta**	**SE**	**t**	**Sig**	**F**	**R2**
IMGi→EXAT	0/627**	0.62	11.367	0.000	129.215	0/394
IMGi→CFI	0/384**	0.65	5.874	0.000	34.505	0/148
IMGi→IMFI	0/472**	0.69	7.547	0.000	56.964	0/223
IMGi→IMGf	0/862**	0.36	23.952	0.000	702/573	0/742
CFI→EXAT	0/552**	0.66	9.347	0.000	87.372	0/305
IMFI→XAT	0/700**	0.53	13.837	0.000	191.459	0/490
XAT→IMGf	0/730**	0.49	15.06	0.000	226.999	0/533

Taking statistical interpretation for F in IMGi →EXAT path into account and regarding calculated value for F (f=129.215) and level of related probability (0.000), the H0 stating that there is no linear regression in reliability level of %99, is rejected. Hence, linear regression is statistically meaningful. Cause the value of t (t =11.367) and the related probability level for aforesaid variables is equal to 0.000, H0 which stated that there is no relation between initial brand image and extension attitude at the reliability level of %99 will be rejected. Consequently, there is a meaningful association between two variables. So the H1 is confirmed. Similarly and based on the table 5, H2, H3, H6 and H7are corroborated.

Regarding calculated values for beta in above observations it can be concluded that initial brand image has its maximum influence on final image. This means that in the mentioned sample or generally in Iranian culture, initial image plays an important role in rest of decision making process and created images after that.

To prove the H4 and H5, we are required to calculate the mean of values for category fit and image fit and also to compare mean of computed values for extension attitude. Table 6 represents the obtained results.

TABLE VI.   Obtained means for H4 and H5

Extension type	**X$_{EXAT}$**	**X$_{MIFI}$**	**X$_{CF}$**
High fit	3.51	3.73	3.56
Low fit	3.01	3.41	3.11

Following the results shown in the table above, we can see that:

-The more the perceived category fit, the better extension attitude will be because values related to mean of category fit and extension attitude in high fit are higher than average level (3.5). It indicates that high fit category and extension attitude are favorable. Hence, H4 is substantiated.
-The more the perceived image fit, the better the extension attitude will be. Because values related to mean of category fit and extension attitude with high fit are higher than average proving the H5. Subsequently H5 is confirmed.

-Obtained scores for low fit extensions reject the H0; thereby provide us with another reason to confirm abovementioned hypotheses.

B. Analyzing statistic in the field of dairy products

Results obtained from 4 questionnaires on dairy products (190 observations) were integrated and through path analysis and linear regression the value of standard β and following parameters were computed.

Taking statistical interpretation for F in IMGi → EXAT path into account and regarding calculated value for F (f=46.73) and level of related probability (0.000), the H0

stating that there is no linear regression in reliability level of %99, is rejected. Hence, linear regression is statistically meaningful.

TABLE VII.   Regression test results, dairy products

Path	Standard value of beta	SE	t	Sig	F	R2
IMGi → EXAT	**0/447	0.65	6.836	0.000	46.73	/2000
IMGi → CFI	**0/387	0.80	5.745	0.000	33	/1500
IMGi → IMFI	**0/397	0.81	5.597	0.000	31.32	/1390
IMGi → IMGf	**0/749	0.34	15.44	0.000	238.45	/5600
CFI → EXAT	**0/597	0.58	10.147	0.000	103.52	/3560
IMFI → EXAT	**0/779	0.45	16.967	0.000	287.87	/6060
XAT → IMGf	**0/562	0.42	9.28	0.000	86.26	/3160

*Meaningful in %95 validity and %5 error

** meaningful in %99 validity and %1 error

Cause the value of t (t= 6.836) and the related probability level for aforesaid variables is equal to 0.000, H0 hypothesis which stated that there is no relation between initial brand image and extension attitude at the reliability level of %99 will be rejected.

Consequently, there is a meaningful association between two variables. So the H1 is confirmed. Similarly and based on the table 7, H2, H3, H6 and H7 are corroborated.

To prove the H4 and H5 we represent the obtained results in table number 8.

TABLE VIII.   Obtained means for H4 and H5

Extension type	X_{EXAT}	X_{MIFI}	X_{CF}
High fit	3.56	3.70	3.45
Low fit	3.05	3.12	3

Following the results shown in the table above, we can see that:

-The more the perceived category fit, the better extension attitude will be because values related to mean of category fit and extension attitude in high fit are higher than average level. It indicates that high fit category and extension attitude are favorable. Hence, H4 is substantiated.

-The more the perceived image fit, the better the extension attitude will be. Because values related to mean of category fit and extension attitude with high fit are higher than average proving the H5. Subsequently H5 is confirmed.

-Obtained scores for low fit extensions reject the null hypotheses 5 and 6 and thereby provide us with another reason to confirm abovementioned hypotheses.

IX.   CONCLUSION

As you see, the presented model was evaluated in two parts in fields of FMCG (dairy products) and services (banking). In fact, results in each section represent consequences to the related field.

Based on the results it can be concluded that H2, H3, H4, H7 and H8 are confirmed in both banking services and dairy products. Considering ratio of beta value, existence of a strong relation in the following cases is approved. So we can conclude that:

In Iranian culture, initial image plays an important role in extension attitude, perceived category fit, perceived image fit and final brand image. Hence, it is strongly recommended that producers and service centers strengthen their initial image before extension process because the initial image casts the greatest influence upon final image in any case after brand extension with regard to obtained beta ratios. So it is not suggested to extend the brand if initial image is not very favorable and therefore it is recommended to fortify their initial image using different marketing strategies and extend their brand after the consolidation of an acceptable initial brand image.

H4 and H5 are also confirmed in both fields after the precise examination of means of high and low fit category.

Based on the great impact of category fit and image fit upon the desirability of extension attitude it is suggested that when extending their products pay close attention to category fit and image fit of new products to avoid risks emanated from unsuccessful brand extensions.

Eventually, it is again noted that due to great importance and influence of initial brand image on final image and extension attitude producers would better make sure of their brand's image in the mind of their consumers and change the current image if it is not a good one. So they have to extend their brand only if its initial image is of high quality.

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