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EFFECT OF MARKETING MIX ON BRAND EQUITY OF BMI, TEHRAN BRANCHES

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Abstract: *In modern competitive society, one of the most valuable assets of any company is brand equity. Companies with high brand equity perceived byconsumers can easily be considered profitable among other companies in the relevant industry. The focus of this study was the effect of marketing mix on brand equity of BMI. This applied research used a descriptive survey to collect data. The studied population included BMI customers. Based on Krejcie-Morgan table, the sample size was determined at 357. Using the software LISREL, the relationships between variables were examined by structural equations modelling. The results showed that price, distribution channel, promotion and after-sales serviceshad a significant effect on brand image. Price, distribution channel, promotion, after-sales services and brand image had a significant effect on brand awareness. Moreover, brand awareness had a significant effect on brand equity.*

Keywords: *Marketing mix, brand equity.*

INTRODUCTION

One of the requirements of a strong brand is recognition of the factors of brand equity. There are many different methods incurrent market today. These marketing plans are influential on increased brand equity. Distribution network strategies, communication strategies, pricing strategies and other marketing activities can weaken or strengthen brand (Yoo and Donthu, 2000). Although brand obviously creates value for the organization, this value roots back to the customer (Köler, 2001). In fact, customer-based brand equity determines the real value of the brand (Divandari, *et al.*., 2011). The role of brandsis undeniable in introducing the product in current growing markets today. Currently, innovation and technical excellence are not only fundamental factors for success; in markets where products and

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servicesare increasingly adapted, a strong brand may be the only characteristic that distinguishes a product or service provided by competitors (Kotler and Pfoertsch, 2006). In Iran, brands are not listed as assets in the balance sheet; this neutralizes the long-term focus of management oninternal development of brand. Therefore, cash flow and short-term profits are often used as key performance parameters. Although many products are produced domestically in Iran, Iran has failed in planning and suffers many problems. According to experts, one of the challenges is marketing and brand problems, which are not modelled properly. Due to economic changes occurring in Iran, the market has become highly competitive. Therefore, companies seek competitive advantage through brand investment and the role of branding is highlighted in the marketplace(Amirshahi, 2011). Creating competitive advantage, strong trademarks improve liquidity,accelerate cash flow andallow the increase in prices, profitability and customer loyalty (Madden *et al.*, 2006). Therefore, brand equity is proposed as a measure of brand strength which has been formed and evolved over the past decades. One of the requirements of a strong brand is recognition of the factors responsible for brand equity (Soleimani, 2011).

One of the factors affecting brand equity is marketing mix; by examining its effectiveness,the factors which are more effective in promoting brand can be identified and allocatedmore resources. Therefore, this study addresses the effect of marketing mix and corporate image on brand equity. As a guidance and measure, this study can guide and evaluatecorporate activities to create a stronger brand. A customer-perceived increase in equity, namely a strong brand, has many benefits for businesses. More precisely,the increased brand equity increases the probability of choosing a brand (PiTTa and Katshis, 1995). Variables of the conceptual model include brand equity, brand awareness/associations, brand loyalty, perceived quality, corporate image, distribution channel, pricing and after-sales service. According to above, the question is how marketing mix influences brand equity of Bank Melli of Iran (BMI).

THEORETICAL BACKGROUND

Based on the first definition of brand equity presented by Farquhar, brand equity is the added value that a product gives to a brand (Farquhar, 1989). Distribution through stores with a good image implies that a brand has a good quality. Distribution intensity also has a positive effect on dimensions of brand equity, because high-intensity distribution increases the likelihood of buying a brand at any time and any placethat the consumer wants. Since the increase in distribution intensity reduces consuming efforts to find and use the brand, consumers are more willing to understand that in a more valuable way, which in fact leads to more satisfaction and brand loyalty (Kim and HYUN, 2011). Value-basedpricing is a prominent characteristic of brand, which encourages consumers to think about the brand and destroys higher perceived quality. Although they state that product quality is consistent with price (Kim and HYUN, 2011). Good corporate image provides consumers or industrial buyers with reliability and credit which actually lead to an increase in the perceived quality of the brand (CretuandBrodie,2007). Outcomes of brand equity,namely brand awareness, perceived quality and brand loyalty has a positive effect on brand equity (Kim and Hun, 2011). Kim and Hun (2011) showed that channel performance, promotion and after-sales services have a positive effect on corporate image. Excellent support services provide the customer with a memorable characteristic of the brand, followed by brand awareness (Kim and Hyun, 2011).

LITERATURE REVIEW

Kim Hyun (2010) evaluated the relationship between combined elements of marketing mix (channel performance, price, promotion and after-sales service) as well as corporate image and three dimensions of brand equity (brand awareness, brand loyalty and the perceived quality); corporate image was considered as a mediator of marketing mix for dimensions of brand equity. This model was tested in the Korean software sector. The results showed that all elements of marketing mix had a positive effect on overall value of brand equity. In Spain, Villarejoand Sanchez (2005) conducted a study on the relationship between some elements of marketing mix and brand equity in a category of durable goods (washing machine). Results showed a positive relationship between three dimensions of brand equity,including perceived quality, brand awareness and brand image; price promotion had a negative effect on equity. In addition, a positive relationship was found between brand awareness and brand image. Nopas and *et al.* (2014) evaluated the effect of marketing mix dimensions on brand equity of educational institutes. (Nopasand-Asil and Malek-Akhlaghi, 2014).

Data analysis suggests that educational services, service delivery process, people and promotion had a positive and significant effect on brand equity. Moreover, educational service was identified as the most influential factor in increasing brand equity. Rahimnia *et al.* (2014) evaluated the mutual effects of customer-based brand equity of five-star hotels in metropolitan Mashhad. The results showed that the perceived quality was the main dimension of brand equity and had a significant effect on other dimensions of brand equity; it was considered as adeterminant of brand equity.

HYPOTHESES

Based on the evaluated variables, the hypotheses are:

1.1. price has a direct, significant effect on corporate image.

1.2 distribution channel has a direct, significant effect on corporate image.

1.3. promotion has a direct, significant effect on corporate image.

1.4. after-sales service has a direct, significant effect on corporate image.

2.1. price has a direct, significant effect on brand awareness.

2.2. distribution channel has a direct, significant effect on brand awareness.

2.3. promotion has a direct, significant effect on brand awareness.

2.4. after-sales service has a direct, significant effect on brand awareness.

2.5. corporate image has a direct, significant effect on brand awareness.

3.1. brand awareness has a direct, significant effect on brand equity.

MATERIALS AND METHODS

This was a descriptive study, because it dealt with phenomena which occurred naturally and required no experimental manipulation of variables. A survey method was used for the study, because the sample was to be fitted to the size of population. Therefore, this study was an applied descriptive survey. The studied population included customers of BMI branches, Northern Tehran. Therefore, the population was large and it was time-consuming and expensive to make a list of customers. Thus, a random cluster sampling method was used. The Krejcie-Morgan table was used to determine sample size. Data was collected by field interviews through questionnaires. Demographic data was collected by three questions on age, monthly income and education.

Likert scale in which questions are measured as very low (1), low (2), average (3), high (4) and very high (5) is a distance scale by which the respondent determines his attitude and belief by choosing the relevant statement. In this way, the researcher will be able to quantify that attitude which is a qualitative variable. The questionnaire used by Kim and Hyun (2011) was back-translated to be used in this study; the main questionnaire in English was translated by the author to Farsi and retranslated by another translator; no significant different was found between these two translations. Data was analyzed by descriptive and inferential statistics using structural equations modelling. Statistical analyses were performed by the software SPSS and LISREL.

RESULTS

Descriptive Analysis of Variables

To describe the scores recorded for variables, measures of centrality and dispersion were evaluated as follows.

Table 1
Descriptive indexes of variables

Variable	*Sample size*	*Mean*	*Median*	*SD*	*Skewness*	*Kurtosis*
After-sales service	341	3.773	3.667	0.75	–0.329	–0.26
Brand awareness	341	3.975	4	0.754	–0.989	1.504
Brand equity	341	3.761	4	0.96	–0.708	–0.014
Distribution channel	341	3.78	3.833	0.774	–0.309	–0.416
Corporate image	341	3.767	3.8	1.092	4.654	41.575
Price	341	3.639	3.5	0.881	–0.291	–0.303
Promotion	341	3.739	3.775	0.676	–0.054	–0.185

Inferential Analysis of Findings

Data Normal Distribution

Table 2
K-S test

Variables	*Z-value*	*Sig.*	*Normality*
After-sales service	2.014	0.001	Not normal
Brand awareness	2.642	0	Not normal
Brand equity	2.735	0	Not normal
Distribution channel	1.918	0.001	Not normal
Corporate image	2.566	0	Not normal
Price	2.549	0	Not normal
Promotion	1.369	0.047	Not normal

As shown in Table 2, sig < 0.05 for variables; thus, variables are not normal.

CFA and SEM

Table 3
Factor loading

Variable	*Item*	*Factor loading*	*t-value*	*Sig.*	*Result*
Price	P1	0.94	18.01	< 0.01	Allowable
	P2	0.95	17.65	< 0.01	Allowable
Distribution channel	CH1	0.89	18	< 0.01	Allowable
	CH2	0.94	18.27	< 0.01	Allowable
	CH3	0.96	19.42	< 0.01	Allowable

Cont. table 3

Variable	*Item*	*Factor loading*	*t-value*	*Sig.*	*Result*
Promotion	PRO1	0.93	18.69	< 0.01	Allowable
	PRO2	0.87	19.19	< 0.01	Allowable
	PRO3	0.94	19.35	< 0.01	Allowable
	PRO4	0.97	19.83	< 0.01	Allowable
	PRO5	0.91	18.47	< 0.01	Allowable
	PRO6	0.95	18.98	< 0.01	Allowable
After-sales services	ASS1	0.89	18.80	< 0.01	Allowable
	ASS2	0.99	19.52	< 0.01	Allowable
	ASS3	0.87	18.08	< 0.01	Allowable
Brand awareness	BA1	0.91	–	< 0.01	Allowable
	BA2	0.97	18.37	< 0.01	Allowable
	BA3	0.93	17.68	< 0.01	Allowable
Brand equity	BE1	0.81	–	< 0.01	Allowable
	BE2	0.76	14.49	< 0.01	Allowable
	BE3	0.87	14.82	< 0.01	Allowable
Corporate image	CI1	1	–	< 0.01	Allowable
	CI2	1.02	21.39	< 0.01	Allowable
	CI3	0.97	20.67	< 0.01	Allowable
	CI4	0.97	19.96	< 0.01	Allowable
	CI5	0.98	20.68	< 0.01	Allowable

Calculation of Convergent validity and Discriminant Validity

Table 4
Pearson correlation coefficient and convergent validity

Latent variable	(1)	(2)	(3)	(4)	(5)	(6)				$\sqrt{AVE}$	AVE
After-sales services	1									0.861	0.742
Brand awareness	.637**	1								0.843	0.711
Brand equity	.606**	.598**	1							0.852	0.726
Distribution channel	.721**	.601**	.558**	.660**	1					0.842	0.709
Corporate image	.534**	.511**	.475**	.455**	.501**	1				0.873	0.763
Price	.513**	.499**	.546**	.511**	.506**	.387**	1			0.888	0.788
Promotion	.774**	.663**	.610**	.678**	.739**	.513**	.532**	.600**	1	0.863	0.744

* All coefficients of correlation are significant in error level <1%

As the table shows, square root of the average variance explainedresults from the correlation between a variable with other variables. Pearson correlation coefficients are shown below the main diagonal. The positive coefficient indicates positive and direct relationship and the negative coefficient indicates negative and direct relationship between two variables.

GOODNESS OF FIT INDEXES

Table 5
Goodness of fit index

Index	*Estimated*	*Allowable*	*Result*
x^2/df	1.249	< 3	Good
GFI	0.91	> 0.8	Good
AGFI	0.89	> 0.8	Good
RMSEA	0.027	< 0.1	Good
CFI	0.99	> 0.9	Good
NFI	0.97	> 0.9	Good
NNFI	0.99	> 0.9	Good
IFI	0.99	> 0.9	Good

To evaluate CFA model, this study used χ^2, RMR, GFI, AGFI, NFI, NNFI, IFI, CFI and more importantly RMSEA. The confirmed model can be used to test the hypotheses on the causal relationships between variables. Therefore, it is required to determine fitness for path analysis.

Structural Model Validation

Once the measurement models were validated, it is time to validate the structural model. The criteria required for structural model validation are listed in Table 6.

Table 6
Criteria for structural modelling validation

Validity	*Index*	*Description*	*Reference*
Modelling validity	R^2	It measures explanatory variance of an endogenous variable to its total variance by exogenous variables. For this index, the values > 0.670 are strong, > 0.333 are average and < 0.190 are weak.	Chin (1988) Ringle (2004)
Modelling validity	Path coefficients	Path coefficients between latent variables are measured based on their algebraic sign, value and significance.	Chin (1998)

HYPOTHESIS TESTING

Table 7
Structural equations modelling to test hypothesis

Independent variables	*Dependent variable*	β	*T*	R^2	*Result*	*Direction*
Price	Corporate image	0.14	6.52	0.60	Rejected	Insignificant
Distribution channel		0.18	3.46		Confirmed	+
Promotion		0.11	2.04		Confirmed	+
After-sales service		0.24	4.54		Confirmed	+

Cont. table 7

Independent variables	*Dependent variable*	β	*T*	R^2	*Result*	*Direction*
Price	Brand awareness	0.42	5.57	0.66	Confirmed	+
Distribution channel		0.27	4.65		Confirmed	+
Promotion		–0.12	–1.72		Rejected	Insignificant
After-sales service		0.15	2.54		Confirmed	+
Corporate image		0.16	2.76		Confirmed	+
Brand awareness	Brand equity	0.26	3.99	0.74	Confirmed	+

Hypothesis 1.1: price has a direct, significant effect on corporate image

H_0: price has no effect on corporate image.

H_1: price has an effect on corporate image.

Since *t*-value is not within the significant interval (*t*-value > 1.96; $p < 0.05$), it is confirmed that price has a significant effect on corporate image at 0.95 probability. Since β is positive, price has a direct, positive effect on corporate image.

Hypothesis 1.2: Distribution channel has a direct, significant effect on corporate image.

H_0: distribution channel has no effect on corporate image.

H_1: distribution channel has an effect on corporate image.

Since *t*-value is within the significant interval (*t*-value > 1.96; $p < 0.05$), it is confirmed that distribution channel has a significant effect on corporate image at 0.95 probability. Since β is positive, distribution channel has a direct, positive effect on corporate image.

Hypothesis 1.3: Promotion has a direct, significant effect on corporate image

H_0: promotionhas no effect on corporate image.

H_1: promotionhas an effect on corporate image.

Since *t*-value is not within the significant interval (*t*-value > 1.96; $p < 0.05$), it is confirmed that promotionhas a significant effect on corporate image at 0.95 probability. Since β is positive, promotion has a direct, positive effect on corporate image.

Hypothesis 1.4: After-sales service has a direct, significant effect on corporate image.

H_0: after-sales service has no effect on corporate image.

H_1: after-sales service has an effect on corporate image.

Since t-value is not within the significant interval (t-value > 1.96; $p < 0.05$), it is confirmed that after-sales service has a significant effect on corporate image at 0.95 probability. Since β is positive, after-sales service has a direct, positive effect on corporate image. Since $R^2 = 0.600$, price, promotion, after-sales service and distribution channel can explain 60% of changes in corporate image. Considering β-value, after-sales service has the highest contribution (highest â) and promotion has the lowest contribution (lowest β).

Hypothesis 2.1: Price has a direct, significant effect on brand awareness

H_0: price has no effect on brand awareness.

H_1: price has an effect on brand awareness.

Since *t*-value is not within the significant interval (*t*-value > 1.96; $p < 0.05$), it is confirmed that price has a significant effect on brand awareness at 0.95 probability. Since â is positive, price has a direct, positive effect on brand awareness.

Hypothesis 2.2: Distribution channel has a direct, significant effect on brand awareness.

H_0: distribution channel has no effect on brand awareness.

H_1: distribution channel has an effect on brand awareness.

Since *t*-value is within the significant interval (*t*-value > 1.96; $p < 0.05$), it is confirmed that distribution channel has a significant effect on brand awareness at 0.95 probability. Since â is positive, distribution channel has a direct, positive effect on brand awareness.

Hypothesis 2.3: Promotion has a direct, significant effect on brand awareness

H_0: promotion has no effect on brand awareness.

H_1: promotion has an effect on brand awareness.

Since *t*-value is within the significant interval (–1.96 < *t*-value < 1.96), it is rejected that promotion has a significant effect on brand awareness at 0.95 probability.

Hypothesis 2.4: After-sales service has a direct, significant effect on brand awareness

H_0: after-sales service has no effect on brand awareness.

H_1: after-sales service has an effect on brand awareness.

Since t-value is not within the significant interval (t-value > 1.96; $p < 0.05$), it is confirmed that after-sales service has a significant effect on brand awareness at 0.95 probability. Since β is positive, after-sales service has a direct, positive effect on brand awareness.

Hypothesis 2.5: Corporate image has a direct, significant effect on brand awareness

H_0: corporate image has no effect on brand awareness.

H_1: corporate image has an effect on brand awareness.

Since t-value is not within the significant interval (t-value > 1.96; $p < 0.05$), it is confirmed that corporate image has a significant effect on brand awareness at 0.95 probability. Since β is positive, corporate image has a direct, positive effect on brand awareness. Since $R^2 = 0.66$, price, promotion, after-sales service, corporate image and distribution channel can explain 66% of changes in brand awareness. Considering β-value, price has the highest contribution (highest β) and promotion has the lowest contribution (lowest β).

Hypothesis 3.1: Brand awareness has a direct, significant effect on brand equity

H_0: brand awareness has no effect on brand equity.

H_1: brand awareness has an effect on brand equity.

Since t-value is not within the significant interval (t-value > 1.96; $p < 0.05$), it is confirmed that brand awareness has a significant effect on brand equity at 0.95 probability. Since β is positive, brand awareness has a direct, positive effect on brand equity.

DISCUSSION AND CONCLUSION

The results obtained for the hypothesis that price has a direct significant effect on corporate image showed that t-value is not within the significant interval (t-value > 1.96; $p < 0.05$); thus, it is confirmed that price has a significant effect on corporate image at 0.95 probability. Since β is positive, price has a direct, positive effect on corporate image. Thus, this hypothesis is confirmed. The results obtained for the hypothesis that distribution channel has a direct significant effect on corporate image showed that t-value is within the significant interval (t-value > 1.96; $p < 0.05$); thus, it is confirmed that distribution channel has a significant effect on corporate image at 0.95 probability. Since β is positive, distribution channel has a direct, positive effect on corporate image. Thus, this hypothesis is confirmed. The results obtained for the hypothesis that promotion has a direct significant effect on corporate image showed that t-value is not within the significant interval (t-value

> 1.96; p < 0.05); thus, it is confirmed that promotion has a significant effect on corporate image at 0.95 probability. Since β is positive, promotion has a direct, positive effect on corporate image. The results obtained for the hypothesis that after-sales services has a direct significant effect on corporate image showed that t-value is not within the significant interval (t-value > 1.96; p < 0.05); thus, it is confirmed that after-sales services has a significant effect on corporate image at 0.95 probability. Since β is positive, after-sales services has a direct, positive effect on corporate image. The results obtained for the hypothesis that price has a direct significant effect on brand awareness showed that t-value is not within the significant interval (t-value > 1.96; p < 0.05); thus, it is confirmed that price has a significant effect on brand awareness at 0.95 probability. Since β is positive, price has a direct, positive effect on brand awareness. The results obtained for the hypothesis that distribution channel has a direct significant effect on brand awareness showed that t-value is within the significant interval (t-value > 1.96; p < 0.05); thus, it is confirmed that distribution channel has a significant effect on brand awareness at 0.95 probability. Since β is positive, distribution channel has a direct, positive effect on brand awareness.

The results obtained for the hypothesis that promotion has a direct significant effect on brand awareness showed that t-value is within the significant interval (–1.96 < t-value < 1.96); thus, it is rejected that promotion has a significant effect on brand awareness at 0.95 probability. The results obtained for the hypothesis that after-sales services has a direct significant effect on brand awareness showed that t-value is not within the significant interval (t-value > 1.96; p < 0.05); thus, it is confirmed that after-sales services has a significant effect on brand awareness at 0.95 probability. Since b is positive, after-sales services has a direct, positive effect on brand awareness. The results obtained for the hypothesis that corporate image has a direct significant effect on brand awareness showed that t-value is not within the significant interval (t-value > 1.96; p < 0.05); thus, it is confirmed that corporate image has a significant effect on brand awareness at 0.95 probability.

Since β is positive, corporate image has a direct, positive effect on brand awareness. The results obtained for the hypothesis that brand awareness has a direct significant effect on brand equity showed that t-value is not within the significant interval (t-value > 1.96; p < 0.05); thus, it is confirmed that brand awareness has a significant effect on brand equity at 0.95 probability. Since b is positive, brand awareness has a direct, positive effect on brand equity. According to the results, BMI management is recommended to consider correct planning and effective administration of marketing activities by combination of proper investments for broader distribution and increased representatives in order to promote brand equity.

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