Relationship between the Integratedness Criteria of Marketing Communication Tools and Consumer Based Brand Equity (CBBE) in Iran's Food Industry

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ABSTRACT

Marketing communication tools play a significant role for a corporation to reach its goals, such as; promotion of the value of its brand. In this article, we are going to analyze the relationship between the integratedness criteria of marketing communication tools and Consumer Based Brand Equity (CBBE) and its different dimensions, such as; brand awareness, perceived quality, brand associations and brand loyalty. In this research we have used descriptive survey method and the target population was chosen out of marketing managers and experts of food companies accepted in stock exchange of Tehran and customers of their main brands. The data collected out of survey were analyzed through Structural Equation Modeling (SEM) the result of which suggests that there is a significant relationship between the integratedness criteria of marketing communication tools and consumer based brand equity. Therefore, it seems essential to pay more attention to criteria and indexes of integrated marketing communication tools to achieve and promote brand equity.

Key words: Integrated marketing communications, brand equity, brand awareness, perceived quality, brand association, brand loyalty

INTRODUCTION

Now a days, competitive markets and continuous environmental changes have made the organizations understand that they are not dealing growing economy and markets anymore. Therefore, each customer has its own value and you need to fight to get a greater share of the market. Although, marketers were looking for new customers so far, today's marketing is detection of a need, trying to fulfill it and perseverance. These days, making a customer committed is of a special value and improving a customer means paying attention to his satisfaction, having effective relationship with him and measuring the quality from his perspective, which make them your clerks-inside the organization and fans and supporters-out of it. So, only committed, long lasting customers are companies’ assets (Aaker and McLoughlin, 2007).

In such competitive markets, reaching a sufficient position in consumers’ mind that make him committed to the company is of great value and brand equity is one of the elements which can help the company with this (Aaker, 1991).

Aaker (1991) defines brand equity: “A combination of five groups of assets and related commitments to brand and logo, which increase or reduce value of a product or service of a company to its consumers. These five assets are: brand loyalty, brand awareness, perceived equality, brand associations and other specific assets of a brand (Fig. 1).

Brand awareness is the first and fundamental attribute of customer brand equity and sometimes it is underestimated component of brand equity (Aaker, 1991, 1996). Brand awareness is defined as “the ability of a buyer to recognize or recall that brand is a member of certain product category” (Aaker, 1991). In summary, “brand awareness precedes
building "brand equity" in the consumer mind set (Huang and Sarigol, 2012) it affects customers' perception and attitudes, as well as it influences customers brand choice and brand loyalty (Aaker, 1996). American Marketing Association is defining brand awareness as “a marketing concept that enables marketers to quantify levels and trends in consumer knowledge and awareness of a brand's existence” (Peltola, 2014).

Brand association is another important component of brand equity. It is described as, anything linked in memory to a brand and brand image is as seen as a set of associations, usually related in some meaningful way (Aaker, 1991). Keller (1993) defined brand associations as, “impressions based on other information that is related to impressions created by the brand in the minds of consumers and that include the brands meaning for the consumers”.

Perceived quality is one of the main dimensions of brand equity, it is “the core construct” in the study to measuring brand equity (Aaker, 1996). Perceived quality is defined as the consumer’s subjective judgment about a product’s overall excellence or superiority” (Zeithaml, 1988).

Aaker (1991) states that, brand loyalty is “a measure of the attachment that a customer has to a brand” (p. 91). Subsequently, Oliver (1997) explains brand equity as, “a deeply held commitment to rebury or re-patronize a preferred product or service consistently in the future, deposit situation influences and marketing efforts having the potential to cause switching behavior” (p. 392).

If we perceive brand as a name, slogan, logo or symbol which is used to associate with the identification a product or service, Kotler (2003) says, the first step to form a brand for a business is to provide a situation to make effective relationship with its customers. Marketing communications or in a better word Integrated Marketing Communications (IMC), which according to American advertising federation is a concept of planning for marketing communications and analyzes the strategic roles of communication tools, such as; advertising, public relations, direct marketing and sales promotion in the form of a comprehensive communication plan and combine these tools to clear, sustain and maximize the marketing relations (Ying, 2010) is known as, one of the most significant bases of making relationship with customer, because integrated combination in marketing communications, including six Integratedness criteria, ends up information of a brand in the market.

Marketing communications integratedness criteria: A number of factors need to be considered in developing the most effective and efficient marketing programs possible. In assessing whether a set of marketing communications tools are well-integrated, there are a number of different possible criteria. In particular, the following six criteria may be relevant (Keller, 2010).

Coverage: Coverage relates to the proportion of the audience that is reached by each communication option employed, as well as, how much overlap exists among options. In other words, to what extent do different communication options reach the designated target market and the same or different consumers making up that market?

Cost: Evaluations of all the advantages of marketing communications must be weighed against their potential cost.

Contribution: Contribution relates to the inherent ability of a marketing communication to create the desired response and communication effects from consumers in the absence of exposure to any other communication option. In other words, contribution relates to the “main effects” of a marketing option in terms of, how it affects consumers' interactions with a processing of a communication and the resulting outcomes (e.g., building awareness, enhancing image, eliciting responses, inducing sales).

Commonality: Commonality relates to the extent to which common associations and experiences are reinforced across communication options. That is, commonality relates to the extent to which different communication options share meaning and different channel options reinforce experiences.

Complementarity: Complementarity relates to the extent to which different associations and experiences are emphasized across communication options. The ideal marketing program would ensure that communication options chosen are mutually compensatory to create desired consumer knowledge structures and experiences.

Versatility: Versatility refers to the extent that a marketing communication option is robust and effective for different groups of consumers. A marketing communication option is deemed versatile when it achieves its desired effect regardless
of consumers’ past communication history, level of brand or product knowledge or processing goals, etc (Keller, 2010).

Evaluation of communication tools based on integratedness criteria is one of the main elements for choosing the type of communication in planning and performing marketing communication plans and other elements such as setting priorities and transactions between communication tools and performance and implementation of the final plan is of great value (Keller, 2012).

In this regard, it needs to be reminded that although, we can use the abovementioned six criteria to assess efficiency and effectiveness of integrated communication tools, there is another way to do this. Percy (1997) believes that integratedness of marketing communication tools can assessed based on brand equity and its main dimensions like brand awareness, brand attitude, willingness to buy the brand and convenience of brand. Accordingly, various internal and external factors affect the assessment of appropriateness of integration. Consumer based brand equity is one of the external factors caused by behavioral and human issues and is considered as one of the best criteria for evaluation of effectiveness of communication tools.

According to abovementioned reasons, in this research, it is been sought for making relationship between integratedness criteria of communication tools and consumer based brand equity.

Any marketing action has the potential to affect brand equity because it represents the effect of accumulated marketing investments into the brand (Yoo et al., 2000). Marketing programs may affect indirectly the potential of brand equity by influencing the brand equity sources. For example, high level of brand name recognition (awareness), high-level of perceived quality and a good number of loyal consumers are the result of effective long-term accumulated investments in marketing activities (Rios, 2007).

In other words, if we are going to evaluate the integratedness of marketing communication tools, we need to analyze its effects on brand equity and its dimensions (Fig. 2).

According to this figure, if the purpose of integrating marketing communication is to achieve higher financial and non-financial performance, including indexes, such as; increasing market share, sales, ROI, ROE and EVA, we should know that one of the most important way achieving is to enhance and improve brand equity which has been proved in different researches. For example, the relationship between brand equity and stock price and stock return (Barth et al., 1998), the effect of brand equity on stock holders’ risk deduction (Madden et al., 2006), the effect of perceived quality on stock return (Aaker and Jacobson, 1994, 2001), direct and indirect effects of brand equity indexes on stock return (Mizik and Jacobson, 2008), the effects of band equity dimensions on accounting performance (Kim et al., 2003) the effects of some of brand equity dimensions on growth sales rate, the average price and ROI (Smith and Wright, 2004) and the relationship between brand equity and ROI (Eng and Keh, 2007). Therefore if the effectiveness integrated marketing communication tools is taken as a criterion of achieving its determined goals, the most important of which is reaching higher organizational performance, the criteria, which can prove the achievement of these goals is nothing but consumer based brand equity.

Therefore, consumer based brand equity was chosen, as the criterion of integrity (effectiveness and efficiency) of marketing communications, the achievement of which is the same as reaching higher organizational performance.

The conceptual model of the study was developed based on reviewed literature (Fig. 3).

In this model, integratedness criteria of marketing communication tools were chosen as independent variable and brand equity and its dimensions were considered as dependent variables.

According identified effective components in research literature and used questionnaire, five below hypotheses are provided:

- **Main hypothesis**: There is a significant relationship between integratedness criteria of marketing communication tools and consumer based brand equity
- **Secondary hypothesis 1**: There is a significant relationship between integratedness criteria of marketing communication tools and brand awareness
- **Secondary hypothesis 2**: There is a significant relationship between integratedness criteria of marketing communication tools and perceived quality
- **Secondary hypothesis 3**: There is a significant relationship between integratedness criteria of marketing communication tools and brand association
- **Secondary hypothesis 4**: There is a significant relationship between integratedness criteria of marketing communication tools and brand loyalty

![Fig. 2: Brand equity, the criterion of effectiveness of marketing communication tools](image-url)
MATERIALS AND METHODS

The result of this research is practical and developmental and since, the relationship between variables is analyzed, it is a descriptive research and quantitative data was used. There are two groups of participants; first, marketing managers and experts of food companies (sugary and non-sugary) accepted in stock exchange of Tehran with fast stock turn. Because, some companies only worked in business to business field and had nothing to do with the consumer, they were omitted and 24 companies were retained. The overall number of managers and experts in these companies were 200 and they all were chosen as the population and the main brand of each company was pointed. After distribution of questionnaires, 138 ones were received back (approximately 6 for each company). For the second part of the population (consumers), because there were infinite number of them, Cochrane model was chosen and the number of population was calculated in the following equation.

\[ n = \frac{z^2pq}{d^2} + \frac{1}{N \left( \frac{z^2pq}{d^2} - 1 \right)} \]

Where:
- \( N \) : Infinite number of population
- \( q \) : Possibility of having the determined characteristics equals 0.5
- \( p \) : Possibility of not having the determined characteristics equals 0.5
- \( z \) : Optimal deviation and error equals 5%

Therefore the number of participants in the second group was estimated to be 384 persons. So 384 consumers were considered but due to invalid questionnaire and the possibility of lack accountability, the questionnaires were distributed among 500 consumers of main brands of Tehran stock exchange food companies. The number of questionnaires was neatly divided among consumers of different companies and distributed in chain stores, dealers, hyper markets. The 387 questionnaires were collected at the end. There were two types of questionnaires; first, the questionnaire of the perspective of managers and experts toward integratedness criteria which contained 13 questions. Second, the consumer questionnaire on their point of view on integratedness criteria and brand equity which contained 26 questions. To analyze the content validity of questionnaires, they were given to a few marketing professors and Theoretician and their ideas were collected. Also, in the first part, some of the participants’ opinion about the questionnaires were gained and were used to improve the questionnaires. In this research, Cronbach's alpha, which is used in many researches to assess the reliability was used. Whenever, this coefficient is more than 0.7, the research is significantly reliable. Cronbach's alpha coefficient for this research in mentioned below (Table 1).

To make sure the collected sample were adequate or not, Keizer and Miraklin sampling adequacy test (KMO) was used. The more KMO is closer to number 1, the more it conforms the factor analysis (on standard, KMO must be more than 0.6). Calculations for research bases including consumer based brand equity and point of view of customers, managers and experts toward integratedness criteria were done based on KMO (Table 3) and the overall result was more than...
Table 3: Factor analysis

<table>
<thead>
<tr>
<th>Variable and component</th>
<th>Factor loading</th>
<th>KMO</th>
<th>Bartlett variance</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer-based brand equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand awareness</td>
<td>0.893</td>
<td></td>
<td></td>
<td>0.8963</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>0.876</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand association</td>
<td>0.841</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand loyalty</td>
<td>0.892</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integratedness criteria (corporation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contribution</td>
<td>0.742</td>
<td>0.821</td>
<td>0.000</td>
<td>0.8707</td>
</tr>
<tr>
<td>Commonality</td>
<td>0.839</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complementarity</td>
<td>0.714</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Versatility</td>
<td>0.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>0.622</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coverage</td>
<td>0.671</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integratedness criteria (customer)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Versatility</td>
<td>0.818</td>
<td>0.84</td>
<td>0.000</td>
<td>0.8136</td>
</tr>
<tr>
<td>Complementarity</td>
<td>0.865</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commonality</td>
<td>0.821</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contribution</td>
<td>0.559</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

0.6. For factor analysis also, operating loads more than 0.5 were used. As you can see in Table 4, the amount of operating load for each item is more than 0.5. So based on the abovementioned information and significant number of Bartlett test (p<0.005) and numbers related to explained variance, you can say that the result of surveys are appropriately valid. In other words basic information of research is quite valid (convergent validity). And also Cronbach’s alpha in all of these matters has been above the standard (0.7), which shows high reliability of questions (Table 3).

Statistical analysis of data: In this section, descriptive and inferential statistics were used to analyze the data. Descriptive data was used to extract statistic tables and demographic analysis and inferential statistics was used to test the research conceptual model and to test the research hypothesis, structural equation modeling was used. K-S test was also used to determine the normal distribution of variables. These tests were done by using SPSS and Lisrel.

RESULTS AND DISCUSSION

Description of participants (demographic data): The age status of managers and experts who took part in this study was in this order: 39.1% of participants were below 30 years old, 42.8% were between 30-40, 14.5% were between 41-50 and 3.6% were above 50 and about consumers, the age status order was: 43.7% of participants were below 30 years old, 32.6% were between 30-40, 18.2% were between 41-50 and 5.5% were above 50. The gender distribution among managers was: 58% was male and 42% was female and among consumers: 49.8% was female and 51.1% was male. The level education of managers was distributed in this order: 0.7% of the managers and experts were high school graduates, 8% had undergraduate degree, 85.5% were BA holders and 5.8% had MA degree and about the consumers, 46.8% had high school degree or less, 15.8% were undergraduates, 27.1% had BA degree, 7.4% had MA degree and 7.4% were PhD. holders.

Test the assumption of normality of variables: Before determining the type of test to be used, especially in comparative tests, we need to ensure the normality of variables (Table 4).

If the variables are normal, parametric tests are recommended, otherwise nonparametric equivalence tests are used. To determine the normality of variables, the level of significance must be checked. If the level of significance is less than 0.05, variables are abnormal and if the level is more than 0.05, they are normal. For our research, the result is that quality of variables is recorded in the table and they are all normal.

Hypothesis test: The main hypothesis: there is a direct relationship between integratedness criteria and consumer based brand equity.

If we assume that:

\[ Y = \text{Criterion variable (dependent), consumer based brand equity (Quality, awareness, association and loyalty)} \]
\[ X = \text{Predictor variables (independent), integratedness criteria} \]
\[ XX1 = \text{Managers prospective toward integratedness criteria} \]
\[ YY1 = \text{Customers prospective toward integratedness criteria} \]

Therefore, the assumptions of test are:

- \( H_0 \): No direct relationship between integratedness and brand equity
- \( H_1 \): A direct relationship between integratedness and brand equity

To determine the relationship between the integratedness criteria and brand equity, structural equation analysis must be used (Fig. 4 and Table 5).

As it is understood from chart 4, the relationship between integratedness criteria and brand equity is significant (\( t = 5.06 \)) and also the correlation coefficient (0.845) shows a significant relationship between integratedness criteria and consumer based brand equity and according to Table 6, most of fitting
Fig. 4: Analysis of the relationship between integratedness criteria and consumer based brand equity

Table 5: Analysis of indexes of integratedness criteria and consumer based brand equity

<table>
<thead>
<tr>
<th>Index</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2/df$</td>
<td>$&lt;3$ $\chi^2/df$</td>
</tr>
<tr>
<td>p-value</td>
<td>p-value</td>
</tr>
<tr>
<td>RMSEA</td>
<td>RMSEA</td>
</tr>
<tr>
<td>GFI</td>
<td>Higher than 0.9</td>
</tr>
<tr>
<td>AGFI</td>
<td>Higher than 0.85</td>
</tr>
<tr>
<td>CFI</td>
<td>Higher than 0.9</td>
</tr>
<tr>
<td>NFI</td>
<td>Higher than 0.9</td>
</tr>
<tr>
<td>Correlation</td>
<td>0.845</td>
</tr>
</tbody>
</table>

Table 6: Results of the secondary hypotheses

<table>
<thead>
<tr>
<th>Index</th>
<th>Secondary hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2/df$</td>
<td>$&lt;3$ $\chi^2/df$</td>
</tr>
<tr>
<td>p-value</td>
<td>p-value</td>
</tr>
<tr>
<td>RMSEA</td>
<td>RMSEA</td>
</tr>
<tr>
<td>GFI</td>
<td>Higher than 0.9</td>
</tr>
<tr>
<td>AGFI</td>
<td>Higher than 0.85</td>
</tr>
<tr>
<td>CFI</td>
<td>Higher than 0.9</td>
</tr>
<tr>
<td>NFI</td>
<td>Higher than 0.9</td>
</tr>
<tr>
<td>Direct correlation</td>
<td>0.738</td>
</tr>
<tr>
<td>T-value</td>
<td>4.06</td>
</tr>
<tr>
<td>Hypothesis result</td>
<td>Accept</td>
</tr>
</tbody>
</table>

The model indexes are in appropriate condition. In the following table the results of tests of research alternative hypotheses are offered.

As you can see in the above table, the amounts of t-value for alternative hypotheses are 4.06, 4.57, 2.34, 0.92 and their correlation coefficient amount is relatively 0.738, 0.803, 0.841 and 0.18. All the hypotheses except the fourth one are confirmed.

The results suggest that there is a significant relationship between integratedness criteria and consumer based brand equity and its main dimensions. The results of this study are consistent with other studies (Keller, 2010; Duncan, 2002; Percy, 1997; Duncan and Mulhern, 2004; Swain, 2004; Rossiter and Bellman, 2005; Madhavaram et al., 2005). The results also show that these criteria have significant relationship with brand association, perceived quality and brand awareness but there is no significant relationship between the integratedness criteria and brand loyalty. In other words, the more the communication tools in a company are integrated, the higher that company's brand association is. The effects of this integration on perceived quality and brand awareness come after. But integration cannot help with brand loyalty. It seems that the weakness of integratedness on brand loyalty can be justified by studying the fast moving consumer goods of food company's products.

**CONCLUSION**

It is concluded that use of marketing communication tools has an important role in the companies’ achieving their goals. Companies use tools, such as; advertisement, sales promotion, direct marketing, public relations and personal sales to transfer their message to their customers and persuade them to buy or keep buying. Communication tools can do their job pretty well only, if they are integrated. In other words, the more these tools are integrated, the more effective they can be in achieving goals like increasing the brand equity. Therefore in order for companies to build up their reputation before their customers and increase their brand equity, they should integrate their communication tools to help them with reaching their goals. The only important problem is to know whether the six criteria of integratedness of communication tools are related to consumer based brand equity which is the companies’ main goal. In other words, if the communication tools are integrated based on these criteria, does the brand equity increase? The purpose of this research, done in food companies accepted in stock exchange of Tehran, is to study these relationships. Consumer based brand equity can be considered as a criterion of integratedness (effectiveness and efficiency) of marketing communications, achieving, which equals reaching higher organizational function.

Therefore, according to results of this study that there is a significant relationship between integratedness criteria of marketing communication tools and consumer based brand equity and its main dimensions, Company managers can take advantage of integrated marketing communication tools and increase the company’s brand equity. In other words, if the effectiveness of integrated marketing communications considered, as the determined goal for them, there is no criterion to show, if we have reached this goal except consumer based brand equity.

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