Identifying and Categorizing Pricing Indexes of Brand Value in the Auto Industry in Iran

Identificación y categorización de índices de precios de valor de marca en la industria automotriz en Irán

Mahsa Karbalaei Hassan
Department of Business Management, Science and Research Branch, Islamic Azad University, Tehran, Iran.
E-mail: mahsa.karbalaai@gmail.com
ORCID: https://orcid.org/0000-0002-7287-0422

Hossein Vazifehdoost *
Department of Business Management, Science And Research Branch, Islamic Azad University, Tehran, Iran.
E-mail: vazifehdust@yahoo.com
ORCID: https://orcid.org/0000-0002-6194-2347

Karim Hamdi
Department of Business Management, Science And Research Branch, Islamic Azad University, Tehran, Iran.
E-mail: Hamdi_Karim1@yahoo.com
ORCID: https://orcid.org/0000-0002-7302-7912

Abstract

The present study is an applied and exploratory research that aims at identifying and categorizing pricing indexes of brand value in auto industry. Population of the study includes a host of academic and administrative elites who were knowledgeable with auto industry, branding and brand valuation. A number of 35 experts were selected using a judgmental sampling method. Open-ended interviews were also used for identifying pricing indexes of brand value, which were later categorized using a five-point Likert scale close-ended questionnaire. In the categorization and screening phase, descriptive and inferential analyses such as Kolmogorov–Smirnov test, one-sample t-test, exploratory factor analysis, and mean test were used. Data analysis was done by Excel and SPSS. Finally, 9 major dimensions (differentiation, credit, awareness, bonding, trust, quality, loyalty, social responsibility, association) and 28 minor indexes were identified.

Keywords: brand value, pricing, auto industry, descriptive and inferential analyses, judgmental sampling, Fuzzy analysis.

Resumen

El presente estudio es una investigación aplicada y exploratoria que tiene como objetivo identificar y categorizar índices de precios de valor de marca en la industria automotriz. La población del estudio incluye una gran cantidad de élites académicas y administrativas que tenían conocimientos sobre la industria automotriz, las marcas y la valoración de marcas. Se seleccionó a 35 expertos mediante un método de muestreo basado en criterios. También se utilizaron entrevistas abiertas para identificar índices de precios de valor de marca, que luego se categorizaron mediante un cuestionario cerrado de escala Likert de cinco puntos. En la fase de categorización y selección se utilizaron análisis descriptivos e inferenciales como la prueba de Kolmogorov-Smirnov, la prueba t de una muestra, el análisis factorial exploratorio y la prueba de medias. El análisis de los datos se realizó mediante Excel y SPSS. Finalmente, se identificaron 9 dimensiones mayores (diferenciación, crédito, conciencia, vinculación, confianza, calidad, lealtad, responsabilidad social, asociación) y 28 índices menores.

Palabras clave: valor de marca, fijación de precios, industria automotriz, análisis descriptivos e inferenciales, muestreo crítico, análisis difuso.

Introduction

Markets, industries and marketing have come a long way from focusing on manufacturing and selling products, marketing management with social responsibilities, to a focus on brand management and intangible assets in the present. Unlike liquid or tangible assets (such as land, machinery, equipment, cash, marketable securities), intangible assets (such as trademarks, intellectual property, business know-how) are not physical in nature. This matters most when brand management and marketing efficiency of a well-known firm is the case. Once pricing strategy of an intangible asset is identified, the firm is able to decrease ambiguities in financial activities, while reinforcing its marketing and trade interactions. Designing and embedding pricing model of brand values in marketing strategies of auto industry in Iran's emerging economy requires transparency, optimization, and academic content generation.

Brand is starting point of our proposed model. American Marketing Association defines brand as "a name, term, design, symbol, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from competitors." A brand helps customers make an informed and secure decision in today's insecure markets. However, brand value is different from brand equity. According to STANDARD. ISO. 10668 (2010) brand value is "economic value of the brand in transferable monetary units" with one or a set of economic values. It denotes monetary value of the brand, i.e., economic gains it brings in its expected lifetime. Monetary value is estimated from cash flows generated from earnings, economic gains and cost reduction. Brand equity, on the other hand, is a marketing effect that occurs over time and refers to a customer's awareness, perception, and sense of loyalty towards a brand. Factors that determine brand equity differ across cultures (Crane et al., 2006; Ahadi, 2013). Keller (1993) defines brand equity as "the differential effect of brand knowledge on consumer response to the marketing of the brand". Lassar et al. (1995) defined it as "the enhancement in the perceived utility and desirability a band name confers on a product".

It is important to embed brand equity in organizational perspective to develop an appropriate brand image for customers. A new approach in this regard is creating intangible assets, such as quality, personal experience, organizational culture, knowledge, and brand equity to encourage customer loyalty and connectivity. Brand

equity can be a powerful tool in the competitive market (Delgado et al., 2005). Studies show that strong brands are beneficial for both organizations and customers because they significantly reduce perceived risk and cost of research for customers while increasing likelihood of repeat purchasing and building a strong social identity for customers (Anderwood et al., 2001; Rego et al., 2009; Homborg et al., 2010). Thus, organizations with strong brands can offer high-price products, seize greater market share, gain customer loyalty, offer development opportunities and absorb customers through word-of-mouth advertising (Braudy et al., 2008; Truso et al., 2009; Kisintes et al., 2010).

Keller (2003) asserts that brand value is studied for two reasons. One is for marketing purposes to optimize effectiveness of marketing strategic decisions. The other is for financial purposes that compel enterprises to estimate brand equity to decide for acquisitions and mergers in accounting. Studies on brand value can be put into three groups: customer-based approach, financial approach, mixed approach (Kim & Kim, 2005). In customer-based approach, brand value is measured by perception of an individual or organizational customer. A brand is valuable when it earns positive customer perception (Keller, 2003). In financial approach, brand value is estimated as the difference between financial revenues with and without brand. In fact, a product that is offered with a certain brand receives a better customer valuation and enhances financial revenues for the organization (Simon & Sullivan, 1993). The mixed approach is a combination of the two above approaches (Motameni & Sharrokhi, 1998).

Okas & Grease (2003) argue that service brands are more important than physical products. This is because services are hard to be purchased and customers can rarely examine content and quality of service before, during and even after receiving services. Therefore, a valuable brand decreases purchasing risks. Dichernatoni et

al. (2003) believe that brand is a key component of service sector because customers perceive services as indivisible consumer goods. Moreover, services are intangible in nature and cannot be readily evaluated by customers. Similarly, Berry (2000) argues that quality is implicit in services and cannot be easily evaluated by customers. Brands ensure quality of services. Blankson et al. (1996) assert that nature of branding differs for services and goods since services require transmission of vague and intangible advantages. In addition, brand value in service firms and industries are highly affected by staff behavior. In this context, brand value is a financial value rather than a customer's subjective perception of a brand. While evaluation process aims at determining economic value of a brand, brand evaluation process is performed to price brand value. Majority of brand valuation methods are based on consumer perception and attitude, but each rely on distinctive dimensions and indexes. Therefore, their measure are relative and do npt apply to all contexts.

Brand dynamics pyramid is a practical model developed by Mill Ward Brown for measuring share value of a well-known brand. The model proposes that a brand earns in average only 8% of customer share at each level. Researchers estimated share of customer assets at each level and realized that value from customer revenues increases at higher levels of bonding, advantage, performance, relevance, presence (Alaei, 2015; Rostami, 2016).

Brand valuation models are appropriate tools for estimating brand values, but are not enough for calculating economic values. However, they can be used in pricing and help understand brand potentials. Accordingly, the main concern of this study is formulated: "What are pricing indexes of brand value in auto industry in Iran? And how are they categorized?"

Liturature review

The literature mostly focuses on brand pricing in a specific industry or firm, and consider tangible assets of enterprises. To our knowledge, there is no subtle study to simultaneously examine brand value and brand equity in auto industry in Iran. However, there were some related works that are outlined below.

Ahadi (2013) identified factors on brand equity in banking services in Iran to see how they fit consumer behavior and comply with service specifications. Results of the study showed that brand equity of banking services is determined by variables of brand loyalty and association. These two variables were found, in turn, to be affected by brand image, brand awareness and perceived quality. Moreover, external brand communication, customer experience and organizational brand indirectly affect other variables and influence brand equity of banking services.

Niaraki (2008) examined determinants of brand equity from the perspective of consumers, including price, advertisement, promotion, and family which were valued by dimensions of brand association, brand awareness, brand loyalty, and perceived quality. Results showed that price, family, advertisement and distribution indirectly affect brand equity through the above dimensions. Moreover, brand awareness, brand association, and perceived quality directly affect brand loyalty.

Hanafizadeh et al. (2016) adopted a financial-based approach for brand valuation of mobile operators and performed a case study of RighTel Communications in Iran. Thy applied a position number to each selected method and realized they were less sensitive to inputs and have relatively reliable outcomes.

There were no studies in the literature related to financial-based brand valuation of communication industry. The literature mostly focused on non-financial and customer-based analysis of communication industry. Thus, experts suggested that researchers in Iran focus on categorizing financial-based brand valuation methods for different industries and examine sensitivity of valuation model parameters in estimated values of firms. They are also urged to model and implement the way brand value is used in foreign countries as collateral.

Rahimi et al. (2017) studied effects of brand equity dimensions (financial and customer-based) on brand image in Iran's auto industry. Population of the study include all customers of Iran Khodro Co selected by convenience sampling. Results showed that perceived quality, brand awareness, perceived value of the brand, and

market share have significant and positive effects on brand image while brand bonds, loyalty, and inertia have no effects on brand image.

Asadzadeh et al. (2017) examined factors on promoting brand positioning of Iranian cosmetic products in the markets of neighboring countries and identified price, perceived quality, advertisement, source country, loyalty, and brand differentiation. Results showed that these factors have positive and significant effects on brand promotion.

Nikoukar et al. (2012) examined existing model for analyzing factors on brand value and proposed a mathematical model for measuring brand equity. The authors suggested that we adopt a general approach and avoid focusing on a certain market or product, and use measures that are sensitive to modifications to determine their effects. Prior studies focused on a single criterion while Nikoukar used key trademark measures and proposed a balance sheet and numerical equation to estimate brand value to be applied in firms.

In another study, Ebrahimi (2012) examined the importance of measuring the value of intangible assets. It was reported that the difference between market value and book value of intangible assets is on the rise and firms have to measure brand value in cases of mergers or acquisitions. It is not unusual, therefore, to claim that intangible assets make up a greater value of firms. Brand is an intangible recognized by many enterprises as a valuable asset that draws the attention of top management. A brand affects choices of customers, staff, investors and governments because there are a variety of alternative choices and the economic impact of this choice leads to accomplishment and shareholder values. Even NGOs acknowledge a brand as a key asset to obtain endowments, sponsors and humanitarian aids. A brand can also show firm durability. Coca Cola, for instance, is the most expensive brand in the world and has a long history. Ebrahimi examined strengths, weaknesses and effectiveness of existing models for brand valuation. Studies show that brand valuation models are market-based or financial-based, and the only method that adopts a mixed approach is Interbrand, though it has some limitations as follows:

•	It uses qualitative marketing variables for estimating discount rate which yields subjective results.

•	Estimations are mostly oriented towards future predictions, i.e., the obtained value is from discounted future earnings.

•	Like many other models, it lacks a feedback stage. Therefore, value of forecasts is compared with value of realized income.

Mohammadi et al. (2015) studied effects of takeover of companies listed at Tehran Stock Exchange on their financial measures. Firms naturally seek to maximize wealth of their shareholders. Takeover of other companies is one way to do this, which increases wealth of shareholders through returns, synergy, increased income and decreased costs. What matters here is to examine weather mergers or acquisitions improve the performance of buyer companies and increase the wealth of shareholders or not. The authors examined effects of takeover on financial measures (sales growth rate, equity return rate, asset return rate and operating cash flow) on companies listed at Tehran Stock Exchange.

Asgari et al. (2017) used SWOT matrix to analyze challenges and opportunities of mergers and acquisitions of companies listed at Tehran Stock Exchange. They reported that mergers and acquisitions drive companies towards cocreation and increased wealth of shareholders. Mergers and acquisitions are part of a strategic plan to increase wealth of shareholders and have positive and negative at macro- and micro-economics. Results of the study showed that sales growth rate, wrong target firm, sustainable development of enterprise and infrastructure are respectively the most effective indexes on mergers and acquisitions. Moreover, integration of product development, horizontal integration, integration of market development, vertical integration, revision of mergers and acquisitions terms, backward integration, alternative integration are respectively the most effective mergers and acquisitions strategies.

Zarei et al. (2013) showed in his analysis that mergers and acquisitions are appropriate solutions for development of firms in Iran's food industry because, as asserted by Bower (2001), they offer a more economic and faster opportunity than starting a new enterprise. Barkma et al. (2008) reported that global investment plans on mergers and acquisitions show an unprecedented growth in developed and developing countries in recent years. However, underdeveloped countries like Iran have made no considerable progress in this field. Arefi et al. (2007) stated that mergers and acquisitions in Iran are far from global norm and are mostly related to acquisitions. It calls for comprehensive studies to find the causes. Zarei et al., studied drawbacks of mergers and acquisitions in food industries in Iran and collected data from 15 managers active in food industries through systematic interviews. They concluded that distrust is the major cause of non-mergers since firms show willingness to engage in mutual relations because of lack of information transparency and relationship between enterprises, and lack of strategic associations.

Kim et al. (2012) studied effective employment of brand equity through sustainable competitive advantage, marketing strategy, and corporate image and reported that traditional human resources management methods fail to exploit marketing to build a strong corporate image to employ more qualified applicants. In recent years, principles of marketing have been adopted in effective recruitment techniques as they help build a prominent corporate image. The authors used marketing management techniques in recruitment marketing in healthcare industries and showed that sustainable competitive advantage, marketing strategy, and brand equity boost willingness of medical practitioners to pursue higher job positions.

Wang et al. (2015) used quantile regression and structural equation modeling to study effects of corporate social responsibility on brand equity and firm performance in Taiwanese high-tech companies during 2010–2013. They reported that educators, administrators, and policy makers increasingly focus on corporate social responsibility but fail to examine its relationship with brand equity and firm performance. Results of quantile regression analysis indicated that economic

dimension of corporate social responsibility and the prestige driver of brand equity were positive and significant for all the quantiles. Moreover, at higher quantiles of firm performance, brand extension driver had a significant positive effect. Results of structural equation modeling showed that corporate social responsibility and brand equity had positive effects on firm performance. The study offers insights into brand equity and corporate social responsibility for managers to develop effective business strategies.

Chernatony et al. (2015) examined the relationships between advertising and sales promotions, as two key elements of marketing communication programs, and their impact on brand equity creation. It focused particularly on costs of advertising and people's attitudes toward them. The research performed a survey on 302 UK consumers and reported that the participants' attitudes toward the advertisements play a key role influencing brand equity dimensions. Moreover, despite the fact that costs of advertising for the brand improved brand awareness, it was insufficient to positively affect brand associations and perceived quality. Effects of monetary and non-monetary promotions on brand equity were also explored in the study. Finally, it was suggested that, by realizing the relationships between different dimensions of brand equity, firms can significantly optimize the process of brand equity management. According to Reynolds et al. (2005), elements of brand equity positively influence customers' perceptions and subsequent purchase behavior. Thus, firms are urged to developed strategies that promote brand equity growth to strengthen this relationship (Keller, 2007). Identifying determinants of brand equity is a priority for marketing managers (Baldaov et al. 2009; Walt et al. 2011). Studies show that elements of the marketing mix are key variables in building brand equity (Yu et al., 2000). Thus, optimal marketing spend to achieve greatest effects on target market (Soberman, 2009) and trademark (Atamen et al., 2010) is a major challenge for marketing agents. Although elements of marketing mix and their effects on brand equity have been extensively explored in the literature, dimensions of brand equity have not been studied in depth, except in Yu et al. (2000) who studied the relationship between elements of marketing mix and customer-based brand equity. The authors explore new attitudes towards possible effects of marketing strategies

on brand equity and suggest further analysis of variables of marketing mix. They also provide an insight into the theory of brand equity evolution.

Louviere et al. (2012) assessed the validity of brand equity constructs and collected data from Australian banking and mobile services sectors to test both internal and external validity of the Erdem and Swait (1998) brand equity framework using two measurement modelling approaches, namely the relatively new Best-Worst scaling (BWS) method (Finn and Louviere, 1992; Marley and Louviere, 2005) and the more traditional confirmatory factor analysis (CFA) method. Data were collected from the. They reported that BWS model had better results than CFA of the rating data in predicting both stated and real brand choices. Their findings have implications for both academics and practitioners in brand equity measurement and management.

A brief review of related literature shows there are 3 fundamental frameworks for measuring brand equity:

1.   Aaker's model (1991) provides a managerial perspective

2.   Keller's model (1993) provides a psychological and memory-based approach

3.   Ardam and Suite's model (1998) provides a framework based on the theory of economic   information and marking

Other frameworks for brand equity have also been proposed. For instance, Yu et al. (2000) extended Aaker's model and clarified dimensions of brand equity. Krishnan (1996) used Keller's model to identify customer relations based on brand equity.

Method

The present research was an applied study and the results have implications for pricing bran value in auto industry in Iran and provide for informed decision- and policy-makings. It adopted an exploratory approach which seeks to explore mechanisms of pricing brand value in auto industry, on the one hand, and uses interviews/questionnaires to select the target population and collect relevant data.

Population of the study included academic and administrative elites who were knowledgeable with auto industry, branding and brand valuation. A number of 35 experts were selected using judgmental sampling method. Open-ended interviews were also used for identifying pricing indexes of brand value, which were later categorized using a five-point Likert scale close-ended questionnaire. In categorization and screening phase, descriptive and inferential analyses such as Kolmogorov–Smirnov test, one sample t-test, exploratory factor analysis, and mean test were used. Data analysis was done by Excel and SPSS.

Result and discussion

The present study identified pricing indexes of brand value in Iran's auto industry were identified through literature review and collecting elite ideas. Results are given in Table 1.

Table 1: Early pricing indexes of brand value in Iran's auto industry

Early pricing indexes of brand value in Iran's auto industry	Methodology	
	Literature	Elite interviews
Internal market validity		✓
Brand share in international market		✓
Brand participation in sociocultural activities	✓	✓
Community awareness of brand advertising messages	✓	
Small ratio of customer costs to perceived quality		✓
Market awareness of brand products and services	✓	
Differentiation in product design	✓	
Loyal customers' real behavior to promote brand	✓	✓
Communicating different subjective elements		✓
Customer trust to brand claims	✓	
Customer bond to products		✓
Community awareness of ideal brand objectives	✓	
Differentiation in product pricing	✓	
Brand participation in environmental pollution reduction programs		✓
International market validity	✓	✓
Customer trust to brand managers		✓
Being customer top priority	✓	✓
Loyal customers' motivation to promote brand	✓	
Differentiation in sales process		✓

Community awareness of brand logo	✓	✓
Brand leadership of product quality	✓	
Differentiation in after-sales-services		✓
Customer trust to brand claims	✓	
Brand share in internal market		✓
Creating strong associations	✓	✓
Customer bond to brand		✓
Brand leadership of product quality	✓	
Brand entrepreneurship		✓

Once the indexes were identified, normal distribution was tested by Kolmogorov–Smirnov test and then one-sample t-test was applied. Data from questionnaire 2 were fed into SPSS. Table 2 summarizes the results.

Table 2: Test for normality of indexes

Indexes	N	Kolmogorov–Smirnov	Significance
Internal market validity	35	1.346	0.053
Brand share in international market	35	1.121	0.162
Brand participation in sociocultural activities	35	1.196	0.115
Community awareness of brand advertising messages	35	1.212	0.106
Small ratio of customer costs to perceived quality	35	0.293	0.071
Market awareness of brand products and services	35	1.290	0.072
Differentiation in product design	35	0.310	0.065
Loyal customers' real behavior to promote brand	35	0.275	0.077
Communicating different subjective elements	35	1.328	0.059
Customer trust to brand claims	35	1.232	0.096
Customer bond to products	35	1.156	0.138
Community awareness of ideal brand objectives	35	1.193	0.116
Differentiation in product pricing	35	1.275	0.077
Brand participation in environmental pollution reduction programs	35	1.313	0.064
International market validity	35	1.268	0.080
Customer trust to brand managers	35	1.220	0.102
Being customer top priority	35	1.179	0.124
Loyal customers' motivation to promote brand	35	1.319	0.062
Differentiation in sales process	35	1.327	0.059
Community awareness of brand logo	35	1.220	0.102

Brand leadership of product quality	35	1.275	0.077
Differentiation in after-sales-services	35	1.246	0.333
Customer trust to brand claims	35	1.348	0.058
Brand share in internal market	35	1.254	0.487
Creating strong associations	35	1.458	0.908
Customer bond to brand	35	1.358	0.154
Brand leadership of product quality	35	1.314	0.089
Brand entrepreneurship	35	1.057	0.077

Since significance level of all indexes was >0.05, they are assumed to be normal and parametric t-test was applied for their screening on data from questionnaire 2. Threshold and level of significance were 4, and 95%, respectively. Results are given in Table 3.

Table 3: Test for normality of indexes

Indexes	t-statistics	Degree of freedom	Significance
Internal market validity	6.614	34	0.000
Brand share in international market	2.227	34	0.033
Brand participation in sociocultural activities	3.784	34	0.001
Community awareness of brand advertising messages	5.504	34	0.000
Small ratio of customer costs to perceived quality	3.422	34	0.002
Market awareness of brand products and services	4.761	34	0.000
Differentiation in product design	4.692	34	0.000
Loyal customers' real behavior to promote brand	8.178	34	0.000
Communicating different subjective elements	3.784	34	0.001
Customer trust to brand claims	4.476	34	0.000
Customer bond to products	3.095	34	0.004
Community awareness of ideal brand objectives	5.014	34	0.000
Differentiation in product pricing	8.178	34	0.000

Brand participation in environmental pollution reduction programs	8.223	34	0.000
International market validity	7.100	34	0.000
Customer trust to brand managers	7.748	34	0.000
Being customer top priority	6.706	34	0.000
Loyal customers' motivation to promote brand	6.952	34	0.000
Differentiation in sales process	7.403	34	0.000
Community awareness of brand logo	2.318	34	0.001
Brand leadership of product quality	7.294	34	0.000
Differentiation in after-sales-services	7.535	34	0.000
Customer trust to brand claims	7.486	34	0.000
Brand share in internal market	6.428	34	0.044
Creating strong associations	6.007	34	0.000
Customer bond to brand	3.428	34	0.000
Brand leadership of product quality	4.384	34	0.000
Brand entrepreneurship	7.244	34	0.003

To analyze the results, the following hypotheses were assumed:

H0: μ = 3

H1: μ ≠ 3

Mean score was set at 4 because a five-point Likert scale was used. Table 3 shows that significance level of all indexes is <0.05 and then H0 is rejected and H1 is confirmed. It also demonstrates that t-statistics of all indexes are positive, implying that their level of authenticity is higher than mean score and can't be removed from the model.

To apply hierarchical Fuzzy analysis to weigh the indexes, the identified indexes were first categorized through explorative factor analysis. For this, principle component, varimax rotation and Kaiser normalization were employed. Classification criterion was values higher than 1 and factor scores higher than 0.4. Results are provided in Table 4.

Table 4: Test for normality of indexes

Indexes	A	B	C	D	E	F	G	H	Q	Extractive communality
Internal market validity	0.690	0.711	0.147	0.521	0.562	0.638	0.427	0.245	0.338	0.687
Brand share in international market	0.203	0.743	0.178	0.652	0.248	0.428	0.818	0.358	0.604	0.704
Brand participation in sociocultural activities	0.229	0.168	0.640	0.632	0.425	0.402	0.679	0.705	0.229	0.645
Community awareness of brand advertising messages	0.542	0.322	0.694	0.518	0.354	0.450	0.228	0.127	0.328	0.612
Small ratio of customer costs to perceived quality	0.303	0.505	0.273	0.199	0.273	0.648	0.375	0.518	0.604	0.562
Market awareness of brand products and services	0.580	0.542	0.837	0.615	0.548	0.428	0.521	0.663	0.428	0.520
Differentiation in product design	0.661	0.200	0.608	0.532	0.167	0.542	0.420	0.264	0.518	0.566
Loyal customers' real behavior to promote brand	0.641	0.180	0.687	0.625	0.437	0.233	0.784	0.341	0.308	0.566
Communicating different subjective elements	0.337	0.606	0.224	0.542	0.621	0.428	0.328	0.227	0.648	0.594
Customer trust to brand claims	0.353	0.315	0.602	0.612	0.784	0.652	0.541	0.445	0.581	0.543
Customer bond to products	0.487	0.485	0.527	0.846	0.732	0.650	0.549	0.773	0.641	0.584
Community awareness of ideal brand objectives	0.731	0.388	0.846	0.425	0.219	0.138	0.348	0.606	0.328	0.707
Differentiation in product pricing	0.772	0.209	0.247	0.654	0.425	0.228	0.627	0.628	0.218	0.683
Brand participation in environmental pollution reduction programs	0.164	0.772	0.574	0.533	0.215	0.648	0.722	0.806	0.667	0.688
International market validity	0.604	0.758	0.292	0.533	0.627	0.664	0.625	0.628	0.128	0.588
Customer trust to brand managers	0.556	0.299	0.282	0.428	0.603	0.521	0.354	0.412	0.227	0.522
Being customer top priority	0.787	0.145	0.891	0.325	0.425	0.621	0.428	0.648	0.632	0.657

Loyal customers' motivation to promote brand	0.651	0.263	0.547	0.521	0.685	0.224	0.785	0.318	0.362	0.646
Differentiation in sales process	0.739	0.668	0.672	0.532	0.325	0.552	0.652	0.542	0.221	0.587
Community awareness of brand logo	0.620	0.658	0.769	0.325	0.338	0.185	0.154	0.541	0.547	0.643
Brand leadership of product quality	0.325	0.647	0.452	0.652	0.245	0.743	0.719	0.625	0.328	0.598
Differentiation in after-sales-services	0.846	0.652	0.432	0.652	0.622	0.425	0.542	0.685	0.449	0.721
Customer trust to brand claims	0.648	0.218	0.665	0.421	0.743	0.643	0.646	0.449	0.424	0.651
Brand share in internal market	0.625	0.425	0.457	0.565	0.458	0.664	0.846	0.521	0.428	0.492
Creating strong associations	0.542	0.648	0.452	0.449	0.842	0.840	0.658	0.634	0.916	0.558
Customer bond to brand	0.661	0.435	0.198	0.754	0.621	0.425	0.405	0.498	0.445	0.689
Brand leadership of product quality	0.652	0.442	0.678	0.165	0.428	0.749	0.645	0.705	0.716	0.670
Brand entrepreneurship	0.521	0.216	0.541	0.675	0.429	0.404	0.218	0.699	0.628	0.965

Based on the above table, 9 classes of indexes with eigenvalues higher than 1 were extracted and given in Table 5.

Table 5. Classification of pricing indexes of brand value in Iran's auto industry

Dimension	Indexes
Differentiation	Differentiation in product design
	Differentiation in sales process
	Differentiation in product pricing
	Differentiation in after-sales-services
Validity	Internal market validity
	International market validity
Awareness	Community awareness of brand logo
	Community awareness of advertising message
	Community awareness of ideal brand objectives
	Being customer top priority
	Market awareness of brand products and services
Bonds	Customer bond to brand
	Customer bond to products
Trust	Customer trust to brand managers
	Customer trust to brand claims
	Customer trust to corporate claims
Quality	Brand leadership of product quality

	Brand leadership of service quality
	Small ratio of customer costs to perceived quality
Loyalty	Brand share in internal market
	Brand share in international market
	Loyal customers' motivation to promote brand
	Loyal customers' real behavior to promote brand
Social responsibility	Brand participation in environmental pollution reduction programs
	Brand participation in sociocultural programs
	Brand entrepreneurship
Association	Creating strong associations
	Communicating different subjective elements

Conclusion

The present study identified a total number of 28 pricing indexes of brand value in Iran's auto industry through literature review and collecting elite ideas. Explorative factor analysis was then performed and the identified indexes were categorized into 9 groups, as follows.

Differentiation

Differentiation in product design

Differentiation in sales process

Differentiation in product pricing

Differentiation in after-sales-services

Validity

Internal market validity

International market validity

Awareness

Community awareness of brand logo

Community awareness of advertising message

Community awareness of ideal brand objectives

Being customer top priority

Market awareness of brand products and services

Bonds

Customer bond to brand

Customer bond to products

Trust

Customer trust to brand managers

Customer trust to brand claims

Customer trust to corporate claims

Quality

Brand leadership of product quality

Brand leadership of service quality

Small ratio of customer costs to perceived quality

Loyalty

Brand share in internal market

Brand share in international market

Loyal customers' motivation to promote brand

Loyal customers' real behavior to promote brand

Social responsibility

Brand participation in environmental pollution reduction programs

Brand participation in sociocultural programs

Brand entrepreneurship

Association

Creating strong associations

Communicating different subjective elements

Based on our results, it is suggested that corporates active in Iran's auto industries

pursue the following guidelines to strengthen their brand value:

Observe the principle of differentiation and authentication in product designs

Differentiate their sales processes from competitors

Differentiate their product pricing from competitors

Differentiate their after-sales-services from competitors

Promote their internal market validity

Promote their international market validity

Introduce their brand logo to the community

Adopt and introduce a meaningful advertising message

Communicate their ideal objectives to the target population

Try to remain customer priority though employment of appropriate advertising, branding and promoting techniques

Introduce their products and services to the target population

Reinforce customer bonds to brand through marketing and psychological techniques

Absorb customer trust

Propagate advertising claims they can realize

Avoid raising customer expectations they cannot meet

Establish a leading role in offering product quality

Establish a leading role in offering service quality

Increase their internal market share

Increase their international market share

Generate customer loyalty

Engage in environmental pollution reduction programs

Engage in sociocultural programs

Create job opportunities

Create strong associations

Availability of data and material

Data can be made available by contacting the corresponding authors

References

1. Ahadi, Pari (2013). Developing a model for brand equity for service organizations based on effective variables: a case study of Sepah Bank. University of Isfahan.

2. Asdzadeh, Bahram; Habibi, Mahboobeh (2017). Factors on brand value promotion of Iranian cosmetic products in international markets. 10th international conference on economics and management. Rasht: Azad University of Rasht.

3. Asgari, Mohammadhadi; Taati, Roza (2017). Employing SWOT to analyze challenges and threats in mergers and acquisitions of companies listed at Tehran Stock Exchange. 10th international conference on economics and management. Rasht: Azad University of Rasht.

4. Dehdashti, Zohreh; Bahreinizadeh, Manijeh (2010). Marketing studies. Tehran: SAMT publications.

5. Dehdashti, Zohreh; Tonkehnejad, Mandani (2006). Customer attitude towards online shopping in Shahrvand Chain Stores. Journal of Management Studies. No. 51 (23-42).

6. Doaei, Habibollah; Farzaneh, Zhaleh (1990). Comparative analysis of customer attitude towards international clothes brands: a case study of brands from Iran, Korea, and Japan. Scientific, Economic, and Technical Journal of Textile industry. No. 27 (42-48).

7. Ebrahimi, Mahyar (2012). Exploring brand valuation models. Allame Tabatabei University. Journal of trademark.

8. Farzin, Mohammadreza (2007). Pathology of milk distribution system in Iran. Journal of economics, agriculture, and development. No. 59 (75-96).

9. Feiz, Davoud; Rajabi, Ebrahim (2008). Exploring factors on customer loyalty in private-owned banking sector from customers' attitudes. Journal of Management Studies. No. 2(157-184).

10. Haj Karimi, Abbasali; Jalalzadeh, Reza (2008). Factors on customer loyalty to brands. Third International Conference on marketing Management.

11. Hanafizadeh, Payam; Rad, Azadeh (2016). RighTel brand valuation. Journal of investment science.

12. Heidarzadeh, Kambiz; Zarbi, Seifali (2008). Evaluating effects of selected elements of marketing mix on brand equity. Journal of marketing Manageent. No. 5 (21-57).

13. Hosseini, Marzierh (2009). Garment import: Fashion or economic rent. Retrieved from www.mehrnews.com

14. Jabbarzadehm Bahram (2011). Evaluating determinants of willingness to buy products from gray markets in southeast Iran. Unpublished Master's thesis. Bahonar University, Kerman Iran.

15. Mohebali, Davoud; Fahangi, Aliakbar (1998). Market management: Marketing management. Amirkabir publications.

16. Nikoukar, Gholamhossein; Ekhlasi, Amir; Toloei, Pedram (2012). A mathematical model for determining brand equity. Journal of Marketing Management. No. 11 (105-120).

17. Nouri, Masoumeh (2009). Brand loyalty and corporate profitability. Journal of technology and packing industries. No. 54 (97-99).

18. Roosta, Ahmad; Venous, davar; Ebrahimi, Abdolhamid (2007). Marketing Management. Tehran. SAMT publications.

19. Sarmad, Zohreh; Bazargan, Abbas; Hejazi, Elaheh (2010). Research Methods in Behavioral Sciences. Tehran: Agah Publications.

20. Zarei, Behrouz; Salari, Saleh (2013). Drawbacks of mergers and acquisitions in Iran's food industries. 10th international conference on strategic management.

21. Zargar, Mahmoud (2005). A complete guide to SPSS. Tehran: Behineh Publications.

22. Zivyar, Parvaneh (2009). Smuggles in clothing market. Journal of Headquarters of Fighting Smuggling of Goods and Currency. No. 11 (8-15).