

Designing a Branding Model for Public Teaching Hospitals in Iran

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Abstract

Background and Objectives: Hospital branding is a new concept in Iran that requires focused attention in order to enhance economic performance of health care delivery system. This study aimed to develop a conceptual framework for initiation and promotion of public teaching hospital brand in an Iranian context.

Methods: A comparative study of hospital branding in 8 pioneer countries revealed 51 elements potentially influencing successful hospital branding. Based on expert opinion, these elements were refined and adapted to the Iranian context. Based on this information a 47-item questionnaire was designed. The questionnaire was distributed among 364 experts from different health domains, including clinicians of public and private hospitals and policy makers, executives, and authorized advisors from the Ministry of Health and Medical Education (MOHME) and various medical universities. The collected data were analyzed using exploratory factors analysis in order to identify factors influencing hospital branding. The robustness of the identified factors was further explored by confirmatory factor analysis (CFA).

Findings: Identity, image, competitiveness, strategy, and relationship were identified as the five key dimensions of hospital branding in the Iranian context.

Conclusions: Identification of the major dimensions of hospital branding may help policy-makers to develop effective brand promotion strategies in hospital industry.

Keywords: Hospital, Branding, Healthcare, Marketing

Background and Objectives

Hospitals constitute the most important components of the health systems, given their role in direct delivery of health care services as well as being the major consumer of health budget and resources.¹ Nonetheless, along with the rapid global transformation of societies, increasing costs of patient care, advancement of medical technologies, increasing demand for quality health care, competitive pressures, and promotion of non-centralized care, constantly challenge hospitals' capability to maintain economic viability together with quality of care.²

In order to overcome these challenges public hospitals need to revise the way they provide services and reorder their services delivery structure to adjust the continuous changes.³ One of the commercial tool for promoting eco-

nomical viability and competitiveness of firms is branding. Brand is a non-tangible asset of an enterprise bringing lots of advantages if utilized effectively.⁴ Although branding is a new concept in the Iranian health system, studies show that appropriate hospital branding can enhance the hospital economy, improve patients' confidence, and loyalty, and thereby strengthen the foundation of health system.^{5,6} These advantages are exactly what the health system needs. Professional branding will inform patients on the comparative advantages health care processes and services in provided by a particular hospital and induce higher levels of trust and confidence.⁷

Hospital branding has not been systematically dealt with in the Iranian context. Lack of academic literature as well as managerial experience in this area, contributes to limited attention of the health care policy-makers and managers to the importance of issue. To help fill this gap, the present study was designed aiming at developing a

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conceptual model for successful promotion of hospital branding.

Methods

A comparative study of hospital branding strategies in 8 pioneer countries, including Britain, Canada, Australia, New Zealand, China, Ireland, South Korea and South Africa was carried out using content analysis method. As a result, 51 elements potentially influencing successful hospital branding were identified, which were used to design an assessment model. The validity of the assessment model was sought by expert opinion method (10 experts). As a result, 2 items were excluded, 3 new items were added, and some other items were revised based on the experts' recommendations. The resulting model comprised 52 items, scored on a 5-point Likert-type scale (from 1 = "very weak" to 5 = "very strong"). The reliability of the questionnaire was ensured by Cronbach α of .64.

The questionnaire was distributed among a sample of 364 individuals purposefully selected from among medical board members, health policy-makers, medical university professors, the Ministry of Health and Medical Education (MOHME) officials, and hospital administrators.

Exploratory factor analysis (EFA) was used to identify the factor structures underlying the data. Kaiser-Meyer-Olkin (KMO) of 0.73 ensured the sufficiency of sample size for factor analysis. Bartlett's test of sphericity showed the significance of the correlation matrix. Levene test showed that distribution of variances was homogeneous ($P > .05$). Factors were extracted by principal component analysis with varimax rotation. The internal consistency reliability of the extracted factors was calculated using Cronbach α .

The validity of the obtained model was then explored by confirmatory factor analysis (CFA). A series of goodness-of-fit indices including comparative fit index (CFI), goodness-of-fit index (GFI), adjusted goodness-of-fit index (TLI), and root mean squared error of approximation (RMSEA) were calculated to evaluate the extent to which the model represents the structure of the data.

Ethical Issues

All respondents were informed about the objectives of the study and their verbal consent for participation in the survey was obtained. In addition, the participants were assured of the confidentiality of their responses.

Findings

Literature Review

Table 1 summarizes the successful strategies in hospital branding adopted by the pioneer countries together with

Iran. Some of these strategies include international cooperation as followed by South Korean hospitals,⁸ release of detailed financial audits and annual reports which was pursued by Alberta Children's Hospital in Canada,⁹ and patient follow-up activities initiated by Hasheminejad Kidney Center in Iran.¹⁰

Explanatory Factor Analysis and Model Improvement

Among different EFA solutions with various number of factors, the 5-factor solution yielded the most consistent results. Given the low internal consistency of some extracted factors, the model has to be refined. To obtain a more reliable model, an iterative cycle of model modification was carried out and at each iteration a single item with insufficient factor loading and communality was excluded. The procedure was stopped when all factor loadings reached above than 0.3. This criterion was met after eliminating 5 items. Table 2 shows the specific value, variance, and the cumulative variance of five factors. The specific values of all factors are higher than one. The extracted factors together explain 64.6 of the total variance of the variables. In addition, the internal consistency reliability of the 47-item assessment tool was obtained 0.72. Also all factors in the in the improved model showed adequate internal consistency ($\alpha > .7$).

Considering the content of factors, they were termed as the following: Factor 1: Identity, Factor 2: Image, Factor 3: Competitiveness, Factor 4: Strategy, Factor 5: Relationships. Table 3 presents the items associated with each factor and the corresponding loading.

We examined the validity of the model by CFA. Results of fitness data analysis (Table 4) shows the appropriate fitness of the assessment model to the data which. This indicates that the five-factor model developed can represent the conceptual structure hospital branding in Iran.

Discussion

Among subfactors of *brand identity*, "provision of information about vision, mission, and values of the hospital" gained the highest loading. This observation is confirmed by the results from the study by Kamarposhti,¹¹ suggesting that brands are the result of mission, visions, and values of an organization. Alserhan and Alserhan also conclude that brand lays the foundation for reuse of services through creating a sense of dependence and closeness in the customers.¹²

Among subfactors of *brand image*, "provision of information about the events and new services" received the highest loading. This observation is consistent with the study of Mirabi et al,¹³ who identified promotion of the brand image as an essential driver of customers' behavioral inten-

Table 1. Summary of Supportive Strategies for Hospital Branding in Pioneer Countries

Hospital	Effective Factor			The Relationship Between Brand and Market and Customer
	Brand Positioning	Competitive Position of the Brand	Branding Strategy	
Seoul National University Hospital -SouthKorea	<ul style="list-style-type: none"> - The first national hospital in South Korea - First ranking based on brand power in health care during 9 years. - Agenda setting of acquired titles - Role of agenda setting in order to train human resources. 	<ul style="list-style-type: none"> - Conducting research with other industries in partnerships - Setting up different health campaigns with organizations and industries - International partnership with hospitals in other countries - Moving towards smart hospitals 	<ul style="list-style-type: none"> - Running the hospital as a complex that provides services - Setting up and installation of quality assurance program in hospital departments - Establishing clinical trial center in hospital in order to develop research - Attending in student exchange programs internationally - Designing a website for the hospital in 15 different languages - Joining the research supporter hospitals group in South Korea 	<ul style="list-style-type: none"> - Implementing patient health record for patients - Improving relationships based on cell phone data in hospital - Using cell phone capacities for advertising and patient attraction - Establishing check up center - Providing services in 7 languages
York Hospital-England	<ul style="list-style-type: none"> - Highest rank of patient admission compared to other hospitals in the region. - The most important hospital providing services in England - Selective advertisement and attending the final stages of getting prizes among England hospitals - Introducing personnel, professors and specialists 	<ul style="list-style-type: none"> - Integrating services in hospital in order to improve service quality. - Rebuilding old departments - Developing elective services through attracting patients from the country for higher income - Developing partnership with other active hospitals in the region - Implementing national data program and managing data 	<ul style="list-style-type: none"> - Paying attention to savings through internal hospital function - Installation of risk management and clinical audit - Partnership with army in order to provide services to military in the geographic region - Planning to preserve the existing patients and three percent increase in the number of admitted patients - New investments to equip new medical equipments - Developing dialysis plan according to the regions demand - Improving telemedicine program by the hospital 	<ul style="list-style-type: none"> - Using health volunteers in order to provide services especially among patients' supporter - Having patient feedback policies using telephone, lap top, tablet and so forth data. - Paying attention to the patient as the core of hospital function - Evaluating patient satisfaction of hospitalized patients, their families and friends.
Chris Hani Baragwanath Hospital South Africa	<ul style="list-style-type: none"> - Introducing hospital as one of the biggest hospitals in the world based on the number of beds - Scientific partnership in the field of mental health with other organizations - Using advertisement capacity to conduct hospital projects - Placing the hospital in the list of leading hospitals doing national projects 	<ul style="list-style-type: none"> - Providing consultancy services for common illnesses like AIDS in the hospital. - Partnership with specialist department in private and public framework - Receiving charity help in order to improve different sectors management. - Starting a national clinic that is teenagers' health friendly - Advertising provided services in the hospital by establishing patients' experiences. 	<ul style="list-style-type: none"> - Investing in order to buy new medical equipment - Establishing service assessment unit for provided services - Implementing assets management approach - Implementing preventive and infectious disease control - Renewing cleaning infrastructures - Setting up smart laboratory management program - Improving internal communication system - Improving data safety program 	<ul style="list-style-type: none"> - Reducing mother infant deaths by increasing ICU beds - Providing the highest quality services to patients - Installing complaint management system with regular evaluation - Proximity to public transportation - Setting up different general health campaigns and increasing health education in society - Providing at home services to patients

Table 1. Continued

Middlemore Hospital New Zealand	<ul style="list-style-type: none"> - Introducing hospital as an executive hospital in the country - Introducing the hospital as narcotic free (patients, personnel and environment) - Having a leading role in treating some common disease in the region - Agenda setting of getting different acquired prizes 	<ul style="list-style-type: none"> - Developing at home services - Investing in infrastructures and hospital equipments - Special plan for health care for patients as the suggested package - Implementing service quality models like clinical supremacy - Providing developed diabetes services according to region's demand 	<ul style="list-style-type: none"> - Implementing new health care model for higher demanding groups in a geographic region - Establish a weblog for executive team - Supporting personnel against violence - Providing consultancy services to alcoholics according to regional demand - Providing consultancy to alcohol users according to regional demand - Doing basic key researches - Improving and developing educational activities 	<ul style="list-style-type: none"> - Designing healthcare action processes for patients - Setting up the first care unit for heart attack patients in New Zealand - Providing free transportation services - Having a complaint assessment office - Providing religious volunteer services - Presence of the hospital in social networks
Cork University Hospital Ireland	<ul style="list-style-type: none"> - Introducing the hospital as the biggest educational hospital in Ireland - Locating in center of the city as a strategic location - Introducing hospital as a narcotic free hospital - Among the leading hospitals of continental plan for clinical audit of deaths cases 	<ul style="list-style-type: none"> - Updating heart related services - Attending alcohol use researches according to regional demand - Improving breast cancer screening plan according to regional demand in Ireland - Increasing radiation oncology services according to regional demand - The only first rate trauma service provider in Ireland 	<ul style="list-style-type: none"> - Partnership with private sector in providing services - Providing services to patients with different insurance programs - Regular plan for improving service quality through patient satisfaction evaluation studies - The leading hospital in providing nursing education - Advanced plan for controlling infectious disease as the first active hospital in this field in Ireland - Setting up and developing national mother infant health management - Integrative medical and surgery plan 	<ul style="list-style-type: none"> - Providing wireless services related to telecommunication - Having integrative complaint management plan - Providing wireless services for partnership to educate hospitalized patients
Xuzhou Central Hospital China	<ul style="list-style-type: none"> - Stating the glories and certificates acquired by the hospital - Welcoming and inviting different medias for sending reports from hospitals - Publishing most important events, reporting hospital activities and expenses data in hospital magazine 	<ul style="list-style-type: none"> - Try to be the role model hospital for local and regional hospitals - Leading in implementing submitted plans by organizations and superior organizations - Introducing hospital as the leading hospital in providing charity services specially paying attention to WHO plans 	<ul style="list-style-type: none"> - Providing services with 3 visits after clearance for follow up - Providing extra services like transportation to the hospital, daily care and so forth. - Setting up non communicable disease campaigns to attract more patients - Asking physicians to provide specific consultancy services to active specialist groups in villages through educational plan - Creating VIP departments for specific patients like organizational managers and famous people 	<ul style="list-style-type: none"> - Developing communication with patients and other stakeholders with the hospital - Healthcare planning for patients before admission to after clearance - Enriching the culture of respecting patients and inducing healthcare personalization according to patients features - Planning continuous studies for patient satisfaction evaluation - Reducing the waiting time for patients expecting services

Table 1. Continued

Alberta children's hospital Canada	<ul style="list-style-type: none"> - Introducing the hospital as the leading center of providing services in the geographic region - Introducing past, present and future plans using the time capsule idea - Reporting and accurate financial audit and publishing annual reports 	<ul style="list-style-type: none"> - Partnership and developing volunteer plans by the hospital - Improving brain and nerve services for children - Setting up scientific conference - Installation of advanced medical equipment - Welcoming innovative ideas and plans through using suitable communication ways 	<ul style="list-style-type: none"> - Attracting financial resources through setting up sport plans and so forth. - Using colors and internal designs along with playground for children - Planning for family oriented services - Forming a unit for supporting patients and charity plans - Implementing cultural plans in hospital including shows, music and forth. - Selling products with hospital brand like T-shirt 	<ul style="list-style-type: none"> - Considering accommodation for patient relatives - Providing wireless internet, computer, video games and renting lap top to patients - Dedicating parking to patient families - Preserving privacy and safety for patients and families
Fiona Stanley Hospital Australia	<ul style="list-style-type: none"> - One of the biggest hospitals in the geographic region in Australia - Asset strategic management in the hospital - Providing third level services the best way possible 	<ul style="list-style-type: none"> - Designing the hospital in a natural landscape as a bonus for the hospital - Outsourcing support services and sometimes clinical by the hospital - Setting up conferences and meetings with medical organizations and universities in the field of research 	<ul style="list-style-type: none"> - Designing hospital based on energy efficiency standard as the 4 star hospital - Practical synergy with private sector with proximity - Forming service providing network with other hospitals in the geographic region - Providing clinical support to other hospitals and service providers 	<ul style="list-style-type: none"> - Providing patient oriented services - Separate emergency department for children and adults - Personnel's respective behavior with patients as a principle - Introducing patient feedback ways - Considering entrance lobby for patients
Hashemi/Nejad kidney center	<ul style="list-style-type: none"> - Stating glories and certificates of the hospital - Considering slogan for advertisement - Publishing articles and attending different congresses in order to improve scientific aspect of the hospital - Welcoming and inviting different medias for introducing to hospital 	<ul style="list-style-type: none"> - Establishing clinical development research center - Planning to be a role model hospital among other hospitals - Visiting the leading hospitals around the globe and gain valuable experiences - Forming partnerships with private sector in private and public framework 	<ul style="list-style-type: none"> - Completing the providing services chain in partnership with private sector - Implementing specific plans to attract human resources and preserving them - Taking part in sport and cultural programs to introduce the hospital better - Using color and designs for different departments - Creating specific departments for special patients 	<ul style="list-style-type: none"> - Creating a communication network with customers through Email, SMS and telephone. - Creating and implementing patient glorification in different stages of providing services - Creating a your voice department for more contact with patients - Providing free welfare services for dialysis patients according to the demand in the country - Creating a communication line for hospitalized patients to answer religious needs. - Providing services after clearance in order to develop follow up for patients
Shahid Rajaei Cardiology hospital	<ul style="list-style-type: none"> - One of ten biggest cardiology hospitals in the world - Scientific hub of cardiovascular disease in the country - Doing more than 10 heart implantation annually. - Gaining certificates and high rankings - Providing specific services to government officials 	<ul style="list-style-type: none"> - Creating health tourism department - Creating 4 research centers in one center and creating a knowledge based company - Hospital independency in attracting resources (independent budget row) - Having modern diagnosis medical equipments - Publishing 3 specific heart journals 	<ul style="list-style-type: none"> - Cooperating with Iran heart charity foundation - Setting up a genetic laboratory - Supporting practical research - Evaluating providing services and continuously improve the quality of the services - Developing sub specialty services for children according to the demand 	<ul style="list-style-type: none"> - Publishing magazine to inform patients and provide them with more information - Forming a customer communication unit - Visual and audio educations through media of heart hub of Iran in hospital site - Psychology clinic for educating and consulting patients before hospitalization, also for educating their supporter, hospitalized patients, free visitors and personnel.

Table 2. Specific Value, Variance Percentage, and the Cumulative Variance Percentage of the Identified Factors

Factor	Specific Value	Variance Percentage	5-Factor Cumulative Variance (%)
Relationship	5.2	16.34	16.34
Competitiveness	3.79	17.22	33.56
Image	4.26	14.53	48.09
Strategy	2.36	8.55	56.64
Identity	2.75	7.93	64.57

tion. Constantly informing customers on new services and products can promote brand image and increase the credit and value of new services.¹⁴

Among subfactors of *brand competitiveness*, “reducing the waiting time for receiving services” represented the highest factor loading. Focus on this concept has produced desirable results in the Yuzhu Hospital of China.¹⁵ Consistently, the study of Yasin et al also highlights the

Table 3. Factor Loadings From Exploratory and Confirmatory Analysis

Main Factors	Factors	Exploratory Loading Factor	Confirmatory Loading Factor
Identity	Choosing an attractive name	0.71	0.19
	Designing an appropriate logo	0.91	0.38
	Informing the vision, mission and values of the hospital	0.98	0.44
Image	Introducing accomplishments of the hospital	0.81	0.35
	Introducing modern medical equipment and related services	0.55	0.39
	Introducing hospital honors and awards	0.51	0.49
	Providing financial information	0.45	0.48
	Introducing events and new services	0.96	0.41
	Introducing the important hospital performance indices (like the number of beds, number of admission, hospital infections, patient satisfaction rate)	0.54	0.31
	Introducing human resources skills	0.43	0.16
	Training and empowering the employees	0.36	0.28
Competitiveness	Professional designing of the hospital	0.56	0.17
	Updating professional services	0.60	0.30
	Employing well known specialists	0.67	0.56
	Advertising the hospital services	0.60	0.27
	Setting a slogan for the hospital	0.53	0.48
	Innovation in services delivery	0.53	0.16
	Reducing patient waiting time	0.90	0.35
	Using the modern equipment	0.88	0.26
Strategy	Implementing continuous quality improvement plan	0.48	0.45
	Planning to treat patients before admission	0.84	0.15
	Avoiding development of services out of the hospital brand	0.64	0.11
	Setting well-known individuals for managing position	0.94	0.09
	Partnership with private sector	0.63	0.30
	Improving partnership with other public and private hospitals	0.71	0.31
	Providing information about the specialty of the practitioners working in the hospital	0.46	0.44
	Participating in charity programs	0.78	0.45
	Developing research projects for hospital performance improvement	0.74	0.38
	Providing appropriate training for patients	0.54	0.47
Relationship	Redesigning service delivery processes	0.51	0.32
	Providing sideline services such as transportation and home care	0.38	0.38
	Completing the diagnosis, treatment, and care chain based on the expertise in the hospital	0.92	0.23
	Communication with media	0.52	0.26
	Presence in social networks	0.59	0.12
	Appropriate addressing through implementation of signs in the city streets	0.56	0.45
	Providing patient-centered services	0.37	0.32
	Launching patient relationship office	0.92	0.22
	Assessing the satisfaction of patients and their families	0.42	0.47
	Using telecommunication technologies to advertise	0.42	0.44
Relationship	Enabling visit time setting by telephone or internet	0.82	0.19
	Launching an active website	0.42	0.35
	Emphasizing the social responsibilities of the hospital	0.44	0.27
	Protecting the privacy and security for patients and their families	0.49	0.49
	Specifying parking for patients' families	0.47	0.54
	Direct communication of hospital managers with the patients	0.38	0.29

Table 4. Goodness-of-Fit Indices Determined From Confirmatory Factor Analysis

CFI	AGFI	GFI	RMSEA	P	df	χ^2
0.799	0.732	0.842	0.022	.001	398	5604.963

importance of attention to competitiveness in creating opportunity for brand promotion.¹⁶

Among subfactors *branding strategy*, “partnerships with other public and private hospitals” received the highest loading. This observation is in line with previous studies emphasizing the importance of co-branding and brand alliances to promotion and establishment of a commercial brand.^{17,18}

Among subfactors of *relationship*, “creating a unit for relationship with customers (addressing patients’ problems and complains)” gained the highest factor loading. According to Chen and Myagmarsuren, the customer is the final evaluator of the product and services quality and the identity of the brand relies merely on clear emphasize for the customers potential needs.¹⁹ Thus, providing feedback channels to identify customer’s attitudes is crucial to promotion of a brand.²⁰ According to Kim et al good relationships with the customer is key to improving brand value and enhanced loyalty of costumers to a hospital brand entails relationship-oriented marketing.²¹ Sirisha and Babu also emphasize the importance of patients’ experience to hospital brand credit and recommend oral advertisement approach as a useful strategy in promote hospital brand.²²

Conclusions

The present study conceptualized the requirements of successful hospital branding in 5 major dimensions including *identity*, *image*, *competitiveness*, *strategy*, and *relationship*. Identification of the major dimensions of hospital branding may help hospital administrators and health policy-makers to develop effective brand promotion strategies in hospital industry.

Competing Interests

The authors declare no competing interests.

Authors’ Contributions

EA was involved in the study design, gathering the data, analyzing the data, and drafting the manuscript. MHM and MRM revised the manuscript. AAN revised analyzing the data. All authors have read and approved the final manuscript.

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