

## **Competitive Positioning in Public and Private Health Sector: Evidence from Iran**

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### **Abstract**

The present study is looking for a comparative study of Razi and Meymanat public and private psychiatric hospitals' competitive position in clients' minds, and determining the competitive position of public and private hospitals in improving their decision-making to enhance or modify themselves to the priorities of service recipients. The purpose of this study is practical. Also, this is comparative research. In this research type, the researchers gave the questionnaires to the two populations to obtain information about the population's distribution, characteristics, attitudes, and beliefs. The primary tool in this research is a questionnaire. To select the Clients, the simple random sampling method, to evaluate the questionnaire's questions the Likert scale and to describe and analyze the data in two descriptive and inferential statistical levels, the SPSS and Kolmogorov-Smirnov test and one-sample-test have been used. Also, in statistical analysis, the perceptual map technique has been used to draw Razi and Meymanat hospitals' position from clients' viewpoints and respond to the study's central question. Based on the results obtained through this study, there is a significant difference between the clients' viewpoint about Razi and Meymanat hospitals' competitive position. This study shows that Meymanat Hospital is located in a better position in all the fields compared to Razi Hospital. Based on the perceptual maps, both hospitals' brand positions from the viewpoint of Clients are located in a moderate position in the maps.

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## 1. Introduction

Healthcare provider centers (hospitals) have witnessed intense competition with many opportunities and threats in recent years. No health institution can provide all the possible services. But considering these circumstances, it seems that most of the present companies (if not all) will have to be market-oriented to achieve success in the future (Kotler and Keller, 2009; Trout, 2005) hospital scan by studying the strengths and weaknesses points and the opportunities in the market, adopt some strategies to achieve an appropriate competitive position. Currently, the hospitals are operating in a competitive environment where the quality of services provided in this industry increases. No hospital can provide the best services in all the fields. Also, a hospital cannot provide its services to all potential customers. Therefore, they should find a way to adopt a distinct strategy compared to other hospitals to provide better services. There are methods and techniques to create and develop distinct competitive positions in comparison with competitors. The positioning process helps a company select a position and maximize its chance of success (Porter 1996). To achieve the top position in the market, it is necessary to know the market, are our customers, and their needs (Kotler 2009). Positioning is a way into which every product has to step at the onset. It is probably so as today; customers are exposed to the gust of information and advertisements (Fiedler, 1997; Chen et al., 2008). Capturing a market depends on one's ability in understanding the market, customers, and their needs, as well as occupying an appropriate position in their minds (Trout, 2007; Kotler and Keller, 2009). In this research, we attempt to determine the competitive position of psychiatric hospitals in the public sector (Razi) and private (Meymanat) using the perceptual map technique and answer this question.

Each hospital has allocated what competitive position in the minds of Clients.

## 2. Literature review

Alberz, In his paper, Experiences in Competitive Product Positioning, Albers referred to Hotaling's research in 1929. In his research, Hotline found that competition for product positioning in an environment with common characteristics and spatial conditions could Lead to a kind of position classification (Albers, 2001; 1). Jack Trout describes positioning as follows: "Positioning is a game in which people prove their presence in the market" (Trout, 1965; 51). Positioning is the design of the product and the company's mental image so that the two have a prominent and visible competitive position in the minds of the target customers. (Kotler, 2009, 331). The three positioning strategies that marketers can use to change their consumer mindsets forcefully are: 1) Reverse positioning, 2) Branched positioning, and 3) Latent positioning. Jamil (2013) highlighted the concept of market intelligence, which "composes internal, sectorial (external, but correlated by internal organizational configurations) and external sources" to support decision-making and positioning strategies. Since information is the focal point of MI, it is essential to manage business information systematically. The challenge for decision-makers is not the availability of data; data may be widely available and easily accessed in the current digitalized age. Instead, the real challenge is to obtain objective and reliable results from the data. Typically, competitive data is mainly obtained from employees, competitors' websites, published information, third party interviews, trade association officials, and commissioned research (Fleisher, 2004; Xu et al., 2011)

Multidimensional Scaling (MDS), a decompositional multivariate analysis

technique, can map out consumers' perceptions in terms of brand personality. A perceptual map can be generated from the obtained responses using MDS (Mishra & Mohanty, 2013). The brands' perceptual mapping is based on the similarity/dissimilarity evaluation carried out by the respondents. To these ends, SPSS is widely used to combine the responses and create a perceptual map through aggregate analysis. It should also be noted that the MDS PROXSCAL routine creates distances based on a Euclidean scaling model of two dimensions (Mishra and Mohanty, 2013).

A perceptual map visually illustrates how to target customers view the competing alternatives in a Euclidean space, representing the market (Lilien et al., 2002; Dallakyan, 2014). It is constructed by the data reflecting consumer perceptions of brands in the market place (Dallakyan, 2014).

Furthermore, positioning is also a vital concept for the service industry as it leads to competitive advantage due to the attributes associated with service quality in customers' minds (Dash, 2015). Consequently, the growth and development of an enterprise mainly depend on satisfying and attracting customers. Perceptual mapping can visually display customers' perception of service companies' quality attributes and eventually help set the direction on the marketing activities by the service companies to ensure better service quality based on the standpoint of consumers (Dash, 2015).

Dastom et al. (2013) and Sa'atchian et al. (2015) highlighted the efforts to increase the relationship between the academic and sports industries to improve brand position in both sectors. Careaga (2017), confirmed the role of strategy, market research, and internal engagement in building a university brand. Rauschnabel et al. (2016) mentioned brand

personality management as a critical element in improving university brands. Rutter et al. (2017) found that while the brand personality trait of sincerity was common for all of the Higher Education Institutions, there was clear differentiation based on other traits, demonstrating that brand personality deepens understanding of HEI positioning.

Positioning most often refers to the maintenance or change of the firm's relative location in the network (Cheng & Havensvid, 2017).

Cooper et al. (2010) examined the competition of hospitals in the market with fixed prices. They found that this could lead to improved clinical quality. They performed the study using the heart attack mortality index. They concluded that the more competitive markets (i.e., the area where there are many hospitals) have greatly improved. The rate of Mortality has decreased for those living in competitive environments, with Gainor et al. (2010) examining the effect of competition on hospital outcome indicators, which found that approximately 67,000 people were discharged in 160 fluid hospitals. Patients discharged from hospitals were hospitalized in fierce competition Data analysis showed that competition could save lives without increasing the cost of patients. Patients discharged from highly competitive hospitals Were less expensive due to reduced length of stay.

### **3. Methodology**

The present study follows a comparative study of Razi public and private Meymant public psychiatric hospitals' competitive position in clients' minds using the perceptual mapping technique. The present study is descriptive research that seeks to collect real and detailed information about the phenomenon. This research is also comparative. In this research type, researchers give questionnaires to two communities to obtain information about

the community's distribution, characteristics, attitudes, and beliefs. The primary tool in this research is the questionnaires.

This study's statistical population includes those referred to Meymanat and Razi hospitals to receive medical and counseling services. We used a simple random sampling method to select the clients. The volume required for the study includes 384 clients who have referred to Razi and Miment hospitals. 430 questionnaires were distributed, and finally, 387 questionnaires were collected, all of which were complete and usable. In the present study, Cronbach's alpha statistic was used to find the internal consistency and validity, which was done in two steps. The local territory of this study is Razi and Meymanat psychiatric hospitals in Tehran, and its temporal territory is 2013.

The present study followed a comparative study of Razi and Meymanat public and private psychiatric hospitals' competitive position in clients' minds. Therefore, the objective of this study is practical.

The present research is descriptive, looking for collecting factual and detailed information of the desired phenomenon. Also, this is comparative research. In this research type, the researchers gave the questionnaires to the two populations to obtain information about the population's distribution, characteristics, attitudes, and beliefs. The primary tool in this research is a questionnaire.

This study's statistical population consisted of Clients to Razi and Meymanat hospitals to receive medical and counseling services.

In order to select the Clients, a simple random sampling method was used. In simple random sampling, each element of the desired population has an equal chance of being selected. This type of sampling is used for two main reasons:

- A) Simple random sampling is easily performed.
- B) Simple random sampling is more accurate compared to other samplings.

Thus, considering that the desired population consisted of Clients to these two hospitals is unlimited, in this study, to determine sample size, the following equation is used (Khaki, 2008).

$$n = \left( \frac{Z_{\alpha/2} \times \sigma}{d} \right)^2 = \left( \frac{1.96 \times .25}{.05} \right)^2 = 384$$

Thus, the research's size, including 384 clients, referred to as Razi and Meymanat hospitals. Since it was suggested that some of the questionnaires don't have the information needed for analysis and not returned, 400 questionnaires were distributed, and finally, 384 questionnaires were collected, which all were complete and usable.

In this study, to evaluate the questionnaire questions, the Likert scale was used, one of the most prolific behavioral sciences research scales. In a 5-point Likert scale, 1 = strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = strongly agree. Likert scale (Khaki 213, 2004).

### 3.1. hypotheses:

- H<sub>1</sub>:** Services delivery is better in Meymanat Private Hospital in comparison with Razi Hospital.
- H<sub>2</sub>:** The treatment process in Razi and Meymanat public and private psychiatric hospitals is different.
- H<sub>3</sub>:** The costs in Meymanat Hospital is significantly more than Razi Hospital
- H<sub>4</sub>:** The availability of services and doctors and consideration of the staff in public hospitals (Razi) is lower than in private hospitals (Meymanat).
- H<sub>5</sub>:** There are better facilities and equipment in Meymanat Hospital than Razi Hospital.

#### 4. Data analysis

In the present study, data analysis and description is done in two descriptive and inferential statistical levels, which are as follows:

##### 4.1. Descriptive statistics

To better understand the nature of the population used in the studied research and more familiarity with research variables, this data should be described before the analysis of statistical data. Also, statistical data description identifies the dominant model on them and explains the relationships between variables used in the study.

##### 4.2. Inferential statistics

To confirm or reject the research hypothesis, the following statistical methods in SPSS have been used.

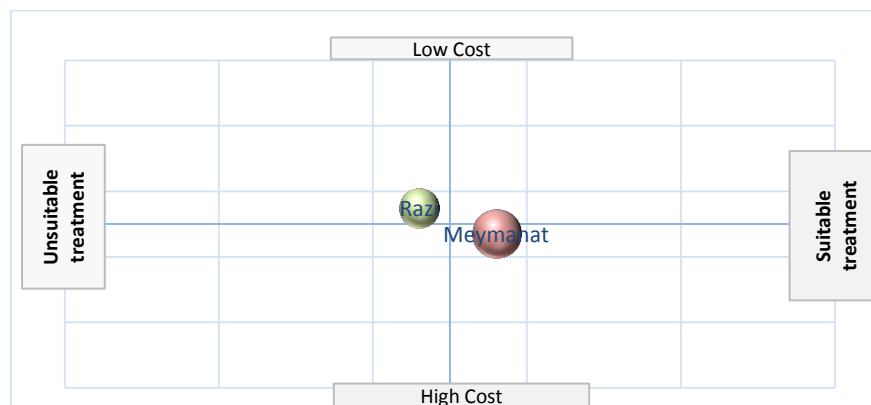
1. Kolmogorov–Smirnov test
2. One-sample t-test

Also, in statistical analysis, the perceptual map technique has been used to draw Razi and Meymanat hospitals' position from visitors' viewpoint and respond to the study's central question. In this step, to draw perceptual maps and by using secondary variables average related to each obtained central variable, SPSS software was used. Both hospitals' position was drawn on perceptual maps.

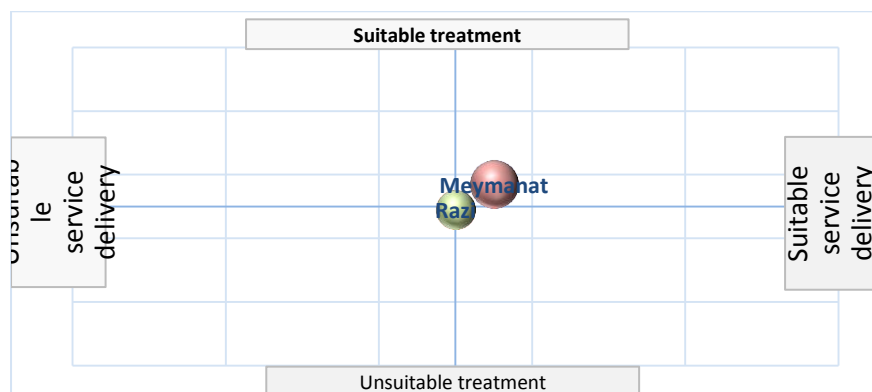
Perceptual map:

Finally, based on the study of five main variables, ten perceptual maps were drawn as following; two samples have been brought:

According to the above maps (Figures 1 and 2), Razi and Meymanat hospitals' current position was revealed. What is evident in all the maps is that both hospitals are not ideal for visitors' viewpoints. A difference can also be seen in both hospitals' brand position that would be analyzed using statistical tests.



*Figure 1: Perceptual map with respect to the treatment process and cost*



*Figure 2: Perceptual map concerning the service delivery and treatment process*

### 4.3. Data analysis

It is considering that the significance level for research variables is more significant than 0.05. So the H<sub>0</sub> hypothesis is confirmed, and it is concluded that the data collected for the variables are normal. If a variable is normal, the parametric test can be used, and if the variables are not normal, there is no permission to use parametric tests. Nonparametric tests should be used for testing the variables. By using the Kolmogorov-Smirnov test, it is concluded that all the research variables have a normal distribution, then using parametric methods for the research questions test. Now research hypotheses are evaluated by using paired comparison tests.

### 4.4. Main Hypothesis

The competitive position of the Meymanat Private Hospital is superior in comparison with Razi Public Hospital.

Since Sig of the variables pair is lower than 0.5%, there is a significant difference between the competitive position of Meymanat Private Hospital and Razi Public Hospital because lower bound and higher bound are positive. The competitive position of Meymanat Private Hospital is superior in comparison with Razi Public Hospital.

### 4.5. The first sub-hypothesis:

Services delivery is better in Meymanat Private Hospital in comparison with Razi Hospital.

Since the sig pair of variables is less than 0.05%, there is a significant difference between providing services in Mimint Private Hospital and Razi Government Hospital. Because the lower and upper limits are positive, providing services in the Meymanat private hospital is better than the Razi government hospital.

### 4.6. The second sub-hypothesis:

The treatment process in Razi and Meymanat public and private psychiatric

hospitals is different.

Since the sig pair of variables is less than 0.05%, there is a significant difference between the treatment process in Mimint Private Hospital and Razi Government Hospital. Because the lower and upper limits are positive, the Meymanat Private Hospital's treatment process is better than at Razi State Hospital.

### 4.7. The third sub-hypothesis:

The costs in proportion to the services received in Meymanat Hospital is significantly more than Razi Hospital.

Since the sig pair of variables is less than 0.05%, there is a significant difference between the amount of costs compared to the services received in Mimint Private Hospital and Razi Government Hospital. Because the upper and lower limits are negative, the cost of services received at Razi Government Hospital is higher than that of Meymanat Private Hospital.

### 4.8. The fourth sub-hypothesis:

The availability of services and doctors and consideration of Meymanat Private Hospital staff is lower than Razi Public Hospital.

Since the sig pair of variables is less than 0.05%, there is a significant difference between access to services and physicians and staff care at Miminat Private Hospital and Razi Government Hospital. Because the lower and upper limits are positive, access to services and doctors and staff care at Meymanat Private Hospital is higher than at Razi Government Hospital.

### 4.9. The fifth sub-hypothesis:

There are better facilities and equipment in Meymanat Hospital than Razi Hospital.

Since the sig pair of variables is less than 0.05%, there is a significant difference between better facilities and equipment in Miminat Private Hospital and Razi Government Hospital. Because the

lower and upper limits are positive, there are more better facilities and equipment in

Meymant Private Hospital than in Razi State Hospital.

**Table 1: Kolmogorov-Smirnov test for research variables**

Research variables	Meymanat Hospital test value	Razi Hospital test value
Services	0/835	0/118
Treatment process	0/765	0/177
Facilities	0/756	0/147
Cost	0/772	0/087
Staff	0/076	0/093

**Table 2: Summary of statistical results for the main Hypothesis**

Index	Mean	The number of population	Standard deviation	Standard error of the mean
The competitive position of Meymanat Private Hospital	3/2532	192	0/24777	0/01788
The competitive position of Razi Public Hospital	3/0872	192	0/22102	0/01595

**Table 3: Summary of paired comparison test results of the first secondary Hypothesis**

Services delivery of Meymanat Private Hospital- Services delivery of Razi Public Hospital	paired comparison					T	Degree of freedom	A significant number (sig)
	Mean	Standard deviation error	The mean standard error	Confidence interval %95 Difference				
				Lower	top			
0.27902	0.47081	0.03398	0.21200	0.34604	8.212	191	0.000	

**Table 4: Summary of paired comparison test results of the second secondary Hypothesis**

The treatment process of Meymanat Private Hospital- The treatment process of Razi Public Hospital	paired comparison					T	Degree of freedom	A significant number (sig)
	Mean	Standard deviation error	The mean standard error	Confidence interval %95 Difference				
				Lower	Top			
0.99688	0.58551	0.04226	0.91353	1.08022	23.592	191	0.000	

**Table 5: Summary of paired comparison test results of the third secondary Hypothesis**

The costs in proportion to the services received in Meymanat Private Hospital- - The costs in proportion to the services received in Razi Public Hospital	paired comparison					T	Degree of freedom	A significant number (sig)
	Mean	Standard deviation error	The mean standard error	Confidence interval %95 Difference				
				Lower	top			
0.73958	0.54258	0.03916	0.81682	0.66235	18.887	191	0.000	

**Table 6: Summary of paired comparison test results of the fourth secondary Hypothesis**

The availability of services and doctors and consideration of the staff in Meymanat Private Hospital- - The availability of services and doctors and consideration of the staff in Razi Public Hospital	paired comparison					T	Degree of freedom	A significant number (sig)
	Mean	Standard deviation error	The mean standard error	Confidence interval %95 Difference				
				Lower	Top			
0.27225	0.34123	0.02463	0.22368	0.32083	11.055	191	0.000	

Table 7: Summary of paired comparison test results of the fifth secondary Hypothesis

The facilities and equipment in Meymanat Private Hospital- The facilities and equipment in Razi Public Hospital	paired comparison			Confidence interval %95 Difference		T	Degree of freedom	A significant number (sig)
	Mean	Standard deviation error	The mean standard error	Lower	Top			
				0.29367	.39790			

## 5. Conclusions

Based on the results obtained through this study, there is a significant difference between clients' viewpoints about Razi and Meymanat hospitals' competitive position. Meymanat Hospital is located in a better position in all the fields in comparison with Razi Hospital.

The maximum distance between Razi and Meymanat hospitals is in two dimensions of the treatment process and cost. This shows that Meymanat Hospital has strong points in these two dimensions, an opportunity for this hospital. It should be noted that the cost dimension has been calculated in proportion to the services received. Also, Meymanat Hospital achieved a better position by creating a competitive advantage in the process of providing services dimension, such as giving turn method, response speed to patient's needs, the staff behavior and the availability of doctors and in contrast, Razi Hospital doesn't have an appropriate situation in comparison with Meymanat Hospital. It can be said that it has a weak point in these two dimensions. This hospital can also have more activity by adopting an appropriate strategy to improve the service delivery process and respond process management to the Clients and create a new position.

Razi Hospital with the improvement of services quality and updating the services provided and also cosmetic changes for example in the type of patients clothing and their separation in terms of the mental state due to the severity of the disease unity to raise the security factor of other patients and improvement of availability to

the doctors and the response speed to patient's needs can change and improve its position. Because according to the financial supports of multiple charitable centers and the lower costs of the private sectors, the Clients have a relatively high tendency to these centers, not because of service quality but only for low costs.

### 5.1. Managerial Implications

Meymanat Hospital has put its position at a better level by creating a competitive advantage in the service delivery process, such as the queuing method, the speed of responding to patients' needs, and the type of staff approach and the amount of access to doctors. On the other hand, Razi Hospital In this regard, is not in a good position compared to Meymant Hospital, and it can be said that it has a weakness in these two dimensions. By adopting an appropriate strategy, this hospital can improve the service delivery process and respond to clients and create a new position.

Razi Hospital can improve the quality of services and update the services provided, as well as changes in appearance, such as the type of patient coverage and separation of patients in terms of mental status due to the severity of the disease to increase the safety of other patients and improve access to doctors and speed Meeting the immediate needs of patients, change their position and reach a more desirable situation. Because of the financial support of many charities from this center and lower costs than private centers, the clients' desire is relatively strong, not because of the



services' level, but only because of this center's strong costs. However, small changes in the form of service delivery, the quality level of hotel facilities, and patient safety, as well as changes in the process of responding to patients' needs, can have significant changes in the competitive position of this well-known center in the minds of clients.

### 5.2. Future Researchers

for future research, it is suggested to other researchers that due to the wide range of marketing research and the importance of the competitive position for the status of service providers and help to develop appropriate strategies in various organizations, applied research using this technique and its various branches. Continue and expand in other organizations.

Future research could be done on these issues:

Evaluating effect of the working environment and the type of Clients on the mental health of employees in psychiatric hospitals in Tehran

Studying the privatization role in promoting the quality of the service in psychiatric hospitals

Evaluating the role of middle managers in improving the quality of specialized medical centers performance (the case study of Masih Daneshvari Hospital in Tehran)

Evaluating effect of conservative variables and working shifts on the particular section personnel satisfaction of public hospitals in Tehran

Comparative study of private and public hospitals employees satisfaction level in Tehran using perceptual map technique.

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