

# Factors Influencing Consumer Choice of Private Dental Care Provider in Saudi Arabia

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## Abstract

This research is intended to explore the factors influencing consumer choice of private dental care providers in Saudi Arabia. The current research is descriptive analytical. A purposive sampling technique was employed to recruit 220 consumers who visited a private dental care provider. This research showed that factors influencing consumers' choice (information sources, dentist attributes, dental practice attributes, and demographics) had a positive effect on consumers' choices of the private dental providers on the one hand. On the other hand, the demographic factor had no effect on brand. The paper contributes to previous research by adding to existing knowledge regarding the factors influencing consumer choice of private dental care provider in Saudi Arabia. The paper makes key recommendations towards studying the factors influencing the consumers' choice.

**Keywords:** information sources, dentist attributes, dental practice attributes, consumer choice, dental practice, Saudi Arabia

## 1. Introduction and Research Questions

A potential healthcare consumer, when looking for and deciding on a healthcare services provider, considers his or her problems or questions (Kotler, 2001). This problem recognition is often referred to as self-perceived need, self-assessed need, or subjective need, because it refers to the need that the patient identifies (Lundegren, 2012). Since perceived need or problem recognition initiates a potential healthcare consumer to actively pursue information to choose a healthcare provider (Kotler, 2001) and the consumer behavior of choosing a healthcare provider may differ according to perceived need, healthcare marketers and healthcare providers who seek to promote their practice might wonder how the process by which potential healthcare consumers' choose their provider differs according to their self-perceived need.

Perceived need varies from other needs such as normative need, expressed need, and relative need. Normative need compares health indicators to a social norm or predetermined desired standards. Expressed need, or utilization, is worked out according to the consumer numbers who actually used medical services. Relative need relates to the equity of services (Kuthy and Siegal, 2003). Furthermore, perceived need can be categorized as the need for both comprehensive and limited care. Perceived needs can be related to provider identified need and provider type: general practitioner vs. specialist. Patients whose perceived need is comprehensive care would be more likely to seek care from a general practitioner. These patients include regular check-up patients who are interested in their general health and wellbeing. Patients whose perceived need is limited care often identify their need according to professional opinion, and would be more likely to obtain specialist care. These limited care patients include emergency patients, because they perceive their need as being limited to the particular emergency situation. Choosing a dentist involves risk or uncertainty to dental consumers. According to Kotler, the amount of money involved in the decision, uncertainties, and the level of consumer confidence over the decision can contribute to the level of risk associated with the consumer decision (Kotler 2001, 98). When a dental consumer chooses a dentist, he or she deals with the uncertainty of the outcome or consequences of the choice. The dentist chosen may charge too much, give pain during the dental procedures, or not meet the consumer's expectations. All of these consequences can be experienced only after the decision. In a higher-risk decision-making such as dentist selection, consumers tend to rely more on informal information sources such as word-of-mouth (WOM) (Mangold et al., 1990, 79-84).

Limited care patients and comprehensive care patients may use different processes for choosing a dentist. However, there are strict limits to the amount of knowledge available about this issue. Given the current trend of decision-making upon the participants of this study, this work will try to investigate the determinants of the utilization of dental services among Saudi Arabian citizens in Jeddah City. The research problem investigated the main factors influencing consumers' decision-making concerning private dental providers in Jeddah city.

This research answered the following questions:

Q1 What are the main factors influencing consumers' decision-making concerning private dental providers in Jeddah city?

Q2 Does the information source (personal information, commercial information sources, and public information sources) influence consumers' decision-making concerning private dental providers in Jeddah city?

Q3 Do the dentist attributes influence consumers' decision-making concerning private dental providers in Jeddah city?

Q4 Do the dental practice attributes influence consumers' decision-making concerning private dental providers in Jeddah city?

Q5 Do the demographic characteristics of consumers influence their decision-making concerning private dental providers in Jeddah city?

The current paper examined factors influencing consumers' decision-making concerning dentist practices and how patients differ in terms of consumer behavior in selecting a provider; exploring reasons for the choice of a particular healthcare provider in a dental practice in order for healthcare providers and marketers to better promote their practice depending on their patient type.

## **2. Objectives of the Research**

The research objectives are:

- 1- Identify the main factors which influence the decision-making in selecting a private dental provider in Jeddah city.
- 2- Investigate the effect of certain factors (information sources, dentist attributes, dental practice attributes, and demographics) on the decision-making concerning Saudi private dental providers in Jeddah city.

## **3. The Research Rationale**

This research is designed to increase the body of knowledge by investigating the factors influencing consumers' decision-making concerning the selection of dental practices in the healthcare industry in Saudi Arabia. This research will contribute to the service marketing discipline in finding out the role of these factors (information sources, dentist attributes, dental practice attributes, and demographics) in delivering a better dental health service within the service sector. This study will attempt to contribute to the marketing, knowledge and health services marketing in particular by looking at the impact of information sources, dentist attributes, dental practice attributes and demographic dimensions and patient decision-making. This research will deal with a neglected area in KSA, which is the marketing of health services. It is considered as new research in the diffusion of marketing in the area of services to gain an understanding of the dental relevance effect and contribution of these factors to Saudi private sector dental practices; such contributions will be beneficial both academically and professionally.

#### **4. Research Methodology**

Developing an effective research design is one of the fundamental parts of any research project. The research design determines: research methodology, the primary data collection techniques (developing and designing the research questionnaire), research data analysis and interpretation methods, which all affect the way the research aim and objectives are realized.

This study consists of descriptive analytical research of the relationships that may exist between dependent and independent variables as per the research hypotheses. The research design constructed here is based on the hypotheses formulated. These hypotheses were formulated inductively using the researcher's observation and from the literature. The descriptive part describes and identifies the research factors, which constitute factors influencing patient's decision-making components in Saudi dental private sector hospitals. In the analytical part, the research model is being tested through examining the relationship between the factors influencing patient's decision-making components in Saudi dental private sector hospitals in order to explore how far patients perceive these factors when making their decisions regarding the purchasing of these services.

##### *4.1 The Research Population*

The research population consists of all the consumers who visit private dental divisions at the big private hospitals of more than 150-bed capacity in the city of Jeddah/KSA. The population in this research is defined as all the dental divisions in the private hospitals of Jeddah city. The numbers of dental clinics included in this research as a research population were four hospitals (represented in their dental division). The research population consisted of all the consumers who have visited any private dental clinic in these hospitals in 2015. The average monthly visit was 8112. Therefore, all the dental consumers who were called and invited to participate in the research survey were 360, and the respondents amounted to 220, which is my study sample.

##### *4.2 Primary Data Collection Methods*

In this research, a quantitative approach is used for the purpose of gaining a comprehensive picture of the issues in question. The research used questionnaire techniques to collect the primary data. The research questionnaire was designed based on previous empirical literature. The current research used the questionnaire as the primary data collection method. The components of factors (cultural, social, personal, psychological and information availability) were measured on a 5-point Likert-scale ranging from very important (5) to not important at all (1). The type of questions used in constructing the questionnaire were the ranking type. A ranking question asks the respondent to place items in a rank order so as to determine their significance to the respondent.

The researcher in this study tried to ensure that the questionnaire's length would not limit respondents from fully filling out the questionnaire. The approximate timescale for completing the questionnaire was between 15 and 20 minutes, which was ensured in this study.

After the questionnaire was constructed, the next step was to include an introductory paragraph to explain to respondents the survey's purpose and to encourage a high response rate. The cover letter used in this research attempts to motivate the respondents to answer the questions very seriously. The letter explained the purpose of the research, clarified its importance and the significance of filling out the questionnaire, and assured the respondents that strict privacy would be observed with regard to information provided. In general, the cover letter for a drop and collect questionnaire needs to be more detailed than the introductory statement in a personal interview.

#### *4.3 Research Hypotheses*

1. There is a significant relationship between personal information sources of the patients and decision-making regarding selecting a private dental provider in Jeddah.
2. There is a significant relationship between public information sources of the patients and decision-making regarding selecting a private dental provider in Jeddah.
3. There is a significant relationship between commercial information sources of the patients and decision-making regarding selecting a private dental provider in Jeddah.
4. There is a significant relationship between dentist attributes of the patients and decision-making regarding selecting a private dental provider in Jeddah.
5. There is a significant relationship between dental practice attributes of the patients and decision-making regarding selecting a private dental provider in Jeddah.
6. There is a significant relationship between variable demographic characteristics of the patients and decision-making regarding selecting a private dental provider in Jeddah.

## **5. Results and Discussion**

### *5.1 Results*

Table 1. Frequency and Percentage for Demographic Information

<b>Variable</b>		<b>Frequency</b>	<b>Percentage</b>
<b>Age</b>	Under 20	20	9.1
	20-30	96	43.6
	31-40	60	27.3
	41-50	40	18.2
	Over 50	4	1.8
	Total	220	100.0
<b>Gender</b>	Male	148	67.3
	Female	72	32.7
	Total	220	100.0
<b>Nationality</b>	Saudi	160	72.7
	Non-Saudi	60	27.3
	Total	220	100.0
<b>Educational level</b>	Secondary school or less	64	29.1
	Bachelor's degree	112	50.9
	Masters degree	28	12.7
	Doctoral degree	16	7.3
	Total	220	100.0
<b>Do you have a dental insurance</b>	Yes	68	30.9
	No	152	69.1
	Total	220	100.0
<b>Income level</b>	2000SR-5000SR	76	37.5
	Above 5000-10,000SR	60	27.3
	Above 10,000-20,000SR	60	27.3
	Above 20,000SR	24	10.9
	Total	220	100.0

Table 1 shows that:

1. The highest percentage for "Age" reached (43.6%) for age category 20-30years, but the lowest percentage reached (1.8%) for age over 50.
2. The highest percentage for "Gender" reached (67.6%) for male, but the lowest percentage reached (32.7%) for female.

3. The highest percentage for “Nationality” reached (72.7%) for Saudi, but the lowest percentage reached (27.3%) for non-Saudi.
4. The highest percentage for “Educational Level” reached (50.9%) for Bachelor’s degree, but the lowest percentage reached (7.3%) for Doctoral degree.
5. The highest percentage for “Do you have dental insurance” reached (69.1%) for no, but the lowest percentage reached (30.9%) for yes.
6. The highest percentage for “Income Level” reached (34.5%) for 2000SR-5000SR, but the lowest percentage reached (10.9%) for above 20,000SR.

### 5.2 Hypotheses Test

There is a significant relationship between information sources of the patients and decision-making regarding selecting a private dental provider in Jeddah.

To verify the hypothesis, a multiple regression equation has been applied to study the impact of the sources of information to make a decision regarding choosing a dental provider.

Table 2. Result of regression for relationship between information sources of the patients and decision-making regarding selecting

<b>Independent variables</b>	<b>Beta</b>	<b>T</b>	<b>Sig.</b>	<b>R</b>	<b>R Square</b>	<b>F</b>	<b>Sig.</b>
<b>Personal Information</b>	0.19	2.43	0.02	0.28	0.08	6.32	0.00
<b>Commercial Information Sources</b>	0.16	1.98	0.05				
<b>Public Information Sources</b>	0.15	1.61	0.11				

Table 2 shows there is a significant positive relationship between information sources of patients and decision-making regarding selecting a private dental provider in Jeddah, where the values of (R, R Square, F) reached (0.28, 0.08, 6.32), Sig.(0.00). Therefore, the general hypothesis is accepted.

1. There is a significant relationship between dentist attributes of the patients and decision-making regarding selecting a private dental provider in Jeddah.

To verify the hypothesis, a multiple regression equation has been applied to study the impact of the dentist attributes to make decisions while choosing your dental provider.

Table 3. Result of regression for relationship between dentist attributes of the patients and decision-making regarding selecting a private dental provider in Jeddah

Independent variables	T	R	R Square	F	Sig.
Dentist attributes	1.8	0.12	0.01	3.26	0.05

Table 3 shows there is a significant positive relationship between dentist attributes of the patients and decision-making regarding selecting a private dental provider in Jeddah, where the values of (R, R Square, F) reached (0.12, 0.01, 3.26), Sig.(0.05). Therefore, the general hypothesis 2 is accepted.

**3-** There is a significant relationship between dental practice attributes of the patients and decision-making regarding selecting a private dental provider in Jeddah.

To verify the hypothesis, a multiple regression equation has been applied to study the impact of the dental practice attributes to make decisions while choosing a dental provider.

Table 4. Result of regression for relationship between dental practice attributes of the patients and decision-making regarding selecting a private dental provider in Jeddah

Independent variables	T	R	R Square	F	Sig.
Dental practice attributes	3.00	0.20	0.04	9.00	0.00

Table 4 shows there is a significant positive relationship between dental practice attributes of the patients and decision making-regarding selecting private dental provider in Jeddah, where the values of (R, R Square, F) reached (0.20, 0.04, 9.00), Sig.(0.00). Therefore general hypothesis 3 is accepted.

This part includes results of the study depending on the impact of personal variables on the answers of the respondents:

**Gender:** In order to study domains due to gender variable, T-test was applied; Table (4-10) shows that.

Table 5. Result of T-test on domains (information sources, dentist attributes, dental practice attributes) due to gender

Domain		Mean	S.D	T	Sig.
Information Sources	Male	4.26	0.55	0.82	0.41
	Female	4.18	0.91		
Dentist Attributes	Male	3.95	0.79	1.63	0.11
	Female	3.75	0.98		
Dental Practice Attributes	Male	3.90	0.70	1.60	0.09
	Female	3.70	0.96		



Table 5 shows the T. values for the information sources, dentist attributes, dental practice attributes, according to gender (0.82, 1.63, 1.63), by Sig. (0.41, 0.11, 0.09). This indicates there are no significant differences due to gender.

### *5.1 Research discussion*

Two hundred and twenty patients from different private hospitals in Jeddah city were included in this research. The research sample consists of males and females, with the number of males being approximately double the number of females. The research sample also used different demographic data, e.g. nationality, income level, and education level.

Analysis shows that the information sources influence the purchasing decision-making of the target market. The information sources in this research consist of three types, namely personal, commercial, and public. These results are consistent with Coe's (2013) study, where he found that the comprehensive care patients are more likely to use information sources. The research also concurs with Al-hussyeen's (2009) study, where she found that personal information plays a role in attracting new patients. Also Anastasios et al. (2001) found that patients are satisfied regarding information in oral health.

The dentist attributes in this study were significant, and the researcher found that there is a significant relationship between dentist attributes and patient decision-making. The results are supported by Coe (2013) on dentist attributes. Al-hussyeen (2009) found that satisfaction with dental care was found to be significant, with high quality of dental care. Also, Anastasios(2001) found that empathy and assurance were placed at the top of the patients' priorities.

Dental practice attributes have a significant influence on consumer behavior. These findings are consistent with other researchers' findings. Coe (2013) found that one of the most valuable factors in choosing a dental service was that the dental practice must be covered by an insurance network, and have a convenient physical location. Additionally, Newborn (2006) found that there is an importance in the attribution of the concept of duty and culpability. Moreover, Al-hussyeen (2009) found that convenient appointments, friendly staff and modern dental clinics have a significant influence when choosing a dental practice.

Lastly, most of the literature review results were consistent with the current research. Besides that, the previous studies were conducted in different countries around the world, which means there are some similarities with different cultures regarding this topic.

## **6. Conclusion and Recommendation**

The consumers / patients who visit dental clinics normally search for good, sufficient information from different sources; this is because dental services have many providers in Jeddah city, representing several sectors and different levels of quality and prices.

Dental practices in Jeddah city used many sources in order to promote their services, because of the huge competition in the field. Regardless, most dental clinics do not use TV advertisements. This is due to the high cost of advertisement and the availability of other useful sources.

The dentist attributes play a crucial role during the process of choosing a dental provider by patients. This is due to the patient logically paying attention to the quality of care, which represents the technical quality in different aspects (quality, appearance, reputation). Therefore, dental practices must pay attention to the above-mentioned aspects. In particular, there is huge competition in the Jeddah dental market.

The dental practice attributes also play a crucial role during the process of choosing a dental provider by patients. This is due to the patient logically being attracted by certain factors representing satisfaction and comfort, which is shown by different aspects (convenient office times, waiting times, and staff attitude). Therefore, dental practices should pay attention to the above-mentioned aspects.

## **7. Limitations and Avenues for Future Research**

Although this research provides useful and valuable insight, there are some limitations, which may limit generalizability:

1. Distributing the research questionnaire suffered from certain problems, because of the dental practices being in different places in Jeddah city.
2. Some research respondents refused to accept the research questionnaire.
3. This research has been conducted in a single health service industry, dental practices, which implies that the research results can only be considered to be generalizable to general private sector hospitals in Jeddah city.

In conducting this research, it was clear that several areas could benefit from further research and future study. These areas include:

1. Studying other health service sectors, e.g. public sector (MOH hospitals or Armed Forces Hospitals) in order to develop a model that represents the health service sector more generally, rather than representing the dental practices alone.
2. The same model could be used in a comparative study between the dental services and private hospitals in general.

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## Appendix

### Research Questionnaire

#### Section One: Demographic Data

This section is designed to collect general information about the respondents and their hospitals. Please tick the appropriate box in the following questions:

##### 1.1 Age

Under 20                       20-30                       31-40                       41-50                       over 50

##### 1.2 Gender

Male                                       Female

**1.3 Nationality**

- 
- Saudi
- 
- Non-Saudi

**1.4 Educational Level** Secondary school or less

- 
- Bachelor's degree
- 
- Masters degree
- 
- Doctoral degree

**1.5 Do you have dental insurance**

- 
- Yes
- 
- No

**1.6 Income Level**

- 
- 2000SR-5000SR
- 
- Above 5000-10,000SR
- 
- Above 10,000-20,000SR
- 
- Above 20,000SR

**Section Two:**
**General question**

When you first decided on this provider, were you seeking care from.....

- 
- A specific dentist who practices in the practice
- 
- 
- The dentistry practice in general

From your point of view, how significant is your agreement of each of the following statements. You are kindly asked to mark (X) in the appropriate box that expresses your viewpoint on the following:

Degree of Agreement	important at all	Not very important	Neutral	Important	Very important
	1	2	3	4	5

<b>1- Information sources</b> In this section, we are asking about information sources you used when selecting the dental provider. Please rate the source only if you used it.					
<b>- How important were the following personal information sources to your dentist selection process?</b>					
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Family					
Friends					
Former or current patients					

Other dentist					
Physical or other healthcare professional					
<b>- How important were the following commercial information sources to your dentist selection process?</b>					
Yellow Pages					
Clinic website					
Magazine/newspaper advertisement					
Brochure/pamphlet					
Television					
<b>- How important were the following public information sources to your dentist selection process?</b>					
The internet					
Magazine/newspaper articles					
Insurance directory					
Dental associations					
City or county health services					
Heard doctor speak					
<p style="text-align: center;"><b>3- Dentist attributes</b></p> <p><b>In this section, we are seeking information about dentist or characteristics that you might have considered important in selecting your dentist. Please note that we want to know about your dentist selection process BEFORE your first visit.</b></p>					
<b>- Please indicate how important each attribute listed below was in helping you decide to come to the dental provider.</b>					
Quality of care					
Dentist's concern for patients/sensitivity					
Personal appearance of the dentist					
Reputation of the dentist					
Dentist provides personal attention to diagnosis and aftercare					
Professional competence of dentist					
Dentist uses most up-to-date techniques					
Explanation of treatment/your participation in the treatment decision					
Number of years experience of the dentist					
The dentist is in my insurance network					

<b>Dental practice attributes</b>					
<b>In this section, we are seeking information about dental office attributes or characteristics that you might have considered important in selecting your dentist. Please note that we want to know about your dentist selection process BEFORE your first visit.</b>					
Atmosphere/appearance of the clinic					
Attitude/helpfulness of staff					
Reasonable waiting time to get appointments					
Price					
Convenient physical location					
Convenient office hours					
Whether the dentist accepts credit cards or provides credit					
Ability to get appointment at convenient times					
Time spent waiting in office					
Whether the dentist's office will prepare insurance forms					
Assigned dentist					
Dentist provides you estimate of fees					
Parking is convenient					