


Influence of Brand Image and Service Quality, and Word of Mouth for Selecting Fertility Clinic

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Article information	Abstract
<p>Article history: Received: April 01st, 2024 Revised: September 10th, 2024 Accepted: October 01st, 2024</p> <p>Corresponding author: Name: Andry Address: Jl. Arjuna Utara, Kebon Jeruk Jakarta E-mail: andry@esaunggul.ac.id</p> <p>International Journal of Nursing and Health Services (IJNHS), Volume 7, Issue 5, October 20th, 2024 DOI: 10.35654/ijnhs.v7i5.798 E-ISSN: 2654-6310</p>	<p>Background: Several factors influence the patient's decision in choosing a hospital such as Brand Image, Service Quality and also from family/friends' recommendations through Word of Mouth. Objective: The study aimed to analyze the impact of Brand Image and Service Quality on fertility clinic selection decisions with Word of Mouth as an intervening variable. Method: A cross-sectional study was applied in this study. We involved 99 respondents using the purposive sampling technique. The statistically analysis using the path analysis regression model. Result: This study found that Brand Image had no significant influence on the Word of Mouth and did not affect the Clinical Selection. Word of mouth did not significantly mediate the influence of the Brand Image on the Clinic Selection Decision. Conclusion: specific aspects of brand image and service quality such as success rates, patient care, and facilities. Recommendation: hospitals should improve all dimensions of service quality in order to improve the good patients experience. The future study could add some factors associated with intention to use the fertility clinic</p> <p>Keywords: brand image, services quality, fertility clinic, word of mouth</p>
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BACKGROUND

The selection of a fertility clinic is a critical decision for individuals and couples facing fertility issues. Factors such as brand image, word of mouth, and service quality play pivotal roles in this decision-making process (1).

According to recent reports by WHO, approximately 17.5% of the adult population worldwide, or roughly 1 in 6 people, experience infertility at some point in their lives (2). This figure underscores the urgency of increasing access to affordable, high-quality fertility care for those in need.

A clinic's reputation, as shaped by its brand image and the experiences shared through word of mouth, can significantly influence patient trust and confidence. Moreover, the quality of service, including the emotional support and responsiveness of the clinic staff, directly impacts patient satisfaction and their likelihood of recommending the clinic to others (3).

Brand image is defined as the customer's perception of a brand based on their interactions, which can evolve over time without necessarily involving a purchase or use of the product or service (4). It encompasses the mental real estate a brand owns in the customer's mind and is considered against competitive brands.

A positive brand image is crucial as it reflects shared values with consumers, which is a primary reason for their loyalty (5). In the context of fertility clinics, a strong brand image could influence potential patients' perceptions and preferences, making it a significant factor in their selection process.

Another factor such as service quality. Service quality in the context of fertility clinics involves responsiveness, which implies receiving, assessing, and swiftly replying to customer requests, feedback, questions, and issues. High service quality is indicative of a clinic's ability to meet or exceed patient expectations, significantly impacting their satisfaction and loyalty. For fertility clinics, where emotional support and understanding are paramount,

service quality can be a decisive factor for patients when selecting a clinic (6).

A word of mouth (WOM) becomes another factor associated with decision to select the healthcare services. Word of mouth (WOM) refers to the oral imparting of information from one person to another (7). In marketing, it's a powerful tool that involves customers talking about a company's product or service, significantly influencing others' purchasing decisions (8). WOM is particularly effective among younger generations who rely on recommendations from friends, family, and influencers (9).

Despite the recognized importance of brand image, word of mouth, and service quality in selecting fertility clinics, there exists a gap in comprehensive studies that holistically examine these factors together. Most research tends to focus on individual aspects, such as the clinical success rates or the technological advancements of fertility treatments, without adequately considering how these broader marketing and service quality elements influence patient choice.

This gap highlights the need for more integrated research that explores the combined effect of brand image, service quality, and word of mouth on fertility clinic selection, providing deeper insights into patient preferences and decision-making processes.

OBJECTIVE

The study aimed to analyze the impact of Brand Image and Service Quality on fertility clinic selection decisions with Word of Mouth as an intervening variable.

METHOD Design

This study was a quantitative study with the cross-sectional approach to examine the impact of Brand Image and Service Quality on fertility clinic selection decisions with Word of Mouth as an intervening variable. The study was conducted at fertility clinic B, Hospital "S", Palembang, Indonesia

Sample, sample size, & sampling

technique

Samples in this study was all patients from at fertility clinic B, Hospital "S", Palembang. Ninety patients were recruited in this study based on the Slovin formula.

$$n = N / (1 + (N \times e^2))$$

$$n = 132 / (1 + (123 \times 0,05^2))$$

$$n = 99$$

The inclusion criteria of this study such as 1) patients who are already patients of Fertility Clinic B; 2) Patients who are willing to be respondents; and 3) Patients who are able to use technology well because the questionnaire will be distributed digitally. Patients who suit to use another clinic would be excluded in this study. Another sample who are not familiar with digital technology also excluded.

Data Collection process

The researcher gathers the data within 1 month. The process of data collection was conducted by the researcher and assisted by the research assistant. We gather the information from respondents using the questionnaire. The selection of the 4-1 range is done on the grounds that the middle answer category has a double meaning.

The questionnaire is structured on the basis of each dimension adopted by the individual expert, some instruments were used to measure the variables and had been validated by 30 respondents. Details of the reliability of instruments by showing the Cronbach- alpha would be explained below.

Instrument for data collection

Brand image questionnaire. This instrument was used to measure the perception of patient on fertility clinic "B". This instrument has three dimensions 1) product, 2) enterprise, and 3) humanity. This questionnaire consisted of 3 items with Likert scale approach including strongly agree=4, agree=3, disagree=2, strongly disagree=1. Three questionnaires with 15 total scores. The high score indicated with the good of brand image and the lower score was the bad brand image of this hospital

Service quality questionnaire. This questionnaire was used to measure the perception of patients on services perceived. This questionnaire consisted of 5 dimensions such as 1) tangible, 2) reliability, responsiveness, assurances, and empathy. The total item questionnaires were 12 items with Likert scale approach including strongly agree=4, agree=3, disagree=2, strongly disagree=1.

Word of mouth questionnaire. This instrument was used to measure the word of mouth for selecting the fertility clinic "B". This instrument has two dimensions 1) provision of information, and 2) Excellence Promotion. This questionnaire consisted of 3 items with Likert scale approach including strongly agree=4, agree=3, disagree=2, strongly disagree=1. The total of 20 questionnaires with 100 total scores. The high score indicated with the good service quality and the lower score was the bad services quality of this hospital

Decision for selecting the clinic. This instrument was used to measure the decision for selecting the fertility clinic. This instrument has two dimensions 1) information search, 2) alternative evaluation, 3) product selection, and 4) post-purchase evaluation. This questionnaire consisted of 3 items with Likert scale approach including strongly agree=4, agree=3, disagree=2, strongly disagree=1. The total of 4 questionnaires with 16 total scores. The high score indicated with the higher opportunity to select the fertility clinic and the lower score was the lower opportunity to select the fertility clinic.

Analysis data

Descriptive statistics describe the respondent's answers. The descriptive analysis is used to give an overview of the respondents' perceptions based on the questionnaire. Based on the data obtained, it can be analysed on the basis of the respective variables of Brand Image, Service Quality, Word of Mouth and Selection Results. The normality distribution and heterogeneity

would be done before using the parametric statistic

Path analysis was used to measure the direct and indirect effect of independent variable and dependent variable such as:

1) Direct effect

- Substructure path coefficient 1. In this section we would analyze and describe the path of causal relationship of variables X1 and X2 to Z with the path equation $ZX1 + ZX2 + 1$
- Substructure path coefficient 2. In this section we would analyse and describe the causal relationship between the free variables X1, X2 and Z against Y with the path equation $\rho_{yx1} + \rho_{yx2} + \rho_{yz} + \epsilon_2$

2) Indirect effect

On this analysis would be known the indirect influence that describes the value of the intervening variable as a mediation with the function equation $\rho_{zx} \times \rho_{yz}$.

3) Total effect

Once the direct and indirect influence between the free variable and the intervening on the bound is known then the total influence is known with the ρ_{yx} + equation function ($\rho_{zx} \times \rho_{yz}$).

4) Determination testing

This test is performed to measure the contribution of a free variable to a bound variable by referring to the Adjusted R Square value with the formula $KD = r^2 \times 100\%$, as well as with the value obtained from the determination coefficient will be known residual value that describes the ability of a variable outside the variable studied in increasing the bound Variable. The formula used is: $\epsilon = \sqrt{1 - r^2}$.

RESULT

Characteristic of respondents

Table 1 described the characteristic of respondents. The result found that Women constitute the majority of respondents, with 92 individuals accounting for 92.9%. Men are a small minority, with 7 respondents making up 7.1%. The majority of respondents are in the 25-34 years age group, with 56

individuals representing 56.6%. The 35-45 years age group also has a significant number of respondents, with 41 individuals or 41.4%.

A small number have completed high school, with 4 individuals or 4%. The majority have a bachelor's degree, with 2 respondents representing 83.8%. Regarding the occupation status, housewives make up 23 respondents or 23.2%. Private officers are the largest occupational group, with 57 individuals or 57.6%. The entrepreneurs account for 19 respondents or 19.2%.

Existing patients are slightly more than half of the respondents, with 52 individuals or 52.5%. New patients make up the remaining 47 respondents or 47.5%

Table 1. Characteristic of respondents

No	Characteristic	N	%
1	Gender		
	Men	7	7.1
	Women	92	92.9
2	Age		
	17-24 years	0	0
	25-34 years	56	56.6
	35-45 years	41	41.4
	> 45 years	2	2
3	Education level		
	High school	4	4
	Diploma	41	12.1
	Bachelor	2	83.8
4	Occupation		
	Housewife	23	23.2
	Private officer	57	57.6
	Entrepreneur	19	19.2
5	Patient status		
	Existing patients	52	52.5
	New patients	47	47.5

The association of services quality, brand image, world of mouth on decision for the fertility clinic selection

Table 2 described the association between services quality, brand image, world of mouth on decision for the fertility clinic selection. The result found that the services quality, brand image and word of mouth in simultaneously are associated with decision for selecting the fertility clinic.

However, only for the partially association, only world of mouth has positive association with decision for selecting the fertility clinic. Two variables such as service quality and brand image have not association for decision for selecting the fertility clinic in this study.

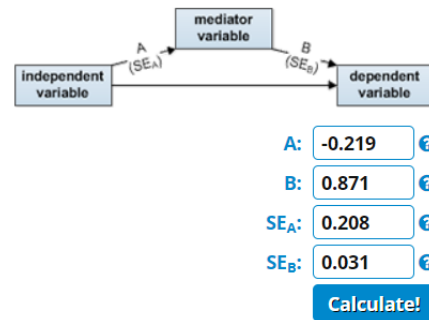
Table 2. The association of services quality, brand image, world of mouth on decision for the fertility clinic selection

Variables	B	Std error	t	p-value
Constant	14.19	.657	21.584	.000
Service quality	-.066	.063	-1.037	.302
Brand image	-.013	.010	-1.242	.217
Word of mouth	.428	.031	13.966	.000

The effect of word of mouth as the intervening variable of brand image on decision for the fertility clinic selection

The mediation effect test is done using the sobel test method. Basically, the sobel test is a special t test that tests the effect of inserting intervening variables in a model. The calculation of sobel test such as:
 $A = -0.219$ $S_a = 0.208$
 $B = 0.871$ $S_b = 0.031$

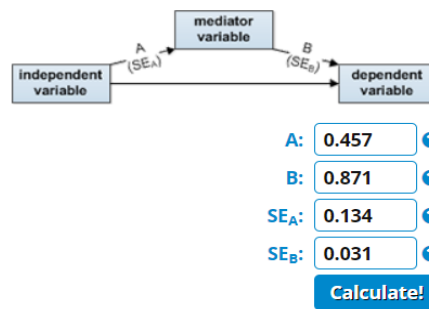
The results of the calculations obtained from the sobel test results through the Sobel Test Calculation application obtain a significance value of 0.146. The value means greater than 0.05. This indicates that Word of Mouth does not significantly mediate the influence of Brand Image on the results of Clinical Selection Fertility B. The result implies that Brand Image has no indirect influence on Fertility B Clinic Selection Results.



A: -0.219
 B: 0.871
 SE_A: 0.208
 SE_B: 0.031
 Calculate!
 Sobel test statistic: -1.05214613
 One-tailed probability: 0.14636626
 Two-tailed probability: 0.29273251

The effect of word of mouth as the intervening variable of service quality on decision for the fertility clinic selection

The calculation of sobel test such as:
 $A = 0.457$ $S_a = 0.134$
 $B = 0.871$ $S_b = 0.031$



A: 0.457
 B: 0.871
 SE_A: 0.134
 SE_B: 0.031
 Calculate!
 Sobel test statistic: 3.38559788
 One-tailed probability: 0.00035512
 Two-tailed probability: 0.00071023

Based on the calculations obtained from the sobel test results through the Sobel Test Calculation application, a significance p-value of 0.0003. This indicates that word of mouth significantly mediates the influence of service quality on the fertility B clinical selection results.

DISCUSSION

The selection of a fertility clinic by patients is influenced by several factors, including the quality of services provided, the brand image of the clinic, and word-of-mouth recommendations. These factors are interconnected and play a crucial role in the decision-making process for patients seeking fertility treatments.

In this study service quality has not significantly difference decision for the

fertility clinic selection. Service quality is a critical determinant in the selection of a fertility clinic. Patients expect high-quality medical care, including the expertise of the medical staff, the success rates of treatments, and the overall patient experience.

High perceived service quality can lead to increased patient satisfaction, which in turn can influence the decision to choose a particular clinic (10-11). For instance, patients may evaluate the professionalism of the clinic staff, the attitude and sensitivity of the staff, the consistency of the staff throughout the treatment, and the provision of comprehensive consulting services and follow-up support (11).

Another variable also mentioned that there is not positive impact of brand image with decision for the fertility clinic selection. It was due to a market with many high-quality clinics, the brand image might not be as distinguishing a factor because several clinics may have similarly positive reputations

However, the brand image of a fertility clinic encompasses the public perception of the clinic's reputation, expertise, and trustworthiness. A strong and positive brand image can attract patients and is often built through successful treatment outcomes, patient testimonials, and the overall presentation of the clinic, including its marketing materials and online presence (10).

For instance, clinics that are well-regarded for their expertise, success rates, and patient care are likely to be more appealing to prospective patients (12).

Word of mouth (WOM) has a significant positive effect on the decision-making process for selecting a fertility clinic. This influence is rooted in the trust and credibility that personal recommendations carry, especially in the context of healthcare services, where the stakes are high and the decisions deeply personal.

WOM is highly valued because it comes from personal experiences. When friends, family members, or even online reviews share their experiences with a

fertility clinic, these narratives are perceived as more trustworthy and credible than traditional advertising (13-14).

Another study mentioned that the rise of online platforms has expanded the reach and impact of WOM. Online reviews and social media discussions allow for a broader exchange of experiences and opinions, influencing a wider audience (15). Positive online reviews can enhance a clinic's reputation, making it more attractive to prospective patients.

CONCLUSION

Fertility clinics may not always highlight success rates as a marketing point, they are a critical aspect of service quality that potential patients consider. Patient care and the quality of facilities are also significant factors that contribute to the overall brand image of a clinic. Word of mouth, whether through personal recommendations or online reviews, serves as an important intervening variable that can significantly influence the decision-making process for selecting a fertility clinic .

IMPLICATION

The interplay between brand image, service quality, and word of mouth creates a feedback loop that can either enhance or diminish the clinic's attractiveness to potential patients. For Fertility Clinic "B" in Hospital S Palembang, focusing on these areas can lead to:

- 1) Increased Patient Trust and Confidence: A strong brand image and high service quality assure patients of their choice, making them more likely to choose and recommend the clinic.
- 2) Higher Patient Acquisition and Retention Rates: Positive word of mouth, driven by exceptional service quality and a strong brand image, can attract new patients and encourage previous patients to return if needed
- 3) Competitive Advantage: Excelling in these areas can differentiate Fertility Clinic "B" from other clinics, making it a preferred choice for fertility treatments in the region.

LIMITATION

This study only used data collection tools in the form of questionnaires, so there was a possibility of bias in the answers obtained from respondents, namely that respondents tended not to fill in truthfully or only filled in based on ideal conditions.

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