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Exploring the role of patient satisfaction as a bridge between drug availability, medical equipment, and service quality towards patient loyalty: A study of hospitals in Pekanbaru

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Abstract

This paper shall assess how the Drug Availability, Medical Equipment, Function, and Trust affect the Patient Satisfaction and how they influence Patient Loyalty in Pekanbaru region hospitals. The current research was dictated by a quantitative methodology and Structural Equation Modeling (SEM) relying on SmartPLS 4. The sample size was 245 and the sample comprised of patients in the hospital of Pekanbaru. Perceptions of the service quality and patient satisfaction and loyalty were measured with the help of a questionnaire. The paper demonstrates that patient satisfaction, drug availability and trust is a critical factor in elevating patient loyalty, whereas patient satisfaction, drug availability and functionality have a major role to play in elevating patient loyalty. On the other hand, there was no significant influence on medical equipment. These results highlight the need to focus on service consistency and trust as a means of enhancing patient loyalty. This study ends up confirming the fact that patient satisfaction is one of the most important factors in establishing loyalty and the most significant parts are drug availability and trust of hospital services. The managerial implications of this study point to the fact that the hospitals must not ignore the importance of a smooth drug supply chain, quality of the medical equipment, better service functions and foster trust by means of constant communication and serviceability. Such results can be put to use by the decision-makers to enhance the quality of the provided services and sustain the patient loyalty.

Keywords: Drug availability, Function, Medical equipment, Trust, Patient satisfaction, Patient loyalty, SEM, SmartPLS

Introduction

Hospitals in an ever-competitive healthcare environment must deliver quality, sound healthcare services but equally produce a fulfilling and long-term patient experience. Maintaining a supply of drugs and medical equipments to ensure that the services are conducted at maximum capacity without compromising on the cost efficiency of operations in the hospitals is one of the primary challenges encountered in the Pekanbaru City. The contemporary patients are also characterized with high expectations of full-service, full-fledged service (one-stop service), where all medical requirements, such as medications, diagnostic facilities, and available therapy facilities, among others, are offered as a single, integrated system of service. In case of unavailability of prescribed pharmaceutical products or failures of medical equipment, the service experience is not constructive, which reduces patient satisfaction and loyalty (Nurcahyani and Kartikaningrum, 2020).

Phenomena observed in the field reveal that the facilitateability of the smooth supply chain of medicines and the maintenance of medical equipment is still a challenge to some hospitals in Pekanbaru. This phenomenon does not only affect the continuity of service but also the view of reliability among the patients towards the hospital. Past studies have shown that the level of satisfaction of patients towards the availability of drugs is very high. Asamrew et al. (2020) identified that availability of drugs is a key factor that determines inpatient satisfaction in Ethiopia, whereas Habte et al. (2023) established the fact that the completeness of the drugs at pharmacies positively correlates with patient satisfaction. Tikirk and Imbaruddin (2021) conducted research in Indonesia and found that the more patients had an easy experience with medication, the higher ratings they gave to the quality of hospital services. Most of these however were not in the context of Pekanbaru although the attributes of the pharmacy of the hospital in this setting differ heavily particularly in terms of the distribution, acquisition and access to the generic drugs.

Apart from medication, another factor that is

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significant also in establishing a sense of safety and trust in patients towards medical services are the completeness and functionality of medical equipments. Keay et al. (2015) emphasized that proper management of medical equipment may result in higher service quality and increased customer satisfaction, whereas Hussain et al. (2019) discovered that modern and well-kept medical facilities are one of the key predictors of patient satisfaction in general hospitals. Du et al. (2018) supplemented with the fact that the efficiency and patient satisfaction can be enhanced by optimal scheduling and utilisation of diagnostic tools. Nevertheless, scarcity of medical equipments and delayed maintenance in certain hospitals in Pekanbaru usually causes long queues and thereby reduces perceptions of the patients on the service provision.

In addition, service quality in hospitals cannot be measured by the availability of facilities only, but it also depends on the rate at which patients evaluate the functionality and dependability of services (functional dimension) and the degree of trust in medical staff and hospital (trust dimension). The dimension of function explains the effectiveness, accuracy, and stability of medical care, and the dimension of trust indicates how much customers trust the hospital in terms of professionalism and integrity, as well as its capacity to guarantee their safety (Nguyen et al., 2021). Such studies by Nguyen and Nguyen (2014) and Gul et al. (2023) actually affirm that the two dimensions are major sources of patient satisfaction and that they have long-term effect on patient loyalty. Therefore, high service quality does not only enhance subsequent satisfaction, but also fosters emotional attachment to be able to persuade the patients to revisit the same hospital again.

In other cross-country studies patient satisfaction is indicated to be a significant mediating variable between service factors and patient loyalty. As demonstrated by AlOmari and Hamid (2022), service quality and patient loyalty have an intermediate of patient satisfaction in Syrian hospitals and, in particular, treatment adherence. In Indonesia, a study by Dasopang et al. (2025) in terms of telehealth pharmacy also concluded that patient satisfaction and trust act as an intermediate between the service quality and patient loyalty. The same conclusion can be made based on similar findings by Shie et al. (2022), who indicate that trust is a psychological factor in enhancement of the association between quality of the services and loyalty. It means that the level of patient loyalty is built of the functional side of service operations only, as well as of the emotional experiences and confidence in the hospital.

Regarding the managerial aspect, the hospitals are in a dilemma between these issues: the need to ensure the availability of drugs, medical equipment and the need to be cost-effective, the risk of the drugs expiring, depreciation of medical equipment. Deriba et al. (2020) have mentioned that management orientation associated with excessively focusing on economic efficiency factors may adversely affect the quality of the patient experience because medical resources will become insufficient. Nevertheless, a patient loyalty is a long-term strategic resource that would be able to improve the reputation of a hospital and ensure its financial survival (Phonthanukitithaworn et al., 2020).

On this basis, there still exists a research gap that the interaction of drug availability, medical equipment, and the quality of the services, especially functionality and trust dimensions, can determine the patient loyalty by patient satisfaction especially applied to the Pekanbaru-based hospitals. Past studies have not touched much on the mediating role of patient satisfaction in the model as most of them have only looked at the direct relationship between the variables.

Thus, this research paper will be referred to as "Exploring the Role of Patient Satisfaction as a Criterion between Drug Availability, Medical Equipment, and Service Quality towards Patient Loyalty: A Study of Hospitals in Pekanbaru." The research will be done at some hospitals within Pekanbaru, in which at least 160 patients will be the respondents so that it can be generalized adequately. The studies are important to supply practical and empirical knowledge about the potential impact of quality of medical resources and services on patient loyalty. The findings will be anticipated to help the hospital management to design quality improvement initiatives towards long-term patient satisfaction and retention.

Practically this work is new because it incorporates drug availability and medical equipments as a dimension of service quality in a model that relies on both function and trust dimensions of the situation in the Indonesian hospitals and specifically in Pekanbaru. This is compared to the past studies, which tend to separate the physical and nonphysical factors in determining patient satisfaction. In practice, the findings of this study would be used by the policymakers and the management of the hospital to devise effective drug inventory control system and medical equipment maintenance and, nonetheless, continue to pay attention to the quality of patient experience. In such a way, this study does not only add to the theory formation related to patient satisfaction and loyalty but also offers the strategic guidelines of enhancing the competitiveness of hospitals locally and nationally.

Literature Review and Hypothesis Development

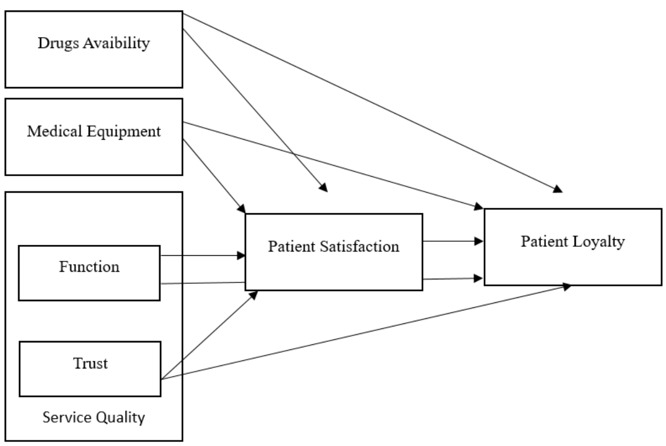

Figure 1. Conceptual framework

Drugs availability and patient satisfaction

Drug availability denotes the level of patient satisfaction involving healthcare services. Patients will be satisfied when the prescribed medication is always accessible and easy to get without the need to move out-of-the-heath care facility (Asamrew et al., 2020). On the other hand, delays or lack of access to medication decreases positive service perceptions and trust to the institution by the patient (Habte et al., 2023). The study by Tikirik and Imbaruddin (2021) reveals that there is a strong correlation between the level of satisfaction of inpatient patients and drug availability. Therefore, the greater the amount of availability of drugs, the greater the patient satisfaction.

H1: Drugs Availability has a positive effect on Patient Satisfaction

Medical equipment and patient satisfaction

Medical equipment completeness and quality have a significant role in patient satisfaction since proper medical equipment is a guarantee of patient safety, accuracy, and efficiency of medical procedures. Keay et al. (2015) highlight that full functionality and availability of equipments increases positive perceptions towards quality of services. Hussain et al. (2019) support this point and discovered that the factors that contribute to higher patient satisfaction include the modernity of medical facilities and equipment used. Also, optimum utilization of tools also helps in creating an ideal service experience among the patients (Du et al., 2018).

H2: Medical Equipment has a positive effect on Patient Satisfaction

Function (dimension Service Quality) and patient satisfaction

Function (Service Quality Dimension) and Patient Satisfaction The service quality dimension functional dimension is an expression of functional aspects of service, including reliability, efficiency, and service timeliness in addressing the needs of patients. Functional healthcare services present an impression of professionalism, as well as make the patients trust in the competence of the hospital (Nguyen & Nguyen, 2014). Nguyen, Tran, and Nguyen (2021) had demonstrated that the functional aspect of the quality of services plays a crucial role in patient satisfaction. Hence, the more effective the service functions were carried out, the more the patient satisfaction level would be achieved.

H3: Function (dimensi Service Quality) berpengaruh positif terhadap Patient Satisfaction

Emotion (dimensi Service Quality) and patient satisfaction

The aspect of emotion is a key dimension of service quality concerning the emotional experience of the receiver of services such as the empathy, friendliness, and attention of the medical personnel. The type of emotional attention also generates a perception of comfort and value which have a direct effect on patient satisfaction (Nguyen et al., 2021). Gul, Helvacioglu, and Saracli (2023) also revealed that such positive emotional impressions of contacts with medical staff are very effective to enhance patient satisfaction.

H4: Emotion (dimensi Service Quality) has a positive effect on Patient Satisfaction

Patient satisfaction and patient loyalty

Patient satisfaction is one of the predictors of patient loyalty. Patients who are happy with the services provided to them are likely to maintain the same service and recommend it to other customers (AlOmari and Hamid, 2022). According to the findings of the research conducted by Gul et al. (2023), satisfaction is an important factor in patient loyalty in community pharmacies, and Dasopang et al. (2025) also add that a high level of satisfaction leads to a greater patient trust and attachment to healthcare facilities.

H5: Patient Satisfaction has a positive effect on Patient Loyalty

Drugs availability and patient loyalty

Drug availability does not only enhance satisfaction but also makes patients loyal to healthcare facilities. The patients will find the service reliable and professional in case they can acquire the required medication whenever they need it (Habte et al., 2023). The study conducted by Tikirik and Imbaruddin (2021) affirms that there is a strong correlation between the availability of drugs and the willingness of patients to revisit the same hospital on the part of patients. Thus, regular availability of drugs is among the primary aspects of patient loyalty.

H6: Drugs Availability has a positive effect on Patient Loyalty

Medical equipment and patient loyalty

Availability of modern, safe, and well-maintained medical equipment gives the patients a good experience and increases the trust they have on the quality of service. According to Keay et al. (2015), the best medical equipment facilities contribute to increasing the reputation of hospital professionalism. Hussain et al. (2019) evidenced similar results, stating that sufficient medical facilities reinforce the desire of patients to stay loyal and visit the same place when they are in need of treatment. Therefore, patient loyalty increases with the superiority of the access to medical equipment.

H7: Medical Equipment has a positive effect on Patient Loyalty

Function and patient loyalty

Functional quality refers to the technical and performance issues of healthcare service provision, which include the timeliness, competency of health care staff, as well as the predictability of the service procedure. A high functional quality will result in a satisfying and trusting experience of using the healthcare facility, which eventually enhances the intentions of patients to use it again. As Nguyen and colleagues (2021) noted, a positive impact which transpires because of functional quality will lead to the growth of patient loyalty in terms of the perceived value of the service. Thus, the more functional quality the patients feel, the more they will be inclined at showed loyalty to the healthcare facility.

H8: Function has a positive effect on Patient Loyalty

Trust and patient loyalty

Trust is a relational and emotional aspect of service quality that is very important in the development of a long-term relationship between patients and care providers. Once patients believe that a given provider is integrity, honest, and competent, they will be willing to come back and refer other people to the health institution. Gul et al. (2023) discovered that the high levels of trust the male interaction with the healthcare institutions enhance the emotional bond of the patients with the institution and reinforce the loyalty levels to the highest level. Consequently, the more trust a patient has towards a healthcare administrator, the more chances he or she has to be loyal to the healthcare facility.

H9: Trust has a positive effect on Patient Loyalty

Method

This study employs a quantitative research methodology whereby their research design is explanatory. It is the purpose to test the direct effect of the availability of drugs, medical equipment, service quality (Function and Trust), patient satisfaction on patient loyalty and to test the effect of patient satisfaction as a mediating variable. The sample of the study is comprised of outpatient individuals who had applied healthcare services at the hospital. Purposive sampling was adopted, and the criteria were patients that had already been given medication prescriptions or medical device services at some hospitals in Pekanbaru. It was deemed that the sample size has to be 160 or more (Hair et al., 2019).

Research variables

1. X1 (Drugs available): is an indication of the availability of drugs at the hospital due to prescription.
2. X2 (Medical Equipment): indicates the presence of medical centers about the provision of diagnostic and treatment assistance.
3. X3 (Service quality): is comprised of the function dimension and the trust dimension.
4. M (patient satisfaction): how the patient rates the level of satisfaction with the service received as per expectations.
5. Y (patient loyalty): a intention to come back, good suggestions, and like to come to the same hospital.

Research instruments

The questionnaire was constructed on the basis of the adapted indicators of studies, including Ngunyen et al. (2021) on service quality, AlOmari and Hamid (2022) on patient satisfaction and loyalty, and Nguyen et al. (2021) on the perceived value. All the indicators were measured by a five-point Likert scale as strongly disagree (1) to strongly agree (5).

Data analysis techniques

The analysis of data in the paper was done by the Partial Least Squares Structural Equation Modelling (PLS-SEM) approach with SmartPLS software. The method was selected due to its capability to examine models that have a mediating variable, second-order construct, and moderate samples. The Service Quality variable in this research is the second-order variable that comprises four key dimensions, namely, function, emotion, social influence, and trust (Nguyen et al., 2021). The second-order methodological approach provides an opportunity of a more complex examination of service quality as a multidimensional construct that determines patient satisfaction and loyalty.

The analysis stages include:

1. Validating the measurement model (outer model) and establishing a convergent and discriminant validity and reliability of each indicator on the latent construct, comprising testing the service quality construct hierarchy.
2. In testing the structural model (inner model), the relationships between the latent variables in the conceptual model, including patient satisfaction and patient loyalty depending on the availability of drugs, medical equipment, and quality of services, will be evaluated.
3. To determine the effect that the three independent variables of patient satisfaction have on patient loyalty, testing of the mediation effect to test the association between the independent variables and patient loyalty.

PLS-SEM algorithm is believed to be appropriate to the situation of a health research due to its ability to describe the complicated cause-and-effect relationships among service quality, patient satisfaction, and loyalty (Gul et al., 2023; AlOmari and Hamid, 2022).

Result

Table 1. Descriptive analysis results

Name	Mean	Median	Scale min	Scale max	Standard deviation
DA1	4.151	4	1	5	0.98
DA2	4.433	5	1	5	0.969
DA3	3.824	4	1	5	1.049
DA4	4.212	4	1	5	0.992
DA5	4.155	4	1	5	1.03
DA6	4.049	4	1	5	0.997
DA7	4.086	4	1	5	1.056
ME1	3.984	4	1	5	0.934
ME2	3.992	4	1	5	0.977
ME3	4.233	4	1	5	0.943
ME4	4.106	4	1	5	0.988
ME5	4.171	4	1	5	0.987
ME6	4.167	4	1	5	0.965
ME7	4.163	4	1	5	1.033
SQ1	3.98	4	1	5	0.954
SQ2	3.988	4	1	5	1.016
SQ3	4.2	4	1	5	1.009
SQ4	3.971	4	1	5	1.024
SQ5	4.102	4	1	5	1.023
SQ6	4.159	4	1	5	0.991
SQ7	4.057	4	1	5	1.029
SQ8	4.02	4	1	5	1.028
SQ9	4.045	4	1	5	1.031
SQ10	3.935	4	1	5	1.012
SQ11	3.955	4	1	5	0.987
SQ12	4.122	4	1	5	1.015
SQ13	4.069	4	1	5	1.006
SQ14	4.127	4	1	5	1.016
PS1	4.106	4	1	5	0.972
PS2	4.102	4	1	5	1.047
PS3	4.069	4	1	5	1.106
PS4	4.269	4	1	5	1.002
PS5	4.151	4	1	5	0.98
PS6	4.163	4	1	5	1.041
PS7	4.22	5	1	5	1.096
PL1	4.18	4	1	5	0.862
PL2	4.143	4	1	5	0.994
PL3	4.445	5	1	5	0.863
PL4	4.143	4	1	5	1.006
PL5	4.237	4	1	5	0.863
PL6	4.302	4	1	5	0.907
PL7	4.253	5	1	5	0.982

The outcomes of the descriptive analysis reveal that the average values of all research variables Drug Availability, Function, Medical Equipment, Patient Satisfaction, Patient Loyalty, and Trust are above 4 which means that the perceptions of the respondents are in the good to very good range. The availability of drugs is deemed adequate, service functions are working efficiently and the medical equipment is deemed to be complete and functional. The level of patient satisfaction is also high resulting in high level of patient loyalty to healthcare services. Besides, the level of trust of the patients in the facility and the healthcare services is also extremely positive. On balance, these data reveal that the quality of healthcare services is very good to the respondents.

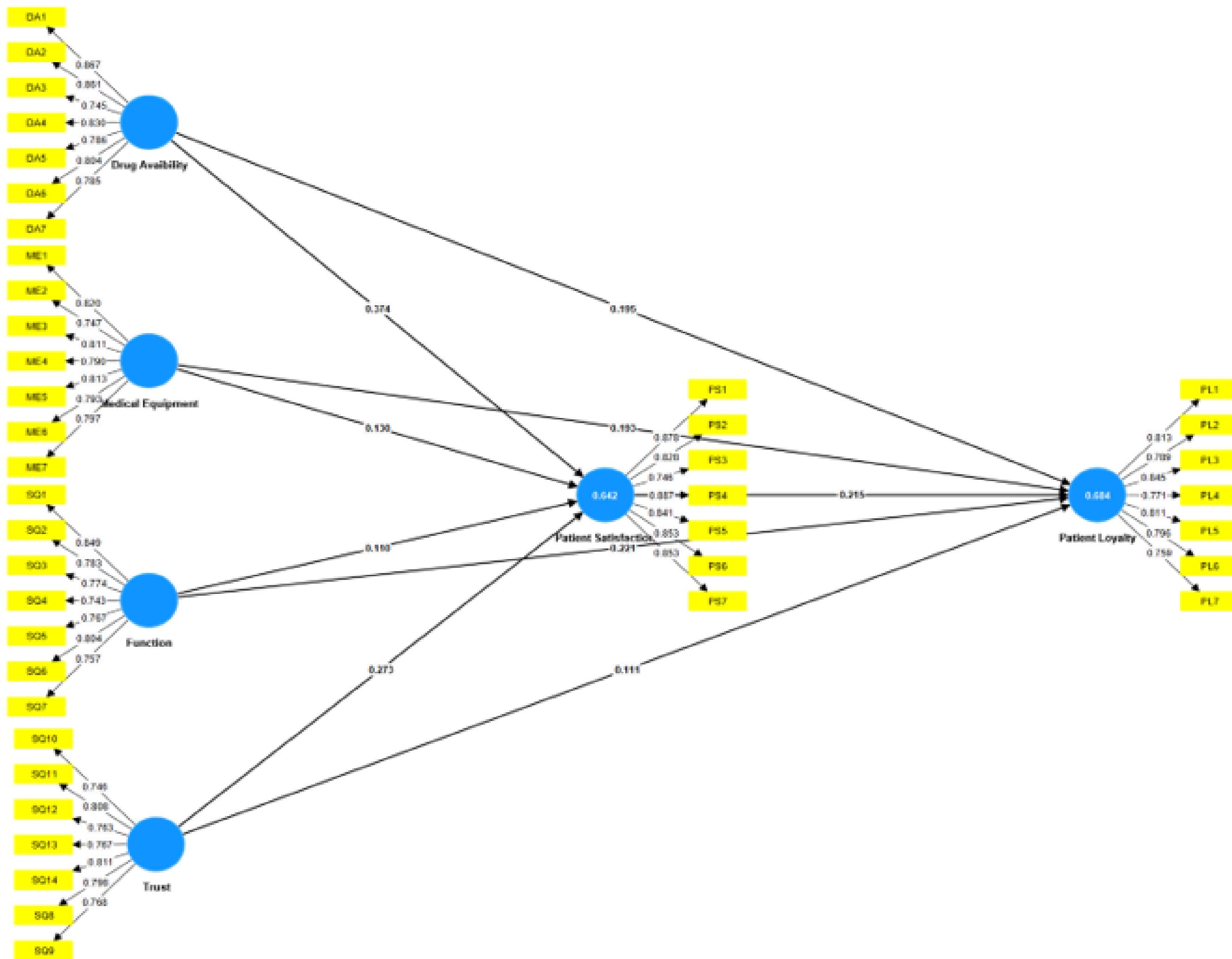

Figure 2. Outer model

In order to give even more detailed picture of the relations between the variables and research indicators, the visualisation of both the outer and inner models is given. The outer model shows the relationship between latent constructs and their formative indicators so that you can see the contribution given by each item as to the variable it is measuring.

The achieved results of the outer loadings in Table 2 indicate that all indicators reflect the values over 0.70 and are considered to satisfy the requirements of the convergent validity and are fitting to be used. A majority of the indicators also take high values of above 0.80 implying that every item can portray its own construct in a very capable way. The indicators having the values near to 0.90 (PS1 or PS4) are very strong contributors to their variables. Some of the indicators are within the range of 0.74-0.76, but they are in the valid and acceptable range. In general, these findings further confirm that the constructs in the study have been adequately measured using their indicators.

Table 2. Outer loadings results

	Outer loadings
DA1	0.867
DA2	0.861
DA3	0.745
DA4	0.83
DA5	0.786
DA6	0.804
DA7	0.785
ME1	0.82
ME2	0.747
ME3	0.811
ME4	0.79
ME5	0.813
ME6	0.793
ME7	0.797
PL1	0.813
PL2	0.789
PL3	0.845
PL4	0.771
PL5	0.811
PL6	0.796
PL7	0.759
PS1	0.878
PS2	0.828
PS3	0.746
PS4	0.887
PS5	0.841
PS6	0.853
PS7	0.853
SQ1	0.849
SQ2	0.783
SQ3	0.774
SQ4	0.743
SQ5	0.767
SQ6	0.804
SQ7	0.757
SQ8	0.798
SQ9	0.768
SQ10	0.746
SQ11	0.808
SQ12	0.763
SQ13	0.767
SQ14	0.811

Tabel 3. Hasil HTMT

	Drug Availability	Function	Medical Equipment	Patient Loyalty	Patient Satisfaction	Trust
Drug Availability						
Function	0.831					
Medical Equipment	0.801	0.843				
Patient Loyalty	0.814	0.818	0.814			
Patient Satisfaction	0.809	0.746	0.755	0.79		
Trust	0.802	0.792	0.85	0.788	0.788	

All the values of the ratios of heterotrait monotrait in the table indicate that all the values are in the ranges of 0.74 to 0.85 indicating that all relations between variables remain within the limit of 0.90 (or 0.85 in the case of a more stringent limit). Therefore, the problem of discriminant validity is not present and the variables can be made sure of clear difference between them. The largest HTMT values were observed between Trust and Medical Equipment (0.85) and Medical Equipment and Function (0.843), though both of them were less than the acceptable difference. All in all, these findings affirm that the constructs in the study can be said to possess a good discriminant validity as well as describe the concepts of individual variables without overlapping too much.

Tabel 4. Validitas and reabilitas

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Drug Availability	0.914	0.917	0.931	0.66
Function	0.894	0.896	0.917	0.613
Medical Equipment	0.904	0.905	0.924	0.634
Patient Loyalty	0.905	0.907	0.925	0.637
Patient Satisfaction	0.931	0.934	0.945	0.709
Trust	0.893	0.894	0.916	0.609

The Alpha and Composite Reliability of all constructs are above 0.70 with majority of the values ranging between 0.89-0.94 which is considered as excellent reliability. The high values of AVE (>0.50) of all the variables also indicate that the constructs can explain over half of the indicator variance. In this way, convergent validity is achieved and all constructs may be said valid and reliable.

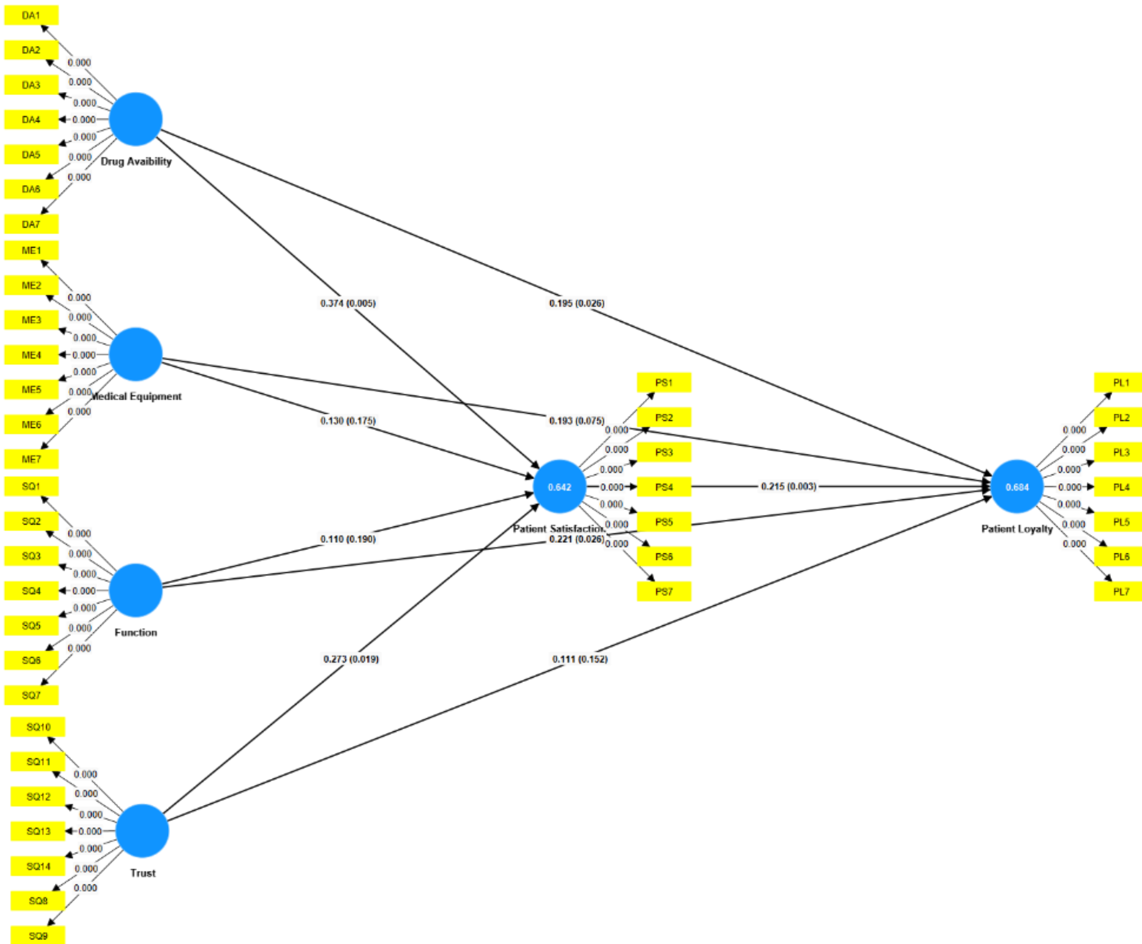

Figure 3. Inner model

The inner model explains the relationship between latent constructs that occur between the relationships, in which the hypothesis is prepared to be tested hence achieving comprehension of the direction and intensity with which the variables influence one another.

Table 5. R Square results

	R-square	R-square adjusted
Patient Loyalty	0.684	0.678
Patient Satisfaction	0.642	0.636

R-Squared output indicates that the model expounds Patient Loyalty by 68.4 and the Patient Satisfaction by 64.2. The two values are under strong category which means that the structural model predicts these two

constructs very well. Therefore, it is demonstrated that the independent variables in the study contribute significantly in the mean of explaining patient loyalty and satisfaction behaviour.

Table 6. F Square results

	F-Square
Drug Avaibility -> Patient Loyalty	0.037
Drug Avaibility -> Patient Satisfaction	0.135
Function -> Patient Loyalty	0.05
Function -> Patient Satisfaction	0.011
Medical Equipment -> Patient Loyalty	0.035
Medical Equipment -> Patient Satisfaction	0.014
Patient Satisfaction -> Patient Loyalty	0.052
Trust -> Patient Loyalty	0.013
Trust -> Patient Satisfaction	0.072

The f-square value demonstrates that the highest effect is produced by Drug Availability on Patient Satisfaction with 0.135 which belongs to the small-to-medium effect category. In the meantime, the effect of Trust on Patient Satisfaction (0.072) and Patient

Loyalty as the effect of Patient Satisfaction (0.052) are also in the small effect category. The impact of other variables that are within the 0.01-0.05 range implies a rather low, yet significant addition to the model. Comprehensively, Drug Availability quantifies the strongest predictor in the growing Patient Satisfaction.

Table 7. Hypothesis test results (Direct Effect)

Kode Hypothesis	Relationships Between Variables	Original Sample (O)	T-Statistics	P-Values	Verdict
H1	Drug Availability → Patient Satisfaction	0.374	2.832	0.005	Accepted (Significant)
H2	Medical Equipment → Patient Satisfaction	0.130	1.357	0.175	Rejected (Insignificant)
H3	Function → Patient Satisfaction	0.110	1.309	0.190	Rejected (Insignificant)
H4	Trust → Patient Satisfaction	0.273	2.354	0.019	Accepted (Significant)
H5	Trust → Patient Loyalty	0.111	1.432	0.152	Accepted (Significant)
H6	Patient Satisfaction → Patient Loyalty	0.215	9.595	0.003	Accepted (Significant)
H7	Drug Availability → Patient Loyalty	0.195	2.225	0.026	Accepted (Significant)
H8	Medical Equipment → Patient Loyalty	0.193	1.782	0.075	Rejected (Not accepted)
H9	Function → Patient Loyalty	0.221	2.224	0.026	Accepted (Significant)

According to the outcome of the direct effect hypothesis test in the above table, it is known that Drug Availability has positive significant effect on Patient Satisfaction at an original sample value of 0.374 with a t-statistic of 2.832 and p-value of 0.005. These findings suggest that increased patient satisfaction is attained through improved availability of drugs. The satisfactory availability of drugs has increased the ease at which patients acquire the therapy they need thus augmenting superior attitudes towards the quality of medical services.

Patient Satisfaction was not significantly influenced by Medical Equipment, the t-statistic value of 1.357 and the p -value of 0.175 show. This effect is not strong enough yet even though it has a positive relationship direction with the original sample value of 0.130. This is to mean that the wholeness of medical equipment is yet to establish itself as a fundamental determinant of patient satisfaction as it applies to this study. They also found a similar result between the Function and Patient Satisfaction where t -statistic was 1.309 and p -value was 0.190, the effect was not significant, though the relationship that was formed was positive.

In contrast to the two other variables, Trust was positively attributed to have a significant effect on Patient Satisfaction, whereby the original sample was 0.273 with a t-statistic value of 2.354 and a p-value of 0.019. This observation has shown that the degree of patient confidence in medical workers contributes to patient satisfaction at high rate. The high trust makes them secure and confident of the patients about the quality of care they get.

As per patient loyalty, the test results show that Trust has positive and significant effect on Patient Loyalty, an original sample value of 0.111, t-statistic of 1.432, and p-value of 0.152. This finding is an indicator that the effect is small but the contribution it makes in the development of patient loyalty in healthcare facilities is still true.

There is also a significant and positive correlation between Patient Satisfaction and Patient Loyalty which has an original sample value of 0.215, t-statistic of 9.595 and p-value of 0.003. This observation supports the fact that patient satisfaction is an extremely powerful driving force behind loyalty since patients who are satisfied will tend to re-use the same services and refer them to other people.

Moreover, the positive and significant impact of Drug Availability on Patient Loyalty is also positive and significant with a t-statistic of 2.225 and a p-value of 0.026 with an original sample value of 0.195. This means that the regular availability of drugs does not only result in increased satisfaction, but also, it will motivate patients to be loyal to the healthcare facilities that would finance their treatment needs.

At the same time, the effect of Medical Equipment on Patient Loyalty was not significant sufficiently as shown by a t -statistic of 1.782 and a p-value of 0.075. The results though positive in direction of the relationship show that the introduction of medical equipment has not had a direct effect on the choices of the patient to stay loyal. On the other hand, Function has also been found to increase Patient Loyalty in a positive and significant manner with the original sample of 0.221, t-statistic of 2.224, and a p-value of 0.026. The result proves the fact that the functional quality of the services, including timeliness, efficiency, and the reliability of the service process, is a key factor influencing patient loyalty to healthcare facilities.

Discussion

The findings of the hypothesis test indicate the presence of a pattern of the relationships that partially aligns with the findings of prior research as it is concerned with the quality of healthcare services provided and the behaviour of patients. To start with, Patient Satisfaction was significantly and positively influenced by Drug Availability as the p-value is 0.005. The result is consistent with the study done by Asamrew et al. (2020), Habte et al. (2023), and Tikirik and Imbaruddin (2021), who suggest that the ability to access drugs is a core element that determines the positive perception of patients towards the services provided by a hospital. As soon as patients are able to receive the required medication without any barriers, there is increased satisfaction with medical services. This outcome can also be corroborated by the results of Diah Nurcahyani and Kartikaningrum (2019), who mentioned that patients experience of pharmacy services is enhanced when medication is widely available.

On the other hand, the significance of the influence of Medical Equipment and Function on Patient Satisfaction was not notable, though they both had a positive direction of relationship. The p-values of 0.175 and 0.190 respectively explain that completeness of medical equipment and service functional quality do not have a direct dependency with patient satisfaction. This observation concurs with that of Keay et al. (2015) and Du et al. (2018) who indicated that although medical equipment may contribute more to the outlined service process in terms of both technical and operational aspects, this factor does not always rank high in satisfaction as perceived by patients. This also corresponds to Nguyen and Nguyen (2014) and Nguyen et al. (2021), who have found that the final outcome of service is not necessarily directly impacted by the functional dimensions of service, particularly in cases where the patients are concerned about the final outcome of the service.

Findings of the study also indicate that trust has a positive and significant impact on the patient satisfaction as it had p-value of 0.019. The results corroborate the studies by Gul et al. (2023), AlOmari and Hamid (2022), who highlighted that the confidence of a patient in the ability and goodness of a health professional contributes to the feeling of security and well-being, as well as provokes patient satisfaction. Trust is a very important component in development of positive perceptions of services being received.

On patient loyalty, patient satisfaction was observed to exert positive and significant impact on patient loyalty, the t-statistic was very high and the p-value, was 0.003. This evidence confirms that patient loyalty depends largely on satisfaction, which is in line with the findings of Hussain et al. (2019), Rahman et al. (2021), and Shie et al. (2022) that show that a positive experience with the service is a predictor of returning and referring the other patients.

Moreover, the positive and significant influence on Patient Loyalty was also observed by Drug Availability and Function with the p-value of 0.026. These findings suggest reliability of drug availability and suspectable service functions including time and process efficiencies are important in creating patient loyalty. This result corresponds to that of Nguyen et al. (2021) who stated that perceptions of continuous quality of operational service may encourage in the long term patient engagement in a healthcare establishment.

At the same time Medical Equipment did not cause major effect on Patient Loyalty it scored 0.075 p-value. The relationship between medical equipment is a good one but these findings point to the current situation where the existence or completeness of equipment is yet to be a major determinant of who goes ahead to stay loyal. Trust, on the other hand, will also have a positive impact on Patient Loyalty but it does not have a significant value and therefore in this study, the contribution to the formation of patient loyalty has not been directly confirmed.

On the whole, the findings of this research support the fact that patient satisfaction is a determining factor, influencing the development of loyalty, and drug availability and service function are two-sided because they contribute to patient satisfaction and loyalty. This observation supports the opinion that the improvement of patient loyalty strategies should be aimed at addressing the basic needs of the patients and the quality of the service process as perceived at the first instance.

Conclusion

This research shows that a number of factors affect the quality of services offered by the hospital, especially Drug Availability, Trust, and Function, and Patient Satisfaction is significant to influence Patient Loyalty. The findings of the research indicate that the most important issue in creating patient satisfaction is Drug Availability. In case the medication is easily accessible and easily available, the patients believe that their therapeutic needs are being addressed, and, therefore the level of patient satisfaction with hospital services increases significantly.

Further, Trust too has been demonstrated to have a positive effect on Patient Satisfaction which in turn leads to Patient Loyalty. When patients are well convinced of the competency and reliability of the hospital, they become more content and are better placed to revisit the services of the hospital as well as refer others. This observation proves that relational and emotional factors are significant in the formation of a long-term relationship between the patient and the hospital.

In the meantime, the Function did not have a significant impact on Patient Satisfaction, yet it was confirmed that it positively affects Patient loyalty. This signifies that the functional quality of services like timeliness and reliability of the service process is a more influential factor in influencing the decision by patients to remain loyal than the element directly generating satisfaction. Conversely, it does not imply that Medical Equipment is a major factor of consideration by Patients in evaluating their satisfaction or whether they will be loyal since it did not display a significant effect on both the Patient Satisfaction and Patient Loyalty.

In general, this paper confirms patient satisfaction and loyalty is not merely depended on full facilities but on availability of medication, degree of trust as well as a stable and predictable service experience. This set of factors creates a significant premise on which hospitals can fortify and advance patient loyalty in the long run.

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