

Measuring Public Satisfaction with Dottoro'ta Digital-Based Home Care Services in Makassar City: A Servqual Study Using SEM-PLS

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Abstract

The Homecare Dottoro'ta service is an innovative health service based on home visits implemented by the Makassar City Government to improve access and the quality of public health services. This study aims to examine the influence of service quality dimensions on the satisfaction level of the community using the Home Care Dottoro'ta services. This study uses a quantitative approach with a survey method by distributing questionnaires to 96 respondents who are active users of the service. Data analysis was conducted using SEM-PLS software to analyze and test the hypotheses. The research results show that reliability,

assurance, and empathy have a positive and significant impact on community satisfaction, with T-statistics values of 4.259 (P-value 0.000), 2.494 (P-value 0.013), and 2.647 (P-value 0.008), respectively. Meanwhile, tangible and responsiveness do not show significant influence, with T-statistics values of 6.000 (P-value 0.549) and 2.771 (P-value 0.441). These findings affirm that accuracy, trust in the competence of the staff, and an empathetic approach are the main determinants in shaping the perception of service satisfaction. This study recommends increased professionalism and humanistic communication from medical staff and a thorough evaluation of service dimensions that have not yet significantly contributed to public satisfaction to support the sustainability and optimization of Dottoro'ta Home Care services in Makassar City.

Keywords: *Tangible, Reliability, Responsiveness, Assurance, Empathy, Homecare Dottoro'ta*

1. Introduction

Urban development in the digital era has brought significant changes in governance, particularly through Information and Communication Technology (ICT) (Saputra et al., 2018). ICT is now a key strategy in improving leadership effectiveness, information transparency, and public participation in public services (Hafizh, 2016). One sector that has undergone rapid transformation is the health sector, which is gradually shifting to a technology-based service system. This change is intended to improve accessibility, efficiency, and the quality of medical services more inclusively and equitably (Sebayang, 2023). This transformation is driven by global dynamics and national policies supporting the strengthening of a sustainable healthcare system (Tahir & Harakan, 2017). Minister of Health Regulation No. 26 of 2019, as the implementation of Law No. 38 of 2014 on Nursing, emphasizes the importance of continuity in healthcare services, including providing appropriate and standardized services at the patient's home. This regulation is the foundation for developing the smart health concept, an integral part of the smart city ecosystem a technology-based urban system that facilitates access to public services (Yuliana et al., 2020).

Despite ongoing efforts by local governments to develop smart city initiatives, classic challenges in providing public healthcare services remain prevalent (Nugroho et al., 2023). Makassar City, as one of the metropolitan cities in Eastern Indonesia (Sari et al., n.d.), faces several challenges, including limited healthcare facilities, high hospital workload, and restricted access to services for vulnerable groups such as the elderly, people with disabilities, and those with mobility limitations. These issues are urgent in achieving equitable, swift, and high-quality healthcare

services for all segments of society (Setianto, 2016). The Makassar City Government initiated the Home Care Dottoro'ta program in 2016 as part of its smart health service delivery. This program is designed to provide direct healthcare services to people's homes, particularly those with limited access to conventional healthcare facilities (Suardi et al., 2022). Home Care Dottoro'ta integrates medical services with digital technology, allowing residents to contact the control center through a technology-based system, and a rapid medical response team will be dispatched to the patient's location (Pratiwi et al., 2021).

Home Care Dottoro'ta adopts a digital-based service system, enabling the public to access medical services more quickly and easily (Suardi et al., 2022). A medical team comprising doctors, nurses, or midwives is assigned to conduct direct home visits to patients using a mini ambulance equipped with standard medical equipment (Pratiwi et al., 2021). This program integrates with the Makassar City War Room, a real-time data-based monitoring and decision-making center. This integration improves the efficiency and accuracy of services. It enables early intervention in medical conditions requiring immediate treatment, thereby supporting the main objective of smart city development in the health sector (Fahrepi et al., 2019).

Public satisfaction is one of the leading indicators in assessing the success of public service programs, including Home Care services (Ijsrem, 2024). Public satisfaction is a subjective evaluation that reflects the extent to which service users' expectations are met by the service performance. In the context of public services, public satisfaction not only reflects satisfaction with the results of the services received but also serves as an important indicator in measuring the service-providing agency's effectiveness, efficiency, and accountability (Sebti Atul Awaliyah, 2014). According to Kotler and Keller (2009) in (Sabrina & Jazuli, 2023), customer satisfaction occurs when perceptions of service performance exceed initial expectations. The indicators of public satisfaction in public services, particularly health services, include ease of access to services, clarity of service procedures, speed of service delivery, consistency between the services received and those promised, professionalism of staff, and concern and attention to the needs of service users (Awaliyah Matondang et al., 2024).

This level of satisfaction is greatly influenced by the quality of service provided (Abbas, 2023). Therefore, this study uses the service quality theory of Zeithaml, Parasuraman, and Berry (1988) known as the SERVQUAL model (Lina Rosina Limbong et al., 2024). This theory measures service quality based on five main dimensions, namely tangible

(physical evidence), which includes facilities, equipment, and personnel appearance; reliability, which is the ability to provide promised services accurately and reliably; responsiveness, which refers to the willingness and ability of staff to assist service users and provide services quickly; assurance (guarantee), which includes competence, politeness, and the ability to foster trust and safety, and empathy (empathy), which refers to the individual attention given to service users (Sinollah & Masruro, 2019). The SERVQUAL model is considered relevant for evaluating digital-based home care services because it can comprehensively assess service aspects from the user's perspective.

Previous studies have examined the relationship between service quality and community satisfaction in the context of home care services, such as the study conducted by Pratiwi et al. (2021) which showed that home care assessments based on inputs that support and are needed to evaluate the implementation of home care services include the need for healthcare workers to increase the number of staff, facilities and infrastructure that must be equipped with medicines and hand sanitizers for staff. Home care assessment based on process is the implementation that must be carried out to improve the achievement of predetermined goals through organisation, communication, competence, recording, and reporting in the implementation of home care services. At the same time, output is the need to improve the achievement of the previous home care service implementation. Response time must be prioritised, with visits conducted more promptly and staff always present at the health centre to address any urgent issues immediately. Additionally, research by Fahrepi et al. (2019) shows that service quality, including reliability, assurance, empathy, and responsiveness, has a significant relationship with patient family satisfaction at the Batua Health Centre in Makassar City. Both studies employed a descriptive qualitative approach, thus not providing systematic quantitative measurements of the influence of each service quality dimension on user satisfaction. Therefore, this study emerged due to the limited empirical studies using a quantitative approach to evaluate the quality of Home Care Dottoro'ta services in a structured and measurable manner, particularly those integrating digital technology as part of innovative healthcare services. Additionally, few empirical studies have systematically examined the quality of Home Care Doctorate services based on user perceptions, especially within a quantitative evaluation framework. However, the sustainability and effectiveness of this service are highly dependent on the level of satisfaction among the community as service recipients.

Therefore, this study aims to fill this gap by empirically testing the influence of the five dimensions of SERVQUAL on user satisfaction with Dottoro'ta Home Care services in Makassar City, using a quantitative approach based on SEM-PLS. This study is expected to contribute theoretically to developing technology-based public service quality studies and provide practical recommendations for local governments to improve digital home care programmes as part of inclusive and sustainable innovative city development.

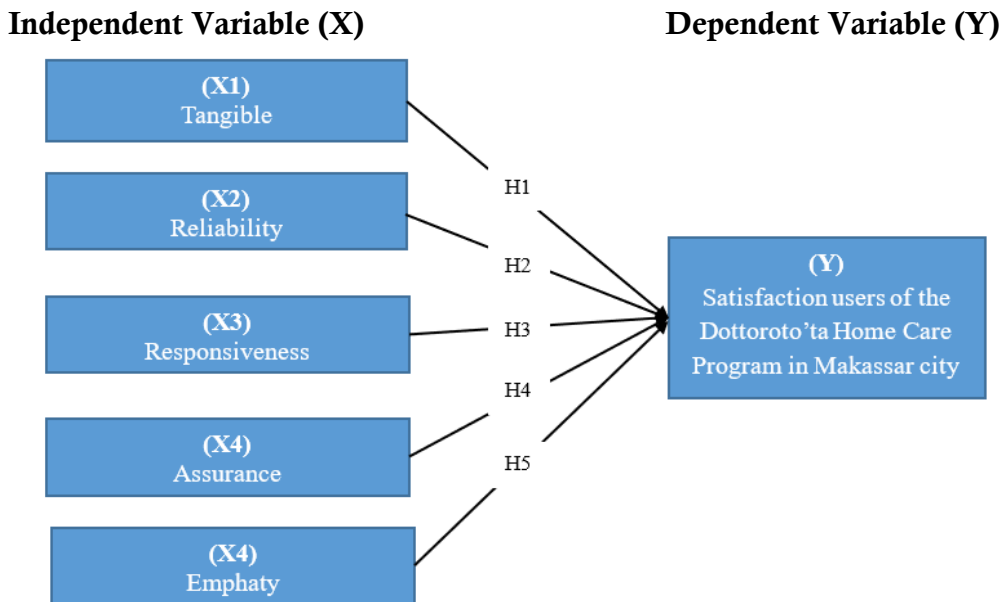


Figure 1. Theoretical framework
Source: Author's data processing, 2025

Hypothesis

- H1: Tangibility positively and significantly influences the satisfaction of users of the Dottoro'ta Home Care service in Makassar City
- H2: Reliability positively and significantly influences the satisfaction of users of the Dottoro'ta Home Care service in Makassar City.
- H3: Responsiveness positively and significantly influences the satisfaction of users of the Dottoro'ta Home Care service in Makassar City.
- H4: Assurance positively and significantly influences the satisfaction of users of the Home Care Dottoro'ta service in Makassar City.
- H5: Empathy positively and significantly influences users' satisfaction with the Home Care Dottoro'ta service in Makassar City.

2. Method

This study uses a quantitative approach, which emphasises the collection and analysis of numerical data to measure the relationship between variables objectively (Sari et al., 2025). This approach was chosen to systematically analyse the influence of service quality dimensions on the satisfaction of users of the Dottoro'ta Home Care service in Makassar City. The research implementation stages are arranged sequentially from data collection to analysis, as visualised in Figure 1 below:

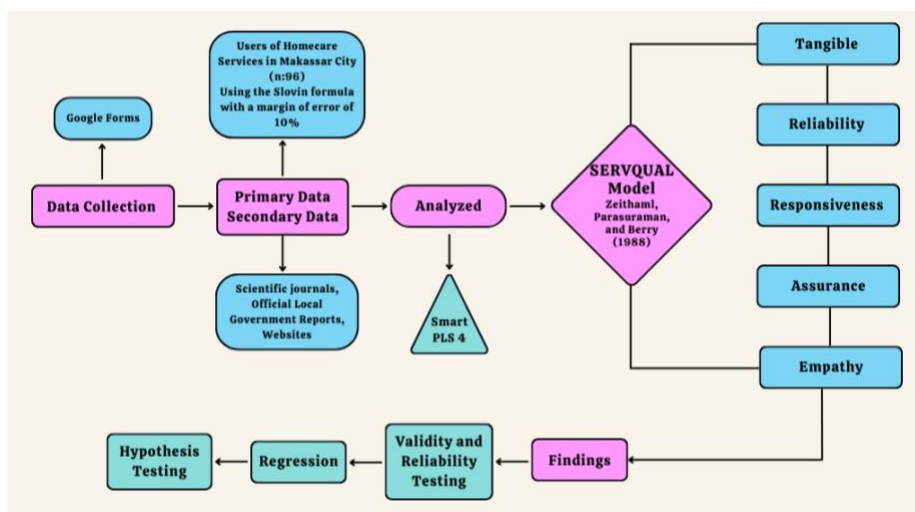


Figure 2. Research Process
Source: Author's data processing, 2025

Figure 2 shows the research stages, which begin with primary and secondary data collection. Primary data was obtained through the distribution of online questionnaires using Google Forms to residents of Makassar City who had used the Home Care Dottoro'ta service at least once during the current year. The research population consists of 1,935 individuals based on the latest administrative data. The sample size was determined using the Slovin formula with a margin of error of 10%, resulting in a minimum sample size of 96 respondents. The 10% margin of error was chosen considering that this research is an exploratory study aimed at exploring the relationship between the dimensions of SERVQUAL and the level of satisfaction with community-based home care services. Additionally, resource constraints and limited access to the entire population prompted the use of a practical and efficient approach. Respondents were selected using random sampling techniques from a database of eligible users, and the final results showed a total of 96 valid respondents who could be analysed. Secondary data was collected from

relevant sources such as scientific journals, official government reports, websites, and other relevant documents. The data collection period lasted two months, from April to May 2025.

The research model is based on the SERVQUAL theory developed by Zeithaml, Parasuraman, and Berry (1988), which includes five service quality dimensions: tangibles, reliability, responsiveness, assurance, and empathy. The questionnaire instrument uses a Likert scale (1. Strongly Disagree, 2. Disagree, 3. Somewhat Disagree, 4. Agree, and 5. Strongly Agree) to measure respondents' perceptions of service quality and perceived satisfaction levels. The data were analysed using Structural Equation Modelling–Partial Least Squares (SEM-PLS) through Smart PLS 4 software. The analysis stages included validity and reliability tests, regression analysis, and hypothesis testing.

3. Results

3.1. Respondents' Demographic Profile ($n = 96$)

The demographic profile of the respondents in this study was that of users of Dottoro'ta Home Care services residing in Makassar City, consisting of men and women aged between 17 and 65. Respondents came from various educational backgrounds, from secondary school to a bachelor's degree.

Table 1. Respondents demographic profile

Characteristic		Frequency (F=96)	Percentage (%)
Gender	Male	54	56.2%
	Female	42	43.8%
Age	17-25	4	4.2%
	26-35	32	33.3%
	36-45	45	46.9%
	>46	15	15.6%
	SMA	38	39.6%
Education	D3	10	10.4%
	D4/S1	40	41.7%
	S2	8	8.3%
Duration of Use of Home Care Dottoro'ta	1-2 Years	67	69.8%
	3-4 Years	19	19.8%
	5-6 Years	7	7.3%
	> 6 Years	3	3.1%

Table 1 shows that female respondents dominated at 56.2%, while male respondents accounted for 43.8%. Most respondents are in the 36–45

age group, accounting for 46.9%, followed by the 26–35 age group at 33.3%, those over 46 years old at 15.6%, and the youngest age group (17–25 years old) at 4.2%. Based on the highest level of education, most respondents had a high school (SMA) and bachelor's degree (D4/S1) background, at 41.7%. A small portion had a diploma (D3) at 10.4% and a master's degree (S2) at 8.3%. In terms of the duration of use of the Home Care Dottoro'ta service, the majority of respondents (69.8%) have used the service for 1–2 years, 19.8% for 3–4 years, 7.3% for 5–6 years, and only 3.1% have used the service for more than 6 years. This data indicates that most users have a relatively new to moderate experience using the service.

3.2. Validity Test

Figure 2 shows the outer loading results of each indicator on its construct in the convergent validity test. According to the rule of thumb, an indicator is considered to meet the convergent validity requirement if its outer loading value is ≥ 0.50 (Sekaran, U. & Bougie, 2016). with a stronger academic preference for values ≥ 0.70 as highly valid indicators (Hair et., al 2011).

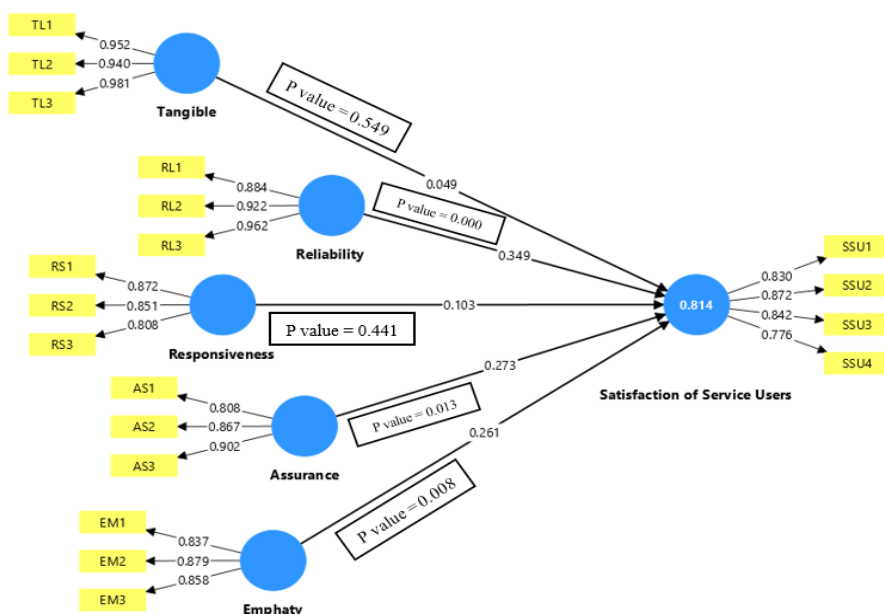


Figure 3. Output Bootstrapping

Source: Processed from primary data, 2025

The figure above shows that all indicators used in the study have outer loading values ≥ 0.50 , so it can be concluded that all indicators strongly

correlate with the measured latent construct. This means no indicators must be eliminated, as all have met the minimum threshold for convergent validity. This indicates that the SERVQUAL construct and user satisfaction measured through the questionnaire instrument demonstrate conceptual fit between the items and the theoretical variables they represent.

3.3. Reliability Test

A variable is considered reliable if the composite reliability or Cronbach's Alpha value reaches above 0.500 (Latan & Ghazali, 2018). Table 3 shows that all variables studied are reliable.

Table 2. Composite reliability and Cronbach alpha test results

<i>Construction</i>	<i>Cronbach's Alpha</i>	<i>Rho_A</i>	<i>Composite Reliability</i>	<i>Average Variance Extracted (AVE)</i>	
<i>Assurance</i>	0.824	0.833	0.895	0.740	Reliabel
<i>Emphaty</i>	0.821	0.828	0.893	0.736	Reliabel
<i>Reliability</i>	0.913	0.918	0.946	0.853	Reliabel
<i>Responsivness</i>	0.798	0.800	0.881	0.713	Reliabel
<i>Satisfaction of Service User</i>	0.850	0.850	0.899	0.689	Reliabel
<i>Tangible</i>	0.955	0.961	0.971	0.918	Reliabel

Source: Processed from primary data, 2025

Table 2 shows the reliability test results for the six primary constructs in the research model using Cronbach's Alpha, Rho_A, and Composite Reliability (CR) indicators. According to (Nurdini et al., 2022), a construct is considered to have high reliability if it meets the criteria of Cronbach's Alpha ≥ 0.70 , Composite Reliability ≥ 0.70 , and AVE ≥ 0.50 . The reliability test results indicate that all constructs in this study meet these criteria, demonstrating that the instrument has good internal consistency. Tangible is the construct with the highest reliability values, namely CR = 0.971 and CA = 0.955, reflecting that this dimension is highly consistent in measuring the physical perception of Home Care Dottoro'ta services (e.g., equipment, facilities, and the appearance of medical staff). The Responsiveness construct recorded the lowest value among the other dimensions (CR = 0.881, CA = 0.798) but remains at a reasonable and academically acceptable reliability level. The Satisfaction of Service User construct, the primary dependent variable in this study, has a CR of 0.899

and a CA of 0.850, confirming that service satisfaction perceptions are measured consistently and reliably. The AVE (Average Variance Extracted) values for all constructs are also greater than 0.50, indicating that the convergent validity of each construct has been met.

3.4. Hypothesis Testing

Hypothesis testing was performed via the bootstrapping sampling method. The hypothesis is accepted if the t-test statistic surpasses 1.96 and the P-value is below 0.05. The study hypothesis is dismissed if the t-test score is below 1.96 (Ghozali, 2016).

Table 3. Hypothesis Testing of User Satisfaction with the Dottoro'ta Homecare Program

Variabel	Original Sample (O)	Sample Mean (M)	STDEV	T-Statistics (O/STDEV)	P value	Hypothesis
<i>Tangible</i>	0.049	0.037	0.082	0.600	0.549	Rejected
<i>Reliability</i>	0.349	0.352	0.082	4.259	0.000	Accepted
<i>Responsiveness</i>	0.103	0.112	0.133	2.771	0.441	Rejected
<i>Assurance</i>	0.237	0.263	0.109	2.494	0.013	Accepted
<i>Emphaty</i>	0.261	0.264	0.099	2.647	0.008	Accepted

Source: Processed from primary data, 2025

In this study, hypothesis testing was conducted. The hypothesis was accepted when the P-values were less than 0.05. Hypothesis 1 states that Tangible has a positive and significant effect on users' satisfaction with the Home Care Dottoro'ta service in Makassar City. Based on the analysis results, the statistical value ($|O/STDEV|$) was 0.600, and the p-value was 0.549, greater than the significance threshold of 0.05. This means that the hypothesis is rejected, indicating that there is no positive and significant effect on user satisfaction.

Hypothesis 2 states that the Reliability variable has a positive and significant effect on users' satisfaction with the Home Care Dottoro'ta service in Makassar City. Based on the analysis results, a statistical value ($|O/STDEV|$) of 4.259 and a p-value of 0.000 were obtained, below the significance threshold of 0.05, meaning that this hypothesis is accepted and has a positive and significant effect on service user satisfaction.

Hypothesis 3 states that Responsiveness has a positive and significant effect on users' satisfaction with the Home Care Dottoro'ta service in

Makassar City. The analysis results obtained a statistical value ($|O/STDEV|$) of 2.771 and a p-value of 0.441. The significance value is less than 0.05, meaning that this hypothesis is rejected or does not have a positive and significant effect on service user satisfaction.

Hypothesis 4 states that the Assurance variable has a positive and significant effect on users' satisfaction with the Home Care Dottoro'ta service in Makassar City. The analysis results obtained a statistical value of $|O/STDEV|$ of 2.494 and a p-value of 0.013. The significance value is less than 0.05, which means that this hypothesis is accepted and positively and significantly affects service user satisfaction.

Hypothesis 5 states that the Empathy variable has a positive and significant effect on users' satisfaction with the Home Care Dottoro'ta service in Makassar City. Based on the analysis results, the statistical value $|O/STDEV|$ is 2.647, and the p-value is 0.008. The significance level is less than 0.05, meaning the hypothesis is accepted and positively and significantly affects service user satisfaction.

3.4. Regression Analysis

Hair et. al (2011) state that an R-square value of 0.75 falls into the strong category, an R-square value of 0.50 falls into the moderate category, and an R-square value of 0.25 falls into the weak category. The coefficient of determination (R-square) is shown in Table 4 below:

Table 4. Results of the regression test for Dottoro'ta Homecare Program User Satisfaction

	<i>R-Square</i>	<i>R-Square Adjusted</i>
<i>Satisfaction of Service Users</i>	0.814	0.803

Source: Processed from primary data, 2025

Based on the structural regression analysis results, the coefficient of determination (R-square) value obtained was 0.814, and the adjusted R-square value was 0.803 for the variable of user satisfaction with the Home Care Dottoro'ta service. According to the classification by Hair et. al (2011), an R-square value above 0.75 is categorised as strong, indicating that the SERVQUAL model can explain 81.4% of the variance in public satisfaction very well. The five dimensions of service quality tested Tangible, Reliability, Responsiveness, Assurance, and Empathy collectively form a robust framework for explaining public satisfaction with

the services they receive. This means the model has high explanatory power and is suitable for evaluating digital technology-based home care services in urban environments. This R-square value also reinforces the finding that applying the SERVQUAL model is highly relevant for assessing users' perceptions of the quality of innovative city-based healthcare services. Additionally, the remaining 18.6% of variation not explained by the model is likely influenced by other external factors such as socio-economic conditions, service usage frequency, or cost perceptions, which could be the focus of further research.

4. Discussion

This study analyzes the five principal dimensions of the service model, namely Tangible, Reliability, Responsiveness, Assurance, and Empathy, to evaluate their influence on the satisfaction of users of the Home Care Dottoro'ta service in Makassar City. This analysis aims to identify service quality dimensions that significantly shape the public's perceptions and experiences of home-based healthcare services delivered through the innovative Home Care Dottoro'ta program.

The results of the hypothesis testing indicate that the Tangible dimension does not have a positive and significant effect on the satisfaction of users of the Home Care Dottoro'ta service in Makassar City, with a t-statistic value of 0.600 and a p-value of 0.549, which is far above the significance threshold of 0.05. This means that the physical elements of the service, including the completeness of medical equipment, transportation facilities (mini ambulances), and the professional appearance of medical staff, do not substantially influence the public's perception of satisfaction with the services provided. This finding reinforces the argument that in the context of digital-based home care services, especially in urban areas like Makassar, users prioritise interpersonal interaction, communication quality, response speed, and staff empathy over visual or physical aspects of the service. This explanation is supported by the findings of Khoirista et al., (2015) who state that while physical evidence is important, the quality of relationships and the reliability of services are key factors in shaping user satisfaction with healthcare services.

Similarly, a study by Telaumbanua et al. (2024) in the context of retail and public services shows that improvements in physical quality, such as neat appearance, arrangement of equipment, and modern facilities, do not guarantee increased satisfaction if not balanced with service aspects that are more functional and emotional. This underscores that the value users perceive is more determined by the service experience than physical attributes alone. The tangible dimension has the lowest contribution to the

formation of loyalty and satisfaction compared to dimensions such as Empathy and assurance (Alnuaimi et al., 2021). This reinforces the evidence that, in the context of home-based healthcare services, the tangible dimension may be viewed as a fundamental prerequisite (hygiene factor) that does not significantly add value to the customer experience, except in cases of extreme mismatch. Furthermore, Pradipta et al. (2024) it states that in public healthcare services, the dimensions of reliability, assurance, and empathy are more influential in shaping public perception. This suggests that applying the SERVQUAL model in home care services needs to be contextually adapted, where the tangible dimension is not always the primary predictor, especially if the fundamental aspects of the service are generally fulfilled and do not constitute significant complaints.

The results of the hypothesis testing show that the reliability dimension has a positive and significant effect on user satisfaction with the Home Care Dottoro service, with a t-statistic value of 4.259 and a p-value of 0.000. This indicates a statistically significant relationship between the reliability dimension of the service and user satisfaction. Reliability in this context includes the timeliness of staff visits, procedural consistency with medical standards, and the accuracy of medical procedures. In home care services, where patients are outside formal healthcare facilities, trust in the professionalism of staff heavily depends on this reliability. This finding is supported by the study Yasni Aldini et al. (2023), which highlights the importance of reliability in medical services outside formal institutions. Patients feel satisfied when service schedules are on time, staff demonstrate competence, and treatment outcomes align with medical expectations.

Furthermore, research Juwita & Octaviyana (2022) shows that consistency and accuracy in healthcare services directly correlate with patient family satisfaction levels. This reinforces reliability as a key indicator in home-based care. Theoretically, this aligns with Berry & Parasuraman (1990) the SERVQUAL model, which states that reliability is the most fundamental dimension of SERVQUAL as it represents an organisation's ability to fulfil service promises accurately and reliably. In the context of digital home care services, reliability also indicates public trust in the technological systems and human resources operating them. The practical implications of these findings point to the need for accurate scheduling systems, monitoring of service standards, and data-driven performance evaluations of medical staff to ensure that reliability remains the cornerstone of maintaining home care service satisfaction.

The results of the hypothesis testing indicate that the Responsiveness dimension does not have a positive and significant effect on the satisfaction of users of the Home Care Doctor's service in Makassar City, with a

statistical value of 2.771 and a p-value of 0.441, which far exceeds the significance threshold of 0.05. This means that the hypothesis that responsiveness significantly influences user satisfaction cannot be accepted. This finding highlights that while medical staff may demonstrate quick responses to service requests, this aspect alone may not be sufficient in shaping user satisfaction perceptions. Users evaluate not only response speed but also the quality of interaction, Empathy, and the accuracy of medical actions provided. This aligns with the findings of Nasim & Janjua (2014) those who state that responsiveness is not always the dominant factor in shaping patient satisfaction, especially if the service is not accompanied by good communication and satisfactory medical outcomes. Service speed must be accompanied by interpersonal quality to create a satisfying service experience (Al Ummah et al., 2021). In addition, services that rely solely on speed without considering patient safety, effective communication, and Empathy will find it difficult to create lasting loyalty and satisfaction (Peller, 2024). This indicates that perceptions of satisfaction are influenced by the integration of emotional, functional, and professional dimensions, not just the technical speed of service. Several methodological and contextual factors can explain the possible reasons for the insignificant influence of responsiveness. First, it is possible that the indicators used to measure responsiveness are not sensitive enough to capture the public's perceptions, especially subjective aspects such as satisfaction with response speed. Second, the public's high expectations of digital-based services may make speed a minimum standard rather than an added value. Third, operational limitations such as limited service hours, long queues, or uneven distribution of staff can reduce perceptions of responsiveness, even though staff on the ground have made efforts to respond quickly.

As a recommendable action, the Home Care Doctorate programme should develop a real-time digital response time monitoring system accessible to the public to promote accountability and transparency. Additionally, enhanced communication training for medical staff is essential to ensure responses are swift, empathetic, and informative, two aspects proven to impact patient satisfaction perceptions significantly. Theoretically, these findings provide important insights that responsiveness in the context of digitally integrated home care services requires a more holistic evaluation approach. The SERVQUAL model can be enhanced by expanding the responsiveness indicators to include emotional sensitivity and user-centred communication, not just speed.

The hypothesis testing results indicate that the Assurance dimension has a positive and significant impact on the satisfaction of users of the

Dottoro'ta Home Care service in Makassar City, with a statistical value of 2.494 and a p-value of 0.013. Since the p-value is less than the significance threshold of 0.05, this hypothesis is accepted, meaning that the public's confidence in the competence and integrity of medical staff contributes significantly to the level of user satisfaction. The Assurance dimension in the context of home care services includes the technical competence of healthcare staff, professional attitudes during service interactions, and guarantees regarding patient data security and confidentiality. Home-based services involve direct and private interactions in the patient's environment and require more trust than conventional services. Therefore, a high level of assurance is crucial in building trust and a sense of security, directly impacting public satisfaction. These findings align with a study Utami & Natassia (2019) that found that the better the level of assurance provided by community health centre staff to the community, the higher the patient satisfaction.

Furthermore, research Kusumaningtyas (2016) confirms that assurance significantly influences perceptions of satisfaction, especially in the context of primary health care, which depends on interpersonal interactions. Medical staff perform medical procedures, provide health education, and maintain patient confidentiality by professional ethics (Dianing Negari et al., 2021). Theoretically, these results reinforce the role of the assurance dimension in the SERVQUAL model as a key determinant of healthcare service quality. In innovative city-based home care services, where patients are outside formal facility settings, assurance is not merely a supplementary element but the foundational basis for technology adoption and the sustainability of service use. This finding also underscores the importance of having staff with clinical competence and strong interpersonal communication skills. Satisfaction is not only determined by medical actions but also by the manner of delivery, friendly attitude, clear explanations, and respectful treatment of patients. Interactions are more private, especially in home care services, making ethical and professional assurance essential.

The results of the hypothesis testing indicate that the Empathy dimension has a positive and significant effect on the satisfaction of users of the Home Care Doctor's service in Makassar City. The statistical value of 2.647 and the p-value of 0.008 indicate that this hypothesis is accepted, as the p-value is less than 0.05. This means that genuine, individualised attention, along with healthcare professionals' ability to understand patients' emotional needs, has a tangible contribution to the formation of service user satisfaction. In-home care services are conducted in patients' private spaces. Empathy is critical because interactions involve medical

actions and psychological and emotional aspects. Patients tend to feel physically and mentally vulnerable, so empathy from healthcare workers can create comfort, trust, and a sense of being valued, which are important factors in shaping overall service satisfaction. This is reinforced by Aulia et al. (2017) research, which shows that dental healthcare workers' Empathy, such as willingness to listen and not discriminating against patients' social status, significantly impacts patient satisfaction. This is also supported by Wilantara (2015) research, which shows that Empathy is a dominant factor in influencing BPJS participants' satisfaction, particularly in primary care.

Additionally, a recent study Wang et al. (2022) confirms that patients who feel 'valued and heard' consistently exhibit higher levels of satisfaction. In the context of Dottoro's innovative city-based Home Care services, the dimension of Empathy has its unique characteristics. Since services are provided directly at the patient's home, expectations for personal attention are higher. Unlike hospital services, patients have more opportunities to assess healthcare workers' behaviour from non-technical aspects. Therefore, Empathy creates emotional connections and enhances perceptions of professionalism and service quality. These findings reinforce the position of Empathy in the SERVQUAL model as a critical dimension in the context of home-based healthcare services. In this context, Empathy is not merely a complement to service quality. However, it becomes the centre of the patient experience, especially when healthcare institutions provide services without direct oversight.

Overall, the results of this study confirm that the dimensions of reliability, assurance, and Empathy play a dominant role in shaping user satisfaction with innovative city-based home care services. In contrast, tangibility and responsiveness require a more contextual evaluation approach.

However, it is important to acknowledge that this study has several limitations. Reliance on self-reported data opens the possibility of subjective bias from respondents. Additionally, potential social bias and demographic limitations due to respondents being exclusively from Makassar City may affect the generalisability of the findings. Further research using a mixed-method approach and expanding the study area to other cities is strongly recommended to obtain a more holistic and representative picture.

5. Conclusion

This study aims to analyse the influence of the five dimensions of service quality in the SERVQUAL model, namely Tangible, Reliability, Responsiveness, Assurance, and Empathy, on the satisfaction of users of

the Dottoro'ta Home Care programme in Makassar City. The study's results indicate that the dimensions of Reliability, Assurance, and Empathy positively and significantly influence user satisfaction. Conversely, the Tangible and Responsiveness dimensions did not show a significant influence. The synthesis of these findings indicates that, in the context of digital and community-based home care services, the public values interpersonal interaction, professional competence, and an empathetic approach more than physical service attributes or response speed alone.

This study's main contribution lies in using a quantitative model based on PLS-SEM to assess service quality in a digitally integrated home care programme in Indonesia, a relatively rare approach in the context of local public services. These findings expand understanding of the application of SERVQUAL in the technology-based healthcare sector and urban communities. These findings directly recommend that home care doctors' managers and local policymakers prioritise empathetic communication training, enhanced professionalism, and data-driven monitoring systems in service delivery.

However, this study has several methodological limitations worth noting. First, using self-reported data is susceptible to social bias and social desirability responses. Second, geographical representation is limited as the study focuses solely on Makassar City, making the results difficult to generalize to the national population. Third, the closed-ended survey approach does not allow for in-depth exploration of emotional experiences and the dynamics of relationships between medical staff and patients. Fourth, selection bias and temporal validity cannot be ignored, as data were collected within a limited timeframe and geographical area.

As recommendations for future research, further studies are suggested to expand the geographical scope to other regions, including major cities and rural areas, to capture variations in social characteristics and service infrastructure. Additionally, mixed methods approaches can explore the subjective dimensions of service users' experiences not covered in quantitative surveys. It is also recommended to consider external variables such as the effectiveness of digital technology, the role of the family in home care services, and perceptions of programme sustainability. Adding these dimensions is expected to strengthen the home care service quality evaluation model in the context of the growing smart city in Indonesia.

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