Analysis Of Public Satisfaction with Population Administration Services in Banyuresmi District: An Expectancy Disconfirmation Theory Approach Using Structural Equation Modeling

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Abstract.
This study analyzes public satisfaction with population administration services in the Banyuresmi District using Expectancy Disconfirmation Theory (EDT). The research model examines the influence of expectation (EX), performance perception (PK), and confirmation/disconfirmation (KD) on satisfaction (KP) using Partial Least Squares-Structural Equation Modeling (PLS-SEM) with SmartPLS 4. The results indicate that confirmation/disconfirmation serves as the primary mediator in the relationship between expectation and satisfaction and between performance perception and satisfaction. Performance perception has the most significant impact on satisfaction compared to initial expectations. These findings suggest improving service quality, speed, and transparency can enhance public satisfaction. However, this study has limitations, including a restricted research area and a quantitative approach that has not explored the subjective aspects of user experience. Future research should conduct comparative studies in multiple regions, use qualitative methods, and incorporate external variables such as government regulations and digital literacy to gain a more comprehensive understanding. Thus, this study provides a foundation for improving policies and enhancing the quality of population administration services.
Keywords: *Expectancy Disconfirmation Theory, Public Satisfaction, Population Administration Services and PLS-SEM, SmartPLS 4.*

I. INTRODUCTION

Population administration services are crucial in government administration for fulfilling citizens' administrative rights, such as electronic ID card (KTP-el) registration. The quality of population administration services is a benchmark for the government's success in providing efficient and responsive public services. [1]. In Banyuresmi District, KTP-el registration over the past three months (October–December 2024) has fluctuated, totaling 354 visits. This figure reflects a significant public demand for administrative services. However, challenges remain in ensuring that these services meet public expectations regarding speed, procedural ease, and the clarity of information service officers provide. [2].

One relevant theoretical approach for measuring public satisfaction with these services is the Expectancy Disconfirmation Theory (EDT). EDT explains that comparing initial expectations and actual service performance determines an individual's satisfaction or dissatisfaction with a service. If perceived service performance meets or exceeds expectations, individuals experience satisfaction. Conversely, if service performance falls short of expectations, dissatisfaction arises. [1]. In this context, public expectations of population administration services include service speed, procedural simplicity, staff professionalism, friendliness, and the clarity of information provided [3]. Perceived performance, on the other hand, reflects the experience of receiving the service, which is then compared to initial expectations. [4]. Previous studies have demonstrated that EDT effectively explains public satisfaction across various public services. For example, research by Walle (2018) revealed that public satisfaction is often influenced by subjective evaluations rather than the objective performance of services (Van de Walle, 2018). Another study by Mok (2020) found that the

relationship between satisfaction and public service participation is nonlinear, although it focused more on co-production in the United States [5]. Furthermore, research by Hasan et al. (2024) confirmed that the Expectancy Disconfirmation Model can be effectively applied to digital services, even though digital contexts differ from conventional public administration services. [6].

However, previous studies present several limitations. First, most research focuses on international contexts, such as the United States, without considering local settings, mainly rural areas like Banyuresmi. Second, studies on EDT in public service contexts tend to be theoretical or rely on meta-analyses, lacking specific empirical evidence related to population administration services. Third, most studies have not explored the unique dynamics of administrative services, especially in regions with limited infrastructure and human resources. [7].

This study analyzes public satisfaction with population administration services in Banyuresmi District using the Expectancy Disconfirmation Theory (EDT) framework. It evaluates overall satisfaction and key variables such as expectations, perceived performance, and confirmation/disconfirmation. Using empirical data from KTP-el registration visits over the past three months, this research seeks to fill the existing gap in the literature while providing practical recommendations to enhance the quality of public administration services in rural areas.

II. LITERATURE REVIEW

Expectancy Disconfirmation Theory (EDT), developed by Oliver (1980), has been widely applied in customer satisfaction studies, including public services. This theory explains that comparing initial expectations and actual service performance determines satisfaction. When service performance exceeds expectations, users experience positive confirmation and feel satisfied. Conversely, disconfirmation occurs when service performance falls short of expectations, leading to dissatisfaction [1]. In the public service sector, EDT has been used to evaluate various services, such as healthcare services [8] and government services [9]. However, studies applying EDT specifically to population administration services remain limited.

In the EDT framework, expectations refer to an individual's initial belief about service quality before experiencing it. Satisfaction increases if expectations are high and the service meets or exceeds them. Conversely, if service performance is significantly below expectations, dissatisfaction arises. Performance perception refers to users' actual experience after receiving a service, which is then compared to their initial expectations. Positive confirmation occurs when service performance exceeds expectations, leading to higher satisfaction. [10]. However, previous studies indicate that adverse experiences in public services can reduce satisfaction, even if initial expectations are low. [11].

A key aspect of EDT is confirmation/disconfirmation, a cognitive process in which users compare received services to their expectations. When service delivery aligns with expectations, positive confirmation occurs, reinforcing satisfaction. However, disconfirmation arises when a discrepancy exists between expectations and actual service, potentially leading to dissatisfaction. Previous studies have confirmed that confirmation/disconfirmation significantly shapes public satisfaction with government services. [9]. Nonetheless, there is still a gap in research exploring EDT within the context of population administration services, highlighting the need for further investigation into how these factors influence public satisfaction in this sector.

II. METHODS

This study employs a quantitative approach with a survey design. The Expectancy Disconfirmation Theory (EDT) is the theoretical framework for analyzing public satisfaction. EDT explains that satisfaction results from comparing initial expectations and actual service performance.

If service performance meets or exceeds expectations, satisfaction is achieved; otherwise, dissatisfaction occurs. [1].

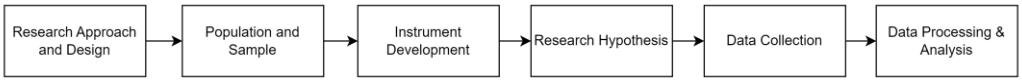

Fig 1. Research Methodology

Figure 1 illustrates the stages of the research methodology employed to analyze public satisfaction with population administration services in Banyuresmi District. These stages include Research Approach and Design, Population and Sample, Instrument Development, Research Hypothesis, Data Collection, and Data Processing & Analysis, which are interconnected throughout the research process. The following sections provide a detailed explanation of each stage:

Research Approach and Design

This study employs a quantitative approach with a survey design to analyze public satisfaction with population administration services in Banyuresmi District. The quantitative approach was chosen because this research examines the relationships between predefined variables and measures the impact of expectations, confirmation/disconfirmation, and performance perception on public satisfaction. As a theoretical foundation, this study applies the Expectancy Disconfirmation Theory (EDT), developed by Oliver (1980). EDT explains that user satisfaction is influenced by comparing initial expectations before using a service and perceived performance after receiving the service. Users feel satisfied when the service meets or exceeds expectations (positive confirmation). Conversely, when the service does not meet expectations, users experience disconfirmation, leading to dissatisfaction. [1].

Based on EDT, this research develops a conceptual model examining the relationships between Expectation (EX), Confirmation/Disconfirmation (KD), Performance Perception (PK), and Satisfaction (KP) as the primary variables. This framework illustrates how these key variables influence public satisfaction with population administration services. Expectation (EX) represents the extent of public anticipation regarding service quality before receiving it. Past experiences, information from others, and existing service policies shape this anticipation. After receiving the service, individuals evaluate whether their expertise aligns with their initial expectations, exceeds them, or falls below them, a process referred to as Confirmation/Disconfirmation (KD). When the received service meets or exceeds expectations, public satisfaction tends to be higher. Conversely, if the service fails to meet expectations, dissatisfaction may arise.

Population and Sample

The population in this study consists of residents of Banyuresmi District who have participated in KTP-el (electronic ID card) registration within the past three months (October–December 2024), totaling 354 visits. The study adopts a purposive sampling technique, selecting respondents based on the following criteria:

a. The respondent has completed KTP-el registration within the past three months.
b. The respondent is at least 17, meeting the minimum age requirement for ID issuance.
c. The respondent agrees to participate in the research.
d. The respondent has direct experience with population administration services.

Purposive sampling was chosen because it enables the researcher to focus on individuals directly relevant to the study, ensuring that the collected data is more meaningful and reliable. [12].

The sample size was calculated using Slovin's formula with a 5% margin of error, resulting in 188 respondents. To ensure fair representation, the sample was proportionally distributed across different villages based on the number of visits per village. [13], [14]

Research Instrument Development

The questionnaire was developed based on the EDT framework, incorporating key indicators for measuring service satisfaction:

a. Expectation (EX): Anticipations regarding service speed, procedural ease, staff professionalism, friendliness, and clarity of information.
b. Performance Perception (PK): Users' assessment of their actual service experience.
c. Confirmation/Disconfirmation (KD): The comparison between expectation and perceived performance.
d. Satisfaction (KP): The overall level of satisfaction, including willingness to reuse the service and recommendations to others.

Each indicator was measured using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). This approach aligns with commonly used methods in public service satisfaction research. [15], [16].

Research Hypotheses

Based on Expectancy Disconfirmation Theory (EDT), public satisfaction with population administration services is influenced by initial expectations, actual service experiences, and the extent to which the received service aligns with or deviates from expectations. In this study, Expectation (EX), Confirmation/Disconfirmation (KD), Performance Perception (PK), and Satisfaction (KP) serve as the main variables for analyzing causal relationships. Public expectations regarding administrative services play a significant role in shaping their perception of service quality. If expectations are met or exceeded, individuals are likely to feel satisfied; however, dissatisfaction may arise if the service falls short of expectations. Additionally, performance perception directly impacts satisfaction, as individuals evaluate services based on their actual experiences, including service quality, efficiency, and staff professionalism. Confirmation or disconfirmation acts as a mediating variable, determining satisfaction levels based on whether users' expectations are confirmed by their actual experiences. When services meet or exceed expectations, satisfaction increases. Conversely, dissatisfaction may emerge if a discrepancy exists between expectations and actual service delivery.

Thus, this study tests several hypotheses regarding the relationships between expectation, performance perception, confirmation/disconfirmation, and satisfaction. The proposed hypotheses are as follows:

a. H1: Expectation (EX) positively affects Confirmation/Disconfirmation (KD). Higher public expectations before receiving the service increase the likelihood of experiencing confirmation or disconfirmation.
b. H2: Performance Perception (PK) positively affects Confirmation/Disconfirmation (KD). When individuals perceive service performance as exceeding expectations, they are more likely to experience positive confirmation of the service.
c. H3: Confirmation/Disconfirmation (KD) positively affects Satisfaction (KP). If individuals feel that the received service meets or exceeds expectations, their satisfaction levels will increase.
d. H4: Performance Perception (PK) positively affects Satisfaction (KP). The better the public perceives population administration service performance, the higher their satisfaction level.
e. H5: Confirmation/Disconfirmation (KD) mediates the relationship between Expectation (EX) and Satisfaction (KP). This means their initial expectations influence public satisfaction and whether their service experience confirms them.
f. H6: Confirmation/Disconfirmation (KD) mediates the relationship between Performance Perception (PK) and Satisfaction (KP). Public satisfaction with services is not solely determined by how they assess service performance but also by whether the service meets their expectations.

Data Collection

The data collection process in this study was conducted using Google Forms (GForm) to facilitate the distribution of questionnaires to respondents. The questionnaire was designed based on the Expectancy Disconfirmation Theory (EDT) and included 17 main questions related to expectations, performance perception, confirmation/disconfirmation, and satisfaction, along with several demographic questions. Using purposive sampling, the Google Form link was distributed via communication channels such as WhatsApp, local community groups, and email to selected respondents. The data collection period lasted two to three weeks, during which periodic reminders were sent to respondents who had not completed the questionnaire to improve response rates. Data validation was performed after all responses were collected to ensure completeness and consistency. Only valid responses were stored in Google Sheets, which Google Forms automatically generated. This approach enabled an efficient, organized, and easily manageable data collection process, ensuring a seamless transition into the subsequent data processing and analysis phase.

Data Processing and Analysis

The data analysis in this study was conducted using SmartPLS with the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. This method was chosen due to its ability to handle complex research models, including direct and indirect relationships between latent variables. Additionally, PLS-SEM is well-suited for studies with relatively small sample sizes, making it a flexible alternative to Covariance-Based SEM (CB-SEM) [17]. The data analysis process consisted of two main stages: validity and reliability testing and structural model testing. In the first stage, validity and reliability tests were conducted to ensure that the measurement indicators accurately represented the intended constructs and exhibited internal consistency. Convergent validity was assessed using outer loadings, where indicators with values ≥ 0.70 were considered strong contributors to their respective latent variables [4]. Meanwhile, construct reliability was tested using Cronbach's Alpha and Composite Reliability (CR), both with a threshold of ≥ 0.70, indicating that the measurement instruments were reliable and consistent in measuring the studied variables [18].

Once the measurement model was validated and reliable, the next step was structural model testing, which aimed to evaluate relationships between latent variables. Path coefficients (β) were analyzed in this phase to determine the influence strength between variables. In contrast, the coefficient of determination (R^2) was used to measure how well independent variables explain the variance of dependent variables. The model was further assessed using bootstrapping techniques, with a p-value threshold of ≤ 0.05, to determine the statistical significance of relationships. [17]. Through this approach, the study effectively identified how expectation (EX), performance perception (PK), and confirmation/disconfirmation (KD) influence public satisfaction (KP). The PLS-SEM method allowed for the analysis of direct relationships and enabled the evaluation of mediation effects, clarifying the role of confirmation/disconfirmation in linking expectations and satisfaction. By employing this analytical approach, the study provided a comprehensive understanding of the factors affecting public satisfaction with population administration services. It offered valuable insights for policymakers to enhance the quality of public service delivery.

III. RESULT AND DISCUSSION

This study analyzes public satisfaction with population administration services in the Banyuresmi District using Expectancy Disconfirmation Theory (EDT). The model was tested using Structural Equation Modeling (SEM) with SmartPLS 4 to evaluate the influence of Expectation (EX), Performance Perception (PK), and Confirmation/Disconfirmation (KD) on Satisfaction (KP). Figure 1 illustrates the research model tested in this study, where Expectation (EX) and Performance Perception (PK) influence Confirmation/Disconfirmation (KD), which ultimately impacts Satisfaction

(KP). Additionally, Performance Perception (PK) also has a direct effect on Satisfaction (KP)

Fig 2. Graph before calculating with SmartPLS4

The respondents in this study consisted of 113 females (60.1%) and 75 males (39.9%), indicating that women were more dominant in managing population administration services. This trend is likely related to their responsibilities in handling family documents such as ID cards (KTP), family cards (KK), and birth certificates. The majority of respondents were within the productive age range (21-50 years old), totaling 141 people (75.1%), with the 21-30 age group being the largest (43.7%). Regarding occupation, 152 respondents (80.9%) fell into the "Others" category, which included housewives, students, and informal workers. Meanwhile, only 16 respondents (8.5%) were civil servants, indicating that individuals outside the government more frequently use population administration services. Additionally, the data revealed that most respondents were first-time users of population administration services (56.4%). In comparison, 33.5% had used these services 1-2 times in the past three years, and only 10.1% had accessed them more than three times within the same period. This suggests that most people do not frequently access population administration services, as these documents generally do not require periodic updates. However, the relatively high percentage of first-time users reflects a growing awareness of the importance of population administration, such as obtaining an ID card for the first time or updating civil status records.

1. Measurement Model (Outer Model)

The measurement model aims to assess the quality and validity of the research instruments before analyzing relationships between variables. This study's evaluation of the measurement model is based on three key criteria: convergent validity, discriminant validity, and composite reliability. [17]. The results of the outer model can be seen in Table 1.

Table 1: Outer Model Evaluation

Construct	Outer Loadings Range	AVE	Cronbach's Alpha	Composite Reliability (CR)
Expectation (EX)	0.866 – 0.931	0.815	0.943	0.957
Confirmation/Disconfirmation (KD)	0.944 – 0.949	0.896	0.883	0.945
Satisfaction (KP)	0.932 – 0.947	0.879	0.931	0.956
Performance Perception (PK)	0.932 – 0.953	0.887	0.968	0.975

a. Convergent Validity

Convergent validity assesses the extent to which the indicators used in this study accurately represent the latent variables intended to be measured. In Partial Least Squares - Structural Equation Modeling (PLS-SEM), convergent validity is evaluated using two key indicators: outer loadings and Average Variance Extracted (AVE). The results of the outer loadings analysis indicate that all indicators have values above 0.70, confirming a strong correlation between each indicator and its respective latent variable. The obtained values for each

construct range from 0.866 to 0.931 for Expectation (EX), 0.944 to 0.949 for Confirmation/Disconfirmation (KD), 0.932 to 0.947 for Satisfaction (KP), and 0.932 to 0.953 for Performance Perception (PK). These findings align with the recommendation that outer loadings should exceed 0.70 to ensure the validity of indicators in measuring their respective variables. [18].

Beyond outer loadings, convergent validity is further assessed through Average Variance Extracted (AVE), which quantifies the proportion of variance explained by the indicators relative to the variance attributed to measurement errors. An AVE value exceeding 0.50 suggests that the latent variable accounts for more than half of the indicator variance, thereby confirming adequate convergent validity. [19] The analysis results reveal that AVE values for all constructs range between 0.815 and 0.896, consistently exceeding the minimum threshold. These findings validate that the indicators used in the study effectively represent their respective constructs, ensuring strong convergent validity and reinforcing the reliability of the measurement model.

b. Discriminant Validity

Discriminant validity evaluates the extent to which a latent variable is distinct from other latent variables within the research model. Two methods commonly used to assess discriminant validity are the Fornell-Larcker Criterion and the Heterotrait-Monotrait Ratio (HTMT). The Fornell-Larcker Criterion analysis indicates that each variable's Average Variance Extracted (AVE) square root is more significant than its correlation with any other variable in the model. This confirms that each construct better explains the variance of its indicators than the variance it shares with different constructs. For example, the square root of the AVE for Expectation (EX) is 0.903, which is greater than its correlation with Confirmation/Disconfirmation (KD) = 0.374, Satisfaction (KP) = 0.376, and Performance Perception (PK) = 0.539. Similar results were observed for other variables, reinforcing that the Fornell-Larcker Criterion has been met, confirming strong discriminant validity [19]. In addition, the Heterotrait-Monotrait Ratio (HTMT) was used to assess discriminant validity further by evaluating whether the variables in the model exhibit significant differences. An HTMT value below 0.90 is acceptable for establishing discriminant validity [20]. The analysis results show that all HTMT values range between 0.396 and 0.882, remaining below the 0.90 threshold. This confirms that each construct in the model maintains sufficient distinction from others, avoiding redundancy or overlap.

Based on these findings, it can be concluded that the discriminant validity of this study is well established, ensuring that each construct possesses unique characteristics and does not overlap with other variables in the model. This strengthens the reliability of the model in accurately measuring relationships between variables.

c. Composite Reliability

Composite reliability measures the internal consistency of variables within a latent construct. Two primary measures used to assess reliability are Cronbach's Alpha and Composite Reliability (CR). Cronbach's Alpha evaluates the extent to which the indicators within a variable measure the same concept, ensuring internal consistency. Composite Reliability (CR) assesses the overall reliability of the indicators within a construct, providing a more comprehensive measure of reliability. The reliability analysis results indicate that all Cronbach's Alpha values exceed 0.70, confirming strong internal consistency among the indicators within each latent variable. Similarly, all Composite Reliability (CR) values are above 0.70, demonstrating that the research variables exhibit high reliability and can be considered robust for analysis. Based on the reliability analysis results, all Cronbach's Alpha

values exceed 0.70, indicating that the indicators within each variable exhibit strong internal consistency. This suggests that the items used to measure each construct are reliable and consistently represent the same underlying concept.

2. Structural Model (Inner Model)

This study's structural model (inner model) is used to examine the causal relationships between latent variables. The evaluation of the structural model is carried out through several key steps. First, the coefficient of determination (R^2) is assessed to measure how well the independent variables explain the variance in the dependent variable, indicating the model's explanatory power. A higher R^2 value suggests a stronger predictive ability of the model. Second, the effect size (f^2) is analyzed to determine the magnitude of influence an independent variable has on a dependent variable, helping to classify relationships as weak, moderate, or firm. Third, the predictive relevance (Q^2) is tested to evaluate whether the model has sufficient predictive power for endogenous variables, ensuring its practical significance. Additionally, multicollinearity analysis is conducted using the Variance Inflation Factor (VIF) to detect whether high correlations exist between independent variables, which could distort regression estimates. Finally, hypothesis testing is performed by analyzing path coefficients through bootstrapping techniques, determining the significance and strength of relationships between latent variables [17]. The results of the Inner Model Evaluation can be seen in Table 2.

Table 2: Inner Model Evaluation

Relationship	R^2	Adjusted R^2	Effect Size (f^2)	Path Coefficient (O)	T-statistic	P-value	Conclusion
EX → KD	-	-	0.019	-0.092	1.903	0.057	Not Significant
KD → KP	0.673	0.669	0.281	0.524	5.266	0.000	Significant
PK → KD	0.673	0.669	1.629	0.866	23.368	0.000	Significant
PK → KP	0.674	0.671	0.115	0.336	3.110	0.002	Significant

a. Coefficient of Determination (R^2)

The coefficient of determination (R^2) is used to assess how well independent variables explain the variability of the dependent variable in the model. A higher R^2 value indicates a more substantial explanatory power of the independent variables on the dependent variable. The results show that the R^2 value for Confirmation/Disconfirmation (KD) is 0.673, meaning that 67.3% of the variability in KD is explained by Expectation (EX) and Performance Perception (PK). In comparison, factors outside the model influence the remaining 32.7%. Similarly, the R^2 value for Satisfaction (KP) is 0.674, indicating that 67.4% of the variability in KP is explained by KD and PK, with 32.6% attributed to other unaccounted factors. According to Cohen's (1988) classification, an R^2 value of ≥ 0.67 is considered strong, signifying the model's high predictive power in explaining the relationships among the studied variables. These results suggest that the research model effectively captures the key determinants of satisfaction with public administration services, reinforcing its relevance in analyzing public expectations, service perceptions, and confirmation/disconfirmation mechanisms.

b. Effect Size (f^2)

Effect size (f^2) assesses the strength of influence between latent variables within the research model. This measure helps determine whether a variable's effect in explaining another variable is

weak, moderate, or firm. The analysis results indicate that Expectation (EX) has an f^2 value of 0.019 about Confirmation/Disconfirmation (KD), which falls into the small category. This suggests that expectation has a very weak influence on confirmation/disconfirmation, implying that people's initial expectations alone do not significantly determine whether their service experience aligns with their expectations. In contrast, Confirmation/Disconfirmation (KD) has an f^2 value of 0.281 about Satisfaction (KP), which falls into the moderate category. This indicates that the extent to which expectations align with or differ from actual service experiences significantly impacts satisfaction with population administration services.

Performance Perception (PK) exerts a powerful influence on Confirmation/Disconfirmation (KD), with an f^2 value of 1.629, far exceeding the threshold for an intense effect (≥ 0.35) as defined by Cohen (1988). This result highlights that people's perceptions of service quality are crucial in determining whether they feel their expectations have been met. However, the effect of Performance Perception (PK) on Satisfaction (KP) has an f^2 value of 0.115, which falls into the small-to-moderate category. This suggests that while perceived service performance contributes to satisfaction, its impact is not as strong as its effect on confirmation/disconfirmation. In other words, satisfaction is not solely determined by service performance but also by whether the service meets or exceeds prior expectations.

c. Predictive Relevance (Q^2)

Predictive relevance (Q^2) measures how well the model can predict the dependent variables, ensuring its ability to explain future observations. A Q^2 value greater than 0 indicates that the model has good prediction. [10]. The results show that the Q^2 value for Confirmation/Disconfirmation (KD) is 0.668 and for Satisfaction (KP) is 0.582, which are well above zero. These values confirm that the model possesses strong predictive ability, effectively explaining the variance in the dependent variables. Higher Q^2 values suggest that the model's constructs have meaningful explanatory power, reinforcing the model's robustness in predicting satisfaction with public administration services based on expectations, performance perceptions, and confirmation/disconfirmation processes.

d. Multicollinearity Analysis (VIF)

Multicollinearity is tested using the Variance Inflation Factor (VIF) to assess whether independent variables are highly correlated, which can distort regression estimates. A VIF value above 5 indicates multicollinearity issues, meaning that variables may be too closely related and could impact the model's accuracy. The results reveal that all VIF values are below the threshold of 5, with Expectation (EX) to Confirmation/Disconfirmation (KD) at 1.409, KD to Satisfaction (KP) at 3.001, Performance Perception (PK) to KD at 1.409, and PK to KP at 3.001. Since all values remain within the acceptable range, this study has no multicollinearity issues. This confirms that the relationships between variables are statistically reliable, allowing for a valid interpretation of the causal effects in the structural model.

e. Hypothesis Testing (Path Coefficients)

Hypothesis testing was conducted by examining path coefficients, t-statistics, and p-values to determine the significance of relationships between variables. The results indicate varying levels of influence among constructs in the model.

The analysis shows that the relationship between Expectation (EX) and Confirmation/Disconfirmation (KD) is not significant (p-value = 0.057, t-statistic = 1.903), as it exceeds the 0.05 threshold. This means that expectation does not have a strong enough effect on how individuals evaluate their service experience. In other words, initial expectations alone do not significantly shape whether individuals feel their service experience met, exceeded, or fell short of their expectations. In contrast, the relationship between Confirmation/Disconfirmation (KD) and Satisfaction (KP) is

significant (p-value < 0.001, t-statistic = 5.266), meaning that the more closely service experiences align with expectations, the higher the level of satisfaction. This confirms that confirmation or disconfirmation is crucial in determining public satisfaction with administrative services. Furthermore, Performance Perception (PK) has a powerful influence on Confirmation/Disconfirmation (KD) (p-value < 0.001, t-statistic = 23.368), indicating that the quality of service perceived by users plays a dominant role in shaping whether expectations are met or not. This suggests that objective service quality is a stronger determinant of user perception than prior expectations. Lastly, the relationship between Performance Perception (PK) and Satisfaction (KP) is also significant (p-value = 0.002, t-statistic = 3.110). This confirms that good service quality directly enhances user satisfaction, although its impact is not as strong as its effect on confirmation/disconfirmation. While service quality influences satisfaction, its effect is mediated by the degree to which expectations are confirmed or disconfirmed. These results show that public satisfaction is more influenced by their actual service experience rather than their initial expectations before receiving the service. This highlights the importance of service performance and the confirmation process in shaping user perceptions and overall satisfaction with population administration services.

f. Indirect Effects (Mediation Analysis)

To examine mediation effects, an indirect effects analysis was conducted to determine whether Confirmation/Disconfirmation (KD) acts as a mediating variable in the relationships between Expectation (EX), Performance Perception (PK), and Satisfaction (KP). The analysis results indicate that the indirect effect of EX on KP through KD is significant (p-value = 0.046, t-statistic = 1.991). This finding suggests that Confirmation/Disconfirmation (KD) mediates the relationship between Expectation (EX) and Satisfaction (KP). In other words, expectations alone do not directly influence satisfaction, but their impact is realized through confirmation or disconfirmation based on actual service experience. If expectations are met or exceeded, satisfaction increases; however, dissatisfaction occurs if they are not met. Similarly, the indirect effect of PK on KP through KD is highly significant (p-value < 0.001, t-statistic = 5.459). This indicates that KD is a potent mediator between Performance Perception (PK) and Satisfaction (KP). This means that while service performance directly impacts satisfaction, its effect is amplified when expectations are confirmed through positive service experiences. If users perceive high service quality and their expectations align with reality, their satisfaction increases significantly. These findings confirm that Confirmation/Disconfirmation (KD) plays a crucial role in mediating the effects of both Expectation (EX) and Performance Perception (PK) on Satisfaction (KP). The results emphasize that satisfaction is not solely determined by expectations or perceived service quality but is primarily shaped by the degree to which individuals feel their expectations have been met. Therefore, improving service quality while managing public expectations is essential to enhancing overall satisfaction with population administration services.

3. Discussion

The hypothesis testing results in this study indicate that some relationships within the research model are significant while others are not. Confirmation/Disconfirmation (KD) significantly influences Satisfaction (KP), with a path coefficient of 0.524 and a p-value < 0.001, demonstrating that public satisfaction with administrative services is strongly influenced by how well expectations align with the experience. Additionally, Performance Perception (PK) significantly influences Confirmation/Disconfirmation (KD), with a path coefficient of 0.866 and p-value < 0.001, meaning that the public's perception of service quality determines whether they feel their expectations are met or exceeded. The direct relationship between Performance Perception (PK)

and Satisfaction (KP) is also significant, with a path coefficient of 0.336 and a p-value = 0.002, indicating that better service quality leads to higher public satisfaction.

In addition to direct relationships, significant indirect relationships were also found. Expectation (EX) influences Satisfaction (KP) through Confirmation/Disconfirmation (KD), with a path coefficient of -0.048 and a p-value = 0.046. This suggests that while initial expectations do not directly affect satisfaction, comparing expectations and actual service experience is crucial in determining satisfaction levels. Similarly, Performance Perception (PK) has an indirect effect on Satisfaction (KP) through Confirmation/Disconfirmation (KD), with a path coefficient of 0.454 and p-value < 0.001, indicating that perceptions of service quality not only have a direct impact on satisfaction but are also reinforced through the expectation-reality comparison mechanism. However, the analysis also reveals that Expectation (EX) does not significantly influence Confirmation/Disconfirmation (KD) (p-value = 0.057), meaning that initial public expectations do not necessarily determine whether they will feel satisfied or disappointed after receiving the service.

These findings confirm that public satisfaction with administrative services is primarily influenced by service performance perception and the extent to which expectations align with actual service delivery. Based on hypothesis testing using Structural Equation Modeling (SEM) with SmartPLS 4, several key findings warrant further discussion within the context of theoretical implications and practical applications.

The study results indicate that Confirmation/Disconfirmation (KD) significantly impacts Satisfaction (KP), with a path coefficient of 0.524 (p-value < 0.001). This finding aligns with the Expectancy Disconfirmation Theory (EDT), which states that satisfaction occurs when user expectations are met or exceeded by their service experience. [1]. This means that satisfaction will increase if administrative services meet or exceed public expectations. Conversely, a mismatch between expectations and actual service leads to disconfirmation, which can result in dissatisfaction. This finding implies that government agencies must ensure service information is transparently communicated to the public, preventing unrealistic expectations that could lead to dissatisfaction.

Performance Perception (PK) has a significant impact on Confirmation/Disconfirmation (KD) (path coefficient = 0.866, p-value < 0.001) and also directly influences Satisfaction (KP) (path coefficient = 0.336, p-value = 0.002). These results suggest that when people perceive administrative services as efficient and of high quality, they are more likely to feel that they meet their expectations, ultimately increasing their satisfaction. This finding aligns with previous research, which states that service quality perception is one of the primary factors determining satisfaction with public services. [21]. Service speed, staff friendliness, and ease of access are crucial in shaping positive service performance perceptions. Therefore, government agencies should continue to improve efficiency and service quality to enhance public perception of administrative services.

A notable finding in this study is that Expectation (EX) does not have a significant direct influence on Confirmation/Disconfirmation (KD) (path coefficient = -0.092, p-value = 0.057). This suggests that the public's initial expectations regarding administrative services do not always determine whether they will feel satisfied or disappointed with the service received. This result differs from previous studies that emphasized the critical role of expectations in shaping satisfaction [1]. However, in administrative services, citizens may have pre-formed expectations based on prior experiences or information obtained from their surroundings, making factors such as service performance perception more dominant in shaping satisfaction. This finding implies that government efforts should not only focus on managing public expectations but also on improving

actual service quality, as initial expectations may not always determine final service evaluation.

Although Expectation (EX) does not have a direct effect on Confirmation/Disconfirmation (KD), it has an indirect influence on Satisfaction (KP) through KD (path coefficient = -0.048, p-value = 0.046). This finding suggests that expectations still play a role in shaping public satisfaction but operate through the actual service experience evaluation process. Furthermore, Performance Perception (PK) has a strong indirect effect on Satisfaction (KP) through Confirmation/Disconfirmation (KD) (path coefficient = 0.454, p-value < 0.001). In other words, when people perceive service performance positively, they are more likely to feel that the service meets their expectations, ultimately leading to higher satisfaction.

Based on these findings, several implications can guide efforts to improve administrative service quality. First, transparency in service information is essential to manage public expectations and prevent expectation-reality mismatches that could lead to dissatisfaction. Second, good service quality—such as service speed, staff professionalism, and accessibility—significantly impacts satisfaction. Therefore, enhancing operational efficiency and training staff to provide excellent service should be a priority. Furthermore, since Performance Perception (PK) has a strong indirect influence on Satisfaction (KP) through Confirmation/Disconfirmation (KD), regular evaluation of service quality is necessary to ensure that public services align with expectations. Lastly, this study highlights that actual service experiences have a more significant impact on satisfaction than initial expectations. Thus, government agencies should focus on improving concrete service aspects rather than solely enhancing public perceptions of service expectations.

IV. CONCLUSION

This study analyzes public satisfaction with civil administration services in Banyuresmi District using the Expectancy Disconfirmation Theory (EDT). The findings indicate that satisfaction is primarily influenced by service performance perception and the alignment between initial expectations and actual service experiences. Confirmation/Disconfirmation (KD) serves as a mediator in the relationship between expectation (EX), performance perception (PK), and satisfaction (KP). The analysis using PLS-SEM with SmartPLS 4 reveals that enhancing administrative service quality contributes to increased public satisfaction. Additionally, speed, transparency, and accessibility of services are key factors in creating a positive user experience.

Despite offering valuable insights, this study has several limitations. It was conducted in only one district, making the results less generalizable to regions with different characteristics. Moreover, the research relies solely on a quantitative approach, which does not fully capture the subjective experiences of service users. Furthermore, the variables used in this study are limited, as they do not account for external factors such as government regulations and digital literacy. Future research is encouraged to expand the study area, incorporate qualitative methods for deeper exploration, and include external factors influencing satisfaction with civil administration services.

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