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"The Model of Service Quality Influence on the Existence of Ride-Hailing Service Operations Using the Structural Equation Modeling (SEM) Method"

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Abstract
By the growth of smartphones users in Indonesia, online-based companies from both domestic and international markets have begun to entering and expanding their businesses in Indonesia, including ride-hailing service. ride-hailing service offer the convenience of taxi services at lower and more competitive prices compared to official taxis, leading to rapid development and growth in Palu City.
The purpose of this study is to identify and analyze the characteristics of ride-hailing service users in Palu City, as well as to examine and analyze a model of ride-hailing service service quality and its impact on user satisfaction in Palu City using the Structural Equation Modeling (SEM) method.
Data analysis was conducted using the Structural Equation Modeling (SEM) method to determine the relationship between service quality and user satisfaction with ride-hailing service in Palu City.
The analysis results indicate that the highest characteristic of ride-hailing service users in Palu City is private-sector employees, accounting for 46.27%. The relationship between dimensions and indicators shows strong influence, with loading factor values (determination coefficient values) > 0.70. Customer satisfaction perception reveals that the fare factor significantly influences satisfaction, followed by time, safety, comfort, and accessibility.
Keywords: *satisfactions, transportation, service quality, structural equation modeling, ride-hailing service.*

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I. INTRODUCTION

The decline in the quality of public transportation services today has led to a decrease in public transport users. The quality of service refers to the service provided to users according to the established service standards, which serve as guidelines in delivering services. Factors driving public transport users to choose more easily accessible modes of transport, such as private vehicles, include difficult access and the availability of transportation options.

In Palu City, there are various public transport options, such as traditional public transport, taxis, buses, ride-hailing service, and others. ride-hailing service are an alternative transportation mode that offers a transformation from conventional transportation to an urban transport system based on online platforms, which has become popular among the people of Palu City, as explained by Sarwono (2018).

The method used in this study is Structural Equation Modeling (SEM), as it allows for the analysis of relationships between latent variables, namely service quality and user satisfaction with ride-hailing services. This method uses simultaneous equations to assist in analyzing these variables.

1.1 Literatur Review

This study analyzes the relationship between urban transportation service quality and user satisfaction using the Structural Equation Modeling (SEM) method with the Lisrel 8.8 program.

1.2 Location

The research was conducted in Palu City, Central Sulawesi Province. This location was selected due to the significant growth in the use of ride-hailing services in the area.

1.3 Data and Method

Primary data were collected directly by the researcher in the field through respondents via observation, interviews, and the distribution of surveys/questionnaires. Secondary data were collected by distributing questionnaires and conducting interviews with ride-hailing service users in Palu City.

II. RESULT AND DISCUSSION

2.1 Data Reaserch

This study conducted a survey of ride-hailing service users in Palu City by distributing questionnaires to respondents who had used ride-hailing service passenger services. Table 2.1 presents the data.

Tabel 2.1 Data from Questionnaire Results on User Satisfaction Perceptions Towards Service Quality Ride-hailing service Using the Structural Equation Modeling (SEM) Method

Dimension	Indicators	Alternative Responses					
		1	2	3	4	5	Total
Comfortness	X1 = Cabin Temperature	2	11	46	124	72	255
	X2 = Cabin condition, clean and fragrant	1	11	40	128	75	255
Accessibility	X3 = Door-to-Door Transportation	12	5	35	151	52	255
	X4 = Ease of Access to the Mode	2	23	72	109	49	255
Safety	X5 = Threats to Users from Criminal Acts	16	20	82	90	47	255
	X6 = Driver Behavior When Overtaking/Speeding	8	24	80	97	46	255
Time	X7 = Driver's Responsiveness/Promptness When Picking Up Users	1	14	63	120	57	255
	X8 = Travel Time to the Destination	3	6	54	139	53	255
Fare	X9 = Payment System Based on Distance	3	7	51	133	61	255
	X10 = Digital Payment System or E-Wallet Facilitates	4	2	51	129	69	255
Satisfactions	Y1 = Overall Satisfaction	3	3	39	144	66	255
	Y2 = Continuing to Use the Mode	3	3	61	124	64	255

2.2 Characteristics of Ride-hailing service Users

2.2.1 Characteristics of Ride-hailing service Users Based on Age

Based on the research results, the respondent age groups are as follows Ages 11–20 years: 27 respondents with a percentage of 10.59%, Ages 21–30 years: 177 respondents with a percentage of 69.41%, Ages 31–40 years: 50 respondents with a percentage of 9.61%, Ages 41–50 years: 1 respondent with a percentage of 0.39%, Ages 51–60 years: 0 respondents with a percentage of 0.00%, This can be seen in Figure 2.1.

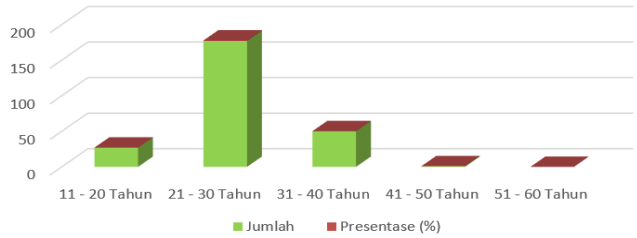

Figure 2.1 Characteristics of Ride-hailing service Users Based on Age

2.2.2 Characteristics of Ride-hailing service Users Based on Gender

Based on the research results, respondents are grouped by gender as follows: Male: 92 respondents with a percentage of 36.08% Female: 163 respondents with a percentage of 63.92% This data is illustrated in Figure 2.2.

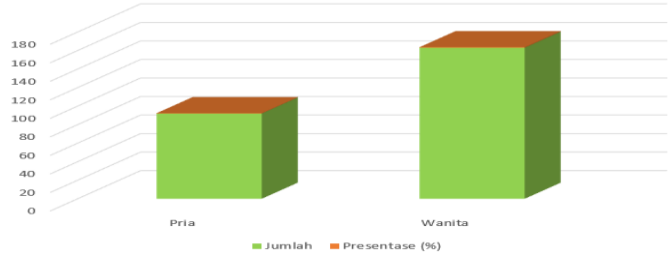

Figure 2.2 Characteristics of Ride-hailing service User Based on Gender

2.2.3 Characteristics of Ride-hailing service User Based on Occupacy
Based on the research results, respondents are grouped by occupation as follows:
Private employees: 72 respondents (28.24%), Freelancers: 25 respondents (9.80%), Entrepreneurs: 51 respondents (20.00%), Corporate employees: 4 respondents (1.57%), Homemakers: 18 respondents (7.06%) Students: 33 respondents (12.94%), Civil servants/military personnel: 10 respondents (3.92%), Contract employees: 42 respondents (16.47%), This data is illustrated in Figure 2.3.

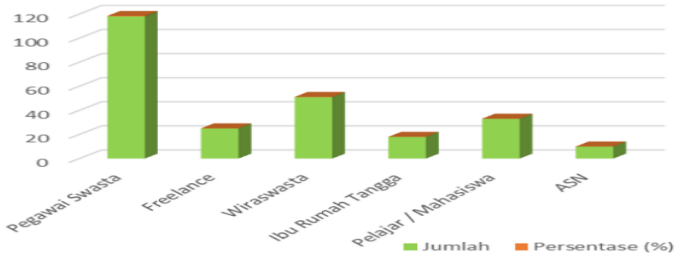

Figure 2.3 Characteristics of Ride-hailing service User Based on Occupacy

2.2.4 Characteristics of Ride-hailing service User Based on Education
Based on the research results, respondents are grouped by their highest level of education as follows: Junior high school: 1 respondent (0.39%), Senior high school: 54 respondents (21.18%), Diploma/Bachelor's degree: 187 respondents (73.33%), Master's/Doctorate degree: 13 respondents (5.10%). This data is illustrated in Figure 2.4.

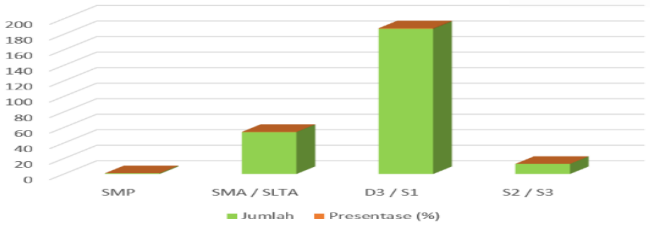

Figure 2.4 Characteristics of Ride-hailing service User Based on Education

2.2.5 Characteristics of Ride-hailing service Users Based on Average Family Transportation Expenditure
Based on the research results, respondents are grouped by their average family transportation expenditure as follows IDR 0 – 1,000,000: 37 respondents (14.51%), IDR 1,000,000 – 2,000,000: 51 respondents (20.00%), IDR 2,000,000 – 3,000,000: 51 respondents (20.00%), IDR 3,000,000 – 4,000,000: 53 respondents (20.78%), IDR 4,000,000 – 5,000,000: 18 respondents (7.06%), IDR 5,000,000 – 10,000,000: 38 respondents (14.90%), IDR 10,000,000: 7 respondents (2.75%). This data is illustrated in Figure 2.5.

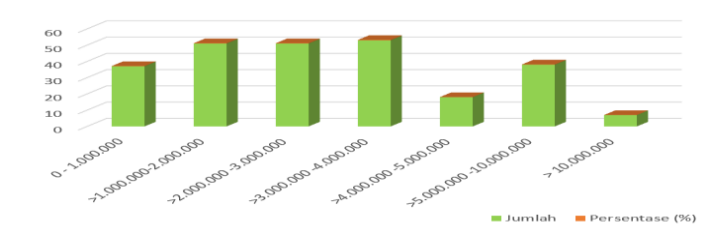

Figure 2.5 Characteristics of Ride-hailing service Users Based on Average Family Transportation Expenditure

2.2.6 Characteristics of Ride-hailing service Users Based on the Role/Function of Ride-hailing services
Based on the research results, respondents are grouped by the role/function of ride-hailing services as follows: 246 respondents (96.47%) choose ride-hailing services as a substitute transportation option at certain times, 9 respondents (3.53%) choose ride-hailing services as their primary mode of transportation for activities. This can be seen in Figure 2.6.

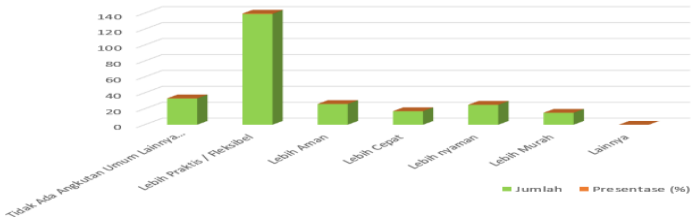

Figure 2.6 Characteristics of Ride-hailing service Users Based on the Role/Function of Ride-hailing services

2.2.7 Characteristics of Ride-hailing service Users Based on the Role/Function of Ride-hailing services
Based on the research results, the main reasons respondents use ride-hailing services are as follows: No other public transportation available (e.g., angkot/bus): 33 respondents (12.94%), More practical/flexible: 139 respondents (54.51%), Safer: 26 respondents (10.20%), Faster: 17 respondents (6.67%), More comfortable: 25 respondents (9.80%), Cheaper: 15 respondents (5.88%), Other reasons: 0 respondents (0.00%). This data is illustrated in Figure 2.7.

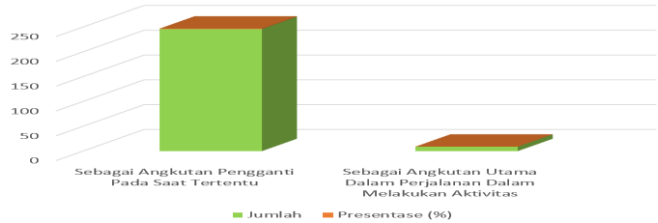

Figure 2.7 Characteristics of Ride-hailing service Users Based on the Role/Function of Ride-hailing services

2.2.8 Characteristics of Ride-hailing service Users Based on Travel Purpose
Based on the research results, the reasons respondents use ride-hailing services for their trips are as follows: School: 2 respondents (0.78%), Social activities/religious purposes: 49 respondents (19.22%), Workplace: 81 respondents (31.76%), Shopping: 80 respondents (31.37%), Home: 42 respondents (16.47%), Other purposes: 1 respondent (0.39%). This data is illustrated in Figure 2.8.

Figure 2.8 Characteristics of Ride-hailing service Users Based on Travel Purpose

2.2.9 Characteristics of Ride-hailing service Users Based on Travel Time to Daily Activity Locations
Based on the research results, the travel time to daily activity locations for respondents using ride-hailing services is as follows: 0 – 9 minutes: 17 respondents (6.67%), 10 – 19 minutes: 118 respondents (46.27%), 20 – 29 minutes: 61 respondents (23.92%), 30 – 60 minutes: 59 respondents (23.14%), 60 minutes: 0 respondents (0.00%). This data is illustrated in Figure 2.9.

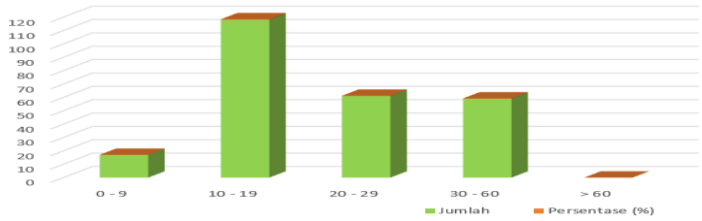

Figure 2.9 Characteristics of Ride-hailing service Users Based on Travel Time to Daily Activity Locations

2.2.10 Characteristics of Ride-hailing service Users Based on Weekly Ride-hailing service Usage

Based on the research results, respondents' weekly usage of ride-hailing services is as follows: 0 times: 16 respondents (7.37%), 1 – 2 times: 148 respondents (68.20%), 3 – 4 times: 36 respondents (16.59%), 5 – 6 times: 13 respondents (5.99%), 7 – 8 times: 3 respondents (1.38%), 9 – 10 times: 56 respondents (25.81%). This can be seen in Figure 2.10.

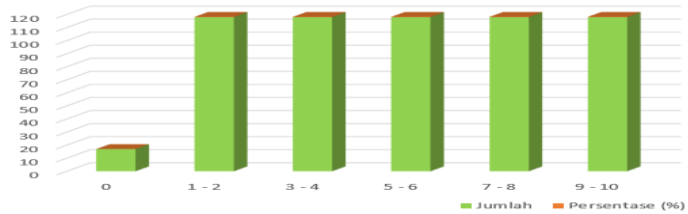

Figure 2.10 Characteristics of Ride-hailing service Users Based on Weekly Ride-hailing service Usage

2.2.11 Characteristics of Ride-hailing service Users Based on Travel Distance Using Ride-hailing services

Based on the research results, respondents' travel distance using ride-hailing services is as follows: < 0.5 km: 6 respondents (2.76%), 0.5 – 1.0 km: 31 respondents (14.28%), 1.0 – 3.0 km: 67 respondents (30.88%), 3.0 – 6.0 km: 64 respondents (29.49%), 6.0 – 10.0 km: 34 respondents (15.67%), 10.0 km: 15 respondents (25.81%). This data is illustrated in Figure 2.11.

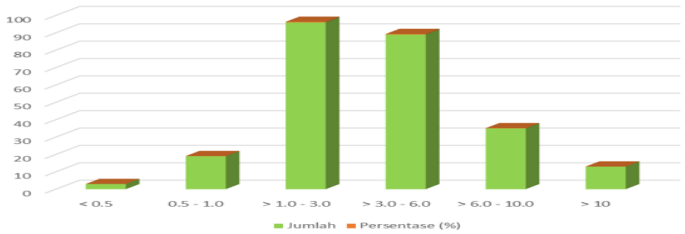

Figure 2.11 Characteristics of Ride-hailing service Users Based on Travel Distance Using Ride-hailing services

2.3 Ride-hailing services User Perception of Quality and Satisfaction with Ride-hailing Services

User perception of quality and customer satisfaction with online taxi services can be seen in Table 2.2 below:

Table 2.2 User Perception Of Service Quality and Satisfaction With Ride-hailing services

No.	Indicator	Variable	Perceptions										Total	%
			1		2		3		4		5			
			total	%	total	%	total	%	total	%	total	%		
1	Cabin Temperature	X1	2	0.78	11	4.31	46	18.04	124	48.63	72	28.24	255	100
2	Cabin condition, clean and fragrant	X2	1	0.39	11	4.31	40	15.69	128	50.20	75	29.41	255	100
3	Door-to-Door Transportation	X3	12	4.71	5	1.96	35	13.73	151	59.22	52	20.39	255	100
4	Ease of Access to the Mode	X4	2	0.78	23	9.02	72	28.24	109	42.75	49	19.22	255	100
5	Threats to Users from Criminal Acts	X5	16	6.27	20	7.84	82	32.16	90	35.29	47	18.43	255	100

6	Driver Behavior When Overtaking/Speeding	X6	8	3.14	24	9.41	80	31.37	97	38.04	46	18.04	255	100
7	Driver's Responsiveness/Promptness When Picking Up Users	X7	1	0.39	14	5.49	63	24.71	120	47.06	57	22.35	255	100
8	Travel Time to the Destination	X8	3	1.18	6	2.35	54	21.18	139	54.51	53	20.78	255	100
9	Payment System Based on Distance	X9	3	1.18	7	2.75	51	20.00	133	52.16	61	23.92	255	100
10	Digital Payment System or E-Wallet Facilitates Payment Process	X10	4	1.57	2	0.78	51	20.00	129	50.59	69	27.06	255	100
	Average			**2.04**		**4.82**		**22.51**		**47.84**		**22.78**		**100**
1	Overall Satisfaction	Y1	3	1.18	3	1.18	39	15.29	144	56.47	66	25.88	255	100
2	Continuing to Use the Mode	Y2	3	1.18	3	1.18	61	23.92	124	48.63	64	25.10	255	100
	Average			**1.18**		**1.18**		**19.61**		**52.55**		**25.49**		**100**

By Table 2.2 concluded that, generally, user perceptions of the service quality provided by ride-hailing services are as follows: Very poor: 2.04%, Poor: 4.82%, Fair: 22.51%, Good: 47.84%, Very good: 22.78%, Meanwhile, user perceptions of satisfaction with the services experienced are as follows: Very poor: 1.18%, Poor: 1.18%, Fair: 19.61%, Good: 52.55%, Very good: 25.49%.

2.3 Validity Test and Reliability Test

To determine which variables can be used as indicators for testing, the factor loading values obtained from LISREL can be seen in Figure 2.12 and presented in Table 2.3.

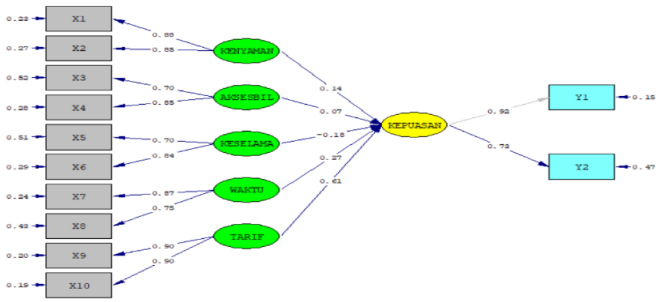

Figure 2.12 Output Lisrel Standardized Solution

Table 2.3 Loading Factors

Dimension	Indicator	Loading Factors ≥ 0.70	Error	Construct Reliability (CR) ≥ 0.70	Variance Extracted (VE) ≥ 0.50
Comfortness	X1	0.88	0.23	0.857	0.750
	X2	0.85	0.27		
Accessibility	X3	0.70	0.52	0.750	0.602
	X4	0.85	0.28		
Safety	X5	0.70	0.51	0.748	0.599
	X6	0.84	0.29		
Time	X7	0.87	0.24	0.797	0.663
	X8	0.75	0.43		
Fare	X9	0.90	0.2	0.893	0.806
	X10	0.90	0.19		

The research instrument is considered valid with a factor loading value greater than 0.7, as shown in Table 2.4, which means the items in the research instrument are valid. The construct reliability results for all

constructs are greater than 0.70, and the variance extracted values are greater than 0.50. These figures indicate that the research instrument used has good reliability. Therefore, the research instrument is suitable for analysis using Structural Equation Modeling (SEM).

2.4 Normality Test

From the analysis using LISREL 8.80, the P-value for skewness and the P-value for kurtosis are greater than 0.05, indicating that the data follows a normal distribution. This can be seen in Table 2.4 and Table 2.5.

Table 2.4 Transformation of Skewness and Kurtosis Values for Normality Testing

No	Dimension	Indicator	Skewness		Kurtosis		Skewness and Kurtosis	
			Z-Score	P-value	Z-Score	P-value	Chi-Square	P-value
1	Comfortness	X1	-1.963	0.050	-1.274	0.203	5.477	0.065
		X2	-2.028	0.043	-1.179	0.238	5.502	0.064
2	Accessibility	X3	-1.370	0.171	0.087	0.931	1.884	0.390
		X4	-1.146	0.252	-1.385	0.166	3.232	0.199
3	Safety	X5	-0.926	0.354	-2.235	0.025	5.850	0.054
		X6	-1.058	0.290	-1.548	0.122	3.516	0.172
4	Time	X7	-1.386	0.166	-1.256	0.209	3.497	0.174
		X8	-1.333	0.182	-0.281	0.779	1.857	0.395
5	Fare	X9	-1.568	0.117	-0.720	0.472	2.978	0.226
		X10	-1.572	0.116	-1.491	0.136	4.695	0.096

Table 2.5 P-Value Skewness and Kurtosisi > 0.05

No	Dimension	Indicator	P-value Skewness and Kurtosis > 0.05	Explanation
1	Comfortness	X1	0.065	Normal
		X2	0.064	Normal
2	Accessibility	X3	0.390	Normal
		X4	0.199	Normal
3	Safety	X5	0.054	Normal
		X6	0.172	Normal
4	Time	X7	0.174	Normal
		X8	0.395	Normal
5	Fare	X9	0.226	Normal
		X10	0.096	Normal

2.5 Goodness Of Fit Model Analyze

For a model to be established, it should begin with a Goodness of Fit analysis, which aims to determine whether the model can be considered good or not.

Table 2.6 Goodness Of Fit Evaluations

No.	Goodness of Fit	Cut-Off Value	Result	Validity Model
1	Adjusted Goodness of Fit Index (AGFI)	≥ 0.90	0.93	Good
2	Akaike Information Index (AIC)	< AIC Saturated dan Independence Model	*M = 133.58 *S = 156 *I = 3194.59	Good
3	Chi Squares	Diharapkan Kecil (P > 0.05)	58.46 (P=0.023)	Kurang Baik
4	Comparative Fit Index (CFI)	> 0.90 ; >0.95	0.99	Baik
5	Consistent Akaike Information Index (CAIC)	< CAIC Saturated dan Independence Model	*M = 310.69 *S = 510.22 *I = 3194.59	Good
6	Degree of Freedom	Diharapkan Besar		
7	Expected Cross Validation Index (ECVI)	< ECVI Saturated dan Independence Model	*M = 0.53 *S = 0.61 *I = 12.36	Good
8	Goodness of Fit Index (GFI)	> 0.90	0.96	Good
9	Incremental Fit Index (IFI)	> 0.90 ; >0.95	0.99	Good
10	Normed Fit Index (NFI)	> 0.90 ; >0.95	0.98	Good
11	Parsimonious Normed Fit Index (PNFI)	0.06 – 0.09	0.58	Kurang Baik
12	Parsimonious Goodness of Fit Index (PGFI)	> 0.60	0.48	Kurang Baik
13	Probability	≥ 0.05	0.041	Kurang Baik
14	P Value For RMSEA	> 0.05	0.72	Good
15	Relative Fit Index (RFI)	> 0.90 ; >0.95	0.97	Good

16	Root Mean Square Error Approximation (RMSEA)	< 0.05 Very Good 0.05 – 0.08 Good Enough	0.041	Very Good
17	Root Mean Aquare Residual (RMSR)	< 0.08	0.020	Good

According to Hair et al. (2010), the use of 4 to 5 goodness-of-fit indices is considered sufficient for evaluating the adequacy of a model, provided that each criterion of the goodness-of-fit is represented. Based on the goodness-of-fit results in Table 2.6, the model can be considered adequate.

2.6 Relationship between Service Quality and Satisfaction

The relationship between variables in this study is constructed based on the concept of causal relationships, as follows:

2.7.1 Indicators of Service Quality

Table 2.7 Indicators of Service Quality Dimensions

Dimension	Indicators	
Comfortness	Cabin Temperature	(X1)
	Cabin condition, clean and fragrant	(X2)
Accessibility	Door-to-Door Transportation	(X3)
	Ease of Access to the Mode	(X4)
Safety	Threats to Users from Criminal Acts	(X5)
	Driver Behavior When Overtaking/Speeding	(X6)
Time	Driver's Responsiveness/Promptness When Picking Up Users	(X7)
	Travel Time to the Destination	(X8)
Fare	Payment System Based on Distance	(X9)
	Digital Payment System or E-Wallet Facilitates Payment Process	(X10)

2.7.2 Indicators of Satisfaction Y1 and Y2

Table 2.8 Indicators of User Satisfaction Dimensions

Dimension	Indicators	
Satisfactions	Overall Satisfaction	(Y1)
	Continue using the mode	(Y2)

2.7.3 Relationship Between Service Quality Dimension Indicators \

The magnitude of the relationship between the indicators and service quality, including comfort, accessibility, safety, time, and fare, can be seen in Table 2.9.

Table 2.9 Magnitude of the Influence of Indicators on Service Quality

No	Dimension	Indicators	Determinations Coeffisient (R^2)	Relationship Strength
1	Comfortness	X1	0.77	Strong
		X2	0.73	Strong
2	Accessibility	X3	0.48	Moderate
		X4	0.72	Moderate
3	Safety	X5	0.49	Moderate
		X6	0.71	Strong
4	Time	X7	0.76	Strong
		X8	0.57	Strong
5	Fare	X9	0.80	Very Strong
		X10	0.81	Very Strong

2.7.4 Hubungan Kualitas Pelayanan dengan Kepuasan

Hubungan pengaruh kualitas pelayanan terhadap kepuasan pelanggan dapat digambarkan dalam model hubungan struktural dalam bentuk persamaan yaitu :

Satisfactions = 0,14 Comfortness+ 0.071 Accessibility – 0.18 Safety + 0,27 Time +0.61 Fare

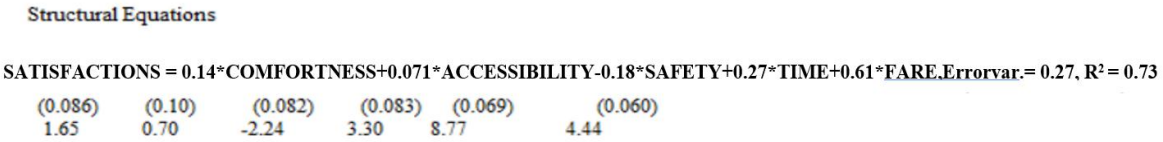

Figure 2.13 Result of Lisrel Structural Equations Output

From the structural equation above, it can be concluded that the fare factor, as shown in Table 2.10 below:

Table 2.10 Evaluation of Model Coefficients

No	Dimension	Coefficients	t-value (>1.96)	Effects
1	Comfortness	0.14	1.65	Not Significant
2	Accessibility	0.071	0.70	Not Significant
3	Safety	-0.18	-2.24	Significant
4	Time	0.27	3.30	Significant
5	Fare	0.61	8.77	Significant

2.7 Discussion of Ride-hailing service Service Quality Indicators and Their Impact on User Satisfaction

Service quality consists of 5 dimensions: **X1 (Cabin Temperature)**: Significantly affects satisfaction, as the temperature of the operating ride-hailing service is very comfortable for both short and long distances, **X2 (Clean and Fresh Cabin Condition)**: Significantly affects satisfaction, as the cleanliness and fragrance of the ride-hailing service make users feel very comfortable when using the service, **X3 (Door-to-Door Transport)**: Significantly affects satisfaction, as the ride-hailing service picks up users from their doorstep and delivers them to their destination, **X4 (Ease of Access to the Mode)**: Significantly affects satisfaction, as users can order a vehicle via the app without needing to search for a taxi directly on the street. Ride-hailing services are easily accessible through the app, **X5 (User Safety from Criminal Acts)**: Significantly affects satisfaction, as users are concerned about the risk of theft of their valuable belongings during the journey, **X6 (Driver's Overtaking/Speeding)**: Significantly affects satisfaction, as drivers occasionally overtake or speed to reach the destination faster, **X7 (Driver's Response Time in Picking Up Users)**: Significantly affects satisfaction, as ride-hailing service drivers respond quickly to user orders, **X8 (Travel Time to the Destination)**: Significantly affects satisfaction, as the travel time meets user expectations, with the taxi heading directly to the destination without unnecessary stops, **X9 (Fare Based on Distance)**: Significantly affects satisfaction, as the fare corresponds to the distance traveled, and the fare can be predicted before the trip begins, **X10 (Digital Payment System or E-Wallet Facilitates Payment)**: Significantly affects satisfaction, as ride-hailing service services allow users to pay via digital wallets if they do not have cash on hand.

2.8 Discussion of Ride-hailing service Service Quality and Its Impact on User Satisfaction

From the analysis results, it was found that user satisfaction perception is influenced by fare as the most dominant factor, followed by time, safety, comfort, and accessibility. The coefficient of determination (R^2) value for the structural model of the service quality–satisfaction relationship is 0.73, indicating that service quality has a strong influence on satisfaction.

III. CONCLUSION

Based on the results of the analysis, this study concludes that the characteristics of ride-hailing service users in Palu City are as follows: 36.08% male and 63.92% female. The highest percentage is found in the age group of 21-30 years, at 69.41%, with the highest occupation being private employees at 46.27%. The highest educational level is D3/S1, at 73.33%. Based on monthly expenditure, 20.78% spend between >3,000,000 and 4,000,000. In terms of the role/function of ride-hailing services, the highest percentage (96.47%) of users consider ride-hailing services as a substitute mode of transportation for specific occasions. The main reason users prefer ride-hailing services is for their practicality/flexibility, at 54.51%. The primary destination for users when using ride-hailing services is their workplace, at 31.76%. Based on the travel time to daily activities, 46.27% travel for 10-19 minutes. The frequency of ride-hailing service use per week is 1-2 times per week at 81.18%, and the travel distance is >1.0–3.0 km at 37.65%.

The analysis of the satisfaction dimensions can be explained by the indicators related to each dimension, based on the loading factor values obtained. The fare dimension is explained by indicators X9 and X10, with values of 0.90 and 0.90. The comfort dimension is explained by indicators X1 and X2, with values of 0.88 and 0.85. The time dimension is explained by indicators X7 and X8, with values of 0.87 and 0.75. The accessibility dimension is explained by indicators X3 and X4, with values of 0.70 and 0.85. The safety dimension is explained by indicators X5 and X6, with values of 0.70 and 0.84.

The relationship between the dimensions and satisfaction can be explained by the coefficient of determination values. It can be concluded that the fare dimension has a very strong relationship with a coefficient of determination of 0.80 and 0.81 (indicators X9 and X10). The comfort dimension has a strong relationship with a coefficient of determination of 0.77 and 0.73 (indicators X1 and X2). The time dimension has a moderate-to-strong relationship with a coefficient of determination of 0.76 and 0.57 (indicators X7 and X8). The accessibility dimension has a moderately strong relationship with a coefficient of determination of 0.48 and 0.72 (indicators X3 and X4), and the safety dimension has a moderately strong relationship with a coefficient of determination of 0.49 and 0.71 (indicators X5 and X6).

The coefficient of determination (R^2) value for the structural model of the service quality–satisfaction relationship is 0.73, indicating that service quality has a strong impact on satisfaction. Service quality explains 73% of user satisfaction, as shown by the structural equation for user satisfaction (Y) = 0.14comfort + 0.071accessibility - 0.18safety + 0.27time + 0.61*fare, R^2 = 0.73. This suggests that user satisfaction with ride-hailing services is most strongly influenced by the fare dimension, followed by time, safety, comfort, and accessibility.

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