CHAPTER IV

DATA ANALYSIS AND DISCUSSION

This chapter provides the description of data and the result of data analysis using statistical tools. In addition, the processed data also be interpreted and discussed further based on the findings. The data analyses that are used in this research are validity test, reliability test, descriptive statistical analysis, normality test, multicollinearity test, heteroscedasticity test, multiple regression test, and hypothesis testing. Collected data were processed by using a computer program of SPSS (Statistical Product and Service Solution) for windows 23. The output of SPSS 23 program are attached on Appendix.

4.1 Data Description

This research required quantitative data that were collected by distributing 60 questionnaires to person taxpayer and body taxpayer. From all the distributed questionnaires, there were only 56 copies of filled questionnaires that can be analyzed. The 56 filled questionnaires consist of 37 person taxpayers (28 employees and 9 non-employees) and 19 body taxpayers (9 Incorporate Companies and 10 *Commanditaire Vennootschap*). The remaining 4 distributed questionnaires cannot be analyzed because 1 respondent did not use the e-filing system and 3 others did not provide feedback.

4.2 Validity Test and Reliability Test

4.2.1 Validity Test

Validity test is used to measure the accuracy of the questionnaire. A questionnaire is considered valid if the questions in the questionnaire reflect

the overall content being tested. Thus, the researcher must analyze whether the questions represent the entire content or not in order to ensure that the questionnaire is valid. The validity of the questionnaire can be measured statistically by using a software (Matondang, 2009).

The result of validity test is presented in the table 4.1 below, which is the summary of validity test result in Appendix 3:

Table 4.1

Validity Test Result

Variable	Question	R count	R table	Explanation
Information Quality	Q1	0.846	0.263	Valid
	Q2	0.710	0.263	Valid
	Q3	0.780	0.263	Valid
	Q4	0.744	0.263	Valid
	Q5	0.615	0.263	Valid
	Q6	0.605	0.263	Valid
	Q7	0.589	0.263	Valid
	Q8	0.739	0.263	Valid
System Quality	Q1	0.671	0.263	Valid
	Q2	0.583	0.263	Valid
	Q3	0.653	0.263	Valid
	Q4	0.629	0.263	Valid
	Q5	0.639	0.263	Valid
	Q6	0.605	0.263	Valid
	Q7	0.626	0.263	Valid
	Q8	0.638	0.263	Valid
	Q9	0.713	0.263	Valid
	Q10	0.685	0.263	Valid
	Q11	0.527	0.263	Valid

Service Quality	Q1	0.657	0.263	Valid
	Q2	0.834	0.263	Valid
	Q3	0.721	0.263	Valid
	Q4	0.761	0.263	Valid
	Q5	0.674	0.263	Valid
	Q6	0.840	0.263	Valid
	Q7	0.817	0.263	Valid
Taxpayer Satisfaction	Q1	0.820	0.263	Valid
	Q2	0.863	0.263	Valid
	Q3	0.761	0.263	Valid
	Q4	0.773	0.263	Valid
	Q5	0.693	0.263	Valid

Source: Primary data processed, 2019

Validity test was performed by comparing the value of r count and r table. In this research the r table is 0.263, because the degree of freedom is 54 and the value of alpha is 0.05. If r count ≥ r table and have positive value, it can be concluded that the questionnaire is valid. On the contrary, if r count < r table, it means that the questionnaire is invalid (Matondang, 2009).

Based on the table 4.1 above, r count is appeared to be higher than r table and has positive value for the validity test of information quality (IQ), system quality (SYSQ), service quality (SERVQ), and taxpayer satisfaction (TS). Therefore, the data are relevant to be a measuring tool in this research.

4.2.2 Reliability Test

Reliability test is used to measure the extent to which the results of a test can be trusted. The results can be trusted if in several times of the measurement

on the same subject, the results are relatively constant, with the condition that the aspects measured on the subject have not changed (Matondang, 2009).

The number of Cronbach's Alpha is used to estimate whether the response of respondents is reliable or not. If the scores obtained are consistent and the number of Cronbach's Alpha > 0.70, the response of respondents is considered reliable. Otherwise, if the number of Cronbach's Alpha ≤ 0.70, it means that the response of respondents is not reliable (Ghozali, 2013).

The result of reliability test is presented in the table 4.2 as the summary of reliability test result in Appendix 4:

Table 4.2

Reliability Test Result

Variable	Cronbach's Alpha	Explanation
Information Quality	0.856	Reliable
System Quality	0.845	Reliable
Service Quality	0.875	Reliable
Taxpayer Satisfaction	0.841	Reliable

Source: Primary data processed, 2019

Based on the table above, it is shown that the number of cronbach's alpha in variable information quality (IQ) is 0.856, system quality (SYSQ) is 0.845, service quality (SERVQ) is 0.875, and taxpayer satisfaction (TS) is 0.841. All variables have cronbach's alpha > 0.70, thus all the variables are reliable.

4.3 Descriptive Statistical Analysis

Descriptive statistical analysis provides an overview of the data seen from the value of average, standard deviation, variance, maximum, and minimum. This

analysis is presented in the table 4.3, which is the summary of descriptive statistical analysis result in Appendix 5:

Table 4.3

Descriptive Statistical Analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IQ	56	16.00	32.00	24.0893	2.77179
SYSQ	56	28.00	44.00	33.1250	3.17984
SERVQ	56	17.00	28.00	21.5714	2.23897
TS	56	13.00	20.00	15.7321	1.64583
Valid N (listwise)	56				

Source: Primary data processed, 2019

Based on the table 4.3, the total data used in this research are 56 person and body taxpayers, which are shown by N value. For each variable, the smallest value is shown in the minimum column, the highest value is shown in the maximum column, and the average value is shown in the mean column. The measurement of data dispersion from its mean is shown by standard deviation. The wider the range of data points, the higher the standard deviation.

In the table 4.3, it is shown that variable information quality (IQ) has minimum value of 16 that belongs to respondent number 19 (body taxpayer), meaning that the respondent disagree with statements in the questionnaire. Maximum value of 32 that belongs to respondent number 17 (person taxpayer), meaning that the respondent strongly agree with statements in the questionnaire. An average value of 24.09, meaning that most of respondents agree with statements in the questionnaire. Standard deviation value of 2.77, which is less than the average value of information quality, meaning that the collected data is homogeneous. Variable

system quality (SYSQ) has minimum value of 28 that belongs to respondents number 16, 19, and 28 (body taxpayers), meaning that the respondents agree with statements in the questionnaire. Maximum value of 44 that belongs to respondent number 17 (person taxpayer), meaning that the respondent strongly agree with statements in the questionnaire. An average value of 33.13, meaning that most of respondents agree with statements in the questionnaire. Standard deviation value of 3.18, which is less than the average value of system quality, meaning that the collected data is homogeneous. Variable service quality (SERVQ) has minimum value of 17 that belongs to respondents number 10 and 45 (body taxpayers), meaning that the respondents disagree with statements in the questionnaire. Maximum value of 28 that belongs to respondents number 14 and 17 (person taxpayers), meaning that the respondents strongly agree with statements in the questionnaire. An average value of 21.57, meaning that most of respondents agree with statements in the questionnaire. Standard deviation value of 2.24, which is less than the average value of service quality, meaning that the collected data is homogeneous. Variable taxpayer satisfaction (TS) has minimum value of 13 that belongs to respondents number 16 and 23 (body taxpayers), meaning that the respondents agree with statements in the questionnaire. Maximum value of 20 that belongs to respondents number 17, 18, 38, and 49 (person taxpayers), meaning that the respondents strongly agree with statements in the questionnaire. An average value of 15.73, meaning that most of respondents agree with statements in the questionnaire. Standard deviation value of 1.65, which is less than the average value of taxpayer satisfaction, meaning that the collected data is homogeneous. Overall,

the minimum values are owned by body taxpayers while the maximum values are owned by person taxpayers. This means that person taxpayers are more satisfied with e-filing system compared to body taxpayers. In addition, based on the collected data, 18 out of 37 or 48.6% person taxpayers are government employees, which might be the reason why more person taxpayers are satisfied. As the government employees are obligated to use e-filing system since 2014, they are more familiar with e-filing system.

4.4 Classical Assumption

Classical assumption is part of the test that must be fulfilled in a linear regression model, consisting of normality test, multicollinearity test, and heteroscedasticity test. The test is performed to determine that the model can be categorized valid as an estimator.

4.4.1 Normality Test

Normality test of the data can be statistically done by comparing the value of Kolmogorov-Smirnov Z and Z table. The value of Kolmogorov-Smirnov Z can be calculated by performing nonparametric test (NPar test).

This test was performed to ensure that the data of the research are normally and independently distributed. The result of normality test is presented in the following table 4.4:

Table 4.4

Normality Test

Variable	Kolmogorov-Smirnov Z	Z table	Explanation
IQ	1.616	1.96	Normal
SYSQ	1.208	1.96	Normal
SERVQ	1.741	1.96	Normal

Source: Primary data processed, 2019

If the value of Kolmogorov-Smirnov Z < Z table, then the distribution of data is normal. On the contrary, if the Kolmogorov-Smirnov Z > Z table, then the distribution of data is not normal. Based on the result shown in the table 4.4, it can be concluded that the distribution of data is normal.

4.4.2 Multicollinearity Test

Multicollinearity test is performed by calculating the value of tolerance and the value of variance inflation factor (VIF). If the value of tolerance > 0.10 or equal to VIF < 10, then multicollinearity does not exist. Meanwhile, if the value of tolerance < 0.10 or equal to VIF > 10, then multicollinearity exists (Ghozali, 2013). The result of multicollinearity test is presented in the table 4.5 below.

Table 4.5

Multicollinearity Test

Variable	Tolerance	VIF
Information Quality	0.285	3.514
System Quality	0.216	4.622
Service Quality	0.609	1.641

Source: Primary data processed, 2019

Table 4.5 shows that there is no multicollinearity in all of independent variables that is used in the regression model. It is shown by the value of tolerance > 0.10 for variable information quality, system quality, and service quality. In addition, the value of VIF is less than 10 for all of independent variable information quality, system quality, and service quality.

4.4.3 Heteroscedasticity Test

Heteroscedasticity test aims to test whether there is inequality of variance from residual in one observation to another observation. The presence or absence of heteroscedasticity can be detected by using Glejser test with a significant level of 5%. The result of heteroscedasticity test is presented in the following table 4.6:

Table 4.6

Heteroscedasticity Test

Variable	P-Value
Information Quality	0.614
System Quality	0.707
Service Quality	0.720

Source: Primary data processed, 2019

Table 4.6 above shows that for each variable, the P-value is greater than a significant level of 5% or 0.05. Thus, it can be concluded that there is no symptom of heteroscedasticity in the regression model.

4.5 Hypothesis Testing

4.5.1 Multiple Regression

Multiple regression analysis is used to know the influence of independent variables on dependent variable. The result of multiple regression analysis is presented in the table 4.7 below:

Table 4.7

Multiple Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.498	1.670		.897	.374
	Information Quality	-.018	.096	-.031	-.191	.850
	System Quality	.364	.096	.704	3.783	.000
	Service Quality	.121	.082	.164	1.481	.145

a. Dependent Variable: Taxpayer Satisfaction

Source: Primary data processed, 2019

Based on the table 4.7, the equation of multiple regression can be written as follow:

$$\mathbf{TS = 1.498 - 0.018\ (IQ) + 0.364\ (SYSQ) + 0.121\ (SERVQ) + \varepsilon}$$

The equation of regression above shows that system quality (SYSQ) and service quality (SERVQ) have positive coefficient while information quality (IQ) has negative coefficient. This can be explained that:

1. Constant value of 1.498 means that if information quality (IQ), system quality (SYSQ), and service quality (SERVQ) are constant, then the value of taxpayer satisfaction (TS) will be 1.498.

2. Information quality (IQ) has negative regression coefficient or slope (B) value of −0.018. It means that if IQ decreases in one point and the other independent variables are constant, then TS will increase 0.018.
3. System quality (SYSQ) has positive regression coefficient or slope (B) value of +0.364. It means that if SYSQ increases in one point and the other independent variables are constant, then TS will increase 0.364.
4. Service quality (SERVQ) has positive regression coefficient or slope (B) value of +0.121. It means that if SERVQ increases in one point and the other independent variables are constant, then TS will increase 0.121.

4.5.2 Coefficient of Determination (R^2)

Coefficient of determination (R^2) is a contribution of influence given by independent variables on the dependent variable that is measured to know the extent to which the independent variables can influence the dependent variable.

The greater R^2 (closes to 1), the better result for the regression model. Meanwhile, the closer value to 0, it means the independent variables as a whole cannot explain its influence toward the dependent variable. The result of coefficient of determination test is presented in the following table 4.8:

Table 4.8

Coefficient of Determination

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781[a]	.610	.588	1.057

a. Predictors: (Constant), Service Quality, Information Quality, System Quality

Source: Primary data processed, 2019

Table 4.8 above shows the coefficient of determination (R^2) by considering the adjusted R square, which has the value of 0.588 or 58.8%. This indicates that the independent variables used in the regression model (information quality, system quality, and service quality) are able to explain its influence toward taxpayer satisfaction by 58.8%, whereas the influence of 41.3% is explained by other factors that are not used in this regression model research.

4.5.3 Simultaneous Regression Test (F Test)

Simultaneous regression test aims to determine whether there is simultaneous influence among the independent variables on the dependent variable. This test is determined by using a significant level of 5%. If P-value ≤ 5%, then the independent variables simultaneously influence the dependent variable. The result of simultaneous regression test is presented in the table 4.9 as follows:

Table 4.9

Simultaneous Regression Test

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	90.901	3	30.300	27.128	.000[a]
	Residual	58.082	52	1.117		
	Total	148.982	55			

a. Predictors: (Constant), Service Quality, Information Quality, System Quality

b. Dependent Variable: Taxpayer Satisfaction

Source: Primary data processed, 2019

Table 4.9 shows that the value of F count is 27.128 and P-value is 0.000. As the P-value is less than a significant level of 5% (0.000 < 0.05), the independent variables (information quality, system quality, and service quality) are concluded to have simultaneous influence on the dependent variable (taxpayer satisfaction).

4.5.4 Partial Regression Test (T Test)

Partial regression test is performed to find out whether each of independent variables is significantly influence dependent variable. This test is determined by using a significant level of 5%. If P-value ≤ 5%, then the independent variable partially significantly influence the dependent variable. However, if P-value > 5%, then the independent variable does not partially significantly influence the dependent variable. The result of partial regression test is presented in the following table 4.10:

Table 4.10

Partial Regression Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.498	1.670		.897	.374
	Information Quality	-.018	.096	-.031	-.191	.850
	System Quality	.364	.096	.704	3.783	.000
	Service Quality	.121	.082	.164	1.481	.145

a. Dependent Variable: Taxpayer Satisfaction

Source: Primary data processed, 2019

1. Information Quality

   The result of t-test in the table 4.10 reveals that IQ variable has negative influence on taxpayer satisfaction. The coefficient value of 0.018 and P-

value of 0.850 explain that hypothesis 1 which stated “information quality positively influences taxpayer satisfaction with e-filing system” is rejected. This hypothesis is rejected because the coefficient direction is opposite to the hypothesis direction and the P-value > 5% (0.850 > 0.05).

2. System Quality

   The result of t-test in the table 4.10 reveals that SYSQ variable has positive influence on taxpayer satisfaction. The coefficient value of 0.364 and P-value of 0.000 explain that hypothesis 2 which stated “system quality positively influences taxpayer satisfaction with e-filing system” is accepted. Thus, it can be concluded that there is positive effect of system quality on taxpayer satisfaction.

3. Service Quality

   The result of t-test in the table 4.10 reveals that SERVQ variable has positive influence on taxpayer satisfaction. The coefficient value of 0.121 and P-value of 0.145 explain that hypothesis 3 which stated “service quality positively influences taxpayer satisfaction with e-filing system” is rejected. This hypothesis is rejected because the P-value > 5% (0.145 > 0.05).

4.6 Discussions

In this section, the researcher will discuss the result of study. Moreover, the researcher will provide further explanation and highlight of the findings related to the previous studies. The summary of hypothesis testing is presented in the following table 4.11:

Table 4.11

Summary of Hypothesis Testing

H No	Variable	Hypothesis	Result		Decision
			B	Sig.	
H1	Information Quality	Information quality positively influences taxpayer satisfaction with e-filing system	-.018	.850	Rejected
H2	System Quality	System quality positively influences taxpayer satisfaction with e-filing system	.364	.000	Accepted
H3	Service Quality	Service quality positively influences taxpayer satisfaction with e-filing system	.121	.145	Rejected

Source: Primary data processed, 2019

a. Effect of information quality (IQ) on taxpayer satisfaction

From the hypothesis testing of H1, it was found that information quality (IQ) has negative insignificant influence on taxpayer satisfaction (TS). This explained that taxpayers still feel dissatisfied even though the quality of information contained in the e-filing system is good. The result of questionnaires showed that the majority of respondents agreed with the statement regarding the relevant and up-to-date information provided by e-filing system. However, taxpayers also agreed that the provided information is difficult to understand. All respondents had the lowest education as bachelor and were in the age range of 40-60 years old. Based on the collected data, 41 respondents or 73.2% were in the age range of 40+ to 50 years old and 15

respondents or 26.8% were in the age range of 50+ to 60 years old. This is probably the cause of respondents find confusion or difficulties in understanding information contained in the e-filing system. In the age range of 40-60 years old, the respondents might have difficulty in operating search engines to find information and are too lazy to learn it, thus asking information to younger people is an option. Therefore, it can be concluded that the relevancy level of information currently provided by e-filing system cannot fully meet the needs of taxpayers. This result is opposite to previous studies condudcted by Widyadinata & Toly (2014), Ningrum & Andi (2016), Hidayati, Harimurti, & SPA (2017), Lastri & Indrawati (2018), Chen (2010), Chen et al. (2015), Moradi Abadi, Moradi Abadi, & Jafari (2017), and Chumsombat (2015), in which the information quality was found to have a positive and significant influence on taxpayer satisfaction. In the research conducted by Chen et al. (2015), information quality was considered to be the most consistent and significant effect compared to other variables. The result is not in line with previous studies because of different respondents in terms of age and occupation. In addition, several previous studies were conducted in different countries.

b. Effect of system quality (SYSQ) on taxpayer satisfaction

From the hypothesis testing of H2, it was found that system quality (SYSQ) has positive significant influence on taxpayer satisfaction (TS). This explained that taxpayers are satisfied when the system quality of e-filing is good. The result of questionnaires showed that the majority of respondents agreed with the statement on the capability of e-filing system in completing task faster. In

addition, the existing e-filing system is considered to be well-organized and helpful for taxpayers in fulfilling their obligation to submit tax returns. From these responses, it can be concluded that the system quality of e-filing is good enough to make taxpayers satisfied. This result is in line with the previous studies conducted by Widyadinata & Toly (2014), Ningrum & Andi (2016), Lastri & Indrawati (2018), Chen (2010), Moradi Abadi, Moradi Abadi, & Jafari (2017), and Chumsombat (2015), which revealed that system quality has positive and significant influence on taxpayer satisfaction.

c. Effect of service quality (SERVQ) on taxpayer satisfaction

From the hypothesis testing of H3, it was found that service quality (SERVQ) has positive insignificant influence on taxpayer satisfaction (TS). This explained that taxpayers are satisfied when the service quality of e-filing system is good. The result of questionnaires showed that the majority of respondents agreed with the statement regarding the tax office that provides its services at the times as promised. Furthermore, respondents also agreed that the employees were able to provide good service in helping them to use the e-filing system. These responses can be used as an indicator that the service quality of the existing e-filing system has satisfied taxpayers. However, the result showed that service quality has insignificant influence, as opposed to the previous studies conducted by Permatasari et al. (2015), Chen (2010), and Moradi Abadi, Moradi Abadi, & Jafari (2017), which revealed that service quality has significant and positive influence on taxpayer satisfaction. The result is not in line with previous studies because of different respondents and several previous studies

were conducted in different countries. Other countries may have service system and standard that are dissimilar from this country.