

The analysis correlation aspects of usability in Sipetang (case study: central java prosecutor)

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The analysis correlation aspects of usability in Sipetang (case study: central java prosecutor)

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Abstract. Sistem Pencatatan Piutang (SIPETANG) is a recording account receivable system used by every District Attorney Satker Pidsus (Satpid) and High Prosecutor's Office of Finance (Bidkeu) in Central Java. The purpose of this paper is to analyze the SIPETANG correlation between aspects of ease of use, ease of learning, and confidence with the skills of users. The sample of this study was the District Attorney Satpid in central Java totaling 20 respondents. The questionnaire was used to collect responses regarding the use of SIPETANG. Each aspect of the questionnaire made several questions using the Likert scale, namely 1 = strongly disagree; 2 = disagree; 3 = quite disagree; 4 = quite agree; 5 = agree; and 6 = very agree. The analysis shows that there are a strong correlation and direction of a positive relationship between the aspects used in the paper.

1. Introduction

Looking at the current situation, technology such as a computer is one of the most important needs for all fields, one of which is a company or agency that holds credit, for example, financial institutions. This needs to be considered because accounts receivable is one of the elements that are of great value and has a high risk for companies or agencies. If the receivables are not recorded and managed properly, management will be difficult to make a decision. The existence of technological developments that exist with a computerized system that can manage data into information more quickly, precisely and accurately, this certainly can support the process of making a decision and can help to solve problems that exist in the company or agency.

Computers are tools that can facilitate human work, They can also provide benefits the activities of a company, such as in the aspect of processing accounts receivable data contained in the Central Java Prosecutor's Office. The existence of SIPETANG or (Sistem Pencatatan Piutang) that can be accessed remotely is very helpful to the Public Prosecutor's Office in Central Java to be able to record receivables per semester and the results of the recording are directly monitored by the Central Java Prosecutor's Office. Therefore, they do not have to come to report the recapitulation results of the recording of receivables. However, it has not been able to indicate that the system has been developed properly. It is due to that the system has not been carried out measurements of quality. Before identifying the quality of the software, it is necessary to test the correlation between aspects that will be used in the paper.

These conditions encourage the preparation of the research to determine the correlation and the direction of the correlation of aspects of ease of use, ease of learning, and confidence with skills. Each



aspect made several questions using the Likert scale, namely 1 = strongly disagree; 2 = disagree; 3 = quite disagree; 4 = quite agree; 5 = agree; and 6 = very agree.

2. Usability aspect

For the aspects of ease of use, ease of learning, and confidence with skills are given six response options using a Likert scale.

Table 1. Table likert scale

Response Options	Value
Strongly agree	6
Agree	5
Quite Agree	4
Quite Disagree	3
Disagree	2
Strongly Disagree	1

2.1. Ease of use

Ease Of Use (EOU) is about measures the perception of the complexity of the tasks that must be performed by users to achieve the goal of getting information from the Information System [1]. In this study, EOU is measured against the user's ease when using SIPETANG by measuring the number of actions that need to be taken by the user to complete a task. The EOU questions used for this study are:

Table 2. Ease of use questions

No.	Ease of use aspect
1.	Respondents can do tasks easily
2.	Respondents did not experience difficulties when using this system
3.	Respondents felt the system was easy to use without written instructions
4.	Respondents can understand error messages (if any) easily
5.	Respondents can understand mistakes quickly and easily
6.	Respondents felt that the available features were easy to use
7.	Respondents felt the system only needed a few steps to complete certain tasks

2.2. Ease of learning

Ease Of Learning (EOL) is about measures usability by comparing the time it takes for a user to learn a computer system that it has not yet known to carry out a task. The EOL questions used are :

Table 3. Ease of learning questions

No.	Ease of learning aspect
1.	Respondents are easy to learn how to use this system.
2.	Respondents are easy to remember how to use this system.
3.	Respondents learned to use this system quickly.

2.3. Confidence with skills

Confidence with skills (CWS) is measured by the user's confidence when using SIPETANG. In this research respondents have never used SIPETANG, it's just that respondents already understand the process. The following questions are used in aspects of CWS :

Table 4. Confidence with skills

No.	Confidence with skills aspect
1.	Respondents do not need written instructions when using this system.
2.	Respondents are skilled in using this system.
3.	Respondents can correct errors quickly if they occur.
4.	Respondents were more confident in carrying out recapitulation tasks with this system compared to manual systems.

2.4. Bivariate correlation

Pearson correlation is used to find the relationship and prove the correlation hypothesis of two variables (bivariate) in the form of intervals or ratios, and the data sources of two or more variables are the same [2]. In the SPSS for Windows Version 20.0 application, there are three correlation methods including Pearson Correlation, Kendall's tau-b, and Spearman Correlation.

Pearson Correlation is used for interval or ratio scale data, while Kendall's tau-¹³ and Spearman Correlation are more suitable for the ordinal scale. The application usage usually is the **Pearson product-moment correlation coefficient. Interpretation of the correlation coefficient** index [3].

Table 5. Interpretation of correlation coefficients

¹⁰	Interpretation	Scale
	High correlation	0,800 – 1,000
	Sufficient correlation	0,600 – 0,799
	Fair correlation	0,400 – 0,599
	Low correlation	0,200 – 0,399
	Very low correlation	0,000 – 0,199

The correlation coefficient has the smallest value of -1 and the largest of 1. If the Pearson correlation value is close to 1 or -1 then the relationship between the two variables is getting stronger. Conversely, if the Pearson correlation values ¹² close to 0 means the relationship between the two variables becomes increasingly weak. But if it's 0, it means there's **no correlation at all. The correlation sign** influences the **interpretation** of the analysis results. Where, the negative sign (-) on the SPSS output shows the opposite direction, while the positive sign (+) indicates the same direction or directional correlation.

3. Method

This research was conducted in January 2019. Respondents were used directly from the Central Java District Attorney's Office which was coinciding with the semester recapitulation report held at the Central Java Prosecutor's Office. These respondents are very participating because they need SIPETANG so that their work can be completed precisely, quickly, and accurately.

The study was conducted by distributing ques⁴naires to respondents at the event. In this study, researchers wanted to find out whether there was **a correlation between aspects of ease of use, ease of learning**, and confidence with skills with users after using SIPETANG. To find out the linkage used bivariate Pearson correlations with SPSS applications. However, in the previous paper, a reliability test was carried out between these aspects with Cronbach's alpha, the results showed the answers given by reliable respondents.

4. Analysis result

Correlation analysis is a part of statistical science that has nine types, namely **Pearson Product Moment Correlation (r), Ration Correlation (y), Spearman Rank or Rhi Correlation (rs or p); Serial Correlation (rb), Serial Points Correlation (rpb), Phi Correlation (0), Tetrachoric Correlation (rt); Contingency**²

Correlation (C); Kendall's Tau Correlation (8) [2]. In this study, the researcher used Bivariate Correlation as measured by the strength of the correlation and the direction of the correlation from the usability aspect. The results of the analysis can be seen in Figure 1.

		EOU	EOL	CWS
EOU	Pearson Correlation	1	,592**	,624**
	Sig. (2-tailed)		,006	,003
	N	20	20	20
EOL	Pearson Correlation	,592**	1	,771**
	Sig. (2-tailed)	,006		,000
	N	20	20	20
CWS	Pearson Correlation	,624**	,771**	1
	Sig. (2-tailed)	,003	,000	
	N	20	20	20

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 1. Correlation result

The results of the Pearson Product Moment Correlation (r) analysis showed that the correlation between ease of use and ease of learning (r) was 0.592. It shows that there is a sufficient correlation between ease of use and ease of learning. Whereas the direction of correlation is positive because the value (r) is positive, meaning that the higher the ease of use, the more increasing the ease of learning. Then for the correlation between ease of use with confidence with the skill (r) is 0.624. It shows that there is a strong correlation between ease of use and confidence with skills, as well as the direction of the correlation in which values (r) are positive, so the higher ease of use will further increase confidence with skill. Then for the ease of learning correlation with confidence with the skill (r) is 0.771. It shows that there is a strong correlation between ease of learning with confidence with skills. Whereas the direction of the correlation is positive because the value (r) is positive, meaning that the higher the ease of learning the more confidence with skills will be increased.

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5. Conclusion

Based on the analysis results obtained, the following conclusions can be drawn that ease of users in using SIPETANG affects the ease of users in learning SIPETANG, this is indicated by the value (r) of 0.592. These values indicate the existence of adequate correlation interpretation and the direction of correlation that is positive. The ease of use of SIPETANG affects the user's confidence when using SIPETANG, this is indicated by the value (r) of 0.624. This value indicates the existence of a high enough correlation interpretation and the direction of the correlation that is positive. The ease of user learning SIPETANG affects the user's confidence when using SIPETANG, this is indicated by the value (r) of 0.771. This value indicates the existence of a high enough correlation interpretation and the direction of the positive correlation.

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