

## THE INFLUENCE OF SELF SERVICE TECHNOLOGY ON PRISONER SATISFACTION IN CLASS IIB CILACAP PRISON



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### ABSTRACT

*Prisoners in prison have rights that must be fulfilled. Fulfillment of prisoner rights is carried out through services provided by prison officers to prisoners so that prisoners feel satisfied with the service of fulfilling their rights, so that there is no extortion. Self-service technology is one of the renewals of the service system for prisoners in the form of technology to improve the quality of service so that prisoners feel satisfied, and there is no commotion in prison. The formulation of the problem in this study is whether there is an influence of self-service technology on prisoner satisfaction in Class IIB Cilacap Prison. This study aims to determine the effect of self-service technology on prisoner satisfaction in Class IIB Cilacap Prison. The method used in this study is quantitative, with a simple random sampling technique of 200 respondents. The data collection technique was carried out using a questionnaire distributed to prisoners. The data analysis techniques used were the normality test, the simple linear regression test, the significance test, and the determination test. The results of the study showed that there is an influence of self-service technology on prisoner satisfaction. The level of influence given by the self-service technology variable on prisoner satisfaction is 72.9%, while the remaining 27.1% is influenced by other variables. From these results, it can be concluded that there is an influence of self-service technology on prisoner satisfaction at Class IIB Cilacap Prison.*

**Keywords:** *Self Service Technology; Prisoner Satisfaction; Correctional*



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## INTRODUCTION

Correctional Institution is a government institution that is responsible for detainees and prisoners who have been proven guilty by a judge's decision through a court process. Correctional Institution is part of the Technical Implementation Unit which is directly supervised by the Directorate General of Corrections. The function of correctional institutions is not only limited to the administration of punishment, but also includes a role in education, guidance, and protection of the rights of prisoners.

Prisoners' rights are rights owned by convicts who are serving a sentence in correctional institutions for a certain period and must be considered for their existence. In Law No. 22 of 2022 the rights of prisoners are then regulated in Article 9 and Article 10 where in Article 9 paragraph 5 it is stated that the right of prisoners is to receive information services and in Article 10 states the rights of prisoners after fulfilling certain conditions.

In the process of fulfilling rights for prisoners, a good administrative system is needed so that the process of fulfilling rights runs smoothly. Administrative systems that are manual and not integrated are no longer considered relevant to be applied in the era of modern technology. The fulfillment of prisoners' rights through manual administration, such as providing remission and CB, PB, and CMB can cause difficulties in its implementation. Even the possibility of being missed in fulfilling the rights of prisoners can occur and the absence of transparency can lead to extortion by officers. Therefore, based on the Minister of Law and Human Rights Regulation Number: M.HH-OT.02.02 of 2009 regarding the Blueprint for the Renewal of the Implementation of the Correctional System, the optimization of Correctional Database System technology is carried out.

The Correctional Database System (SDP) is an application designed by the Directorate General of Corrections to help meet the needs of each UPT, Regional Office, and the Directorate General of Corrections in managing the entire correctional process. The management of the correctional process through SDP starts from recording data on prisoners and prisoners since it is entered into the system, to the stage of collecting, managing, presenting, and communicating correctional information. The existence of the SDP application aims to improve the quality of services to prisoners, one of which is in fulfilling the need for certainty of integration rights such as Parole (PB). One form of SDP application facility that utilizes technology is the Self Service Technology facility for prisoners.

Self Service Technology (SST) is included in technological devices whose utilization is used as a service provider independently without having to interact with other people or employees who are usually assigned to assist the service process contained in public services. SST services provide freedom to service users to be able to perform services themselves without interaction and communication with employees (Meuter et al., 2000). SST utilization provides advantages in cost reduction, service quality improvement, and also increases customer satisfaction.

The level of customer satisfaction is intertwined with the extent to which product performance can meet or exceed expectations. According to (Magenta & Pangestuti, 2022) To increase prisoner satisfaction, the quality of service must be strengthened and also maintained in quality, so as to increase the satisfaction of prisoners in undergoing guidance in prisons. According to research conducted by (Desanuari & Ludtriani, 2022) it can be concluded that Self Service Technology greatly affects satisfaction. Cilacap Correctional Facility uses a Self Service Technology machine to provide services to prisoners. The use of Self Service Technology machines at Cilacap Correctional Institution

is to provide transparency of correctional services related to information that protects the rights of prisoners and as an innovation in reducing illegal fees.

**Table 1**  
**The Number of Inmates of Class IIB Cilacap Prison**

	Capacity	Residents		Total
		Prisoners	Prisoners	
Total	254	399	122	521

Source: sdppublik.ditjenpas.go.id, 2024

Based on Table 1, it explains that the Cilacap Class IIB Prison is overcrowded, where the total capacity should only be for 254 people, but is occupied by 399 prisoners and 122 detainees. One of the problems that arises with overcrowded is the implementation of the fulfillment of the rights of prisoners, which is not optimal, causing a lack of satisfaction from prisoners for the services provided by the prison (Jamilah & Disemadi, 2020). That way, there is a need for services that facilitate the coaching process in terms of providing rights to prisoners so that prisoners feel satisfied with the quality of services and are provided. The form of innovation created by the Directorate General of Corrections is to use a Self Service Technology machine that is integrated with SDP.

Using Self Service Technology is expected to be a means of improving the quality of services provided to prisoners, so that prisoners feel satisfied, comfortable and safe, and easier in the coaching process carried out. Cilacap Correctional Facility has used the Self Service Technology machine in implementing a program from the Directorate General of Corrections to improve the quality of services to prisoners. This study aims to determine whether there is an effect of Self Service Technology on prisoner satisfaction at the Cilacap Class IIB Prison.

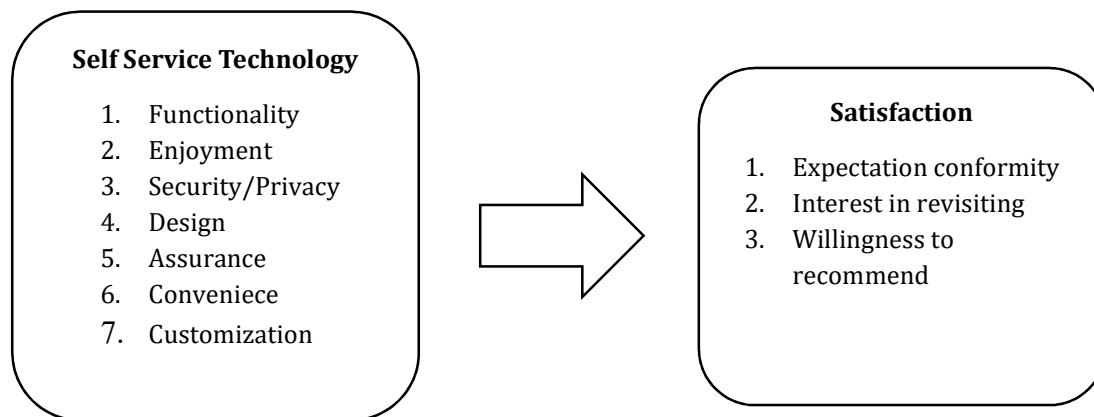
## LITERATURE REVIEW, RESEARCH FRAMEWORK, AND HYPOTHESIS

According to Meuter (2000), Self Service Technology (SST) is a technological device whose utilization is used to perform services independently without having to interact with other people or employees who are usually assigned to assist the service process contained in public services. SST services give consumers the freedom to perform their own services without the involvement of employees. The use of technology as a service delivery is attractive for institutions that use it because it can improve operational services, can improve operational efficiency, expand service options, provide more benefits for users, and improve service performance (Curran & Meuter, 2005). According to (Lin & Hsieh, 2011), the SSTQUAL dimensions are divided into seven, namely functionality, enjoyment, security, design, assurance, convenience, and customization.

According to (Kotler & Armstrong, 2008), consumer satisfaction is an emotional factor of a consumer that encourages the consumer to purchase in terms of how far a product meets one's expectations. When the product does not match expectations, consumers feel disappointed and dissatisfied, but if the product matches or even exceeds expectations, consumers feel satisfied. Meanwhile, Kusumasitta (2014) describes satisfaction as an effort to fulfill or make something adequate. Consumer measurement is based on a comparison between expectations and product results, which are described through feelings of pleasure or disappointment. According to Hawkins and Lonney (2003), cited in Fatini and Dewi (2020), satisfaction indicators consist of: conformity to expectations, interest in visiting again, and willingness to recommend.

Relationship between Self Service Technology and Satisfaction, in previous research conducted by Li (2020) states that self service technology has a significant effect on customer satisfaction, and customer satisfaction shows a positive relationship with customer revisit intention. In addition, research conducted by Mahrin in (2020) indicate that Self Service Technology has a positive and significant effect on satisfaction. And in the service quality variable, all items have a positive and significant effect on satisfaction.

This research supports the theory that self service technology, especially in correctional institutions, is directly related to prisoner satisfaction. The following is a framework used to explain the relationship between the self service technology variable and the satisfaction variable.



Source: Constructed by the authors, 2024

**Figure 1**  
**Research Framework**

### Hypothesis

- Ho : There is no positive influence between Self-Service Technology on prisoner satisfaction at Class IIB Cilacap Correctional Institution.
- Ha : There is a positive influence between Self-Service Technology on prisoner satisfaction at the Cilacap Class IIB Prison.

### RESEARCH METHODS

This study uses quantitative research methods to answer the hypothesis of this study, which involves the use of significance tests to analyze the relationship between the independent variable and the dependent variable (Creswell, 2014). The form of quantitative method research results is in the form of numbers to be processed and examined using statistics, where the data analysis uses a simple linear regression test related to the effect of Self Service Technology on prisoner satisfaction.

The population in this study were all prisoners in the Cilacap Class IIB Prison with a total of 399 prisoners. As for the research sample, the simple random sampling method was used using the Slovin formula which resulted in a sample of 199.75 with rounding up to 200 inmate samples. Data collection techniques carried out by researchers by distributing questionnaires to prisoners in Cilacap Class IIB Correctional Facility. Data analysis techniques are carried out by conducting normality tests, simple linear regression tests, significance tests and determination tests.

## RESULTS AND DISCUSSION

### Normality Test

The normality test, according to Ghozali (2016), aims to determine whether each variable is normally distributed or not. Researchers conducted the Kolmogorov-Smirnov normality test with  $\alpha = 0.05$  in this study. How to analyze data normality is by, if the sig value  $\geq \alpha$ , then the data distribution is said to be normal, if the sig value  $\leq \alpha$ , then the data is said to be not normally distributed. The results of the normality test in this study are as follows:

**Table 2**  
**Normality Test**

One-Sample Kolmogorov-Smirnov Test			Unstandardized Residual
N			200
Normal Parameters <sup>a,b</sup>	Mean		.0000000
	Std. Deviation		1.47356829
Most Extreme Differences	Absolute		.053
	Positive		.053
	Negative		-.049
Test Statistic			.053
Asymp. Sig. (2-tailed) <sup>c</sup>			.200 <sup>d</sup>
Monte Carlo Sig. (2-tailed) <sup>e</sup>	Sig.		.185
	99% Confidence Interval	Lower Bound	.175
		Upper Bound	.195

a. Test distribution is Normal.  
b. Calculated from data.  
c. Lilliefors Significance Correction.  
d. This is a lower bound of the true significance.  
e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

Source: Data processed by the author, 2024

Based on the table above, it explains that the results of the normality test conducted by researchers obtained a significance value of Asymp. Sig. (-tailed) of 0.200. Where this value is in accordance with the normality test requirements, with the results of  $0.200 > 0.05$ . This shows that the data is normally distributed because it has a significance value greater than 0.05. With these results, this research can be used in further analysis.

### Simple Linear Regression Test

The simple linear regression test is carried out to predict and find the level of influence of the independent variable or independent variable in this case is Self Service Technology on the dependent variable or dependent variable in this case is satisfaction. The results of the simple linear regression test in this study are as follows:

**Table 3**  
**Simple Linear Regression Test**

Model	Coefficients <sup>a</sup>		Beta	t	Sig.	
	Unstandardized					Standardized
	Coefficients					Coefficients
(Constant)	.245	1.311		.187	.852	
SST	.472	.020	.854	23.079	.000	

a. Dependent Variable: Kepuasan

Source: Data processed by the author, 2024

Based on the table above, it can be seen in the regression direction coefficient from column, Unstandardized Coefficients, and sub column B that the constant value is 0.245 and the regression direction value is 0.472, so that from this value, the formula for the value of the regression equation is obtained as follows:

$$Y = a + bX$$

$$Y = 0,245 + 0,472X$$

Keterangan :

X = *Self Service Technology* Variable

Y = Satisfaction Variable

a = Constant

b = Regression Coefficient

Based on the regression equation above, it can be concluded that the constant value of the Self Service Technology variable is 0.245, which indicates that the value of the Self Service Technology variable is constant, and the value of the satisfaction variable is 0.472, where the coefficient value in the regression equation above is positive. Based on the results of the constant value, it shows a change in value that has a directly proportional nature between the Self Service Technology variable and the satisfaction variable. The increase in value in the Self Service Technology variable affects the increase in value also in the satisfaction variable, and vice versa. Based on the regression formula, it can be stated that the regression coefficient value of the Self Service Technology variable (X) of 0.245 states a 1% increase in the value of the satisfaction variable (Y) of 0.472. The directly proportional nature of the regression causes the greater the influence of Self Service Technology provided, the more the satisfaction of prisoners in the Cilacap Class IIB Prison increases.

### Significance Test

The significance test is an important stage in quantitative research, because it will determine the conclusions of the research findings. The significance test plays a role in the process of determining whether the hypothesis proposed at the beginning of the study is accepted or rejected (Ghozali, 2016).



**Table 4**  
**Significance Test**

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1162.446	1	1162.446	532.653	.000 <sup>b</sup>
Residual	432.109	198	2.182		
Total	1594.555	199			

a. Dependent Variable: KEPUASAN

b. Predictors: (Constant), SST

Source: Data processed by the author, 2024

Based on Table 4, the results of the significance test between the Self Service Technology variable and the inmate satisfaction variable at the Cilacap Class IIB Prison are obtained. The table data shows that the level of significance or probability is 0.000. The significance test has a condition that if the significance value is less than 0.05, then H<sub>0</sub> is rejected and H<sub>a</sub> is accepted, indicating a simultaneous influence between the independent variable and the dependent variable. Meanwhile, H<sub>0</sub> is accepted and H<sub>a</sub> is rejected if the significance value is more than 0.05 or which indicates that there is no simultaneous influence between the independent variable and the dependent variable. The results of the significant test show that the significance value is 0.000 < 0.05, which means that there is an effect of Self Service Technology on the variable satisfaction of prisoners in the Cilacap Class IIB Prison.

### Determination Test

The determination test is a statistical test conducted to assess how much the independent variable (X), namely Self Service Technology, affects the dependent variable (Y), namely satisfaction. The greater the coefficient of determination of the test results, the greater the independent variable (X) affects the dependent variable (Y). When the coefficient of determination is 0 (zero), it shows that there is no influence on the two variables. However, if the coefficient of determination is equal to or close to 1 (one), then there is an influence of the independent variable (X) on the dependent variable (Y).

**Table 5**  
**Determination Test**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854 <sup>a</sup>	.729	.728	1.477

a. Predictors: (Constant), SST

b. Dependent Variable: Kepuasan

Source: Data processed by the author, 2024

Based on Table 5, the R value as the correlation coefficient is 0.854. This shows that there is a positive relationship between the Self Service Technology variable and the satisfaction variable. The determination test table above also shows that the R square value is 0.729, which shows how much the influence of the Self Service Technology variable as a whole can affect the rise and fall of the satisfaction variable. Based on the R square value, it shows that the percentage of the influence of Self Service Technology on prisoner satisfaction at the Cilacap Class IIB Prison is 72.9%. While the remaining 27.1% is influenced by other variables not explained in this study. This indicates that there are

still other variables that have an influence on the inmate satisfaction variable at the Cilacap Class IIB Prison besides Self Service Technology.

### **The Effect of Self Service Technology on Prisoner Satisfaction at Cilacap Class IIB Prison**

According to the results of the analysis carried out, the effect of self service technology of 72.9% on prisoner satisfaction shows that self service technology is one of the determining factors for prisoner satisfaction at the Cilacap Class IIB Prison. The high influence of self service technology on inmate satisfaction can be seen from the univariate results that most inmates' perceptions consider self service technology to be quite good. Therefore, self service technology aimed at building prisoner satisfaction must be carried out optimally so that prisoners feel cared for by services that use technology and are easy to use to help prisoners provided by the prison. This research is in line with the results of previous studies which state that self service technology has a positive influence on satisfaction. Previous research includes research conducted by Nurjuni Arnita, Miti Yarmunida, and Yenti Sumarni in the year (2023) with the title "The Effect of Self Service Technology (SST) on Customer Satisfaction of Digital Service Users (Case Study of Bank Syariah Indonesia)". The results of this study indicate that self service technology has a positive effect on customer satisfaction. In addition, research conducted by Robby Syifa'ul Mahrin in 2020 with the title "The Effect of Self Service Technology and Service Quality on Customer Satisfaction". The results of this study indicate that Self Service Technology has a positive and significant effect on satisfaction. And in the service quality variable, all items have a positive and significant effect on satisfaction. In addition, simultaneously the Self Service Technology and service quality variables have a significant and positive effect on customer satisfaction. Based on some of the previous research that has been mentioned, it can be stated that Self Service Technology is one of the factors that affect inmate satisfaction. From the results of the tests that have been carried out, it can also be concluded that ( $H_0$ ) is rejected and ( $H_a$ ) is accepted, which means that the self service technology variable affects the satisfaction of prisoners in the Cilacap Class IIB Prison, where between these two variables is positive, which means that the higher the level of self service technology, the higher the satisfaction of prisoners and vice versa.

### **CONCLUSIONS AND SUGGESTIONS**

This research was conducted with the aim of knowing the effect of Self Service Technology on prisoner satisfaction at Cilacap Class IIB Prison. Based on the results of data analysis that has been carried out by researchers, the significance test shows that there is a positive effect of Self Service Technology on inmate satisfaction at the Cilacap Class IIB Prison. This shows that Self Service Technology has a good impact on the satisfaction felt by prisoners at the Cilacap Class IIB Prison. The level of influence given by the self service technology variable on inmate satisfaction is 72.9%, while the remaining 27.1% is influenced by other variables. From these results it can be explained that the satisfaction of prisoners at the Cilacap Class IIB Prison is also influenced by other variables.

Based on the results of the research conducted, the suggestions that can be given by researchers are the development and improvement of self service technology in prisons by improving existing self service technology, by adjusting features that are more relevant and tailored to the needs of prisoners who previously could not be accessed through self service technology. Suggestions for the prison are to always conduct periodic evaluations of the use of self service technology, involving reciprocity between prisoners and prison officers. Another suggestion that can be given is that the use of self service



technology machines can be used in other upt because based on research it gives an influence on prisoner satisfaction, so that to improve the quality of services provided by the prison, it can use self service technology machines.

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