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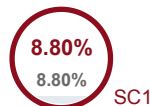
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The Effect of Using Web-Based Integrated Electronic Cards on Service Management and Student Discipline

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Abstract. Digital transformation in the education sector is increasingly urgent to support the improvement of service quality and the formation of a culture of student discipline. One of the innovations implemented is the use of a web-based Integrated Electronic Card designed to improve the efficiency of school service management while monitoring and encouraging student discipline. **This study aims to determine the effect of using the Integrated Electronic Card on service management and student discipline** in an educational environment. The research approach used is a quantitative method with regression analysis to measure the relationship between variables. The results showed that the use of Integrated Electronic Cards has a significant influence on service management. Based on the regression analysis, the F value of 341,278 with a significance level of 0,000 indicates a statistically very strong relationship. Variation in service management is largely explained by card usage, as indicated by the Sum of Squares Regression value of 10236,079 which is much larger than the Sum of Squares Residual of 8,368,163. The model also has a Mean Square Regression value of 10236,079, which is higher than the Mean Square Residual of 29,993, indicating a very good model. In addition, the use of the Integrated Electronic Card also has a significant effect on student discipline, with an F value of 397,833 and a significance level of 0,000. The variation in student discipline can largely be explained by the use of electronic cards, as shown by the Sum of Squares Regression of 12296.623 compared to the Sum of Squares Residual of 8623.612. The Mean Square Regression value of 12296.623 is also much greater than the Mean Square Residual of 30.909, indicating a significant effect. Overall, this study confirms that the implementation of the web-based Integrated Electronic Card has a positive impact on improving the quality of service management while supporting the formation of a student discipline culture. The rejection of the null hypothesis (H0) for both variables confirms that this electronic card is a strategic solution to optimize the service system and discipline character building in schools.

Keywords - Web-based Integrated Card, Service Management, Student Discipline

Abstract. Digital transformation in the education sector is increasingly urgent to support improving the quality of services and establishing a culture of student discipline. One of the innovations implemented is the use of web-based Integrated Electronic Cards designed to increase the efficiency of school service management while monitoring and encouraging student discipline. This research aims to determine the influence of the use of Integrated Electronic Cards on service management and student discipline in the educational environment. The research approach used is a quantitative method with regression analysis to measure the relationship between variables. Results show that the use of Integrated Electronic Cards has a significant influence on service management. Based on regression analysis, an F value of 341,278 with a significance level of 0,000 indicates a statistically very strong relationship. Variations in service management are largely explained by the use of cards, as indicated by the Sum of Squares Regression value of 10236,079 which is much greater than the Sum of Squares Residual of 8368,163. This model also has a Mean Square Regression value of 10236.079, which is higher than the Mean Square Residual of 29.993, indicating an excellent model. Apart from **that, the use of Integrated Electronic Cards** also has a significant effect on student discipline, with an F score of 397,833 and a significance level of 0.000. Variations in student discipline can be largely explained by the use of electronic cards, as indicated by the Sum of Squares Regression of 12296,623 over the Sum of Squares Residual of 8623,612. The Mean Square Regression value of 12296.623 is also much larger than the Mean Square Residual of 30.909, showing a significant effect. Overall, the study confirmed that the implementation of the web-based Integrated Electronic Card had a positive impact on improving the quality of service management while supporting the establishment of a student discipline culture. The rejection of the null hypothesis (H0) for both variables confirms that this electronic card is a strategic solution to optimize the service system and establish the character of discipline in schools.

Keywords - Web Based Integrated Electronic Card, Service Management, Student Discipline

1. I. Introduction

In the current era of globalization, the speed and accuracy of service has become a very important need, including **in the world of education. The integration of technology in the world of education** is a very urgent **and main need to improve the quality of** services. Good service quality makes it an advantage for an educational institution. Improving the quality of services at an educational institution can utilize website-based technology. This technology offers various innovative solutions in an institution's service management.

In the educational context, service management plays an important role in creating an enabling environment for the success of the teaching and learning process. Service management covers various aspects, such as administrative management, communication with parents, library services, security facilities, and providing facilities and infrastructure. With good planning, organization, implementation and control, schools can ensure smooth operations while meeting students' needs optimally. One of the main goals of service management is to create an environment conducive to student development, not only in terms of academics but also character education. The importance of instilling early character education in students at school in ways that are

appropriate and fulfill children's rights aims to obtain quality education

An indicator of success in quality education is the formation of student discipline. Discipline is a fundamental element in educational success, which includes students' ability to obey rules, respect time, and be responsible for assignments. In supporting the establishment of such disciplines, schools can take advantage of educational innovations by utilizing technologies, such as web-based electronic card systems that enable more structured and transparent supervision.

In various regions in Indonesia, educational innovation continues. One of them is in Sidoarjo Regency which is experiencing rapid development in the field of education. Efforts to utilize technological innovations to increase the efficiency of school operations continue. However, the reality on the ground is that many elementary schools still cannot implement this innovation. There are many obstacles experienced, ranging from cost problems, human resources, to limited facilities and infrastructure. Several private schools which have their own authority to manage several limitations in this reality have the opportunity to carry out this innovation, especially schools under the auspices of Muhammadiyah which continue to strive to innovate technology to increase the effectiveness and efficiency of educational services. These schools include SD Muhammadiyah 1 Pucanganom Sidoarjo. The innovation implemented by the school is the implementation of a web-based integrated electronic card called Muhida Smart Card or abbreviated as MSC.

The implementation of this MSC is expected to be a strategic solution that not only simplifies administrative processes, but also improves service management and student discipline. This MSC offers various benefits such as recording attendance, financial reports, libraries, health services, counseling guidance and academic and non-academic grades. MSC is a technology that integrates various functions such as recording attendance, purchasing in the canteen, health services and libraries. This is also the case with financial and value recording which can be accessed via websites connected to MSC. All of these services use RFID (Radio Frequency Identification).

Previous research found that schools that have not adopted technologies such as integrated web-based electronic cards, have not been able to carry out digital-based management. Apart from that, obstacles and problems were found in the application of technology in the education sector which were caused by unequal infrastructure, infrastructure and infrastructure that supported the application of technology in all schools in Indonesia. Another problem is the unpreparedness of Human Resources (HR) in supporting the application of technology in schools. In addition, it was found that many schools in Taiwan are experiencing problems in service management efficiency. Services such as administration, attendance, and library management are often lengthy and involve many human errors, which hinder the teaching and learning process. Student dissatisfaction with school services is also a significant problem. Other findings say that students at some schools in the United States are dissatisfied with slow and inconsistent school service. This is mainly due to the manual system used to run various services, such as attendance and canteen transactions

Previous research identified that student discipline problems in schools in China are increasing due to the lack of an effective monitoring system. Manual attendance systems are often inaccurate and easily manipulated by students, increasing the chances of disciplinary violations. The high workload of administrative staff was also found to be a major problem in previous studies. It was also found in another study that administrative staff in schools in India faced a high workload due to the large number of manual tasks that had to be carried out. This reduces the time they can spend on strategic tasks and interactions with students, which has a negative impact on overall school management. The decline in students' academic performance was also found to be the result of inefficiencies in service management in schools. Previous research found that lack of efficiency in school services negatively impacts students' academic performance in South Korea. Students spend a lot of time taking care of school administration and services, which should be used for studying. Based on these findings, technological innovations such as integrated web-based electronic cards are particularly relevant for further research. Another thing that was found was the obstacles faced by archive managers in various organizations, including schools, due to limited document storage media. Not all digital-based school management is able to manage it well. The world of education must be willing to carry out comprehensive innovation, meaning that all devices in the education system have a role and are very influential factors in the success of the education system.

Student discipline is also an important aspect of education. Good discipline can improve students' concentration, learning motivation and academic achievement. Student discipline includes adherence to school rules, timely attendance, and appropriate behavior in the school environment. With electronic cards, it is hoped that students will find it easier to follow school rules, for example with a more efficient attendance system and stricter supervision of the use of school facilities. Electronic cards also allow more accurate monitoring of student attendance, use of facilities, and compliance with school rules, all of which contribute to improved discipline.

Efficient management of school services is essential in creating a conducive learning environment. Well-managed services can support the teaching and learning process, provide comfort for students, and ensure that student needs are met quickly and appropriately. However, inefficient service management can result in a variety of problems, such as long queues, inconsistent service, and student dissatisfaction. Therefore, innovations such as integrated web-based electronic cards are highly relevant for research. School service management involves various aspects, including administration, facility management, and provision of support services. Electronic card technology can help automate many of these processes, thereby increasing efficiency and reducing human error.

Service management in the educational context is the process of managing and providing various services that support the teaching and learning process in schools. These services may include libraries, canteens, administration, attendance, and health care. In the school context, the implementation of electronic cards can improve the reliability and responsiveness of services through automation and digitization of service processes. Reliability refers to the ability of services to consistently meet student expectations, while responsiveness refers to the school's willingness and ability to help students and provide services quickly. Student discipline is compliance with the rules and regulations set by the school. Good discipline reflects students' obedience to the time, rules and norms that apply at school. With electronic cards, automated attendance systems, and oversight of facility use can serve as both positive and negative reinforcement that promotes student discipline. For example, timely attendance and use of appropriate facilities can be strengthened through the reward system, while rule violations can be subject to sanctions recorded in the system, providing students with direct feedback about their behavior.

The results of analysis from previous research show that the application of technology, especially electronic cards, has a positive impact on various aspects of school management and student discipline. However, this research offers novelty in the context of a more comprehensive and systematic integration of web-based services. Research that specifically combines the analysis of service management and student discipline in one research framework. Thus, this research can make an important contribution in the existing literature, offering a new perspective on how technology can be used to improve various operational and pedagogical aspects in schools. Although various studies have shown the benefits of technology in school management and student discipline, there are still gaps in understanding how the integrated integration of web-based services can affect both aspects simultaneously. Most previous research focused more on implementing one aspect of technology, such as presence or payment, without integrating the system as a whole. Apart from that, many previous studies were carried out at the secondary level, while research at the primary education level was still very minimal. Therefore, the urgency of this research is to **fill this gap by presenting an** integrated web-based solution for elementary schools. **The aim of this research is to determine the** influence of web-based integrated electronic card implementation on service management and student discipline.

2. II. Method

This research uses a quantitative research design of causality, which aims to explore the cause-and-effect relationship between independent variables and dependent variables. In this study the independent variable was the use of integrated web-based electronic cards with dependent variables in the form of service management and student discipline. This approach allows testing the relationships and influences between the studied variables through statistisic analysis. Data collection in this research uses a survey approach.

The population of this study consisted of 1,040 students at SD Muhammadiyah 1 Pucanganom Sidoarjo. The study samples were determined using stratified random sampling techniques, which ensured proportional representation of each stratum of the population. The sample size was calculated with a confidence level of 95% and a margin of error of 5%. Using the sample size formula: $n = \frac{Z^2 \cdot p \cdot q}{e^2}$. Based on this formula, the substitution value is $n =$, so a sample size of 281 students was obtained which was taken randomly from grades 1 to 6.

In the research instrument test, validity and reliability tests were carried out. A validity test using Pearson's bevariate correlation was used to evaluate the validity of the questionnaire. By comparing r count with r table, the r table value of 0.113 is obtained for $N = 281$ with a significance of 5% in the r value distribution of the statistical table. If the calculated r -value $\geq r$ table = valid =, and if the calculated r -value $< r$ table = invalid

After carrying out the validity test, the reliability test continues. Reliability according to Sugiyono is defined as the level of consistency and durability of data over a certain period of time. The aim was to find out how consistent respondents were in answering the questionnaire and how stable the size was. Reality tests use opinion polls as indicators of form or variables. Polls are declared solid assuming that individual responses to the statement are predictable or unchanging over time. A variable is considered solid if it has a Cronbach Alpha worth more than 0.60.

Testing of analytical requirements using normality tests. According to Sugiyono, the normality test can be used to determine whether the normal distribution of interfering or residual variables in a regression model. **The Kolmogorov-Sminov normality test (KS) is one method that can be used to determine residual normality. Method for decision making if the significance value is ≥ 0.05 , then the residual is normally distributed, and if the significance value is < 0.05 , then the residual is not normally distributed.**

After performing prerequisite testing, research hypothesis testing was performed using regression analysis. The associative hypothesis is the assumption that there is a significant relationship between two or more variables, according to Sugiyono (2018,230). Consequently, the analysis was performed using (1) regression analysis and (2) correlation analysis. The effect **between the independent variable (X) and the dependent variable (Y)** is measured using simple linear regression analysis.

Suharsimi Arikunto's Simple Correlation Analysis (1998:251) describes correlation coefficients as "a statistical tool that can be used to compare the measurement results of two different variables in order to determine the level of relationship between them." The following table shows the guidelines that can be used to calculate the level of relationship between variables X and Y.

Table 1. Guidelines for the Interpretation of Correlation Coefficients

Interval Coefficient of Relationship Level

0.80 - 1.000 **Very Strong** 0.60 - 0.799 **Strong** 0.40 - 0.599 **Medium** 0.20 - 0.399 **Low**
0.00 - 0.199 **Very** Low

Source: Sugiyono (2018)

III. Results and Discussion

3.
This research was conducted on students at SD Muhammadiyah 1 Pucanganom Sidoarjo starting from grades 1 to 6, totaling 1,040 students represented by 281 students who were taken randomly based on sample sizes from population data known to use the finite population correction formula, the sample error rate (sampling error) was determined to be sampling error 5%. The number of respondents was 281 student samples, with samples in each stratum in this case:

1. Validity Test

The method used to assess the validity of such questionnaires was bevariate pearson correlation. Where comparing r count with r table, for $N = 281$ at a significance of 5% in the distribution of r values of the statistical table, the r value of the table is obtained at 0.113. If the calculated r value $\geq r$ table - is valid and if the calculated r value $< r$ table - is invalid. The following table is **the results of the validity test** of the X data (free variables) that have been collected.

Based on Table 2. The validity test for variable X (implementation of the use of a web-based integrated electronic card) shows that, after comparing the r count against the r table, there are 8 indicators in variable X, all of which are valid

Table 2.

Variable Validity Test X Implementation of Web-Based Integrated Electronic Card Use

Indicator Variable R Calculate Description

X Implementation of Use of X1 Web-Based Integrated Electronic Card 0.685 Valid

X2 0.625 Valid

X3 0.634 Valid

X4 0.691 Valid

X5 0.770 Valid

X6 0.692 Valid

X7 0.732 Valid

X8 0.673 Valid

In Table 3, the following is a validity test for variable Y1 (Service Management at SD Muhammadiyah 1 Pucanganom Sidoarjo), showing that, after comparing the r count against the r table, there are 9 valid indicators in variable Y 1, namely indicators **Y1.1, Y1.2, Y1.3, Y1.4, Y1.5, Y1.6, Y1.7, Y1.8, _Y1.9.**

Table 3. Y 1 Variable Validity Test

(Service Management at SD Muhammadiyah 1 Pucanganom Sidoarjo)

Indicator	Variable	R	Calculate	Description
Y	Service Management	Y1.1	0.556	Valid
Y1.2		0.628		Valid
Y1.3		0.702		Valid
Y1.4		0.718		Valid
Y1.5		0.709		Valid
Y1.6		0.634		Valid
Y1.7		0.713		Valid
Y1.8		0.622		Valid
Y1.9		0.691		Valid

Meanwhile, the validity test results for variable Y2 are shown by table 4.

Table 4. Y2 Variable Validity Test

(Student Discipline at SD Muhammadiyah 1 Pucanganom Sidoarjo)

Indicator	Variable	R	Calculate	Description
Y	Student Discipline	Y2.1	0.556	Valid
Y2.2		0.628		Valid
Y2.3		0.702		Valid
Y2.4		0.718		Valid
Y2.5		0.709		Valid
Y2.6		0.634		Valid
Y2.7		0.713		Valid
Y2.8		0.622		Valid
Y2.9		0.691		Valid
Y2.10		0.756		Valid

Based on Table 4 above, it shows that, after comparing the r count against the r table, in the variable Y2 (Student Discipline) there are 10 valid indicators, namely indicators **Y2.1, Y2.2, Y2.3, Y2.4, Y2.5, Y2.6, Y2.7, Y2.8, Y2.9, Y2.10.**

2. Reality Test

Reliability is used to measure polls that are variables. Opinion polls are declared reliable assuming the individual's response to the statement remains consistent from a test performed repeatedly under the same conditions. A variable is considered reliable assuming it gives Crocbach Alpha at 0.995. This value shows that the questionnaire is very reliable.

Case Processing Summary

N %

Cases Valid 281 100.0

Excludeda 0.0

Total 281 100.0

The results of the Reliability test showed a Cronbach's Alpha value of 0.955. This value shows that the questionnaire is very reliable.

Reliability Statistics Cronbach's Alpha N of Items .955 27

3. Analysis Requirements Testing

Normality Test

In Table 6, it shows that the Asym.sig value is 0.200. So if the Asym.sig value is greater than 0.05, then **the research data is normally distributed.**

One-Sample Kolmogorov-Smirnov Service Management Variable Test

Unstandardized Residual

N 281

Normal Parametersa,b Mean.0000000 Std. Deviation 5.46683618

Most Extreme Differences Absolute.029

Positive.024

Negative -.029

Test Statistics.029

Asymp. Sig. (2-tailed).200c,d

One-Sample Kolmogorov-Smirnov Student Disciplinary Variable **Test Unstandardized Residual** N 281

Normal Parametersa,b Mean.0000000 Std. Deviation 4.49607542

Most Extreme Differences Absolute.047

Positive.042

Negative -.047

Test Statistics.047

Asymp. Sig. (2-tailed).200c,d

The results of the Normality test show that the Asym.sig value is 0.200, so if the Asym.sig **value is greater than 0.05**, then the research data is

normally attributed

ANOVAa

Model Sum of Squares df Mean Square F Sig.

1 Regression 10236.079 1 10236.079 341.278.000b

Residual 8368,163 279 29,993

Total 18604,242 280

4. Research Hypothesis Testing

1. Regression Analysis of the Effect of Variable X (Implementation of the Use of Integrated Electronic Cards) on Variable Y1 (Service Management)

Based on the results of the ANOVA analysis in this regression model, **it can be concluded that the use of** cards as independent variables has a **significant influence on the dependent variable**, namely service management. This is evidenced by **a statistical value F of 341,278 and a significance level Sig. = 0.000**, which is much smaller than the standard significance level of 0.05. This means that the relationship between the two variables is not a purely coincidental result, but has a statistically sound basis.

From the ANOVA table, it can be seen that the Sun of Squares Regression (10236.079) is much larger than the Sum of Squares Residual (8368.163). This suggests that much of the variation in Service Management can be explained by regression models, namely the influence of Card Use. The total overall variation in the corresponding variables is 18604.242, which means that this model is able to explain more than half of the total variation through the predictors used.

The Mean Square Regression value of 10236,079 shows the average contribution of the free variable to variance in the dependent variable, which is very significant when compared to the Mean Square Residual of 29,993. A comparison between the two yields a high F value (341,278), which confirms that this regression model has excellent predictive power.

Conceptually, these results show that Card Use has an important role in determining or influencing the quality of Service Management. For example, if Card Use is associated with efficiency or effectiveness in service delivery, then improving the quality of card use can directly contribute to improving the overall quality of service management.

With a significance level of 0.000, we can reject the null hypothesis (H0) which states that there is no relationship between Card Use and Service Management. Instead, we accept the alternative hypothesis (H1) which states that the relationship does exist and is statistically significant.

2. Regression Analysis of the Effect of Variable X (Implementation of the Use of Integrated Electronic Cards) on Variable Y2 (Student Discipline)

Based on the results of the ANOVA analysis in this regression model, **it can be concluded that the use of** cards as free variables has a significant **influence on the dependent variable, namely** Service Management. This is evidenced by a statistical value F of 341,278 and a significance level Sig. = 0.000, which is much **smaller than the standard significance level of 0.05**. This means that the relationship between the two variables is not a purely coincidental result, but has a statistically sound basis.

From the ANOVA table, it can be seen that the Sum of Squares Regression (10236,079) is much larger than the Sum of Squares Residual (8368,163). This suggests that most of the variations in Service Management can be explained by regression models, namely the influence of Card Use. The total overall variation in the dependent variable is 18604,242, which means that this model is able to explain more than half of the total variation through the predictors used.

The Mean Square Regression value of 10236,079 shows the average contribution of the free variable to variance in the dependent variable, which is very significant when compared to the Mean Square Residual of 29,993. A comparison between the two yields a high F value (341,278), which confirms that this regression model has excellent predictive power.

ANOVAa

Model Sum of Squares df Mean Square F Sig.

1 Regression 12296.623 1 12296.623 397.833.000b

Residual 8623,612 279 30,909

Total 20920,235 280

Conceptually, these results show that Card Use **has an important role in determining** or influencing the quality of Service Management. For example, if Card Use is associated with efficiency or effectiveness in service delivery, then improving the quality of card use can directly contribute to improving the overall quality of service management.

With a significance level of 0.000, we can reject the null hypothesis (H0) which states that there is no relationship between Card Use and Service Management. Instead, we accept the alternative hypothesis (H1) which states that the relationship does exist and is statistically significant.

5. Effects of Web-Based Integrated Electronic Cards on Service Management

This research shows that the implementation of integrated web-based e-cards significantly improves service management in schools. This electronic card allows the automation of various administrative processes such as attendance, library management and canteen transactions. This is in line with previous findings which stated that information technology can increase efficiency and reduce human error in school management. Attendance automation, for example, allows for rapid and accurate registration of student attendance, allowing administrative staff to focus on other strategic tasks. This result is in line with previous findings which stated that absentee recording errors were reduced significantly and the time required for the administration process became more efficient. In addition, these electronic cards make it easier to manage libraries and transactions in the cafeteria, reducing queue times and transaction errors, which ultimately increases student satisfaction with school services.

In the context of service management, the use of web-based electronic cards provides some significant additional benefits. One of the main benefits is improved data accuracy. With manual systems, human error in recording presence or transactions is often inevitable. These errors can be writing errors, data loss, or even data manipulation. With electronic cards, all data is stored digitally and updated in real-time, reducing the likelihood of such errors occurring. Accurate data is essential for informed decision-making in school management.

The use of electronic cards also supports transparency and accountability in school management. Every transaction or interaction that students make using this card can be tracked and recorded. This enables the school to monitor pupils' activities more effectively and to ensure that all services run in accordance with established procedures. This transparency also helps in identifying and resolving problems quickly, thereby increasing students' and parents' trust in school management. Apart from that, electronic cards can also help in managing school resources. For example, with the data available

from the electronic card system, the school can analyse the use of facilities such as libraries or canteens. This data can be used to make better decisions about allocating resources, such as when is the right time to increase staff in the cafeteria or increase the book collection in the library. School resources can thus be used more efficiently and effectively.

The study also found that the use of e-cards allowed for improved quality of interaction between teachers, staff and students. With a more efficient system, teachers and staff have more time to interact with students and provide the necessary support. This supports previous findings which stated that information technology in school management can increase the reliability and responsiveness of educational services. This higher quality interaction is essential to create a positive learning environment and support students' holistic development. Not only that, the implementation of electronic cards can also increase security in schools. With an integrated identification system, only students and staff who have electronic cards can access certain facilities, such as computer laboratories or sports halls. This can prevent unauthorized access and improve safety in the school environment. This system also allows schools to quickly identify who is in the building at any given time, which is very useful in emergency situations.

6. Effect of Web-Based Integrated Electronic Cards on Student Discipline

Student discipline is a key factor influencing academic performance and the learning environment at school. This research found that the use of integrated web-based electronic cards has a significant positive impact on student discipline. The automated attendance system provided by the electronic card allows for more accurate monitoring of student attendance. Absenteeism and disciplinary violations can be recorded and followed up quickly, providing direct feedback to students. This is in accordance with findings showing that digital attendance systems can improve students' compliance with school rules

The automatic attendance system not only makes it easier to record attendance, but also provides more real-time data to schools. With directly available attendance data, the school can take immediate action if there are students who are often absent or late. This quick action is important to prevent discipline problems from getting bigger and help students get back on track. In addition, accurate attendance data can also be used for further analysis purposes, such as identifying attendance patterns that may be related to certain factors such as health or family problems. In addition, electronic cards also enable more effective supervision of the use of school facilities. For example, access to sports facilities and laboratories can be better monitored and regulated, preventing abuse and ensuring all students have equal opportunities to access such facilities. This supports the findings which state that good discipline can increase students' concentration and motivation to learn

Discipline in the use of facilities also has an impact on the formation of student character. With strict supervision and direct feedback, students learn to be more responsible and disciplined in utilizing existing facilities. They will better appreciate the rules and regulations that apply in schools, which in turn helps create a more orderly and conducive learning environment.

7. VII. Conclusion

The use of Integrated Electronic Cards has a significant influence on Service Management. This was evidenced by the regression analysis, the F value was 341,278 with a Sig significance level. = 0.000. The Sum of Squares Regression of 10236,079 is much larger than the Sum of Squares Residual of 8368,163, which means that most of the variation in the Service Management **variable can be explained by** card usage. The result of the Mean Square Regression value of 10236,079 compared to the Mean Square Residual of 29,993, this model has an excellent value. Based on these results, the null hypothesis (H0) which states **there is no influence of** card use on service management **is rejected, and the alternative hypothesis** (H1) which **states that there is a significant influence** is accepted.

Apart from that, the use of integrated electronic cards also has a significant influence on student discipline. **The results of the regression analysis showed an F value of** 397,833 with a Sig significance level. = 0.000, which shows that the relationship between these two variables is also statistically strong. The Sum of Squares Regression of 12296,623 is larger than the Sum of Squares Residual of 8623,612, indicating that most of the variations in Student Discipline are explained by the use of electronic cards. With a Mean Square Regression score of 12296,623 compared to Mean Square Residual of 30,909, the influence of electronic cards on Student Discipline is quite significant. Based on these results, the null hypothesis (H0) which states **there is no influence of** card use on student discipline **is rejected, and the alternative hypothesis** (H1) **is accepted.**

Overall, the Integrated Electronic Card **has had a positive impact on** both Service Management and Student Discipline. In both regression models, a significance level of 0.000 indicates that this relationship is very significant. The regression model **shows that more than half of the variation in** both variables can be explained by the use of cards. In this way, the implementation of electronic cards has become a strategic solution to improve the quality of educational services while supporting the formation of a student discipline culture in schools. The rejection of the null hypothesis (H0) in these two variables confirms that the Integrated Electronic Card can be a solution to optimize the management service system and student discipline in the educational environment.

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Reference

- [1] Bakiyah, "Indonesian Education in the Era of Globalization," Journal of Education, vol. 7, no. 1, 2022.
- [2] E. Ekawarna, D. Denmar, and D. Eka Wibawa, "The Influence of Service Quality, Trust and School Image on Parental Satisfaction at Al-Falah Islamic Middle School, Jambi City," vol. 3, no. 2, 2021, doi: 10.31933/jimt.v3i2.
- [3] M. First, S. M. P. Di, and S. M. P. Ma, "Student Service Management in South Lampung Regency Schools," vol. 01, no. 0, pp. 459-468, 2022.
- [4] Dwi Rathasari, Olivia Kartika Putri, Halimatul Ulfa, and Rofiq Hifayat, "One Stop Integrated Service Special Service Management (PTSP) at MI Al-Fattah," 2024.
- [5] **E. Fariyatul Fahyuni, Rusjiono, S. Masitoh, and B. Haryanto, "How the teacher's teaching is? the guided-inquiry-worksheets to enhance science process skills," J Phys Conf Ser, vol. 1175, no. 1, 2019, doi: 10.1088/1742-6596/1175/1/012136.**
- [6] **Samuel Mamonto, Darto Wahidin, Itsna Noor Laila, I Putu Dicky Merta Pratama,** Discipline in Education, 1st ed. Malang: PT. Nusantara Abadi Group Literacy, 2023.
- [7] I. Fauji, E. F. Fahyuni, A. Muhid, and Z. N. Fahmawati, "Implementing Child-Friendly Teaching Methods To Improve Qur'an Reading Ability," Journal of Islamic Education, vol. 6, no. 1, pp. 69-78, 2020, doi: 10.15575/jpi.v6i1.8078.
- [8] S. Nurharirah and A. Effane, "Barriers and Solutions in Educational Facilities and Infrastructure Management," 2022.
- [9] F. Costa, S. Genovesi, M. Borgese, A. Michel, F. A. Dicandia, and G. Manara, "A review of rfid sensors, the new frontier of internet of things," May 01, 2021, MDPI AG. doi: 10.3390/s21093138.

- [10] A. Mu'min, A. Sindring, and N. Fadhilah Umar, "Analysis of the Low Discipline of Student Learning and Its Handling (Case Study of Class X Students at Sman 5 Enrekang)," *Pinisi Journal of Education*, no. 1, pp. 1-11, 2022, [Online]. Available: http://eprints.unm.ac.id/26255/1/J_855_1.pdf
- [11] A. Akbar and N. Noviani, "Challenges and Solutions in the Development of Educational Technology in Indonesia," *Proceedings of the National Education Seminar for the Postgraduate Program at Pgri University Palembang*, vol. 2, no. 1, pp. 18-25, 2019.
- [12] A. Stratton and S. Curkovic, " **Global Emergencies: How Do They Affect Supply Chain Management Students?,**" *Creat Educ*, vol. 12, no. 01, pp. 231-264, 2021, doi: 10.4236/ce.2021.121018.
- [13] P. N. Kolm, "How Do Principal-Agent Effects in Delegated Portfolio Management Affect Asset Prices?," *Journal of Mathematical Finance*, vol. 03, no. 04, pp. 407-415, 2013, doi: 10.4236/jmf.2013.34042.
- [14] A. James, D. E. Anderson, C. Caren, M. A. Jones, and B. Learning, "Health Systems thinking: a primer," *Theor Med Bioeth*, pp. 429-433, 2022.
- [15] E. F. Fahyuni, ; Moch, U. Bahak, A. By, and D. Nastiti, "DEVELOPMENT TEXTBOOK WITH PROBLEM POSING METHOD TO IMPROVE SELF REGULATED LEARNING AND UNDERSTANDING CONCEPT," 2019. [Online]. Available: <http://jurnal.unimus.ac.id/index.php/JPKIMIA>
- [16] Q. Zhang, "Chinese parents' perception of emergency remote K-12 teaching-learning in China during the COVID-19 pandemic," *Asian Journal of Distance Education*, vol. 16, no. 1, p. 2021, 2021, doi: 10.5281/zenodo.4567480.
- [17] **A. E. Susilo and A. Abdurrahman**, "Human Resource Management to Improve Employee Performance Through Digital Attendance," *Journal Educatio FKIP UNMA*, vol. 9, no. 1, pp. 318-326, 2023, doi: 10.31949/educatio.v9i1.4629.
- [18] K. Maulidah, S. Ali, and D. C. Pangestuti, "Effect of Workload and Job Satisfaction on Turnover Intention of RSU Employees 'ABC' South Jakarta," *Journal of Accounting, Finance and Management*, vol. 3, no. 2, pp. 159-176, 2022, doi: 10.35912/jakman.v3i2.611.
- [19] C. Gupta, Dr. S. Jogdand, and M. **Kumar**, "Reviewing the Impact of Social Media on the Mental Health of Adolescents and Young Adults," *Cureus*, vol. 14, no. 10, 2022, doi: 10.7759/cureus.30143.
- [20] **Y. Lee and J. Kim**, " **Cultivating employee creativity through strategic internal communication: The role of leadership, symmetry, and feedback seeking behaviors,**" *Public Relat Rev*, p. 101998, Dec. 2020, doi: 10.1016/j.pubrev.2020.101998.
- [21] S. W. Pramono, S. Supriyanto, and U. Ahdiani, "E-Archives for Muhammadiyah Schools as a Digital Documentation Effort," *Journal of Devotion to You NegeRI*, vol. 5, no. 2, pp. 39-44, 2021, doi: 10.37859/jpumri.v5i2.2788.
- [22] N. Nurdyansyah and Q. Aini, "The Role of Educational Technology in Mathematics Subjects Class Iii at Mi Ma'arif Pademonegoro Sukodono," *At-Thullab : Madrasah Ibtidaiyah Teacher Education Journal*, vol. 1, no. 1, p. 124, 2020, doi: 10.30736/atl.v1i1.81.
- [23] S. Yuliantika, "Analysis of Factors That Influence the Learning Discipline of Class X, Xi, And Xii Students at Bhakti Yasa Singaraja High School for the 2016/2017 Academic Year," *Undiksha Economic Education Journal*, vol. 9, no. 1, p. 35, 2017, doi: 10.23887/jjpe.v9i1.19987.
- [24] B. Burhan, N. Nurwidayanti, A. Irwandi, N. F. Saleh, K. Pabulo, and S. Rahmadhanningsih, "Analysis of the Application of School Management Based on Information and Communication Technology," *Ecosystem Scientific Journal*, vol. 23, no. 2, pp. 450-464, 2023, doi: 10.35965/eco.v23i2.2889.
- [25] Mohamad Mustari, *School Education Administration and Management*, 1st ed., vol. 01. Bandung, 2022.
- [26] D. D. N. B. Dwi Wahyu Indrawanto, Burhanuddin, "The Influence of MBKM Student Exchange Management on Mastery of Student Learning at Malang State University," vol. 7, pp. 255-265, 2024.
- [27] Deandiles Christover, Aji Syarif Hidayattullah, and Indah Mawarni, "Application of Digitalization Concepts in Public Services at the Manunggal Jaya Village Office, Tenggaraong Seberang District, Kutai Kartanegara Regency," *Journal of Research and Development on Public Policy*, vol. 2, no. 2, pp. 199-214, 2023, doi: 10.58684/jarvic.v2i2.73.
- [28] Akmaluddin and B. Haqiqi, "Student learning discipline in elementary schools (primary schools) Cot Keu Eung, Aceh Besar Regency (K case studies)," *Journal of Education Science (JES)*, vol. 5, no. 2, pp. 1-12, 2019, [Online]. Available: <http://www.jurnal.uui.ac.id/index.php/jes/article/view/467/204>
- [29] M. Mayasari, "Analysis of the Application of Technology in Education and Its Impact on Health in the School Environment," *Journal on Education*, vol. 6, no. 1, pp. 93-100, 2023, doi: 10.31004/joe.v6i1.12916.
- [30] I. Chastanti et al., *Learning Innovation and Technology Education to Improve the Quality of Education*. 2017. [Online]. Available: http://repo.iain-tulungagung.ac.id/5510/5/BAB_2.pdf
- [31] A. F. Rizka Zulfikar, Fifi Permata Sari, *Quantitative Research Methods (Theory, Methods and Practice)*, 1st ed., vol. 7, no. 2. Bandung Regency: Widina Media Utama, 2024.
- [32] Sugiyono, *Qualitative, Quantitative, and R&D Research Methods*. Bandung: Alfabeta, 2013.
- [33] M. E. Gizaw and G. W. Tessema, "Role of contemporary technologies in health care knowledge management: a review," *International Journal of Scientific Reports*, vol. 6, no. 9, p. 366, 2020, doi: 10.18203/issn.2454-2156.intjsci20203552.
- [34] S. Pramesti and P. Tri Febrianto, "Implementation of a Digital Attendance System to Increase the Efficiency of Recording Teacher Attendance in Elementary Schools," *JATI (Journal of Informatics Engineering Students)*, vol. 8, no. 2, pp. 2429-2434, 2024, doi: 10.36040/jati.v8i2.9521.