TPM Vol. 32, No. 4, 2025
ISSN: 1972-6325
https://www.tpmap.org/

PSYCHOLOGICAL PERSPECTIVES ON DIGITAL TRANSFORMATION IN EDUCATIONAL FINANCE: EXPLORING USER PERCEPTIONS IN GREEN SCHOOL POLICY IMPLEMENTATION

MUHAMAD SHOLEH [1], BAMBANG SIGIT WIDODO [1], NANIK HINDARYATININGSIH [2], BIMA ANGGANA WIDHIARTA PUTRA [1*], ADITYA CHANDRA SETIAWAN [1], WINDASARI [1]

[1] UNIVERSITAS NEGERI SURABAYA, INDONESIA
[2] HALU OLEO UNIVERSITY, KENDARI, INDONESIA

Abstract
Digital transformation in education administration not only aims to improve efficiency, but also supports environmental sustainability efforts through paperless administrative practices. This study aims to explore users' perception of a digital financial information system called SI KUAT (Safe and Transparent Financial Information System) in relation to environmental values and Green School policies, especially in elementary schools in Gresik Regency. This study uses a descriptive-correlational quantitative approach with a questionnaire instrument based on the Technology Acceptance Model (TAM) framework which is integrated with the construct of environmental values. The five main variables measured were Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Behavioral Intention (BI), Personal Environmental Values (PEV), and Environmental Contribution (EC). Data were obtained from 30 school finance staff through an online survey and analyzed using multiple linear regression. The results of the analysis showed that the regression model was significant simultaneously ($F = 5.447$; $p = 0.003$), with an R Square value of 0.466. Partially, the PU, BI, and PEV variables had a significant effect on environmental contribution, with BI being the most dominant variable ($\beta = 0.405$). In contrast, the PEOU has no significant effect on the EC. These findings indicate that perceptions of system usability, personal value to the environment, and pro-environmental behavior intentions are more influential than the technical aspects of ease of use. This research contributes novelty by incorporating the perspective of environmental psychology into the study of technology adoption in the primary education sector, as well as highlighting the importance of the value and attitude dimensions in the success of sustainability-based digital transformation.
Keywords: Digital transformation, Environmental Values, Financial Information System, Green School, User Perception

INTRODUCTION

The increasing urgency of global environmental degradation has prompted educational institutions to adopt more sustainable policies and practices (Žalėnienė & Pereira, 2021). In Indonesia, initiatives such as Adiwiyata, a national program that promotes environmentally sound schools, encourage systematic change in the education sector, particularly through the implementation of Green Campus policies. One practical but often overlooked aspect of such efforts is the transition to paperless administration, especially in financial management systems (Gelashvili & Pappel, 2021).

Digital transformation has emerged as an important element in the modernization of public sector services, including education administration. The integration of financial information systems into school operations not only improves efficiency and transparency, but is also aligned with environmental goals by reducing reliance on paper-based processes. By digitizing budgeting, reporting, and expense tracking, educational institutions can not only improve financial accountability, but also significantly reduce their ecological footprint. This is a tangible contribution to broader green governance policies, where digital transformation is not only seen as a means of administrative efficiency, but also as part of institutional responsibility for the environment (X. Zhao et al., 2024). Other studies have also shown that organizations that adopt environmentally-based information systems tend to show a higher ethical commitment to sustainability (Giantari & Sukaatmadja, 2021).

Paperless administration not only contributes to bureaucratic efficiency, but is also a concrete strategy to reduce carbon footprint and paper waste (Yousufi, 2023). In the framework of the Green Information System (Green IS), the use of information technology is seen as a strategic tool that supports operational efficiency as well as organizational environmental values (Debnath, 2020). Educational institutions that implement environmentally friendly policies such as Adiwiyata, ideally make the digitization of the administrative system part of their institutional commitment to sustainability. Moreover, the literature shows that the application of an environment-

based digital system is able to form ecosocial awareness and ecological ethics among users (Sanabria-Z et al., 2025; Tisoglu et al., 2025).

Digital transformation has emerged as an important element in the modernization of public sector services, including education administration. The integration of financial information systems into school operations not only improves efficiency and transparency, but also aligns with environmental goals by reducing reliance on paper-based processes (Mishra, 2025). This digitalization process is part of Green IS (Green Information System), which refers to the application of information technology to support environmental and sustainability goals of organizations (Veit & Thatcher, 2023).

Furthermore, the use of digital systems in financial management can form a positive perception of users towards their contribution to the organization's green agenda. In this context, the user's psychological response becomes very important. Their understanding and acceptance of the system is based not only on the technical function, but also on the values instilled through the environmental policies inherent in the system (Stonig et al., 2022; Y. Zhao et al., 2023). Therefore, reviewing user acceptance of digital financial information systems in the framework of environmental sustainability is a strategic step to ensure the success of technology adoption while supporting the integration of green values in educational institutions.

However, digital transformation in schools involves more than just the implementation of technology. Digital transformation requires a psychological change in the way users perceive, receive, and internalize these systems especially when they are introduced with the dual purpose of modernizing administration and environmental responsibility (Gao & Tang, 2023). Although the prevalence of digital systems is increasing, few studies have explored the user-built psychological relationship between technology adoption and environmental values.

The Technology Acceptance Model (TAM) developed by Davis has long served as a theoretical framework for understanding user intent in adopting new technologies, emphasizing the roles of Perceived Usability (PU) and Perceived Ease of Use (PEOU) (Davis & Granić, 2024). Although TAM has been widely applied in educational technology research, its application in environmentally oriented administrative transformations, such as paperless financial systems, is still limited. In addition, the relationship between TAM and environmental psychology, especially the alignment of personal environmental values with institutional digital policies, is still poorly explored.

This study aims to examine how users in educational institutions psychologically perceive and relate the use of the digital financial system to environmental values, especially in supporting Green Campus policies. The focus is not only on the usability of the system, but also on the underlying psychological attitudes and values that influence user acceptance when sustainability goals are embedded in the adoption of technology.

The study is located in Gresik, East Java, a heavy industrial area in Indonesia that faces severe environmental stress. The latest data shows that the average concentration of microplastics in the air in Gresik reaches 26.21 particles per two hours, double the concentration of surrounding cities such as Surabaya (13.86) and Mojokerto (11.45). The Air Quality Index (IPU) in Gresik is at 144, which is categorized as "unhealthy" for vulnerable groups. These indicators highlight the urgent need for integrative and sustainable initiatives, including in the education sector.

Educational institutions in Gresik play a strategic role in promoting environmental awareness and action. The shift to a digital financial administration system designed to reduce paper use is a tangible step towards these sustainability efforts. However, the long-term success of such systems is highly dependent on user acceptance. Understanding how administrators, finance staff, and teachers view and respond to these systems, especially in environmentally vulnerable areas, is critical to ensuring technological and ecological effectiveness.

By bridging digital innovation and environmental policy, this study contributes to a growing body of literature in applied psychology that examines the interactions between user attitudes, values, and behaviors in the context of organizational change. These findings are expected to provide input for designing a more psychologically responsive system and developing environmental policies that are in line with the values and perceptions of users in the educational environment.

METHOD

This study uses a quantitative descriptive to explore user perceptions of digital financial information systems in relation to environmental values and support for Green Campus policies. The survey method is used as the main technique in data collection, by utilizing questionnaires as a tool to measure perception, attitude, and values.

The sample in this study consisted of a number of elementary school finance staff, especially private schools in the Gresik Regency area, who were randomly selected proportionally from various sub-districts to ensure the diversity of institutional characteristics. The determination of the number of samples takes into account the principles of representativeness and statistical feasibility, taking into account the margin of error of 5%. For the purpose of initial testing of the instrument, the researcher also conducted a pilot test on 30 respondents to evaluate the clarity of the item and the internal consistency of the instrument.

The research instrument was compiled based on the development of the Technology Acceptance Model (TAM) by Davis (1989), which is integrated with aspects of environmental values based on environmental psychology approaches. The questionnaire consists of four main constructs, namely: (1) Perceived *Usefulness*, (2) *Perceived Ease of Use*, (3) Perception of Environmental Contribution from the System, (4) Behavioral Intention (BI) and (5)

Personal Environmental Values. All statements are arranged on a 5-point Likert scale, from "strongly disagree" to "strongly agree".

To ensure the validity of the content, the instrument is validated through an expert judgment process by experts in the field of educational psychology and learning technology. An internal reliability test was conducted on the results of the initial test using Cronbach's Alpha analysis, with a minimum limit of 0.70 as an indicator of adequate inter-item consistency.

Data was collected through an online platform using a digital form that was distributed behind closed doors to selected respondents through the school network. Participation is voluntary, with a guarantee of anonymity and consent given through *an informed consent* form. Data analysis was carried out with the help of SPSS software version 26. The data were analyzed descriptively to describe respondents' perceptions of each construct, and inferentially through Pearson correlation analysis and linear regression to determine the relationship between environmental values and user attitudes towards the digital financial system.

This research is carried out by adhering to the principles of research ethics, including maintaining the confidentiality of participants' identities, obtaining voluntary consent, and ensuring that data is only used for academic purposes and is not disseminated outside of scientific interests.

RESULT

1. Application Development

The application developed in this study is SI KUAT (Secure and Transparent Financial Information System) designed with an intuitive and user-friendly interface to support users from non-technical backgrounds, such as school administrative staff and treasurers. The system is developed with a modular and web-based approach, which can be accessed through the educational institution's specific domain address.

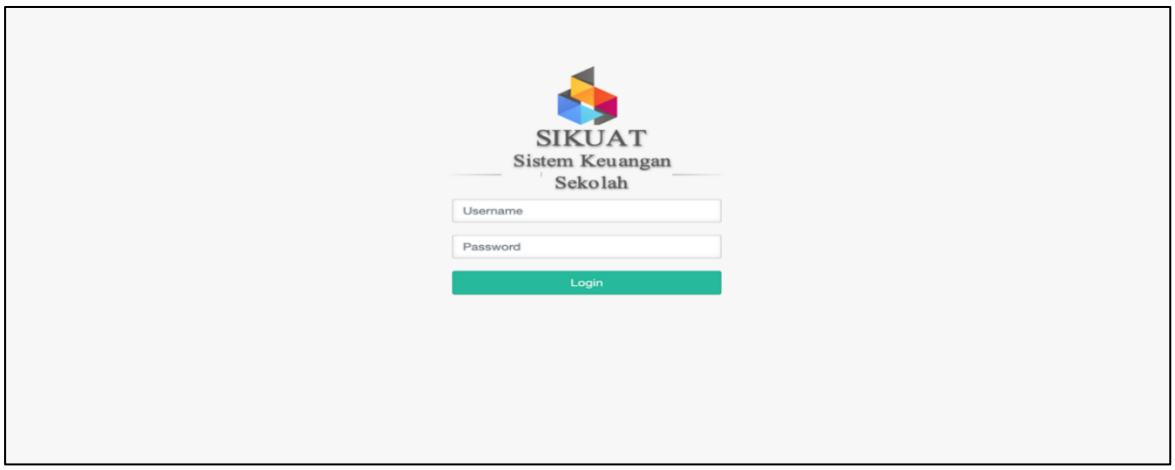

Figure 1. Login Page SI KUAT

The login page as seen in Figure 1 features a minimalist design. Users are asked to enter their username and password to access the system safely. This authentication process ensures limited access control, maintains the confidentiality of school financial data, and supports the principle of accountability.

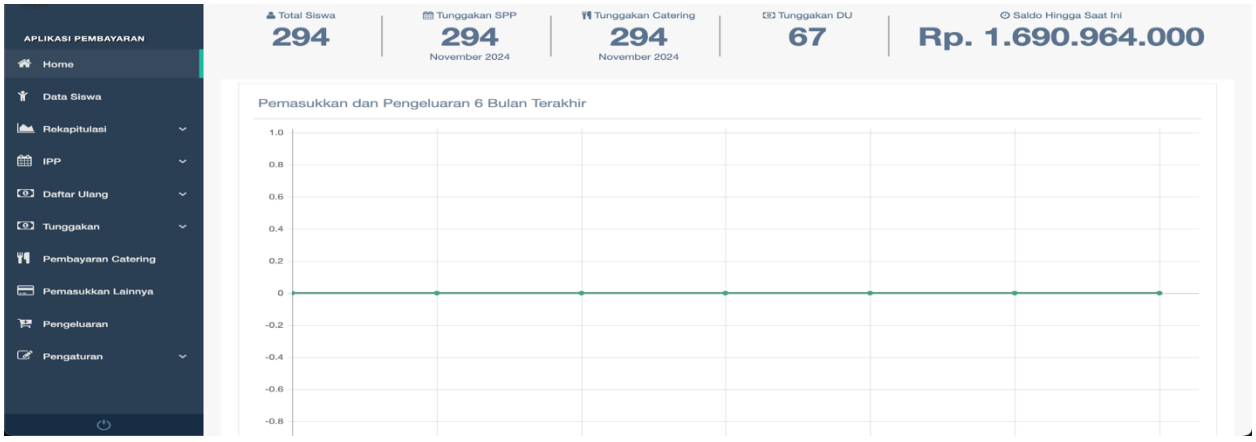

Figure 2. SI KUAT Dummy Dashboard (Dummy is used to protect school privacy data)

One of the main features of this application lies in the informative and integrated dashboard display, allowing users, especially school treasurers, and principals to monitor the school's financial condition in real-time. The

dashboard displays important information such as total enrolled students, tuition arrears, catering, and re-enrollment, as well as available school cash balances. This view helps users to easily identify financial areas that need immediate attention, while also increasing transparency in the management of education funds.
In addition, SI KUAT is also equipped with an interactive graph showing the trends in income and expenses over the past six months. Although not all transaction data is fully recorded in the early stages, the existence of this feature shows the great potential of the system in supporting school cashflow analysis without having to use printed reports. The navigation menu located on the left side of the interface consists of various modules such as student data, recapitulation, re-enrollment, catering payments, other income, and expenses. Each module is designed to accommodate administrative workflows digitally, which were previously done manually and paper-based.
With a simple, clean, and consistent interface structure, SI KUAT not only aims to improve efficiency and accountability, but also supports environmentally friendly administrative practices through the reduction of the use of physical documents. The implementation of this system is a strategic step in supporting the Green Campus policy and the Adiwiyata program, as well as creating a digital governance culture that is in line with sustainability values in educational institutions.

1. Data Analysis

This section presents the results of data analysis obtained through the distribution of questionnaires to elementary school finance staff in Gresik Regency as respondents in this study. The analysis was conducted to explore user perceptions of the implementation of the Safe and Transparent Financial Information System (SI KUAT) in the context of digital transformation that supports the Green Campus policy. The data were analyzed descriptively to understand the tendency of respondents' attitudes towards five main constructs, namely: *Perceived Usefulness*, *Perceived Ease of Use*, *Environmental Contribution*, *Behavioral Intention*, and *Personal Environmental Values*. The mean score and standard deviation were used to measure respondents' level of approval of each statement on the Likert scale of 1–5. The results are as shown in table 1.

Table 1. Descriptive Analysis

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
PU01	30	2.00	5.00	119.00	3.9667	.88992
PU02	30	3.00	5.00	127.00	4.2333	.81720
PU03	30	2.00	5.00	122.00	4.0667	.94443
PU04	30	2.00	5.00	121.00	4.0333	.99943
PU05	30	3.00	5.00	119.00	3.9667	.85029
PU06	30	2.00	5.00	118.00	3.9333	1.11211
PU07	30	2.00	5.00	111.00	3.7000	.95231
PEOU01	30	2.00	5.00	118.00	3.9333	.98027
PEOU02	30	2.00	5.00	117.00	3.9000	.92289
PEOU03	30	2.00	5.00	111.00	3.7000	.91539
PEOU04	30	2.00	5.00	118.00	3.9333	.94443
PEOU05	30	2.00	5.00	112.00	3.7333	1.04826
PEOU06	30	2.00	5.00	118.00	3.9333	.90719
PEOU07	30	2.00	5.00	114.00	3.8000	.96132
EC01	30	2.00	5.00	117.00	3.9000	.95953
EC02	30	2.00	5.00	115.00	3.8333	1.01992
EC03	30	2.00	5.00	111.00	3.7000	1.31700
EC04	30	2.00	5.00	114.00	3.8000	.84690
EC05	30	2.00	5.00	113.00	3.7667	.93526
EC06	30	1.00	5.00	112.00	3.7333	1.17248
EC07	30	2.00	5.00	121.00	4.0333	.92786
BI01	30	2.00	5.00	116.00	3.8667	1.04166
BI02	30	2.00	5.00	121.00	4.0333	.92786
BI03	30	2.00	5.00	117.00	3.9000	.99481
BI04	30	2.00	5.00	122.00	4.0667	1.01483
BI05	30	2.00	5.00	119.00	3.9667	.96431
BI06	30	2.00	5.00	117.00	3.9000	.92289
BI07	30	2.00	5.00	119.00	3.9667	.85029
PEV01	30	2.00	5.00	122.00	4.0667	.98027
PEV02	30	2.00	5.00	116.00	3.8667	.93710
PEV03	30	2.00	5.00	115.00	3.8333	.91287
PEV04	30	2.00	5.00	119.00	3.9667	.85029
PEV05	30	1.00	5.00	115.00	3.8333	1.01992
PEV06	30	2.00	5.00	121.00	4.0333	.80872
PEV07	30	2.00	5.00	127.00	4.2333	.97143
Valid N (listwise)	30					

The results of figure 1, descriptive analysis of survey data show that user perception of the Safe and Transparent Financial Information System (SI KUAT) is generally in the positive category. In the *Perceived Usefulness* (PU)

construct, which measures the extent to which users feel the benefits of using the system, the average score is in the range of 3.70 to 4.23. The highest score was obtained in item PU02 which indicates that SI KUAT is considered very helpful in accurate financial reporting. This reflects that the system has met the functional expectations of the users in supporting their administrative tasks.

The *Perceived Ease of Use* (PEOU) construct, which evaluates the system's ease of use, shows an average score between 3.70 and 3.93. Despite the variations, all items remain within the high score range, indicating that users find the system interface to be fairly easy to understand and operate, although there are some technical aspects that may still be simplified.

Meanwhile, the *construct Environmental Contribution* (EC), which assesses the system's contribution to the environment, produces a score between 3.70 and 4.03. The high score on the EC07 item confirms that this system is seen as an instrument that supports environmentally friendly practices, especially in terms of reducing the use of paperless use. These findings show ecological awareness from users, as well as support for the Green Campus policy that is being promoted.

In the *construct of Behavioral Intention* (BI), or the intention to continue using the system, the average score was also relatively high (3.87–4.07). The item with the highest score indicates that the user has a positive commitment to maintaining the use of SI KUAT in the future. This is an important indicator of the sustainability of technology adoption in the school environment.

Finally, the *Personal Environmental Values* (PEV) construct, which measures respondents' personal values on environmental issues, showed an average score between 3.83 and 4.23. This high score indicates that finance staff in schools have a fairly strong environmental value, which ultimately strengthens their attitudes and acceptance of digital systems that support sustainability.

Overall, these results reflect that acceptance of SI KUAT is not only influenced by technological factors, but is also closely related to the ecological and psychological values of users. This strengthens SI KUAT's position as a digital innovation that not only improves work efficiency, but also supports the transformation of school administration culture towards a more environmentally friendly direction.

Table 2. Results of the Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.728	35

Based on the results of the reliability test on the research instrument consisting of 35 statement items, a Cronbach's Alpha value of 0.728 was obtained. This value indicates that the instrument has a fairly good and acceptable level of internal consistency, given that the minimum limit commonly used in social research is 0.70. Thus, all items in the questionnaire were considered to have sufficient reliability to measure the constructs studied, namely *Perceived Usefulness*, *Perceived Ease of Use*, *Environmental Contribution*, *Behavioral Intention*, and *Personal Environmental Values*. These results indicate that respondents provided relatively consistent answers to various items that measure the same concept, making the resulting data worthy of use in further analysis.

Table 3. Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.682[a]	.466	.380	.727

a. Predictors: (Constant), PEV, PU, PEUO, BI

Table 3. Anova Analysis

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.502	4	2.876	5.447	.003[b]
	Residual	13.198	25	.528		
	Total	24.700	29			

a. Dependent Variable: EC

b. Predictors: (Constant), PEV, PU, PEUO, BI

Table 5. Multiple Linear Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.657	.747		.879	.000
	PU	.167	.151	.172	3.201	.001
	PEUO	.047	.176	.050	.266	.793
	BI	.408	.203	.405	5.012	.005
	PEV	.237	.179	.243	2.570	.006

a. Dependent Variable: EC

Based on the results of multiple linear regression analysis, it is obtained that this research model has a fairly good feasibility level in explaining the influence of independent variables on environmental contribution (EC). The correlation coefficient (R) value of 0.682 indicates a strong relationship between the variables Perceived Usefulness (PU), Perceived Ease of Use (PEUO), Behavioral Intention (BI), and Personal Environmental Values (PEV) and EC. Meanwhile, an R-Square value of 0.466 indicates that 46.6% of the variation in environmental contribution can be explained by these four independent variables, while the remaining 53.4% is influenced by other factors outside of this study model. The Adjusted R Square value of 0.380 also reinforces that the model still has good consistency despite considering the number of predictors. The results of the ANOVA test showed an F value of 5.447 with a significance level of 0.003 (<0.05), which means that this regression model is simultaneously significant, so that PU, PEUO, BI, and PEV together affect EC. Partially, the variables PU, BI, and PEV were shown to have a positive and significant effect on EC, where BI was the dominant variable with a Beta value of 0.405. This shows that the intention of individual behavior in adopting or implementing environmentally friendly behavior is the most powerful factor in encouraging contribution to the environment. In contrast, the PEUO variable did not show a significant influence on EC, so ease of use was not the main determining factor in encouraging environmental contribution in the context of this study. The Std. Error of the Estimate value of 0.727 also indicates that the model's prediction error rate is relatively small, so the model can be relied upon to explain the phenomenon being studied. Overall, these findings confirm that usability perceptions, personal value related to the environment, and behavioral intentions have a significant role in driving environmental contribution, while ease of use is not a key factor.

DISCUSSIONS

The results of this study show that the multiple linear regression model built to explain the environmental contribution (EC) of the use of digital financial information systems has a fairly good feasibility. This finding is indicated by a determination coefficient value (R Square) of 0.466 which indicates that 46.6% of the variation in environmental contribution can be explained by four independent variables, namely Perceived Usefulness (PU), Perceived Ease of Use (PEUO), Behavioral Intention (BI), and Personal Environmental Values (PEV), while the remaining 53.4% is influenced by other factors outside this model. The correlation coefficient value (R) of 0.682 indicates a fairly strong relationship between these variables, and the Adjusted R Square value of 0.380 reinforces that this model remains consistent despite considering the number of predictors in the analysis. The results of the ANOVA test also showed that the model was simultaneously significant (F = 5.447; Sig. = 0.003), which means that the four variables together contributed to the increased environmental contribution.

In more depth, the results of the regression analysis showed that the Behavioral Intention (BI) variable had the most dominant influence on EC with a beta value of 0.405. These findings are in line with the *Theory of Planned Behavior*, which shows that behavioral intentions are a strong predictor of real pro-environmental action (Karimi et al., 2022). In the context of financial information systems such as SI KUAT, these results confirm that users' intention to support environmentally friendly practices is the main key in driving the success of digitalization that is in line with sustainability principles. In addition to BI, the PU and PEV variables were also found to have a positive and significant influence on EC. The perception of the usability of the system is an important factor that encourages users to continue using the system optimally, especially if the system not only helps in work efficiency but also brings environmental benefits, such as reduced paper use. These findings are in line with the Technology Acceptance Model framework (Davis, 1989) and are reinforced by the findings of (Natasha et al., 2024)who stated that perceived usefulness contributes to user engagement in sustainable digital practices.

Personal environmental value (PEV) also plays a significant role in driving contribution to the environment. This states that environmentally-oriented personal values can promote awareness of the ecological impact of one's actions. Individuals with high environmental values tend to have internal motivation to support systems or technologies that contribute to environmental conservation, including in the context of digital financial information systems (Degnet et al., 2022). In contrast, the Perceived Ease of Use (PEUO) variable did not show a significant influence on environmental contribution. This may be due to the characteristics of respondents who are used to using digital technology, so that the perception of convenience is no longer the main determining variable in

adopting a sustainability-based system. This finding is consistent with the findings of (Matar & Aloqaily (2025), who stated that in the context of experienced users, PU is more influential than PEOU.

Overall, this research contributes to novelty by integrating the Technology Acceptance Model (TAM) framework and the environmental values approach in the context of the implementation of a Green Campus-based digital financial information system in the elementary school environment. This research also offers a new perspective by focusing on school finance staff as a population that has been underpaid in educational technology research and sustainability. The practical implications of these findings suggest that the development of systems such as SI KUAT needs to consider the environmental values of the user as well as reinforce the intention of pro-environmental behavior, rather than focusing solely on the aspect of technical convenience. These findings open up opportunities for more comprehensive follow-up research on non-technical factors, such as organizational culture, ethical leadership, and institutional policies, in driving sustainable digital transformation in the primary education sector.

CONCLUSION

This study provides empirical evidence that the integration of digital financial systems with environmental values contributes significantly to sustainable behavioral transformation within educational institutions. The results demonstrate that users' behavioral intention, perceived usefulness, and personal environmental values play a crucial role in fostering pro environmental contributions through the adoption of the SI KUAT system. Among these, behavioral intention emerged as the most dominant predictor, emphasizing that the willingness to act environmentally stems not merely from system functionality but from psychological commitment and awareness of ecological responsibility. Conversely, perceived ease of use did not have a significant influence, suggesting that for experienced users, motivation to use the system is no longer determined by technical simplicity, but by perceived meaningfulness and environmental relevance.

This study expands the Technology Acceptance Model (TAM) by incorporating constructs from environmental psychology, thereby offering a more holistic framework to understand technology adoption in sustainability-oriented contexts. Practically, the findings suggest that digital transformation initiatives in education, particularly those aligned with the Green School or Adiwiyata programs, should emphasize environmental awareness and internal motivation among users rather than focusing solely on technological efficiency.

This research contributes to the growing discussion on psychological determinants of sustainable digital behavior, presenting a novel intersection between environmental values and digital governance in schools. Future studies are encouraged to explore additional psychosocial and organizational factors such as institutional culture, leadership, and collective environmental efficacy that may further strengthen sustainable digital transformation in educational systems.

Acknowledgements

The authors would like to express their sincere gratitude to the State University of Surabaya (UNESA) for its ongoing support and academic environment that has fostered this research. Appreciation is also extended to the elementary school financial officers in Gresik Regency who participated in this research, sharing their experiences and insights on digital transformation and sustainable financial management. This research is part of a broader institutional initiative to foster innovation and sustainability through digital governance in education.

REFERENCES

1. Davis, F. D., & Granić, A. (2024). Evolution of TAM (pp. 19–57). https://doi.org/10.1007/978-3-030-45274-2_2
2. Debnath, S. (2020). Green IS - information system framework to support environmental sustainability of firms. International Journal of Business Information Systems, 34(1), 83. https://doi.org/10.1504/IJBIS.2020.106797
3. Degnet, M. B., Hansson, H., Hoogstra-Klein, M. A., & Roos, A. (2022). The role of personal values and personality traits in environmental concern of non-industrial private forest owners in Sweden. Forest Policy and Economics, 141, 102767. https://doi.org/10.1016/j.forpol.2022.102767
4. Gao, Y., & Tang, Y. (2023). A Study on the Mechanism of Digital Technology's Impact on the Green Transformation of Enterprises: Based on the Theory of Planned Behavior Approach. Sustainability, 15(15), 11854. https://doi.org/10.3390/su151511854
5. Gelashvili, T., & Pappel, I. (2021). Challenges of Transition to Paperless Management: Readiness of Incorporating AI in Decision-making Processes. 2021 Eighth International Conference on EDemocracy & EGovernment (ICEDEG), 41–46. https://doi.org/10.1109/ICEDEG52154.2021.9530905
6. Giantari, I. G. A. K., & Sukaatmadja, I. P. G. (2021). Effects of environmental orientation, green marketing mix and social capital on the competitive advantage of real estate developers in Bali. Property Management, 39(2), 193–209. https://doi.org/10.1108/PM-01-2020-0005
7. Karimi, S., Liobikienė, G., & Alitavakoli, F. (2022). The Effect of Religiosity on Pro-environmental Behavior Based on the Theory of Planned Behavior: A Cross-Sectional Study Among Iranian Rural Female Facilitators. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.745019
8. Matar, A., & Aloqaily, A. N. (2025). The mediating influence of perceived usefulness on consumer behaviour

towards driving e-wallet adoption in Jordan. Journal of Open Innovation: Technology, Market, and Complexity, 11(4), 100651. https://doi.org/10.1016/j.joitmc.2025.100651

9. Mishra, A. (2025). From Paper-Based Reports to AI-Generated Financial Statements: Examining Automation's Role in Enhancing Accuracy, Efficiency, and Compliance. Journal of Advanced Research in Quality Control & Management, 10(01), 15–27. https://doi.org/10.24321/2582.3280.202502
10. Natasha, C. A. M., Fahrudi, A. N. L. I., & Darmawan, A. (2024). Perceived Ease of Use and Perceived Usefulness as Determinants of Green IT Attitudes and Engagement Green IT Practice for Environmental IT Performance. WSEAS TRANSACTIONS ON ENVIRONMENT AND DEVELOPMENT, 20, 233–241. https://doi.org/10.37394/232015.2024.20.24
11. Sanabria-Z, J., Santana-Castellón, E., Olivo, P., Molina-Espinosa, J. M., Artemova, I., Irwin, T., Kossoff, G., Sánchez-Ruano, D., Succini, L., Velarde-Camaqui, D., Platero-Fernández, N. G., Quintero, L., Alvarez-Icaza Longoria, I., Montanari, C., Valle, L., & Sánchez-Salgado, L. A. (2025). HUMETAV model for citizen science initiatives: designing socio-ecological projects to foster awareness. Frontiers in Education, 10. https://doi.org/10.3389/feduc.2025.1392118
12. Stonig, J., Schmid, T., & Müller-Stewens, G. (2022). From product system to ecosystem: How firms adapt to provide an integrated value proposition. Strategic Management Journal, 43(9), 1927–1957. https://doi.org/10.1002/smj.3390
13. Tisoglu, S., Sönmez, E., Kaya, K. Y., & Et, S. Z. (2025). Bridging pedagogy and technology: a systematic review of immersive virtual reality's potential in climate change education. Environmental Education Research, 1–31. https://doi.org/10.1080/13504622.2025.2480661
14. Veit, D. J., & Thatcher, J. B. (2023). Digitalization as a problem or solution? Charting the path for research on sustainable information systems. Journal of Business Economics, 93(6–7), 1231–1253. https://doi.org/10.1007/s11573-023-01143-x
15. Yousufi, M. K. (2023). Exploring paperless working: A step towards low carbon footprint. European Journal of Sustainable Development Research, 7(4), em0228. https://doi.org/10.29333/ejosdr/13410
16. Žalėnienė, I., & Pereira, P. (2021). Higher Education For Sustainability: A Global Perspective. Geography and Sustainability, 2(2), 99–106. https://doi.org/10.1016/j.geosus.2021.05.001
17. Zhao, X., Zhang, S., & Lu, F. (2024). The Impact of Digital Environmental Governance on Green Transformation: Theoretical Mechanism and Empirical Test from China. Sustainability, 17(1), 157. https://doi.org/10.3390/su17010157
18. Zhao, Y., Zhao, M., & Shi, F. (2023). Integrating Moral Education and Educational Information Technology: A Strategic Approach to Enhance Rural Teacher Training in Universities. Journal of the Knowledge Economy, 15(3), 15053–15093. https://doi.org/10.1007/s13132-023-01693-z