

The crucial role of high school management in facilitating e-portfolio implementation in classrooms

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Abstract

Rapid development of information communication technologies (ICTs) has enabled online technology to support flexible teaching and learning approaches in various contexts, including high schools. As a result, e-portfolios used in online and blended learning environments can be effectively implemented in high schools. This study emphasizes the central role of high school managers in integrating educational technology in schools to promote e-portfolios. Using a qualitative research approach and the Technology Adoption Model (TAM), data were collected through an online questionnaire. Thematic analysis was employed to analyze the open-ended questions, while descriptive statistics were used for the closed-ended questions. The findings indicate that members of school management can act as catalysts for teachers and learners to integrate technology in the classroom, thereby facilitating and supporting the implementation of this approach in schools. However, the study also found that members of school management are often neglected during training offered during technology implementation. This neglect results in the central role players lacking the necessary understanding and appreciation for the application of educational technology in the classroom. Based on these findings, it is recommended to prioritize awareness, training, and preparation for ICT integration for high school management teams.

Keywords: Blended learning, Digital leadership, Educational technology, E-portfolios, High school management, Online learning, Professional development, Teacher support, Technology adoption model, Technology integration.

Citation | Modise, M.-E. P., Majola, X. M., & Kotoka, J. K. (2025). The crucial role of high school management in facilitating e-portfolio implementation in classrooms. *Journal of Education and E-Learning Research*, 12(4), 573-580. 10.20448/jeelr.v12i4.7563
History:
Received: 25 April 2025
Revised: 20 August 2025
Accepted: 15 September 2025
Published: 21 October 2025
Licensed: This work is licensed under a Creative Commons Attribution 4.0 License 
Publisher: Asian Online Journal Publishing Group

Funding: This study received no specific financial support.
Institutional Review Board Statement: The Ethical Committee of the University of South Africa (Unisa), College of Education, South Africa has granted approval for this study on 10 December 2022 (Ref. No. 90176235/13/AM).
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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Contribution of this paper to the literature

This study highlights the often-overlooked role of high school management in e-portfolio implementation, illustrating how they serve as catalysts for technology integration. It reveals their exclusion from training, a critical gap for effective ICT adoption, and emphasizes the need to empower them to ensure that technology truly benefits everyone in schools.

1. Introduction

Over the past few decades, educational technologies, especially web-based learning, have transformed teaching and learning. While younger students entering higher education are often considered digital natives, (Bagarukayo & Kalema, 2015), research indicates that many high school learners in developing countries struggle to transition to higher education due to limited exposure to educational technologies (Hoang & Dang, 2021; Rodrigues, Kamath, & Souza, 2022). In South Africa, learners from rural areas, in particular, lack adequate infrastructure to prepare them for technology-driven learning environments (Aruleba & Jere, 2022; Du Plessis & Mestry, 2019). Early exposure to digital learning tools can equip individuals not pursuing higher education with essential digital literacy and workplace skills.

One such tool with great educational potential is the electronic portfolio (e-portfolio). E-portfolios are digital spaces for teaching and learning which support reflective, personalized, and collaborative learning. E-portfolios are learner-created products that evolve and can be accessed digitally from anywhere. They promote interaction among learners and teachers, fostering collaborative and peer learning opportunities. When integrated into classrooms at the high school level, e-portfolios can help learners develop critical digital skills and prepare for higher education (Cheng, 2022; Zhang & Tur, 2022).

Globally, e-portfolios are widely used in initial teacher education, primarily for storage and presentation (Buchem, Tur, & Hoelterhof, 2020; Walland & Shaw, 2022). However, their use as a pedagogic tool to enhance learning outcomes is less common (Mapundu & Musara, 2019; Walland & Shaw, 2022), especially in high school settings. In South Africa, e-portfolios are predominantly implemented in higher education (Mapundu & Musara, 2019; Mawela, Van Wyk, & Dreyer, 2023) but remain largely absent from high school classrooms.

Beyond their function as storage tools, e-portfolios are powerful instruments for developing students' communication and critical thinking skills by allowing them to produce reflective written work and engage in active learning (Mazlan, Sui, & Jano, 2015). They are also regarded as tools of social pedagogy, engaging students in iterative cycles of creating, reflecting, seeking feedback, reviewing, and integrating revised work into their learning identity (Matthews-DeNatale, 2013). If effectively integrated at the high school level, e-portfolios can empower teachers and learners by supporting deeper learning and skill development.

Implementing educational technology in the classroom is a complex process that is not always smooth or successful (Ley et al., 2022). Nhando (2015) highlights the need for teacher training across Africa, emphasizing that teachers must be equipped with the skills and confidence to use technology as an enabler for teaching and learning. While there is extensive research on teacher training and ICT integration in classrooms, there is limited focus on the role of high school management in supporting these initiatives. This study addresses that gap by exploring how high school management approaches ICT integration and e-portfolios and the support they provide to teachers and learners. The research is guided by the key question: What is the role of high school management in facilitating the implementation of e-portfolios in classrooms?

2. Literature Review

Technology integration in schools is essential for enhancing teaching and learning experiences in today's rapidly evolving educational landscape. Among the many digital tools available, e-portfolios are a powerful means to support student learning, professional development, and digital literacy. This discussion explores the value of e-portfolios in the classroom, school management's professional development, and the importance of digital literacy and skills among school leaders in driving meaningful change. Further, it is argued that the value of the e-portfolio extends beyond being a digital repository.

Local and international education trends emphasise student-centred approaches and lifelong learning (Starkey, 2020). E-portfolios align with this approach by placing the learner at the centre, fostering self-discovery, self-directed learning, and ownership of learning (Mudau & Modise, 2022). These skills are essential not only for high school students preparing for higher education but also for success in the 21st-century workplace (González-Salamanca, Agudelo, & Salinas, 2020).

One of the key benefits of e-portfolios is their role in integrative learning, which connects formal and informal learning experiences across different contexts and timeframes (Peet et al., 2011). E-portfolios contribute to deeper understanding and skill development by enabling students to reflect on and make meaning of their learning experiences. Additionally, e-portfolios are versatile teaching and learning tools, serving as both a product and a process. As a product, an e-portfolio functions as a digital repository, allowing students to store and showcase their work (Lewis, 2017). As a process, e-portfolio learning encourages self-appraisal and reflection, supporting formative assessment for learning (Barrett & Wilkerson, 2004).

However, integrating e-portfolios in the classroom depends on teachers, students, and high school management. School leadership is crucial in ICT integration and supporting teachers and learners. Therefore, understanding how school management enables or constrains technology adoption is essential, making their involvement in research on e-portfolios critical. In today's technology-driven educational landscape, enhancing digital literacy and skills among school management is necessary. To ensure that instructors and students can use developing technology effectively, school managers play a critical role in enabling the integration of digital tools (Alenezi, 2023). Developing their competence in digital literacy streamlines administrative processes and enhances teaching and learning outcomes, ultimately preparing learners for success in a digital world.

According to research, management teams and school administrators play a crucial role in creating productive learning environments by engaging in ongoing professional development. According to a study by Nurabadi et al. (2021) principals' learning leadership skills can be significantly improved through portfolio-based online induction

programs offered via website media. Creating and sustaining innovative learning programs and encouraging purposeful, student-centered learning activities depend on competent school leadership.

Teachers and students must thoroughly understand the function and purpose of e-portfolios to implement them successfully. Additionally, school administrators need to actively support the integration of e-portfolios by offering the required training, resources, and continuous assistance. The degree of learner development is directly related to educational leaders' inventive abilities and dispositions (Arham et al., 2022). For teachers and students to effectively utilize educational technologies, school administrators must adopt digital leadership. Establishing a vision, allocating resources, and cultivating an innovative culture depend on strong leadership (Alliant International University, 2023).

Collaborative learning and mentoring are frequently incorporated into professional development programs, allowing educators to exchange best practices, gain knowledge from one another, and create a positive professional community (Edugist, 2025). Additionally, ongoing teachers can keep up with changing educational trends, creative teaching methods, and technology breakthroughs with professional development support. According to the University of San Diego (2022) this continuous learning approach improves student results and instructional efficacy while creating a more dynamic and engaging learning environment (Darling-Hammond, Hyler, & Gardner, 2017).

School administrators must actively support blended learning models, which combine in-person instruction with online learning management systems to improve students' digital literacy skills, given the growing use of digital technology in the classroom (Patmanthara & Hidayat, 2018). To execute digital literacy efforts, school administrators must have extensive training and teacher competency (Munawar, Fakhruddin, Rodiyah, & Prihatin, 2021). Creating a safe and secure digital learning environment by reducing the hazards connected with online spaces is a crucial duty of school leadership. According to research, to guarantee responsible digital involvement, school administrators must safeguard learners from online risks (Tomczyk, 2020).

Based on the literature, professional development for school leadership spanning heads of departments (HODs), deputy principals, and principals is vital in driving effective school management, fostering a positive institutional culture, and enhancing student success. Investing in the professional growth of school managers enables educational institutions to build strong leadership teams equipped to lead digital transformation, promote continuous innovation, and contribute meaningfully to the holistic development of learners and educators.

3. Theoretical Framework

The Technology Adoption Model (TAM) (Davis, 1989) was found to be relevant to this study. TAM is a popular model that simulates how people embrace and apply new technology (Zaineldeen, Hongbo, Koffi, & Hassan, 2020). The model's primary goal is to understand how users behave with various technologies, analyze their attitudes, and examine how their views affect the adoption of new technologies. This knowledge helps in choosing appropriate technology for learning environments and creating focused training programs to allay users' anxieties and misconceptions.

To effectively support the usage of e-portfolios, school managers must be digital leaders. They must upskill their digital abilities to understand and use ICTs to enhance teaching and learning (Arham et al., 2022). As argued by (Wang, Lin, & Sheng, 2022), digital leaders play a central role in driving rapid decision-making and adapting to changes in the digital landscape. Digital leadership combines transformational leadership with digital technologies, where leaders guide their teams toward technological advancements and digital solutions (Arham et al., 2022). This leadership style is essential in ensuring that school management can effectively digitize school processes and classrooms, creating a digital workplace that simplifies the school environment and the teaching and learning experience (Arham et al., 2022). Adopting digital tools in schools would face significant challenges without effective digital leadership.

The successful implementation of any technological tool, including e-portfolios, depends on the technological readiness of those involved. This readiness is influenced by how willing individuals are to embrace the technology for work (Lai, 2017). The TAM (Davis, 1989) suggests that two primary factors determine the acceptance of new technology: perceived usefulness and ease of use. According to TAM, individuals are more likely to adopt a technology if they perceive it as valuable and easy to use. According to Martín-García, Redolat, and Pinazo-Hernandis (2022) users' opinions of the advantages of technology are directly related to its adoption.

Technology adoption is also significantly influenced by perceived technological ability, including self-efficacy. According to TAM, users' adoption is influenced by their subjective evaluation of the technology's usefulness concerning their professional objectives (Lai, 2017). Whether required or optional, this view can lessen computer anxiety and increase users' propensity to accept and use the technology. This study emphasizes how crucial technological preparedness and digital leadership are to adopting and using e-portfolios in schools effectively. As digital leaders, school administrators must embrace digital tools and create a culture that supports digital competency, addresses challenges, and facilitates the seamless adoption of new technology.

4. Methodology

A qualitative research approach investigated how high school administration integrates ICT and e-portfolios. Applying the interpretivist paradigm, a collaborative case study design was used (Alharahsheh & Pius, 2020; Creswell & Creswell, 2017). Since the study covers two high schools, the collective case study design (Creswell, 2013) was suitable to offer a deeper understanding of integrating e-portfolios in high school.

4.1. Study Context and Sampling

This study is part of a community engagement research project that aims to encourage high schools in South Africa to use e-portfolios. The research is part of the University of South Africa's (UNISA) Women in Research Support Programme. To maintain participant anonymity, the names of the high schools are undisclosed in this article. Two high schools in Tshwane South, Gauteng Province, were studied. These schools were purposively selected due to their proximity to the researchers and funding constraints. Although they are both public schools and are only two kilometres apart, they have very different resources and approaches. One school requires every learner to have a tablet, while the other forbids learners from using digital devices in the classroom.

The participants in this study include principals, deputy principals and heads of departments from both schools. Table 1 outlines the characteristics of the 12 participants purposively selected for this study. Ten females and two males participated in the study. Participants included nine HODs, two deputy principals, and one principal. It is important to note that HODs form part of the school management, but they are also teachers, which is essential in facilitating ICT implementation.

Table 1. Participants.

P	Age	Gender	Role in the school	Highest qualification completed	Qualification currently enrolled for (in 2023)
P1	56	Female	Principal	Honours degree	None
P2	34	Female	HOD	Undergraduate degree	None
P3	56	Female	HOD	Honours Bachelor's degree	None
P4	64	Female	HOD	Master's degree	None
P5	30	Female	HOD	Undergraduate degree	None
P6	49	Male	Deputy principal	Honours Bachelor's degree	None
P7	22	Female	HOD	Undergraduate degree	None
P8	32	Female	HOD	Undergraduate degree	Certificate
P9	49	Male	Deputy principal	Doctoral degree	Short course
P10	36	Female	HOD	Honours Bachelor's degree	None
P11	58	Female	HOD	Undergraduate degree	None
P12	32	Female	HOD	Undergraduate degree	None

Note: P=Participant.

4.2. Data Collection and Analysis

Google Forms were used to design, distribute, and collect data. Descriptive analysis was conducted to interpret the quantitative data using Microsoft Excel (Siedlecki, 2020). The participants received the link to the Google form and were requested to give consent before completing the questionnaire. The responses were subsequently downloaded using Microsoft Excel, where they were cleaned and prepared for analysis. Thematic analysis was employed to identify codes and recurring themes from the responses. Given the small volume of data, manual coding was performed using Saldana (2021) coding manual.

4.3. Ethical Considerations

It is important to adhere to ethical principles, including informed consent, confidentiality, and anonymity in research McMillan and Schumacher (2010) which were observed in this study. Ethical clearance (Ref: 2022/10/12/90176235/13/AM) and permission from relevant stakeholders, including the schools, the University of South Africa (UNISA), and the Gauteng Department of Education (GDE), were obtained before conducting the research. Following the approval of ethical clearance by the relevant stakeholders and consent from the school management, participants were invited to complete an online questionnaire. The online questionnaire included an option for the participants to choose to consent to participate in the study before they could proceed to the next page.

5. Findings

The study examined the pivotal role of high school management in facilitating the implementation of e-portfolios in the classroom. The data indicates that high school management and teachers are not participating in ongoing professional development or training on ICT-related skills. When asked about their training in ICT tools for teaching and learning, 50% of the participants reported not receiving any ICT-related training. Furthermore, more than half of the participants said neither of their teachers had received such training. Among those who had received training, three participants mentioned training in Microsoft Excel, and one reported training in using Google Docs for teaching. However, the participants who did receive training expressed dissatisfaction with its adequacy, with one participant stating:

It would be beneficial to send educators for basic computer literacy. (P12)

While most participants (50%) held undergraduate degrees, 40% possessed postgraduate qualifications, including two with honours bachelor's degrees, one with a master's degree, and one with a doctoral degree. Only two participants were pursuing further studies at the time of the research in 2023. This suggests that school leaders and teachers at these schools are not receiving the necessary training to integrate ICT into their teaching practices effectively.

Regarding gender representation, 83% of the participants were female. Among them, nearly half were young teachers aged between 22 and 34, while one participant was approaching retirement at 65. This demographic profile provides valuable insight into the varying experience levels and professional development within high school management.

The data indicates that both schools have sufficient computers and digital devices to support teaching and learning. Qualitative analysis revealed two key themes that provide critical insights into the readiness and capacity of these schools to implement e-portfolios effectively.

Theme 1: Integrating Technology Resources into Classroom Instruction.

Participants shared their perspectives on how technology is used in the classroom, especially learners' use of electronic devices for learning. All participants emphasised how crucial educational technology is to prepare high school students for the twenty-first-century workforce. While both schools had access to smartboards, one school highlighted that not all classrooms were equipped with them. The participants mentioned numerous technological devices used in the schools, such as Moodle, WhatsApp, smartphones, tablets, and Wi-Fi. However, only learners studying Computer Applications Technology (CAT) could access the school's computer laboratory.

One participant described how learners were given temporary Wi-Fi access codes to use the Internet for academic purposes, including accessing content via WhatsApp, engaging in simulations, and conducting research. Another

participant noted that Moodle was used to provide additional learning materials and activities, often supplemented with links sent via WhatsApp. Some schools allowed access to platforms such as Google Classroom for learning activities.

We provide Wi-Fi codes for the day if needed, allowing students to use the Internet on their phones for schoolwork when necessary, such as for assessments via WhatsApp, simulations, and research. (P9)

They refer to Moodle for additional notes and activities. I also send them links on WhatsApp. (P7)

We have moments when learners can access things like Google Classroom and other learning platforms. (P8)

A few participants mentioned innovative strategies, such as using gaming to test learners' knowledge, though further details on its implementation were not provided.

I like to get them to play games that test their knowledge from the book. (P2)

However, concerns were also raised regarding the potential drawbacks of technology in the classroom. One participant noted that digital devices could sometimes serve as distractions rather than learning aids, which could limit their effectiveness in educational settings, as shown in the following comment:

To some extent, device abuse (distraction) during teaching tends to be a limiting factor. (P1)

Participants identified several ICT tools and resources they want implemented or improved in their schools. These included.

- Online learning platforms.
- Educational apps.
- Teacher training on ICT integration.
- Access to e-books and digital libraries.
- Learner training on using ICT for learning.
- A comprehensive learning management system.

Participants reflected on how educational technology could enhance the teaching and learning experience in high school. Many emphasized its role in fostering cognitive development and promoting student responsibility for their learning. Others highlighted benefits such as interactive teaching, faster communication, immediate feedback, and developing essential skills for future career opportunities.

Some participants noted that technology helps educators connect with learners by meeting them within their digital frame of reference. Others emphasized its role in equipping students with skills necessary for participation in the global economy. The potential for educational technology to foster collaboration was also highlighted, as it enables both teacher-student and peer engagement through online lessons and learning games, as seen in the following comments:

Technology helps us meet learners where they are and connect to learners' frame of reference. (P1)

It (technology) equips learners to participate in the global economy. (P5)

Technology in education can encourage collaboration. Teachers can interact with students during class, and students are able to chat with one another. Students can learn through online courses, educational games, and work together to solve problems. (P6)

Additionally, participants pointed out that ICT can significantly enhance the entire educational process, from lesson delivery and assignment setting to student assessments and providing feedback to learners and other stakeholders. This highlights the importance of strategically integrating technology, ensuring proper training for educators and students, and implementing effective management strategies to maximize its benefits.

ICT can significantly enhance these processes from lesson delivery to setting tasks, learners completing assignments assessments, and providing feedback to learners and other stakeholders. (P3)

Theme 2: Awareness and Perceptions of e-Portfolios Among School Administrators.

Several questions assessed participants' understanding, experience, perceptions, and expectations regarding e-portfolios.

The findings revealed that only a few participants clearly understood e-portfolios. These participants described e-portfolios as digital collections of student assessments that allow students and teachers to track learner progress over time, serve as a repository for learning materials and administrative documents, and function as an electronic record of student work compiled over an extended period.

E-portfolios are digital collections of their assessments, and both students and teachers can see the learner over a period of time. (P7)

All learning material and administration documents are to be submitted digitally. (P4)

An electronic version of work done by learners over an extended period. (P1)

However, many participants exhibited limited understanding of what constitutes an e-portfolio. Some perceived e-portfolios as simple digital files or documents, while one participant likened them to a curriculum vitae. Most participants indicated that they had never used an e-portfolio, with only two reporting prior experience. One of these individuals associated e-portfolios with Google Classroom.

Regarding the perceived benefits, participants highlighted several advantages. These included immediate access to test results and efficient monitoring of learner participation, promoting constructivist and active learning approaches, and eliminating logistical challenges related to transporting large physical portfolios.

Immediate results of tests. Monitoring the participation of learners is quick and convenient. (P4).

E-portfolios enable constructivist learning and active learning (P7).

[We] no longer have to transport huge portfolios of learner artworks to centralised venues across Gauteng Province (P1).

When asked about their expectations of using e-portfolios, most participants were uncertain or unable to articulate specific expectations. One participant expressed apprehension, anticipating frustration, while others conveyed more optimistic views:

It would be interesting to have e-portfolios of learner assessments for easy access to parents and subject moderators. However, I have concerns about the massive workload of creating electronic scans of hard copy work. (P1).

Achieving better results as the learner will have access to all its assessments (P6).

Access to information will give an overall picture of learner performance (P8).

Participants were also asked whether they believed e-portfolios would influence their teaching styles. Most responded positively, noting that e-portfolios would facilitate reflection, self-evaluation, and the development of new skills among learners.

Learners and staff can do their work anytime, anywhere, for reflection and improvement. (P9)

Learners could pirate others' work easily. (P2)

However, three participants expressed skepticism, stating they did not foresee any impact on their teaching approach. The participants were asked to identify potential challenges or concerns that school management anticipates in implementing e-portfolios. The difficulties highlighted include:

- Training learners to use e-portfolios effectively.
- Financial constraints in acquiring the necessary technological resources.
- Complex feedback mechanisms.
- Risks of cyberbullying associated with e-portfolio use.

Systemic challenges affecting adoption and academic integrity among the learners were identified as major concerns in implementing e-portfolios.

Not until the GDE changes assessment requirements. You cannot put the cart before the horse. Currently, all assessments are in hard copy format. E-portfolios would require changing from hard copy to an electronic format to make e-portfolios viable. (P1)

Additionally, participants raised concerns regarding teachers' workload and motivation, access to appropriate technology, online security for learners, and time constraints. These concerns are reflected in the following comments:

Educators are already stretched thin, and any new initiative that increases their workload might not be welcomed warmly. (P4)

There is a digital divide where not all students have reliable access to the necessary technology and Internet at home. (P2)

The safety and privacy of students' e-portfolios and personal information are critical issues that need addressing. (P7)

Both teachers and students are pressed for time, making it difficult to adopt and implement new initiatives effectively. (P5)

These findings highlight school administrators' varying awareness and perception of e-portfolios, emphasizing both enthusiasm for their potential benefits.

6. Discussion

E-portfolios offer authentic evidence of reflective learning by linking artefacts to school curriculum objectives using web and multimedia technologies. [Mphoentle Puleng Modise \(2021\)](#) notes that web-based e-portfolios provide significant advantages such as flexibility, elasticity, and infinite revisability, allowing continuous user input. This ongoing process helps learners build confidence by accumulating valuable artefacts for academic assessment and beyond school. A well-integrated e-portfolio strategy focused on the learner can contribute significantly to a rich learning experience in an educational system where the learner is central. School managers and teachers are tasked with helping learners connect classroom learning to the broader world and society's challenges.

Although only a few participants demonstrated a good understanding of e-portfolios and their benefits for teachers and learners, their general perceptions of e-portfolios were positive. Notably, most participants had never used e-portfolios in their teaching practice. Among the significant concerns regarding implementing e-portfolios, school management highlighted issues related to teacher workload and time constraints, particularly concerning the existing school curriculum and other activities. Existing literature supports these findings, with several studies noting that teachers often face challenges in integrating new technologies due to time pressures and the demands of traditional teaching methods ([Carl & Strydom, 2017](#); [Van Wyk, 2017](#)).

Further research indicates that e-portfolios have proven effective in teaching across disciplines, offering flexibility and accessibility for users at any time and from any location ([Mapundu & Musara, 2019](#)). However, when exposed to online platforms, school leaders expressed valid concerns about access to technology infrastructure and student privacy and security. The other barrier to adopting e-portfolios in these schools is that although learners can use their mobile phones and tablets in the classroom, not all learners can use technology or access the school computer laboratories. Access and equity are also significant concerns in technology-driven education settings. School principals and teachers must thoroughly address these concerns before and during the implementation of e-portfolios.

School management plays a crucial role in supporting the training and development of teachers by providing leadership, resources, guidance, and opportunities for growth. However, based on the findings, it was clear that there was no planning for current or future training and development related to technology use in the classroom at these schools. [Nurabadi et al. \(2021\)](#) showed that the development of principals' portfolio-based online induction using website media can improve the learning leadership skills of school principals. By investing in principals' development, schools can improve teaching quality, enhance learners' learning outcomes, and foster a culture of excellence and continuous improvement. The successful implementation and application of any technological tool an institution adopts depends on the technology readiness of the individuals within the organisation to embrace it for their work ([Lai, 2017](#)).

As long as the school leaders are overlooked for training and development initiatives that prepare them for technology implementation, those they lead may be slow to adopt the necessary technology. School leaders should articulate the reasons for change, inspire others to embrace the vision, and demonstrate their commitment to its implementation. [Martín-García et al. \(2022\)](#) argue that users will accept new technology when their perceived usefulness is positive. Additionally, [Mphoentle Puleng Modise \(2021\)](#) argues that learners feel more confident when their teachers know the technologies they use in teaching. This principle also applies to school leaders. When school leaders demonstrate intent and confidence with technology, it can positively influence teachers' and learners' attitudes towards adopting new technologies.

The Technology Acceptance Model (TAM), proposed by [Davis \(1989\)](#) offers a valuable framework for understanding the acceptance and utilization of technology, such as e-portfolios, emphasizing perceived usefulness and perceived ease of use. School management is vital in influencing these attitudes regarding e-portfolios in high

school. Thorough training, strong technical support, and a compelling case for e-portfolios can improve teachers' opinions of the value and usability of these resources. Conversely, inadequate infrastructure or a lack of training time may cause teachers to consider e-portfolio implementation time-consuming, reducing its perceived usability. According to studies, these obstacles, which include increased teacher effort and technological difficulties, can hinder successful adoption of e-portfolios (Ng, Shroff, & Lim, 2013; Yang & Wong, 2024).

Through TAM, this study demonstrates how management practices directly impact teachers' adoption of e-portfolio tools, affecting classroom integration. Adopting e-portfolios in high school settings requires understanding and attention to these variables. Students and teachers can significantly benefit from e-portfolio integration in the classroom. To effectively promote and implement technology-driven learning tools such as e-portfolios, school leadership must acquire digital literacy and skills as digital tools become increasingly integrated into the educational process. For e-portfolios to be integrated into high school settings in a meaningful and sustainable way, it is crucial to understand school management's role in this process.

7. Conclusion

This study contributes to the body of knowledge by examining how e-portfolios are recognized and understood at the school level and emphasizing how vital school management is to facilitate their adoption in high schools. While school administrators acknowledge the potential benefits of e-portfolios, they lack sufficient knowledge about them. Therefore, there is a need to raise awareness regarding e-portfolios and their potential usefulness for teachers and learners. Although the effectiveness of e-portfolios for teaching and learning in online and blended learning environments is well-documented in the research literature, the findings in this article reveal that school administrators and teachers have significant concerns. These include infrastructure, proper support, access to relevant ICT resources for teachers and learners, and the training and development of both teachers and learners. If these issues persist, teachers and learners will continue to miss out on the educational benefits and opportunities that e-portfolios offer. E-portfolios remain among the most effective tools for teaching, learning, and supporting learners in various educational contexts. High school administrators could play a critical role in promoting e-portfolios in the classroom. School management needs to be appropriately trained and adequately prepared for any technology initiatives and implementations as frontline operators at the school. All stakeholders must be involved in the change process, including staff, learners, parents, and community members. It is important to seek input, feedback, and buy-in from stakeholders to ensure that their perspectives are considered and that the change aligns with the needs and priorities of the school community.

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