



## **Determinants of Student Satisfaction in Digital Schools: Interplay of Instructional Quality, Smart Facilities, and E Administrative Services**

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### **Abstract**

Digital transformation has changed how education works, pushing schools to use technology in their teaching, creating digital schools that rely on tech-based learning. Even though technology is being used quickly in education, how happy students are is still a key sign of how well a school or college is doing and whether it can keep going in the long term. This paper suggests a combined model that explains how students feel about digital schools by looking at how instructional quality, smart facilities, and electronic administrative services work together, with brand image acting as a middle factor that affects the relationship. This study creates a complete conceptual framework by using Service Quality Theory, Technology Acceptance Model (TAM), and Student Satisfaction Theory. It looks at areas where past research has not been thorough, especially when it looks at technology adoption or service quality on their own. The model suggests that great teaching, smart facilities, and effective online services together create a strong reputation for an institution, which then leads to happier students. Seven ideas are created to help with future research studies. This study adds to theory by combining views on educational service quality and how digital consumers behave into one overall model. In real situations, the model gives helpful ideas to school leaders who want to boost their school's competitiveness and create better, more focused digital learning experiences for students. The conceptual framework lays the groundwork for future research and testing in various settings related to digital education.

**Keywords:** *Digital School, Student Satisfaction, Instructional Quality, Smart Facilities, Brand Image, E Administrative Services.*

### **INTRODUCTION**

Over the last ten years, the change in education because of technology has happened very quickly, making a big difference in how teaching is done, organized, and experienced in schools and universities around the world. The rise of digital schools shows a big change from old ways of teaching to new systems that use technology. These systems include teaching methods that use digital tools, smart buildings, and online services that help run the school [1]. Because of progress in artificial intelligence, cloud computing, learning analytics, and mobile connections, schools and colleges are becoming more like digital service providers rather than just places focused on teaching [2].

This transformation aligns with broader developments associated with Industry 4.0 and Society 5.0, where education systems increasingly adopt data driven and learner centered approaches [3]. The expansion of digital education intensified during and after the COVID 19



pandemic, compelling institutions to implement hybrid and fully online learning systems at an unprecedented scale [4]. Consequently, digital schools have evolved into complex service ecosystems integrating pedagogy, technological infrastructure, and administrative processes [5].

Within this context, education is no longer defined solely by curriculum delivery but by the holistic digital learning experience provided to students. Digital schools integrate instructional processes, smart facilities, and administrative platforms into interconnected environments that shape students' perceptions of institutional quality [6]. As a result, students increasingly behave as digital service users who evaluate institutions based on usability, responsiveness, service efficiency, and institutional reputation, positioning education within the broader discourse of digital service management and customer experience research.

A key part that helps schools work well with technology is having smart buildings and facilities. These are things like smart classrooms, learning management systems, cloud-based platforms, Internet of Things (IoT) technologies, and adaptive learning systems that help provide personalized and interactive learning experiences [7]. Real world examples show that these settings can make people more involved and help them learn better, especially when technology is easy to use and everyone can access it.

At the same time, schools and colleges are starting to use more electronic services for managing their operations. This includes online systems for signing up students, keeping track of academic records, handling payments through digital platforms, and using virtual ways to communicate with students and staff. These services show how the focus is moving towards better online service quality, highlighting how quick and dependable they are, how easy they are to use, and how safe they are for the system. Good digital administrative services help cut through red tape and make students feel that the institution is professional and reliable [8].

Just as important is the quality of teaching in online learning settings. Instructional quality goes beyond just giving information. It also involves how lessons are planned, how teachers interact with students, how feedback is given, and how well teachers use technology in their teaching [9]. Studies show that just having technology isn't enough to make learning effective. It's the way teachers teach that really matters. Good teaching methods are what help digital tools actually lead to real learning results. Problems like bad lesson planning, things that take attention away from learning, and teachers not being fully prepared still impact how students learn [10].

Digital schools are becoming service-focused educational institutions because they combine good teaching, smart facilities, and efficient administrative services. From this point of view, students look at their overall experiences, and how happy they are is a key measure of how well the institution is doing. Research shows that students who are happy tend to get more involved in their studies, stay in school longer, and are more loyal to their school. All these factors together help make the school more successful in the long run [11].

Even though a lot of money has been spent on making schools more digital, many educational institutions still struggle to get good results from their digital learning efforts. Digital projects usually focus on using new technology but don't always connect well with how teachers teach or how services are provided. This can cause a mismatch between the new ideas being introduced and what students really need to learn. As a result, institutions often face problems like not enough teacher-student interaction, teachers not having enough skills with technology, services not working well together, and some people not having equal access to tech tools [12].

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Another critical concern relates to the fragmented nature of existing research. Studies



grounded in the Technology Acceptance Model (TAM) primarily focus on perceived usefulness and ease of use, emphasizing adoption intention while overlooking broader experiential dimensions [14]. Conversely, research on educational service quality emphasizes instructional performance but often neglects the roles of smart facilities and digital administrative services as co creating elements of student experience [15]. Furthermore, limited attention has been given to psychological mechanisms, such as institutional brand image, that mediate the relationship between service performance and student satisfaction [16].

These theoretical and practical limits show that there is no full system that can explain how good teaching, smart facilities, and efficient administrative support all work together to affect how satisfied students are. So, there is a clear need for a complete model that brings together Service Quality Theory, the Technology Acceptance Model, and Student Satisfaction Theory. This model would help fill the gap and give a better, more complete picture of how digital education systems work.

#### Research Objectives

This study is designed to create a comprehensive framework that explains why students are satisfied with digital schools, by combining ideas from teaching methods and digital services. This research aims to look at how good teaching affects how happy students are. It focuses on the role of strong teaching methods, engaging learning activities, and using technology in education to improve the overall learning experience [17].

This study also wants to look at how smart facilities affect student satisfaction, focusing on how technology in the school buildings makes digital education easier to access, more interesting, and feels more helpful to students [18]. It also looks into how e-administrative services affect student satisfaction by examining how well the digital administrative systems work, how quickly they respond to needs, and how dependable they are.

This study also looks at how brand image plays a role in showing how a school's reputation helps build students' trust and affects their satisfaction. The main goal of this research is to create a complete conceptual model that brings together Service Quality Theory, the Technology Acceptance Model, and Student Satisfaction Theory. This model is meant to give a full understanding of how satisfaction is formed in educational settings that have been transformed by digital technologies [19].

#### Research Significance

This study makes important contributions from different angles, including theory, real-world application, policy guidance, and future research directions. From a theoretical point of view, it brings together Service Quality Theory, the Technology Acceptance Model, and Student Satisfaction Theory into one clear idea, fixing the problem where earlier research was split up. It sees digital schools as complete service systems where the quality of teaching, smart features, and electronic administrative services all work together to affect how satisfied students are, through the school's overall image [20].

From a practical point of view, the suggested framework gives advice to school leaders and managers by showing that effective changes in using technology need all three things teaching methods, technology tools, and good support services to work together, not just spending a lot on technology alone [21]. Working on these areas at the same time helps schools and colleges improve how much students are involved, how well they are seen by others, and their ability to stay competitive in the long run.

From a policy point of view, this study shows how important it is to create digital education plans that go beyond just providing equipment and focus on making the learning experience better for students and improving the overall quality of education services [1]. This method matches the worldwide efforts to change education by focusing on systems that are sustainable, inclusive, and centered around the learner.

In the end, this research helps future studies by giving a solid base for testing and proving things through real examples. The model can be tried in different school and learning settings and



made better by including factors like how well people use digital tools, how involved they are, and how much they trust the institution. This helps in looking more deeply at how digital education works [22].

#### Literature Review

Digital schools are changing how education works by using technology in big ways. They use online tools, smart classrooms, and data to make decisions. This helps create better learning experiences [1]. In this situation, the quality of instruction is very important. It includes how well teachers teach, how they interact with students, the way lessons are planned, and how skilled teachers are with using technology. All of these factors have a big impact [23].

Smart facilities help make the digital learning experience better by offering technology-based tools like learning management systems, smart classrooms, and mobile learning apps. These tools make it easier for students to engage with the material and feel more comfortable using the technology [24]. At the same time, administrative services help make an institution work better by providing quick and helpful digital tools that improve the quality of services and build more trust in the institution.

Also, brand image acts as an important mental tool that helps students understand the quality of an institution, turning how well services are provided into feelings of satisfaction [25]. Student satisfaction is a broad measure of how happy students are with their education, based on factors like teaching methods, technology used, and support services. It shows how well an institution is doing in providing good online learning experiences.

However, previous research has not often combined SERVQUAL factors with TAM elements in the area of digital learning, leading to incomplete understandings of how satisfied students are. This study fills this gap by mixing cognitive technology acceptance factors with a detailed look at service quality.

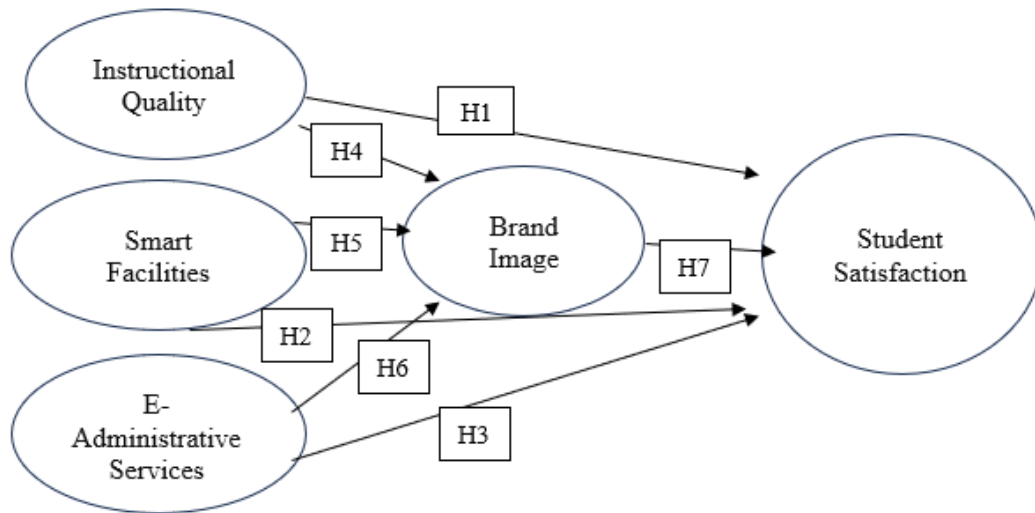
### **THEORETICAL FRAMEWORK & CONCEPTUAL MODEL**

Building student satisfaction in digital schools needs a comprehensive theory that can explain both how students accept technology and how well educational services are delivered. This study introduces a conceptual framework that combines the Technology Acceptance Model, Service Quality Theory, and Student Satisfaction Theory to explain how factors related to teaching, technology, and administration together influence student satisfaction in educational settings that have adopted digital tools. The Technology Acceptance Model (TAM), created by Davis [2], describes how people decide to accept or use technology based on how useful they think it is and how easy they find it to use. In digital schools, students use learning management systems, smart classrooms, and online administrative tools a lot. How easy these tools are to use, how accessible they are, and how well they work all have a big effect on how students learn [24]. However, TAM alone can't fully explain wider educational results like student satisfaction, because digital schooling is a complex system involving many different parts, not just technology.

To improve the explanation of the Technology Acceptance Model (TAM), this study directly includes its two main ideas, Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), as the thinking processes that affect how students evaluate digital learning environments. In digital schools, smart facilities and electronic administrative services are meant to make students feel that digital tools are helpful. This refers to how much these systems improve learning results, make tasks easier, and make education more available. At the same time, these technologies affect how easy students think using digital platforms is, which shows how much they believe these platforms require little effort and are simple to use.

Furthermore, the quality of instruction also helps shape TAM constructs by making sure technology is used in a meaningful way within teaching, which in turn makes people feel that the technology is more useful. This integration shows that using technology in digital schools isn't just about the systems in place, but also about how it's taught and supported in the classroom. To fix this problem, Service Quality Theory offers another way of looking at things by focusing on

different aspects of how well a service is performed, like reliability, how quickly it responds, the confidence it gives, how caring it is, and the physical elements involved [26]. In schools and colleges, how happy students are depends a lot on how good they think the services are in teaching, the buildings and equipment available, and the help they get from the staff in charge of running the institution [27]. Combining TAM and Service Quality Theory helps understand digital schools as systems that use technology to provide services, where technology supports the system and service quality affects how students feel about their experience. This way of looking at things shows that when people accept technology, it helps make services work better, and when services are better, people end up being more satisfied.



**Image 1. Variable Interactions**

(source: Author's analysis)

Student satisfaction is seen as a result that comes from many different areas and is affected by several important factors. In this study, the Service Quality Theory is based on the SERVQUAL model created by Parasuraman, Zeithaml, and Berry. This model explains service quality through five main aspects: tangibles, reliability, responsiveness, assurance, and empathy. Instructional quality is the main part of the educational service. It includes how well teaching methods work, how well teachers communicate with students, how feedback is given, and how skilled teachers are with using digital tools. From the point of view of service quality, the quality of instruction has a direct effect on how much value people feel they get from education and is the main factor in determining how satisfied students are [28]. High quality digital lessons help students see more value in using learning technologies, which supports the ideas behind the Technology Acceptance Model about how people accept technology.

Smart facilities are the technology systems that help create digital learning environments. These include smart classrooms, online learning platforms, good internet connections, and tools that use AI to support learning. From a TAM point of view, good facilities help make digital learning systems seem easier to use and more useful, which makes students feel more positive about them [29]. Similarly, administrative services are important in creating the overall experience of an institution by offering digital tools like enrollment platforms, academic information systems, and communication channels. Good administrative services that work well and respond quickly help improve the overall quality of services at an institution, which in turn affects how students feel about their experience, even beyond just their academic interactions [30].

Besides these functional aspects, this study also brings in brand image as a variable that shows how students generally see the institution's credibility, ability to innovate, and quality of service.



Student satisfaction isn't just about how well something works, but also how people feel about it and what they think of the institution's reputation [31]. Good service experiences from clear teaching, smart buildings, and efficient support services help build a strong school reputation, which in turn makes students happier. So, the brand image acts as an important bridge between how well a service performs and how satisfied customers end up being.

Student satisfaction, which is the main thing being studied, shows how happy students are with their whole educational experience. This includes how well they learn, the support they get from the school, and how much they think their education is worth. It shows how well the changes in schools are working, and how much the school's programs are matching or going beyond what students expect [32]. All together, these connections show that happiness among students in digital schools comes from a process that includes many different factors like the quality of teaching, the technology used, how well the school is run, and how students see the school.

The choice of variables in this study is based on three main reasons. Instructional quality is the main part of education and has the biggest impact on how good the learning experience is, whether it's in a regular classroom or online [33]. Second, smart facilities and electronic administrative services focus on the day-to-day operations of digital transformation, which matches TAM's focus on how easy technology is to use and how ready an institution is for digital change [34]. Third, brand image is used as an intervening factor to fill a major gap in previous studies. Earlier research usually looks at technology and service factors separately, but it doesn't take into account the psychological reasons that affect customer satisfaction. By combining these elements, the suggested system covers the thinking, working, and feeling aspects of how students are assessed in online learning settings.

The three main ideas in this study instructional quality, smart facilities, and e-administrative services can be connected to the SERVQUAL dimensions. Instructional quality shows how trustworthy and caring someone is, smart facilities are the physical things that make things easier, and e administrative services show how dependable and quick they are to help. This alignment makes sure the model is based on well-known frameworks for measuring service quality. The suggested idea structure makes several key points clear. It connects TAM and Service Quality Theory to give a full explanation of how satisfaction is formed in digital schools, where technology and service quality work together at the same time. It helps improve the way we understand concepts in digital education research by bringing together high-quality teaching, smart building features, and efficient administrative support into one complete model, which is influenced by how strong the institution's brand image is. In addition, it builds on the Student Satisfaction Theory by including brand image as a psychological factor that connects how well a service performs with how satisfied students end up being. In the end, this framework gives a clear structure for doing future research in different school settings, which can include both numbers-based studies and studies that mix different methods. This study thinks of digital schools as complete systems that offer technology-based services. These schools combine good teaching, smart buildings, and efficient online management to create a positive image. This image then affects how happy students are with the school.

### **Conceptual Research Model**

The study's conceptual research model shows how student satisfaction in digital schools comes about through the way instructional services, technological infrastructure, and digital administrative support work together. Based on Service Quality Theory, the Technology Acceptance Model, and Student Satisfaction Theory, the model sees digital schools as complete service systems where educational experiences are influenced by how much technology is accepted and how well the service is perceived [35]. In this setup, student satisfaction isn't just about using new technology; it's also about how good the services from the institution are, and how well those services are provided through technology.

So, three main factors instructional quality, smart facilities, and efficient administrative services are considered important causes that affect both how people feel about an institution and



their overall satisfaction. Instructional quality, which is the main educational service, helps students feel their learning is more valuable, keeps them more involved, and improves their overall academic experience, which in turn directly affects their satisfaction [36]. Smart facilities like digital platforms, learning management systems, and good internet connections help people feel that using them is useful and easy. This, in turn, makes them more satisfied, as supported by the TAM model [1]. Administrative services also help institutions respond better to needs and provide more reliable support, which directly affects how students feel about their overall educational experience [37].

These institutional service factors also influence how students see the professionalism, ability to innovate, and trustworthiness of the institution, which helps build the institution's reputation [38]. Brand image acts as a middle step that connects how well a service is performed with how satisfied customers end up being. According to the Student Satisfaction Theory, satisfaction is not just about how well services work, but also about how people feel about the school's reputation, both mentally and emotionally [39]. So, the model suggests that brand image is a key factor that helps improve the connection between service quality and student satisfaction.

Overall, the conceptual model shows that how satisfied students are with digital schools comes from how well the teaching works, how good the technology is, how efficient the school management is, and how students feel about the school itself. This overall view helps explain how digital education systems offer benefits to students and help institutions stay competitive during the time of digital change. Based on the combined ideas from the Technology Acceptance Model (TAM), Service Quality Theory, and Student Satisfaction Theory, the suggested framework is broadened to show how student satisfaction in digital schools is created, both directly and through other factors. In this model, student satisfaction depends on more than just the direct services provided by the institution. It also depends on indirect factors related to how students feel about the institution, which is shaped by its overall brand image. This larger structure shows how complicated digital education settings can be, because happiness comes from how well services work and how people feel about them.

The model says that good teaching, modern facilities, and efficient administrative help all have a direct effect on how satisfied students are. Instructional quality, which is the main educational service, improves how much students value what they learn, how involved they become, and their overall school experience, which in turn directly affects how satisfied they are. Smart facilities like digital platforms, smart classrooms, and good connectivity help people find things easier and more useful, which matches the Technology Acceptance Model. This then makes people happier with their experience. Administrative services also help institutions respond better and work more efficiently, which lowers the obstacles students face when going through procedures and makes their overall experience with education more positive. These direct connections show that how happy students are depends a lot on the quality of services the institution offers through digital tools.

Besides these direct effects, the model also includes indirect connections where the quality of instruction, smart facilities, and efficient administrative services affect student satisfaction. This happens through brand image, which acts as a middle factor in this relationship. How students experience services at an institution affects how they see the institution's trustworthiness, ability to come up with new ideas, and how professional it is, all of which together create the image people have of the institution. Good experiences in teaching, technology, and school management help build a better image, which makes students happier. This mediating process shows how psychological evaluation plays a part in how satisfaction is formed, as students understand their experiences not just in practical ways but also based on how they see the institution.

Putting the brand image in the middle as a changing factor is a big step forward for the model. Brand image turns how well an institution performs its services into how people think and feel about it, which finally affects how satisfied they are. This addition helps fix a major problem in previous studies about digital education. Those studies usually look at technology or teaching



methods on their own, without thinking about how institutions see or understand these things. In digital school settings, students look at schools not just by how well they work but also by their identity, how well they are known, and how creative they seem to be. Student satisfaction comes from both the direct experiences they have with services and their indirect opinions, which are influenced by how they see the institution's brand.

The suggested idea model adds value to existing research in multiple ways. It combines TAM and Service Quality Theory in the context of digital learning, offering a complete explanation of how satisfaction is formed by considering both the acceptance of technology and the quality of service performance. It helps build a deeper understanding by seeing digital schools as systems where teaching quality, smart building features, and school management services all work together at the same time. In addition, it brings up brand image as the main link between digital transformation efforts and results that focus on students. In the end, this framework gives a solid theoretical foundation for future research studies in different educational settings, which can support both numerical research and research that uses a mix of methods.

### **Hypotheses Development**

The hypotheses in this study are built by combining Service Quality Theory, the Technology Acceptance Model (TAM), and Student Satisfaction Theory. Together, these theories help explain how the quality of teaching, the technology available, and the support provided by the school affect students' thinking about their learning, their views on the school, and their general happiness with digital education.

Instructional quality is the main service that schools and colleges provide, and it is very important in affecting how happy students are with their learning experience. In Service Quality Theory, the main service experience has the biggest effect on how satisfied someone is [41]. In digital learning settings, the quality of teaching includes good online teaching methods, how well students and teachers interact, how quickly and effectively teachers give feedback, and how skilled teachers are with using digital tools. Studies show that good digital teaching helps students stay more involved, feel like they are learning better, and have a more positive experience in school, which greatly increases their satisfaction [42]. Furthermore, Student Satisfaction Theory says that how students feel about their learning experience is still the biggest factor in how they judge the quality of educational services, even when technology is involved. So, it's thought that good teaching makes students happier (H1).

Smart facilities are learning spaces that use technology to improve education. These include smart classrooms, digital tools, fast internet connections, and tools that use artificial intelligence. TAM says that how useful people think something is and how easy they think it is to use are the main factors that influence their willingness to accept and have a good feeling about using technology [43]. When digital learning environments offer dependable and easy-to-use technology, students face fewer obstacles in learning and have more flexibility, which makes their overall experience more satisfying [1]. So, it's thought that smart facilities can make students happier (H2).

Administrative services are a key part of how institutions provide their services, because students use many different systems like online registration, academic information platforms, digital payment systems, and communication tools a lot. Service Quality Theory focuses on how being responsive and dependable helps create customer satisfaction. Efficient and easy-to-use administrative services help reduce complexity and build more trust within an institution, which in turn leads to higher overall satisfaction [3]. So, it's thought that good administrative services can make students happier (H3).

In addition to their direct impact on satisfaction, institutional service factors are also likely to affect how the brand is perceived. Instructional quality is very important for building a good reputation for an institution, because excellent teaching shows that the institution is professional, has high standards in education, and is trustworthy. Good teaching experiences help people see the institution in a better light and believe it can come up with new ideas [31]. So, the quality of



instruction is thought to have a positive effect on how the brand is seen (H4).

Smart facilities help improve how an institution is seen by showing that they are using advanced technology and are prepared to move towards digital change. Schools and colleges that have modern facilities are seen as creative and good at keeping up with changes. This helps build a better image in the minds of students[7]. So, smart facilities are thought to have a positive effect on how a brand is seen (H5).

Similarly, administrative services affect how a brand is seen by being responsive and professional in their actions. Good administrative services make students feel more confident about the school's reliability and how well it is run, which helps improve the overall opinion people have of the institution [15]. So, it's thought that good administrative services can help improve how a brand is seen (H6).

Finally, the way a brand is seen by students helps shape their satisfaction because it works like a way people think and feel about the brand. Student Satisfaction Theory suggests that how satisfied someone is depends not just on how well something works, but also on how they feel about it and what they think about it. A strong institutional image makes people feel more confident about its value, trust it more, and form a stronger emotional connection, which leads to higher satisfaction [40]. So, it's thought that a good brand image can make students more satisfied (H7).

Overall, these ideas together show that student satisfaction in digital schools comes from both the direct influence of teaching, technology, and school management, as well as indirect influences through how the school is seen and recognized as a brand. This combined method gives a full understanding of how satisfaction is formed, which is a process that includes how well the service works and how people feel about it psychologically.

## **RESULTS AND DISCUSSION**

The new idea model helps better understand how students feel satisfied in digital schools by combining the quality of teaching, smart features, and online administrative services, with brand image acting as a key link between them. This framework sees digital schools as technology-driven service systems, not just places that use technology. Unlike previous studies that usually look at technology use or teaching effectiveness on their own, this model shows that student satisfaction comes from how teaching quality, technology support, and school services work together. By combining Service Quality Theory with the Technology Acceptance Model (TAM), the framework shows that satisfaction is made up of several parts and is influenced by how well the service works and how people feel about using the technology [3]. Instructional quality is seen as the main educational service, while smart facilities and electronic administrative services act as tools that help improve how useful, easy to access, and efficient the services feel. This integration builds on current ideas about digital education by showing that just having better technology isn't enough to create good learning experiences for students. It also needs to match high standards of service quality [40].

A major part of this study's theory is including brand image as something that comes in between, which helps explain better how the performance of institutional services leads to student satisfaction. In digital school settings, students judge their learning experiences by looking at how well they are taught and how easy the system is to use, as well as by considering how respected and trustworthy the school is, and how good it is at coming up with new and creative ideas [31]. By seeing brand image as something that helps explain the process, the model covers both how students think and feel when they evaluate a brand. This gives a more complete view of how satisfaction is formed, which is better



than older models that only look at direct influences.

This study also adds to the wider body of work on digital education by looking at the gaps and separate areas that earlier research has not covered. A lot of previous research looks at single factors like how much students participate in online learning, how easy the learning platform is to use, or the teaching methods [41], but these studies only explain part of why students are satisfied. In contrast, the proposed model shows that satisfaction in digital schools is not just about one part but involves many different factors. It needs all parts like teaching methods, technology use, and school management to work together at the same time. The study also expands on research about student satisfaction by including ideas from consumer behavior. It acknowledges that students are now acting more like customers, evaluating how much value they get from their institution in a way that's similar to how people judge online services. This view connects educational research with modern service marketing ideas and shows how important branding is for schools and educational institutions today.

The results suggested by the conceptual framework also explain how technology plays a role in shaping [2]. According to TAM, people are happier when they think a technology is helpful, easy to get to, and simple to use. However, the model suggests that technology mainly helps improve the quality of service, but it is not the main reason people are satisfied. Smart facilities make learning more flexible, easier to access, and more interactive, while electronic administrative services help institutions work more efficiently and lessen the challenges in providing services. Even if you spend a lot on technology, it might not help much in teaching if the instruction isn't good enough. Some previous research shows that when technology isn't well combined with teaching, it can cause students to feel tired from using it too much and become less interested in learning [40]. So, the model highlights how important it is to include humans in the way technology is used. Technology should help make teaching more effective and improve the quality of services in institutions, instead of taking their place.

Looking ahead, the model offers useful ideas that can help digital schools grow and improve in the future. As schools and universities work harder to stay competitive in the global digital education scene, student satisfaction has become an important sign of how well an institution can keep going and stay ahead. The results show that future efforts to transform digital learning should focus more on creating experiences that are meaningful for students rather than just relying on new technology. Instructional innovation should focus on creating interactive and enjoyable ways for students to learn. Smart facilities need to provide smooth and easy access to digital tools. E-administrative services should offer quick and tailored support to help students and staff. When these elements work well together, institutions can improve their brand image and help students feel satisfied and loyal over a long time [31].

Moreover, the framework supports the new idea of [30] as learning organizations that can change and adapt, using technologies like artificial intelligence, data analysis, and smart campus systems to improve the quality of education. This view shows how matching technology skills with good service standards is key to making a lasting digital change. Policymakers and educational leaders can use this model as a helpful framework for creating complete digital education plans that focus on improving the student experience, building a strong institution reputation, and connecting different services together.



In short, this conversation shows that digital schools don't just succeed because they use new technology. Their success comes from combining good teaching, strong technology systems, efficient management, and a strong school reputation. By balancing these different aspects, digital schools can build lasting, student-focused learning environments that improve satisfaction and help the institution stay competitive over time in the digital age.

## CONCLUSION

This study introduces a combined approach that explains what makes students happy in digital schools. It looks at how the quality of teaching, the availability of smart features, and the efficiency of online administrative services affect student satisfaction. The study also considers how the school's reputation and image play a role in connecting these factors. Using ideas from Service Quality Theory, the Technology Acceptance Model, and Student Satisfaction Theory, the study sees digital schools as educational service systems that use technology. In these systems, how well teaching works, how ready the technology is, and how efficiently the school is run all together affect the students' learning experiences. The study shows that student happiness in digital learning settings isn't just about using new technology. It comes from having good teaching methods, easy-to-use smart learning tools, and helpful digital support services. These institutional aspects help shape the institution's reputation, which acts as a mental process that turns how well services are provided into how satisfied students feel overall [3].

This research adds valuable new ideas to what is already known in the academic field. First, it moves digital education research forward by combining views on how people accept technology and the quality of services into one clear model. Earlier research usually looks at how well teaching works or how much technology is used on its own, but this framework shows that student happiness comes from how well the whole school performs in three areas: teaching methods, technology use, and school management [40]. Second, the study builds on Student Satisfaction Theory by including institutional brand image as a key factor that comes between other elements, helping to explain how students' views on the school's reputation and ability to innovate affect their satisfaction in schools that have gone through digital changes. This contribution focuses on an important missing part in theory by highlighting how psychological and symbolic ways of assessing things influence how satisfied people feel [31]. Third, the model helps in the growing area of digital education management by explaining in a clear way how digital transformation efforts affect student-focused results, not just the technology itself [1]. By linking education management with how people act as customers and how services are marketed, the study sees students as key people who judge the worth of institutions in competitive online education settings.

From a theoretical point of view, this study offers a full framework that sees digital schools as mixed technology service systems where people accept technology and the quality of service happen at the same time. Combining TAM with Service Quality Theory adds more value to discussions by showing that customer satisfaction depends on both how well services are provided and how people feel about the technology involved. Adding brand image as a middle factor helps expand Student Satisfaction Theory by showing how students' views of the institution and the value they see in its symbols affect the link between how well services are provided and how satisfied students feel. This perspective contributes to interdisciplinary scholarship by linking digital education



research with broader theories in service marketing and consumer behavior.

From a practical standpoint, the findings suggest that improving student satisfaction requires a holistic and strategically aligned approach to digital transformation. Educational institutions should prioritize strengthening instructional quality through the development of digital pedagogical competencies, interactive learning design, and technology supported teaching practices. At the same time, investments in smart facilities must focus not only on technological acquisition but also on usability, accessibility, and integration with learning processes to ensure meaningful student engagement. Additionally, enhancing administrative services is essential for improving institutional responsiveness, reducing procedural complexity, and strengthening students' trust in institutional systems. These elements, when effectively integrated, contribute to the development of a strong institutional brand image, which in turn fosters sustainable [2], engagement, and loyalty. Consequently, digital transformation strategies should move beyond isolated technological investments toward coordinated efforts that align pedagogy, infrastructure, and service delivery within a student centered framework.

This study shows that at the policy level, there should be a change from digital education programs that focus mainly on building infrastructure to strategies that focus on improving the overall quality of education. Policymakers need to make sure that when they invest in educational technology, they also support teachers with training, encourage new teaching methods, and improve how institutions provide services, so that students get the best possible experience. In addition, policies should support the creation of smart school environments that bring together digital learning tools, management systems, and standards for service quality. Setting national standards for the quality of digital services in education could help keep things consistent across different schools and reduce the gaps in how well students can access digital learning. [1] In addition, seeing student satisfaction as an important measure in how schools are judged can push institutions to focus more on what students need and improve responsibility in how digital education is carried out.

This study offers a detailed conceptual framework, but it still needs real-world testing to confirm its effectiveness. Future studies should explore the suggested connections by using numerical methods like Structural Equation Modeling (SEM) in different school environments and cultures. Comparative studies of traditional schools, hybrid learning environments, and fully digital schools could help better understand how satisfaction is formed. In addition, future studies could build on the model by including new factors like AI-based learning, digital interaction, student confidence, learning data analysis, and how much students value the experience, to better show how digital education systems are changing over time [15]. It's also suggested to use long-term studies to look at how the school's image and how happy students are change as time goes on.

In conclusion, this study highlights that the success of digital schools is not just about having good technology, but also about combining strong teaching methods, reliable technology, high-quality support services, and a good reputation. By bringing together these different aspects, digital schools can build lasting, student-focused learning spaces that improve satisfaction and help the school stay competitive over time in the digital age. The suggested framework offers a strong base for improving both research and real-world use in transforming digital education.



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